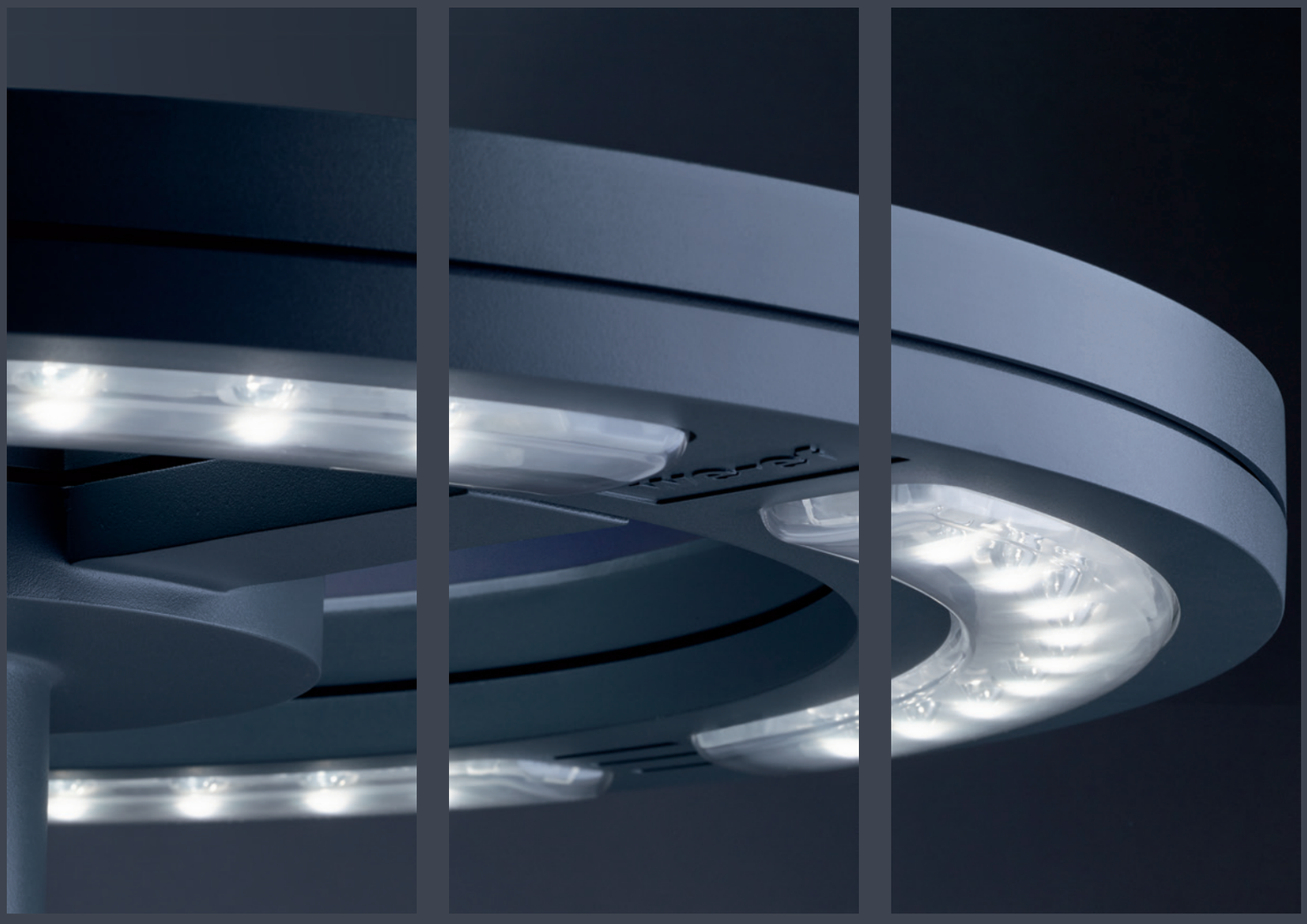
we-ef

WE-EF LEUCHTEN
General Catalogue
European Edition
2016 – 2018



WE-EF is a global manufacturer of high-performance exterior luminaires renowned for outstanding engineering design and innovative optical systems. Established in 1950 in Germany, WE-EF is recognised worldwide as a leading exterior lighting specialist that provides professional lighting solutions for various applications, ranging from urban spaces to architectural projects.

As a pioneer and innovator of a wide range of application-specific modular LED lens technologies, WE-EF develops optical systems that deliver photometric efficiency together with high visual comfort.

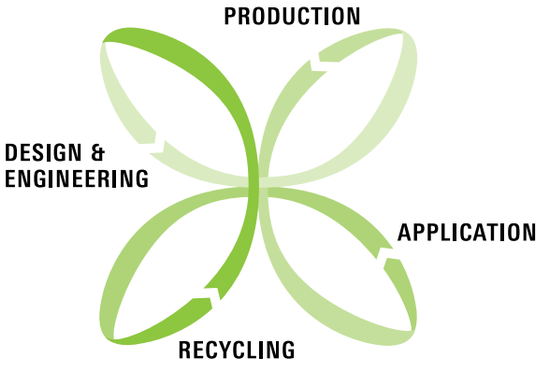
WE-EF is dedicated to the philosophy of combining form and function, resulting in striking and timeless product designs.

Precision in the design process, careful consideration of material selection and high-quality manufacturing processes; ensures that WE-EF luminaires are considered to be a benchmark of product performance, reliability and longevity; as well as ease of installation.

Responsible resource management is practiced across all areas of operation, from product life-cycle assessments to sustainable business procedures.

Cover photo: CFT540 made by WE-EF

THE INTELLIGENCE OF LIGHT®



Design and Engineering

The most important element in the design process is the development of luminaires that encompass timeless design; in other words, design that best reflects their enduring qualities.

In addition, state-of-the-art engineering brings with it the highest standards with regard to environmentally-friendly materials and processes, i.e., high IP ratings, excellent thermal management and innovative optical systems. The development of high-end, efficient reflectors and lenses is one of the core competencies of WE-EF. This means compliance with international lighting and safety norms, while meeting the criteria of such organisations as the Dark Sky Society. Continual investment in research and development is the basic condition for meeting these requirements. WE-EF innovations, such as IOS® Innovative Optical Systems, CTA® Cool Touch Adaptor, ASC Anti Slip Coating and OLC® One LED Concept, are just some examples of the company's continuing investment in technology.

The most significant WE-EF contribution to protecting the environment is the creation of products that are engineered to endure, essentially minimising the need to replace or recycle them for many years.

Production

'Made by WE-EF' is more than just an expression; the high quality level of in-house production processes includes:

- Tooling for HPDC and injection moulding
- Aluminium high-pressure die-casting
- CNC machining
- Powdercoating
- Pole manufacturing
- Assembly

Through continual investment in tooling, production processes and the ongoing education of our employees, we are able to achieve the highest standards of quality. In exterior lighting, the corrosion resistance qualities of a product are important for their reliability and longevity. A durable and reliable corrosion protection can only be achieved when Product Development and the Production Processes are considered together. Years of research, development and practical testing and experience in some of the harshest climates on earth has resulted in WE-EF's unique 5CE corrosion protection system. It encompasses five critical elements; Material, Conversion Coating, Powder Coating, PCS Polymer Coated Stainless Hardware and Process Control.
Only complete systems such as 5CE can provide reliability and longevity in exterior environments.

Application

Real and sustainable cost and energy savings can only be achieved through professional project planning, including the application of the latest optical systems and light sources. In streetlighting applications, for example, this means minimising the number of luminaires required by optimising the efficiency of the optical system, while at the same time limiting glare in line with international standards. In short, reduced installation and maintenance costs, less CO_2 and improved quality of light.

Recycling

More than 90 per cent of a WE-EF luminaire can be recycled. The main component, a marine-grade aluminium substrate, is refined from recycled aluminium. This recycled aluminium is also an 'energy storer'. Only 5 per cent of the original energy needed to process bauxite into aluminium is required for recycling. In other words, 95 per cent of the original energy input is also recycled.

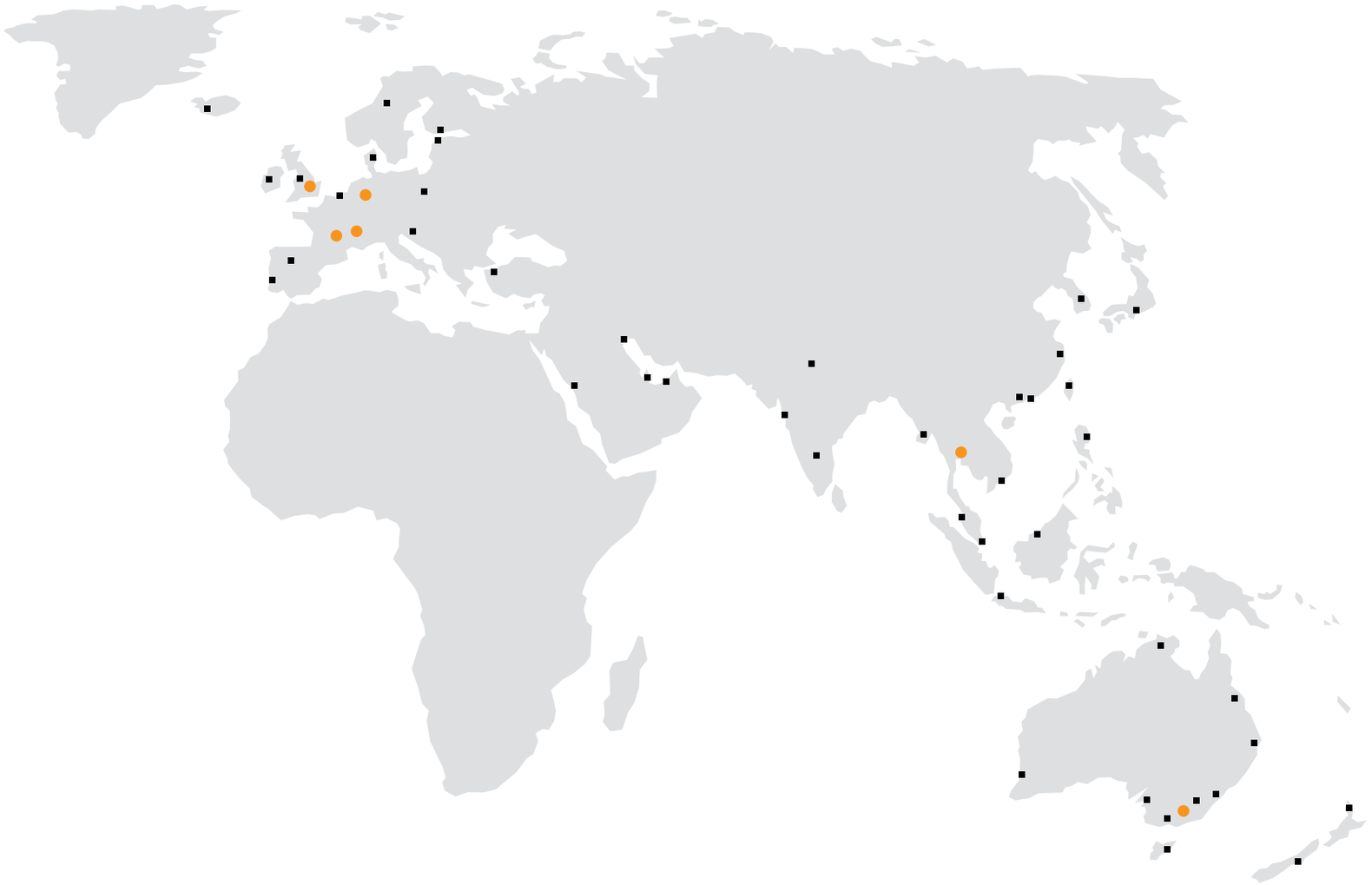
Worldwide performance

With its in-depth understanding of regional practises and environmental standards, WE-EF provides architects, lighting designers and project consultants with comprehensive support for architectural and urban lighting projects.

Established more than 65 years ago in Germany, the WE-EF Group now comprises seven companies worldwide - each fully supported by an extensive network of regional distributors and agents.

● WE-EF group worldwide

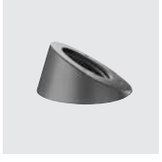
WE-EF LEUCHTEN Germany
WE-EF LIGHTING United Kingdom
WE-EF LUMIERE France
WE-EF HELVETICA Switzerland
WE-EF LIGHTING United States of America
WE-EF LIGHTING Thailand
WE-EF LIGHTING Australia

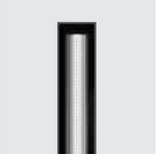


Luminaires and accessories

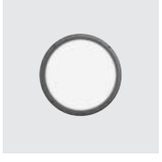
Underwater floodlights

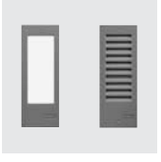
Inground luminaires

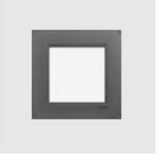




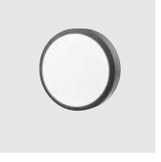
Wall luminaires recessed

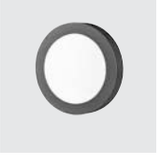






Wall luminaires surface mounted





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Luminaires and accessories

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XRX / XRY300 140


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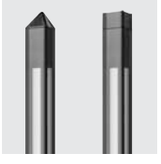
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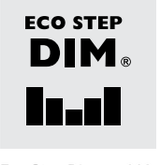

Eco Step Dim 260

RAIL66 system


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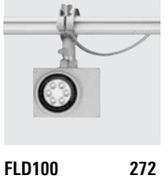
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FLB100 274

Luminaires and accessories

Projectors

FLC100 288

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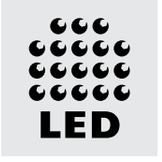

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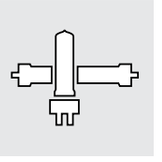
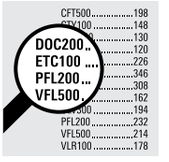


Lamp chart 424



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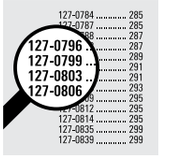

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IOS® Beam distributions for underwater floodlights

[M] **medium beam, symmetric**

[EE] **very narrow beam, symmetric**

Underwater floodlights

ULC200 SERIES

Underwater floodlight, medium or very narrow beam distribution.

IP68 (up to 10 m). ULC210: Class III. IK09. ULC230: Class I. IK10. Body, lens frame constructed in stainless steel, PCS hardware. Safety glass lens. Silicone rubber gasket. Factory sealed termination chamber complete with 10 m of flexible PVC free cable. IP68 in-line connector.

Factory installed LED circuit board. LED boards can be easily removed for upgrading. PMMA LED lens array.

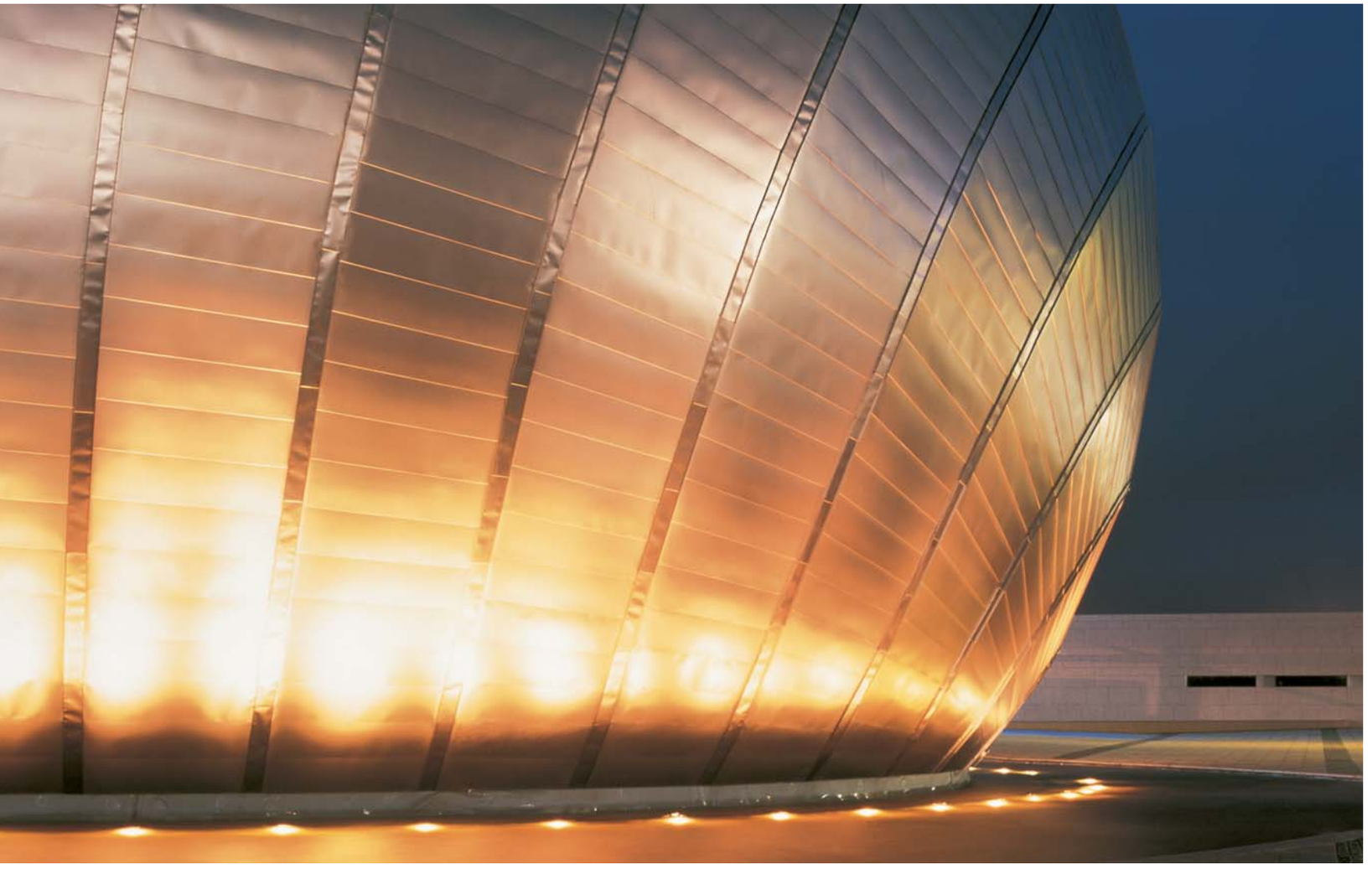
Suitable for continuously submerged applications in all types of pools, including saltwater.

Installation and operation of these floodlights are subject to national electrical and safety regulations for underwater lighting.

Light source
LED 2-24 W, 3000 K,
for 4000 K refer to www.we-ef.com

Light distributions
[M] [EE]

Accessories
- **Electrical, page 16**
- **Optical, page 16**



[M]

[EE]

[M] Medium beam distribution, symmetric

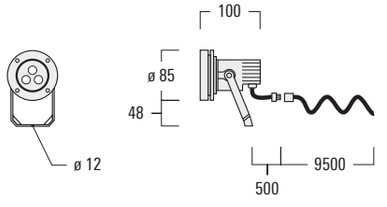
[EE] Very narrow beam distribution, symmetric

[M]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}	kg
ULC210**	139-1678	1 LED 2W / 24V AC/DC	3000	200	2119	16°/16°	1.1
	139-1686	3 LED 3W / 24V AC/DC	3000	404	1552	21°/21°	1.1
ULC230	139-1634	12 LED 24W / 230V	3000	2951	2196	16°/16°	5.8

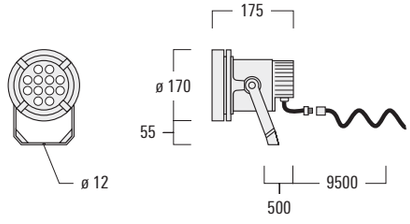
[EE]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}	kg
ULC210**	139-1688	3 LED 3W / 24V AC/DC	3000	404	7076	7°/7°	1.1
ULC230	139-1768	12 LED 24W / 230V	3000	2951	7191	7°/7°	5.8

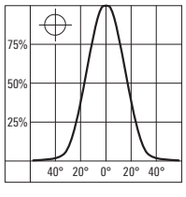
** Electronic converter required. To be ordered separately.

ULC210

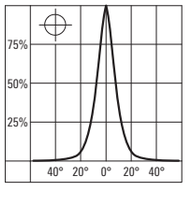


ULC230





[M]



[EE]

* Nominal lumen output based on LED manufacturers data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

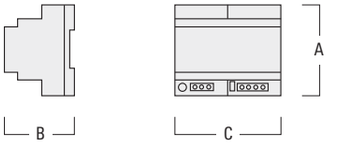
ELECTRICAL ACCESSORIES

Mains converter (230V / 24V)

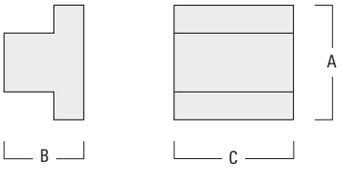
IP20, Class I. Mounting to 35 mm rail.			A	B	C
for ULC210	400-0310	TVE-DC 24 V/12 W	90	61	18
	400-0311	TVE-DC 24 V/60 W	89	59	72

Magnetic transformer (230V / 24V)

IP65, Class II.			A	B	C
for ULC210	185-2884	TVM-AC 24 V/20 W	137	63	120
	185-2885	TVM-AC 24 V/50 W	137	63	120



Mains converter



Magnetic transformer

OPTICAL ACCESSORIES

Internal Optical Accessories

	IO-360 Flood lens	IO-180 Linear spread lens
for ULC210	139-0837	139-0836
for ULC230	139-1115	139-1114

Color filter or colored LEDs on request

Veolia. Caluire (F). Lighting design: Pierre-Philippe Garde, Cobalt.

IOS® Beam distributions for inground luminaires

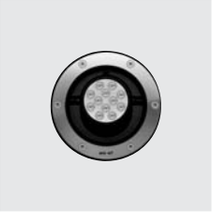
[B] wide beam, symmetric
[M] medium beam, symmetric
[EE] very narrow beam, symmetric
[EES] very narrow beam, symmetric, 'sharp cut-off'
[A20] wallwash, asymmetric

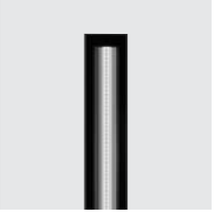
[LB] linear, wide beam, symmetric
[LM] linear, medium beam, symmetric
[LE] linear, narrow beam, symmetric
[LEE] linear, very narrow beam, symmetric
[LA10] linear, wallwash, asymmetric

[LA6] linear, wallwash, asymmetric
[LA20] linear, wallwash, asymmetric

[ ] controlled, single or double sided
[ ] diffused

Inground luminaires





EFC100 SERIES

Inground luminaire, controlled single or double sided distribution.

IP67, Class I. IK09. Stainless steel inground section. Die-cast dome made from marine-grade aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gasket. Optical lens made from PMMA. Factory-sealed termination chamber complete with cable gland and 1.5 m of flexible PVC free cable. IP68 in-line connector facilitates easy removal for off-site lamp replacement.

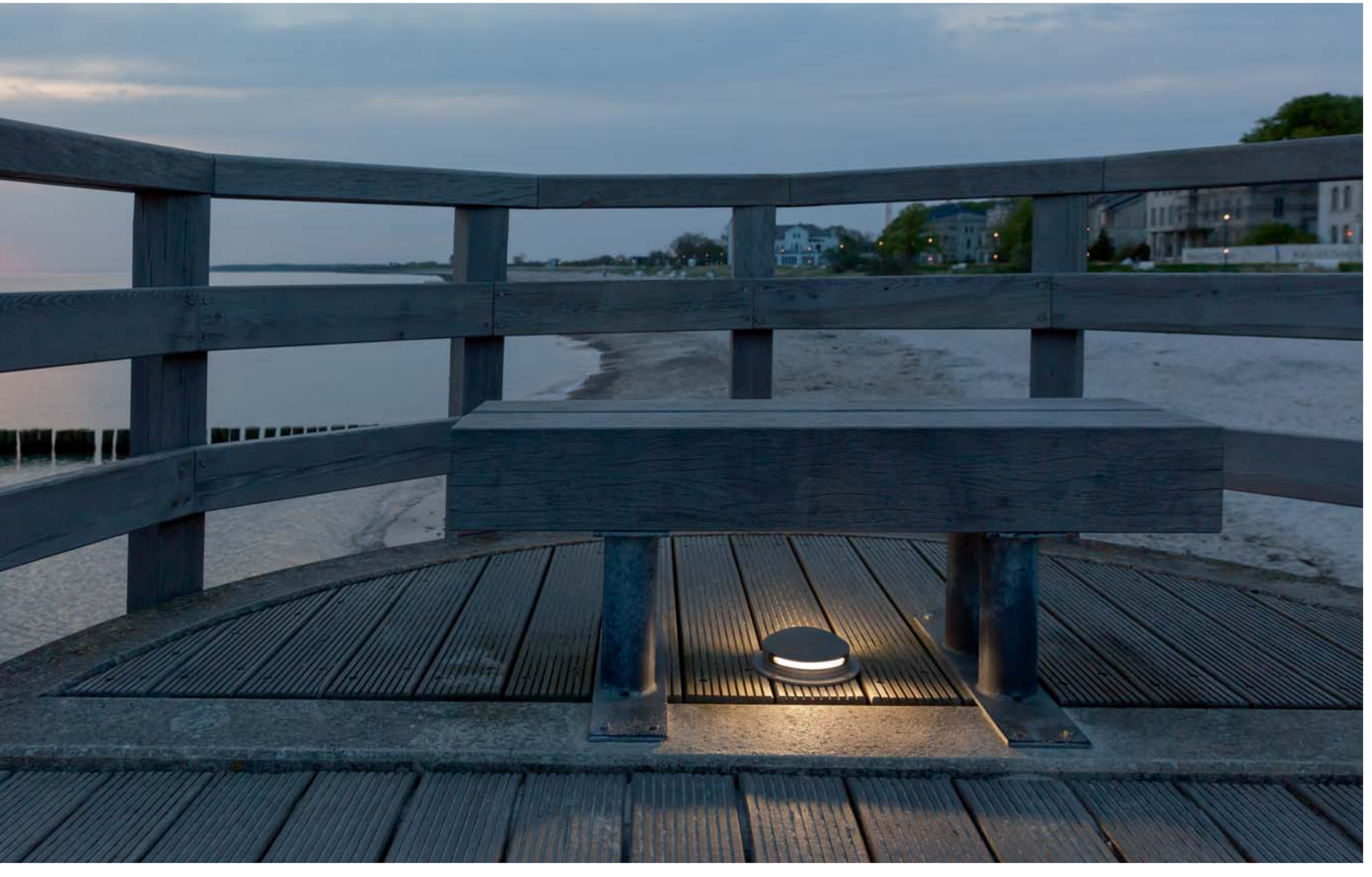
'No tool' removable gear tray assembly. Integral EC electronic converter.
Factory installed LED circuit board. LED boards can be easily removed for upgrading.
PMMA LED lens.

Luminaire requires installation blockout which is included.

Luminaire can be driven over at low speeds only. It is not designed for normal traffic conditions. Luminaire can be damaged under such conditions as breaking, accelerating or turning.

Light source
LED 6-12 W, 3000 K,
for 4000 K refer to www.we-ef.com

Accessories
■ **Electrical, page 50**

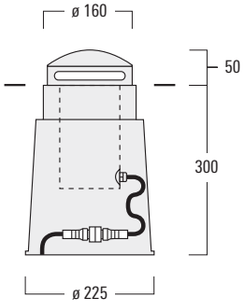


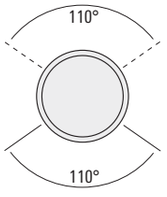
Pier seaside Heiligendamm (D). Lighting design: Institut für Gebäude + Energie + Licht Planung, Prof. Dr.-Ing. Thomas Röhmhild, Wismar.

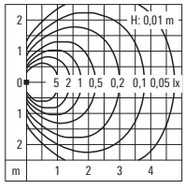
Controlled distribution, single or double sided

single sided	Part ID	Light source	K	lm*	Factor***	°C**	kg
EFC120	185-2526	6 LED 6W / 350 mA	3000	807	1.00	45	5.1

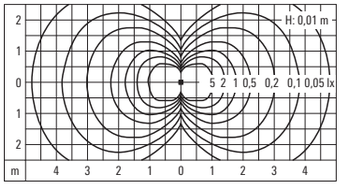
double sided	Part ID	Light source	K	lm*	Factor***	°C**	kg
EFC120	185-2559	2 x 6 LED 12W / 350 mA	3000	1614	1.00	51	5.1







single sided



double sided

* Nominal lumen output based on LED manufacturers data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.
** Operational surface temperature, based on ground temperature of 15°C
*** Multiplier for Isolux value

ESC100 SERIES

Inground luminaire, medium, very narrow or very narrow beam distribution 'sharp cut-off', symmetric.

IP67, Class I. IK07. Stainless steel construction inground section. Die-cast hood with 30° angle made from marine-grade aluminium alloy avoids glare to passers-by and helps prevent accumulation of insects, leaves and debris on the lens. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Factory-sealed termination chamber complete with cable gland including spiral cable bending protection and 1.5 m of flexible PVC free cable.

Integral EC electronic converter. Factory installed LED circuit board. LED boards can be easily removed for upgrading. PMMA LED lens array.

The optional installation blockout is recommended for mounting. To be ordered separately.

Light source
LED 18-24 W, 3000 K,
for 4000 K refer to www.we-ef.com

Light distributions
[M] [EE] [EES]

Accessories
- **Mounting, page 48**
- **Optical, page 52**

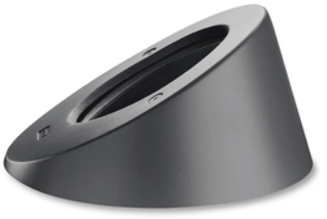
RMIT University, Bowen Lane. Melbourne (AUS). Lighting design & Landscape architect: RMIT

[M] [EE] [EES]

[M] Medium beam distribution, symmetric

[EE] Very narrow beam distribution, symmetric

[EES] Very narrow beam distribution, symmetric, 'sharp cut-off'

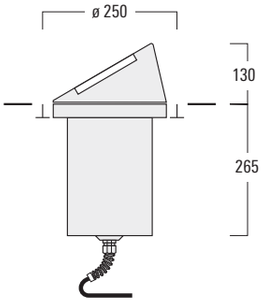


[M]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}	°C**	kg
ESC130	185-3077	12 LED 18W / 500 mA	3000	2217	2378	13°/17°	26	7.9
ESC140	185-3003	24 LED 24W / 350 mA	3000	3228	2378	13°/17°	30	10.4

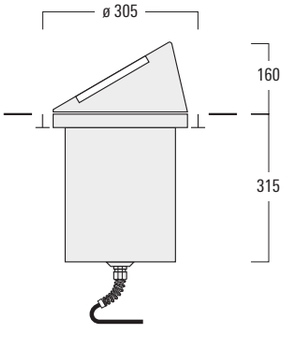
[EE]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}	°C**	kg
ESC130	185-3079	12 LED 18W / 500 mA	3000	2217	7672	7°/8°	26	7.9
ESC140	185-3084	24 LED 24W / 350 mA	3000	3228	7672	7°/8°	30	10.4

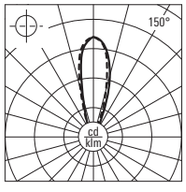
[EES]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}	°C**	kg
ESC130	185-3081	12 LED 18W / 500 mA	3000	2217	17197	4°/6°	26	7.9
ESC140	185-3086	24 LED 24W / 350 mA	3000	3228	17197	4°/6°	30	10.4

ESC130

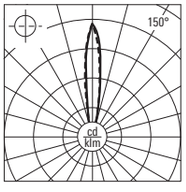


ESC140

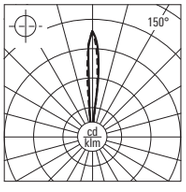




[M]



[EE]



[EES]

* Nominal lumen output based on LED manufacturers data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

** Operational surface temperature, based on ground temperature of 15°C

ETC100 SERIES

Inground luminaire, diffused distribution.

ETC109: IP68 (up to 10 m), Class III. IK09.
ETC119: IP67, Class III. IK09.
Stainless steel construction including PCS hardware. Silicone rubber gasket. Safety glass lens; max. load 5 tonnes. Luminaire can be driven over at low speed. Factory-sealed termination chamber complete with cable gland and 1.5 m of flexible PVC free cable. IP68 in-line connector facilitates easy removal for off-site lamp replacement.

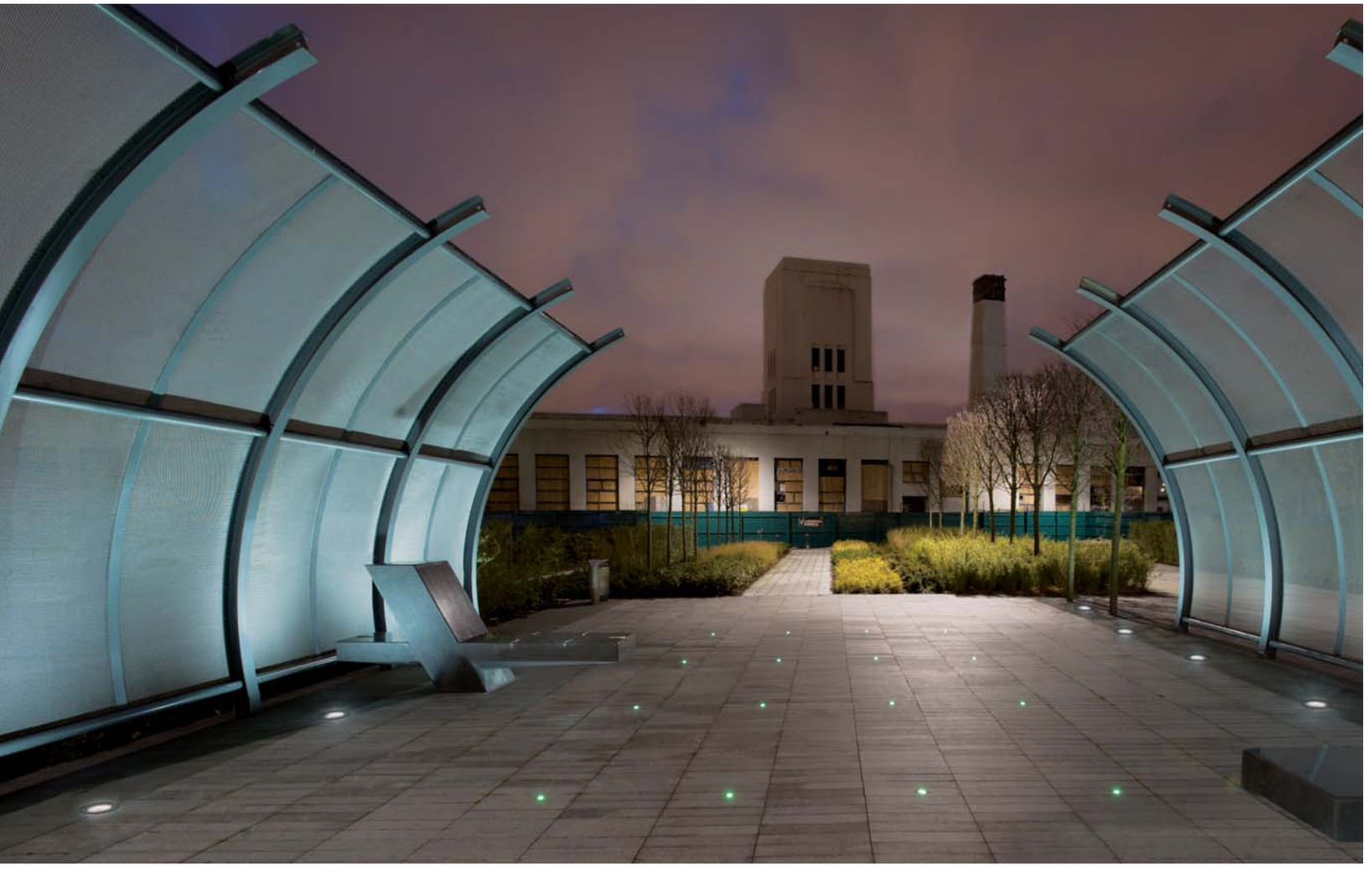
Factory installed LED circuit board in either white, red, green, blue or RGB. LED boards can be easily removed for upgrading.

ETC109: Luminaire requires installation blockout which is included.
ETC119: Luminaire requires installation blockout. To be ordered separately.

Electronic converter required. To be ordered separately.

Light source
LED 0.5-1.5 W

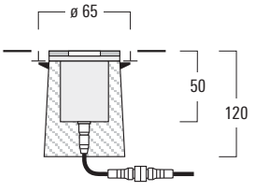
Accessories
- **Mounting, page 48**
- **Electrical, page 50**



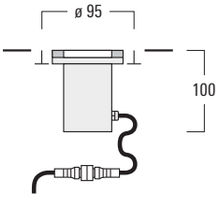
Liverpool Innovation Park. Liverpool (UK). Landscape architect: Scott Wilson Landscape Architects, Manchester.

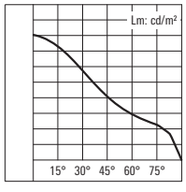
	Part ID	Light source		lm*	Lm [cd/m²]	kg
ETC109	185-1557	4 LED 0.5W / 12V DC	white	13	3787	0.5
	185-1558	4 LED 0.5W / 12V DC	red	18	4951	0.5
	185-1559	4 LED 0.5W / 12V DC	green	15	2759	0.5
	185-1560	4 LED 0.5W / 12V DC	blue	4	1416	0.5
	185-1562	3 x 4 LED 1.5W / 12V DC	red-green-blue	24	3854	0.5
ETC119	185-2843	1 LED 1W / 24V AC/DC	white	80	3019	1.0

ETC109



ETC119





* Based on CIE illuminant D65

ETC100 SERIES

Inground luminaire, medium, very narrow or very narrow beam distribution 'sharp cut-off', symmetric.

IP67, Class III. IK09. Stainless steel construction including PCS hardware. Silicone rubber gasket. Safety glass lens; max. load 5 tonnes. Luminaire can be driven over at low speed. Factory-sealed termination chamber complete with cable gland and 1.5 m of flexible PVC free cable. IP68 in-line connector facilitates easy removal for off-site lamp replacement.

Factory installed LED circuit board. LED boards can be easily removed for upgrading. PMMA LED lens array.

The optional installation blockout is recommended for mounting.
To be ordered separately.

Electronic converter required. To be ordered separately.

Light source
LED 2-3 W, 3000 K,
for 4000 K refer to www.we-ef.com

Light distributions
[M] [EE] [EES]

Accessories
- **Mounting, page 48**
- **Electrical, page 50**

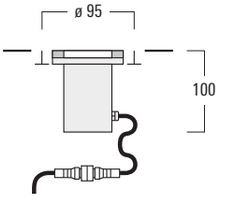
Coal mine Zollverein. Essen (D). Lighting design: Licht Kunst Licht AG. Landscape architect: Planergruppe GmbH Oberhausen.

[M] [EE] [EES]

[M] Medium beam distribution, symmetric

[EE] Very narrow beam distribution, symmetric

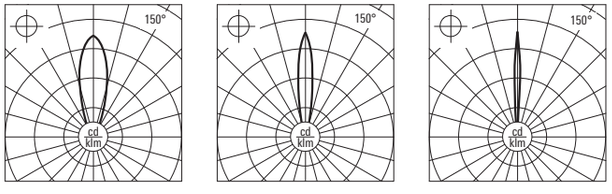
[EES] Very narrow beam distribution, symmetric, 'sharp cut-off'



[M]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}	°C**	kg
ETC110	185-2770	1 LED 2W / 24V AC/DC	3000	200	2119	16°/16°	23	1.1
	185-2777	3 LED 3W / 24V AC/DC	3000	404	1552	21°/21°	28	1.1

[EE]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}	°C**	kg
ETC110	185-2778	3 LED 3W / 24V AC/DC	3000	404	7076	7°/7°	28	1.1

[EES]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}	°C**	kg
ETC110	185-2772	1 LED 2W / 24V AC/DC	3000	200	29000	4°/4°	23	1.1
	185-2779	3 LED 3W / 24V AC/DC	3000	404	11915	6°/6°	28	1.1



[M] [EE] [EES]

* Nominal lumen output based on LED manufacturers data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

** Operational surface temperature, based on ground temperature of 15°C

ETC100 SERIES

Inground luminaire, medium or very narrow beam distribution, symmetric.

IP67, Class I. IK10+. Stainless steel construction including PCS hardware. Silicone rubber gasket. Safety glass lens; max. load 5 tonnes. Luminaire can be driven over at low speed. Factory-sealed termination chamber complete with cable gland and 1.5 m of flexible PVC free cable. Cable gland with spiral cable bending protection.

Integral HPF or ECG control gear. 'No tool' removable gear/reflector tray. Anodised aluminium reflector.

The optional installation blockout is recommended for mounting. Option with Anti-Slip ceramic Coating ASC to DIN 51130 (Trip Classification 10) available on request.

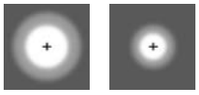
The optional CTA® Cool Touch Adaptor provides significant reduction in glass surface temperature.

Light source
HIT 20-250 W

Light distributions
[M] [EE]

Accessories
- **Mounting, page 48**
- **Electrical, page 50**
- **Optical, page 52**

Eleanor and Wilson Greatbatch Pavilion. Buffalo (USA). Architect: Toshiko Mori Architect, PLLC. Lighting design: ARUP Lighting.



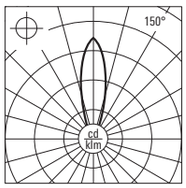
[M] [EE]

[M] Medium beam distribution, symmetric

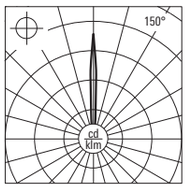
[EE] Very narrow beam distribution, symmetric

[M]	Part ID	Light source	lm	cd/klm	C_0C_{180}	°C*	kg
ETC120	185-1528 [ECG]	HIT-TC-CE 20W PGJ5	1650	2226	14°/14°	74	2.1
ETC130	185-1576 [ECG]	HIT-CE 35W G12	3600	2261	12°/12°	71/57	6.8
ETC140	185-1577 [ECG]	HIT-CE 70W G12	7300	1378	19°/19°	86/69	8.8
	185-2354 [HPF]	HIT-CE 100W G12	9500	1489	19°/19°	100/84	10.0
	185-0749 [HPF]	HIT-CE 150W G12	15000	1215	20°/20°	118/99	10.2
ETC150	185-1579 [ECG]	HIT-CE 150W G12	15000	2104	13°/13°	99/71	19.0
	185-1584 [HPF]	HIT-CE 250W G12	23000	1622	18°/18°	116/95	21.0

[EE]	Part ID	Light source	lm	cd/klm	C_0C_{180}	°C*	kg
ETC120	185-1483 [ECG]	HIT-TC-CE 20W PGJ5	1650	15648	3°/3°	80	2.1
ETC130	185-1588 [ECG]	HIT-CE 35W G12	3600	19636	3°/3°	70/58	6.8
ETC140	185-1589 [ECG]	HIT-CE 70W G12	7300	33186	3°/3°	78/60	8.8
	185-2360 [HPF]	HIT-CE 100W G12	9500	22734	3°/3°	99/80	10.0
	185-0757 [HPF]	HIT-CE 150W G12	15000	15818	4°/4°	115/90	10.2
ETC150	185-1591 [ECG]	HIT-CE 150W G12	15000	30080	3°/3°	87/68	19.0
	185-1596 [HPF]	HIT-CE 250W G12	23000	15085	4°/4°	103/82	21.0



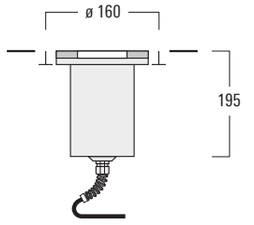
[M]



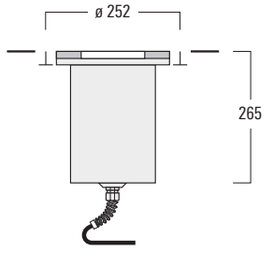
[EE]

* Operational surface temperature, based on ground temperature of 15°C (without CTA® / with CTA®)

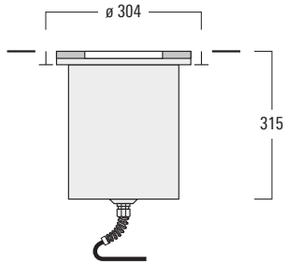
ETC120



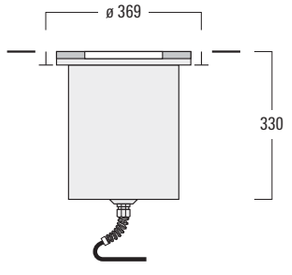
ETC130



ETC140



ETC150



ETC100 GIMBAL SERIES

Inground luminaire, wide, medium, very narrow or very narrow beam distribution 'sharp cut-off', symmetric or wallwash distribution, asymmetric. Tilt and rotatable.

IP67, Class I. IK10+. Stainless steel construction including PCS hardware. Silicone rubber gasket. Safety glass lens; max. load 5 tonnes. Luminaire can be driven over at low speed. Factory-sealed termination chamber complete with cable gland and 1.5 m of flexible PVC free cable. Cable gland with spiral cable bending protection.
For reduced depth (ETC300 series), see page 34.

Integral EC electronic converter. 'No tool' removable gear/lens tray. Gimbal mounted, 355°/360° rotatable and 20°/30° tilt.

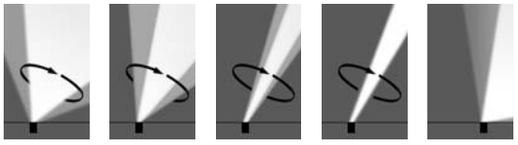
Factory installed LED circuit board. LED boards can be easily removed for upgrading. PMMA LED lens array.

The optional installation blockout is recommended for mounting. To be ordered separately. Option with Anti-Slip ceramic Coating ASC to DIN 51130 (Trip Classification 10) available on request.

Light source
LED 6-24 W, 3000 K,
for 4000 K refer to www.we-ef.com

Light distributions
[B] [M] [EE] [EES] [A20]

Accessories
- **Mounting, page 48**
- **Electrical, page 50**
- **Optical, page 52**



[B] [M] [EE] [EES] [A20]

[B] Wide beam distribution, symmetric
[M] Medium beam distribution, symmetric
[EE] Very narrow beam distribution, symmetric
[EES] Very narrow beam distribution, symmetric, 'sharp cut-off'
[A20] Wallwash distribution, asymmetric

[B]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}	°C**	kg
ETC130-GB	185-2658	12 LED 18W / 500 mA	3000	2217	952	25°/25°	34	6.2
ETC140-GB	185-2723	24 LED 24W / 350 mA	3000	3228	1081	24°/24°	31	10.6

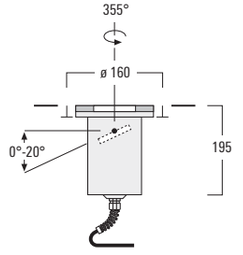
[M]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}	°C**	kg
ETC120-GB	185-7592	3 LED 6W / 700 mA	3000	738	1633	21°/21°	25	3.8
ETC130-GB	185-2446	12 LED 18W / 500 mA	3000	2217	2339	17°/17°	34	6.2
ETC140-GB	185-2600	24 LED 24W / 350 mA	3000	3228	2175	17°/17°	31	10.6

[EE]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}	°C**	kg
ETC120-GB	185-7593	3 LED 6W / 700 mA	3000	738	7530	7°/7°	25	3.8
ETC130-GB	185-2661	12 LED 18W / 500 mA	3000	2217	6728	8°/8°	34	6.2
ETC140-GB	185-2726	24 LED 24W / 350 mA	3000	3228	7418	7°/7°	31	10.6

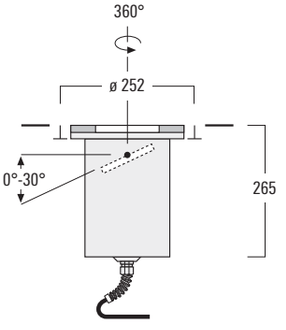
[EES]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}	°C**	kg
ETC120-GB	185-7682	3 LED 6W / 700 mA	3000	738	16462	5°/5°	25	3.8
ETC130-GB	185-2591	12 LED 18W / 500 mA	3000	2217	18322	5°/5°	34	6.2
ETC140-GB	185-2603	24 LED 24W / 350 mA	3000	3228	21083	5°/5°	31	10.6

[A20]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}	$C_{90}C_{270}$	°C**	kg
ETC130-GB	185-3091	12 LED 18W / 500 mA	3000	2217	798	15°/17°	34°/34°	34	6.2
ETC140-GB	185-3093	24 LED 24W / 350 mA	3000	3228	660	18°/23°	33°/33°	31	10.6

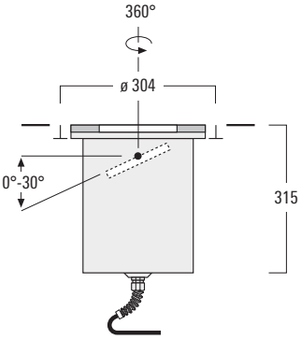
ETC120-GB

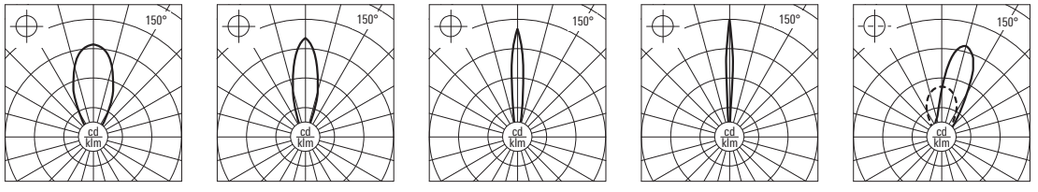


ETC130-GB



ETC140-GB





[B] [M] [EE] [EES] [A20]

* Nominal lumen output based on LED manufacturers data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.
** Operational surface temperature, based on ground temperature of 15°C

ETC100 GIMBAL SERIES

Inground luminaire, medium or very narrow beam distribution, symmetric. Tilt and rotatable.

IP67, Class I. IK10+. Stainless steel construction including PCS hardware. Silicone rubber gasket. Safety glass lens; max. load 5 tonnes. Luminaire can be driven over at low speed. Factory-sealed termination chamber complete with cable gland and 1.5 m of flexible PVC free cable. Cable gland with spiral cable bending protection.

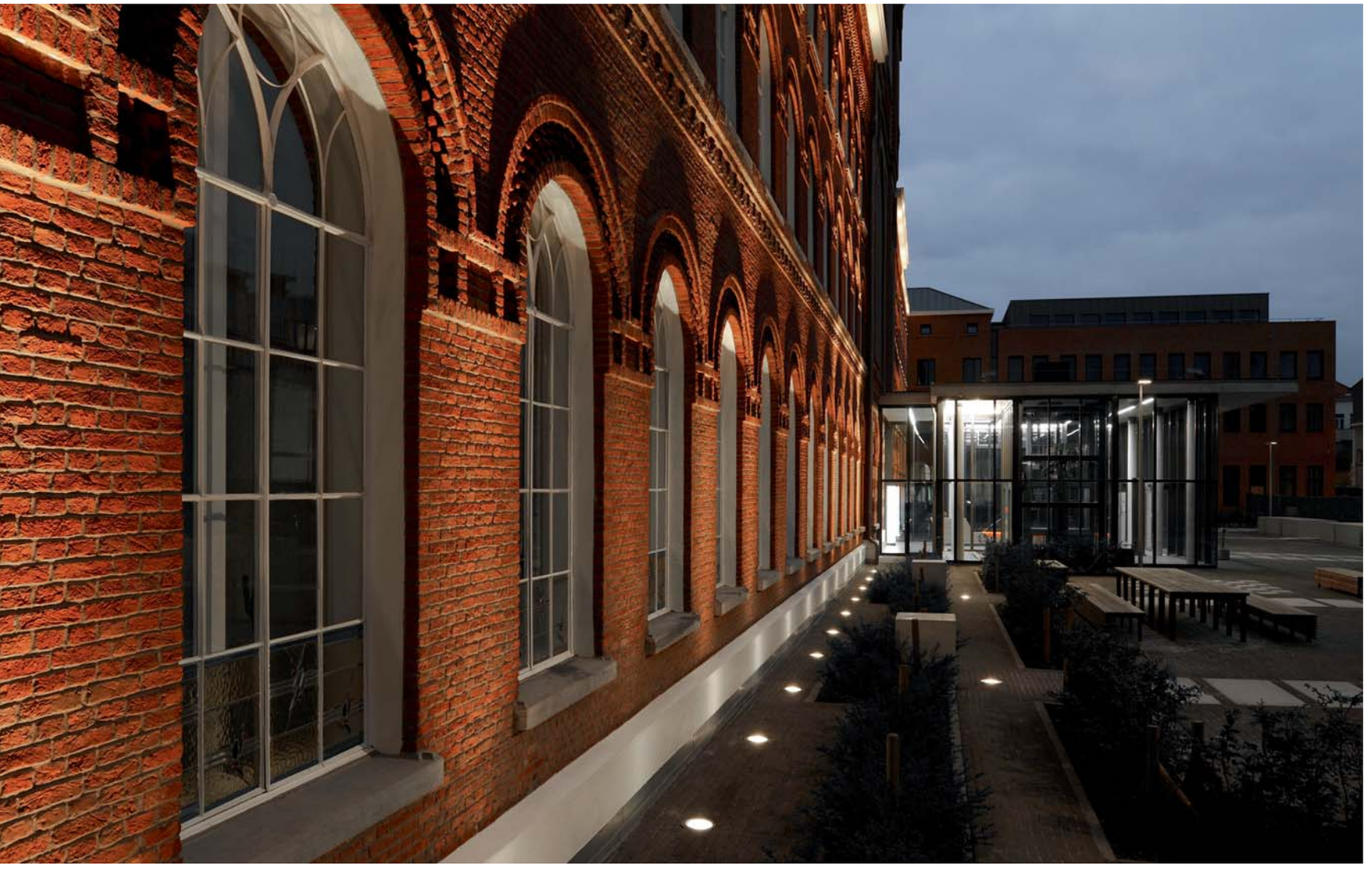
Integral ECG control gear. 'No tool' removable gear/reflector tray. Anodised aluminium reflector, gimbal mounted, 360° rotatable and 30° tilt. Integral Cool Touch Adaptor CTA® for reducing glass surface temperature.

The optional installation blockout is recommended for mounting. To be ordered separately. Option with Anti-Slip ceramic Coating ASC to DIN 51130 (Trip Classification 10) available on request.

Light source
HIT 20-70 W

Light distributions
[M] [EE]

Accessories
- **Mounting, page 48**
- **Electrical, page 50**
- **Optical, page 52**



Sint-Vincensius Hospitals. Antwerp (B)

[M]

[EE]

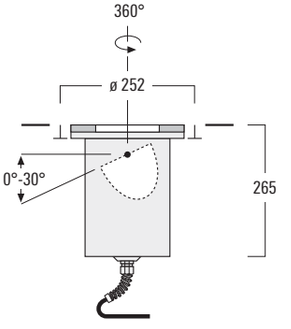
[M] Medium beam distribution, symmetric

[EE] Very narrow beam distribution, symmetric

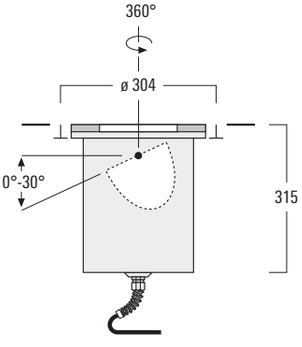
[M]	Part ID	Light source	lm	cd/klm	C_0C_{180}	°C*	kg
ETC130-GB	185-2349 [ECG]	HIT-TC-CE 20W PGJ5	1650	964	16°/16°	48	6.1
	185-2350 [ECG]	HIT-TC-CE 35W PGJ5	3000	1314	16°/16°	72	6.1
ETC140-GB	185-2441 [ECG]	HIT-CE 35W G12	3600	2128	9°/9°	51	11.1
	185-2400 [ECG]	HIT-CE 70W G12	7300	2110	10°/10°	75	11.1

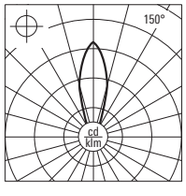
[EE]	Part ID	Light source	lm	cd/klm	C_0C_{180}	°C*	kg
ETC130-GB	185-2351 [ECG]	HIT-TC-CE 20W PGJ5	1650	9818	3°/3°	53	6.1
	185-2352 [ECG]	HIT-TC-CE 35W PGJ5	3000	4708	5°/5°	79	6.1
ETC140-GB	185-2443 [ECG]	HIT-CE 35W G12	3600	13440	3°/3°	53	11.1
	185-2402 [ECG]	HIT-CE 70W G12	7300	12636	3°/3°	75	11.1

ETC130-GB

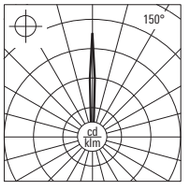


ETC140-GB





[M]



[EE]

* Operational surface temperature, based on ground temperature of 15°C

ETC300 GIMBAL SERIES

Inground luminaire, wide, medium, very narrow or very narrow beam distribution 'sharp cut-off', symmetric or wallwash distribution, asymmetric. Tilt and rotatable.

IP67, Class I. IK10+. Stainless steel construction including PCS hardware. Silicone rubber gasket. Safety glass lens; max. load 5 tonnes. Luminaire can be driven over at low speed. Factory-sealed termination chamber complete with cable gland and 1.5 m of flexible PVC free cable.

Integral EC electronic converter. 'No tool' removable gear/lens tray. Gimbal mounted, 360° rotatable and 30° tilt.

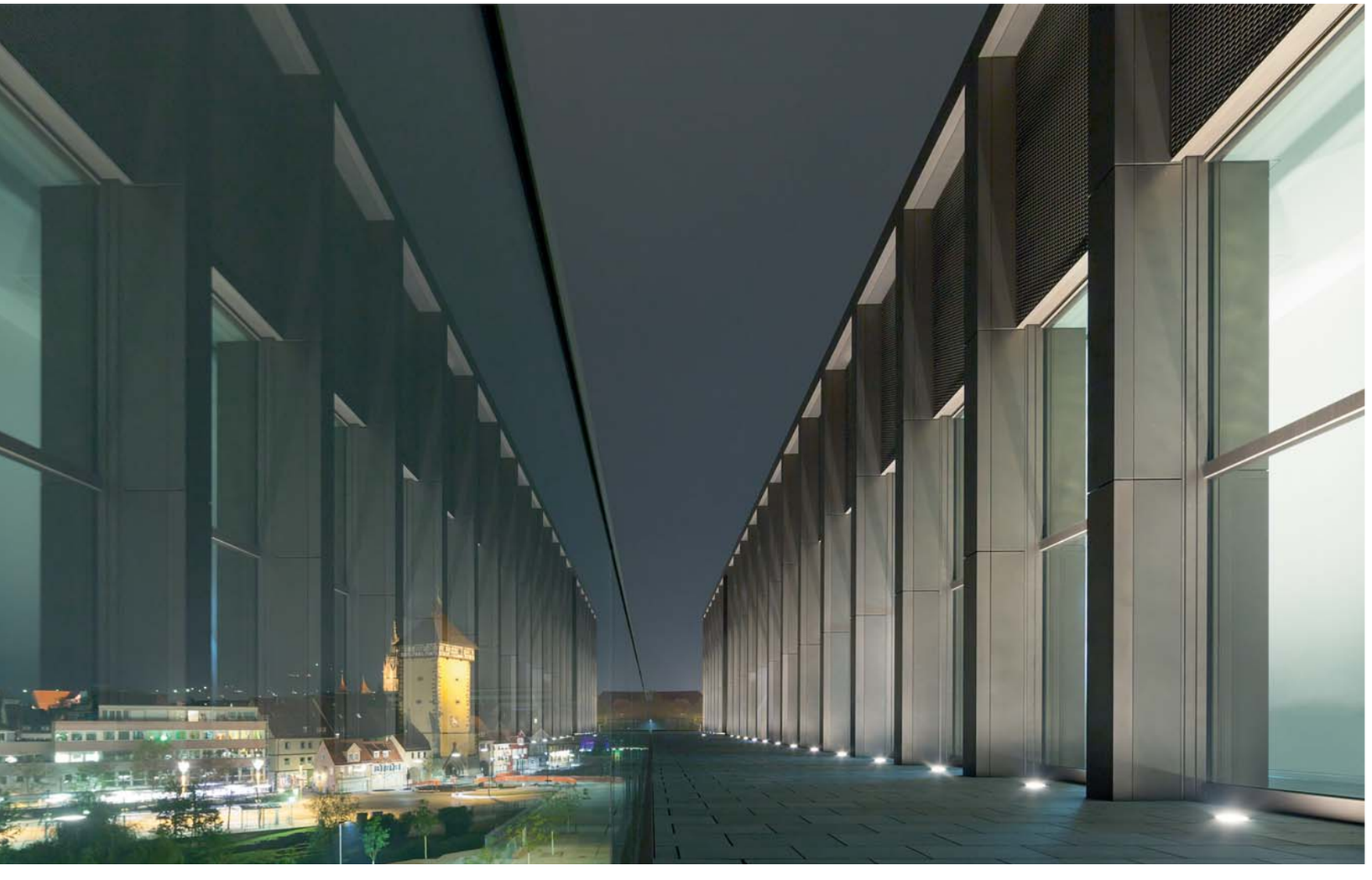
Factory installed LED circuit board. LED boards can be easily removed for upgrading. PMMA LED lens array.

The optional installation blockout is recommended for mounting. To be ordered separately. Option with Anti-Slip ceramic Coating ASC to DIN 51130 (Trip Classification 10) available on request.

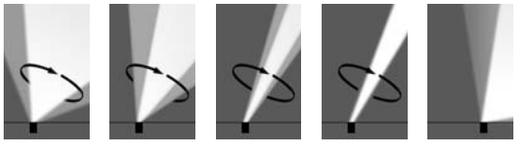
Light source
LED 12 W, 3000 K,
for 4000 K refer to www.we-ef.com

Light distributions
[B] [M] [EE] [EES] [A20]

Accessories
- **Mounting, page 48**
- **Electrical, page 50**
- **Optical, page 52**

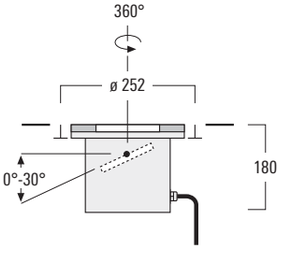


Town hall. Reutlingen (D). Architect: Max Dudler, Berlin. Lighting design: Kardorff Ingenieure, Berlin.



[B] [M] [EE] [EES] [A20]

[B] Wide beam distribution, symmetric
[M] Medium beam distribution, symmetric
[EE] Very narrow beam distribution, symmetric
[EES] Very narrow beam distribution, symmetric, 'sharp cut-off'
[A20] Wallwash distribution, asymmetric



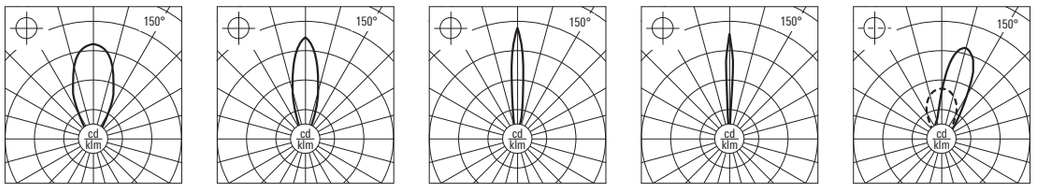
[B]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}		°C**	kg
ETC330-GB	185-2688	12 LED 12W / 350 mA	3000	1614	952	25°/25°		28	5.5

[M]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}		°C**	kg
ETC330-GB	185-2576	12 LED 12W / 350 mA	3000	1614	2339	17°/17°		28	5.5

[EE]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}		°C**	kg
ETC330-GB	185-2691	12 LED 12W / 350 mA	3000	1614	6728	8°/8°		28	5.5

[EES]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}		°C**	kg
ETC330-GB	185-2583	12 LED 12W / 350 mA	3000	1614	18322	5°/5°		28	5.5

[A20]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}	$C_{90}C_{270}$	°C**	kg
ETC330-GB	185-3095	12 LED 12W / 350 mA	3000	1614	798	15°/17°	34°/34°	28	5.5



[B] [M] [EE] [EES] [A20]

* Nominal lumen output based on LED manufacturers data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.
** Operational surface temperature, based on ground temperature of 15°C

ETC300 SERIES

Inground luminaire, diffused distribution.

IP67, Class I. IK10+. Stainless steel construction including PCS hardware. Silicone rubber gasket. Safety glass lens; max. load 5 tonnes. Luminaire can be driven over at low speed. Factory-sealed termination chamber complete with cable gland and 1.5 m of flexible PVC free cable. Cable gland with spiral cable bending protection (ETC329).

'No tool' removable gear tray. Integral EC electronic converter.

Factory installed LED circuit board. LED boards can be easily removed for upgrading.

The optional installation blockout is recommended for mounting. To be ordered separately. Option with Anti-Slip ceramic Coating ASC to DIN 51130 (Trip Classification 10) available on request.

Light source
LED 5.5-15.5 W, 3000 K,
for 4000 K refer to www.we-ef.com

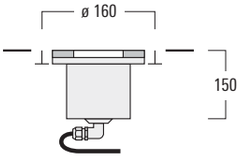
Accessories

- **Mounting, page 48**
- **Electrical, page 50**

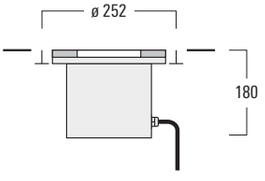
Technical college. Wildau/Berlin (D). Architect: Anderhalten Architekten, Berlin. Lighting design: Ritter Lichttechnik Berlin.

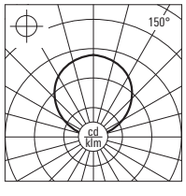
	Part ID	Light source		lm*	cd/klm	C_0C_{180}	°C**	kg
ETC329	185-2908	LED 5.5W / 250 mA	white	705	51	56°/56°	27	2.5
ETC339	185-2909	LED 15.5W / 350 mA	white	2180	47	56°/56°	30	6.0

ETC329



ETC339





* Nominal lumen output based on LED manufacturers data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

** Operational surface temperature, based on ground temperature of 15°C

ETV100 SERIES

Inground luminaire, linear, wide, medium, narrow or very narrow beam distribution, symmetric or wallwash distribution, asymmetric.

IP67, Class I. IK08. Marine-grade all aluminium construction. Anodized aluminium extrusion. PCS hardware. Silicone rubber gasket. Safety glass lens; max. load 5 tonnes. Luminaire can be driven over at low speed. Factory-sealed termination chamber complete with cable gland and 0.5 m of flexible cable.

Linear PMMA LED lens. Factory installed LED circuit board. LED boards can be easily removed for upgrading.

Luminaire is factory sealed and does not need to be opened during installation.

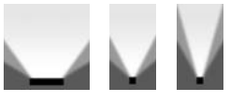
The optional installation blockout is recommended for mounting. To be ordered separately.

Electronic converter with DALI or DMX (RGBW) interface.

Light source
LED 15-44 W, 3000 K,
for 4000 K refer to www.we-ef.com

Light distributions
[LB] [LM] [LE] [LEE] [LA10]

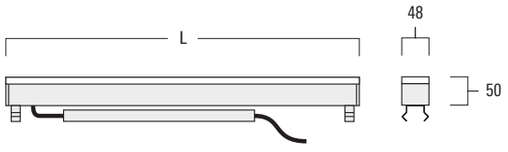
Accessories
■ **Mounting, page 48**



[LB] [LM]

[LB] Linear, wide beam distribution, symmetric

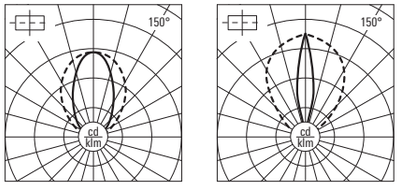
[LM] Linear, medium beam distribution, symmetric



Dimensions	L
ETV120	627 mm
ETV130	927 mm
ETV140	1227 mm

[LB]	Part ID	Light source		K	lm*	cd/klm	C_0C_{180}	$C_{90}C_{270}$	°C**	kg
ETV120	186-0236	120 LED	15W	3000	2250	430	29°/29°	45°/45°	25	4.6
ETV130	186-0251	180 LED	22.5W	3000	3375	430	29°/29°	45°/45°	25	6.0
	186-0253 [DMX]	96 LED	33W	RGBW	3206	430	29°/29°	45°/45°	25	6.0
ETV140	186-0266	240 LED	30W	3000	4500	430	29°/29°	45°/45°	25	7.5
	186-0268 [DMX]	128 LED	44W	RGBW	4275	430	29°/29°	45°/45°	25	7.5

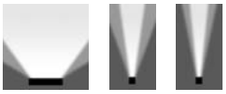
[LM]	Part ID	Light source		K	lm*	cd/klm	C_0C_{180}	$C_{90}C_{270}$	°C**	kg
ETV120	186-0239	120 LED	15W	3000	2250	827	14°/14°	49°/49°	25	4.6
ETV130	186-0254	180 LED	22.5W	3000	3375	827	14°/14°	49°/49°	25	6.0
	186-0256 [DMX]	96 LED	33W	RGBW	3206	827	14°/14°	49°/49°	25	6.0
ETV140	186-0269	240 LED	30W	3000	4500	827	14°/14°	49°/49°	25	7.5
	186-0271 [DMX]	128 LED	44W	RGBW	4275	827	14°/14°	49°/49°	25	7.5



[LB] [LM]

* Nominal lumen output based on LED manufacturers data at 25°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

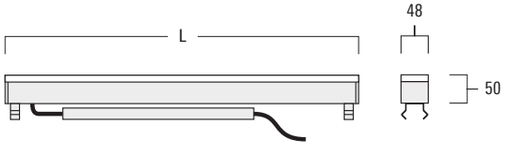
** Operational surface temperature, based on ground temperature of 15°C



[LE] [LEE]

[LE] Linear, narrow beam distribution, symmetric

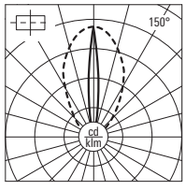
[LEE] Linear, very narrow beam distribution, symmetric



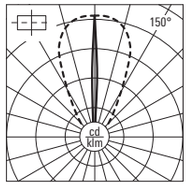
Dimensions	L
ETV120	627 mm
ETV130	927 mm
ETV140	1227 mm

[LE]	Part ID	Light source		K	lm*	cd/klm	C_0C_{180}	$C_{90}C_{270}$	°C**	kg
ETV120	186-0242	120 LED	15W	3000	2250	1097	8°/8°	42°/42°	25	4.6
ETV130	186-0257	180 LED	22.5W	3000	3375	1097	8°/8°	42°/42°	25	6.0
	186-0259 [DMX]	96 LED	33W	RGBW	3206	1097	8°/8°	42°/42°	25	6.0
ETV140	186-0272	240 LED	30W	3000	4500	1097	8°/8°	42°/42°	25	7.5
	186-0274 [DMX]	128 LED	44W	RGBW	4275	1097	8°/8°	42°/42°	25	7.5

[LEE]	Part ID	Light source		K	lm*	cd/klm	C_0C_{180}	$C_{90}C_{270}$	°C**	kg
ETV120	186-0245	120 LED	15W	3000	2250	1594	6°/6°	42°/42°	25	4.6
ETV130	186-0260	180 LED	22.5W	3000	3375	1594	6°/6°	42°/42°	25	6.0
	186-0262 [DMX]	96 LED	33W	RGBW	3206	1594	6°/6°	42°/42°	25	6.0
ETV140	186-0275	240 LED	30W	3000	4500	1594	6°/6°	42°/42°	25	7.5
	186-0277 [DMX]	128 LED	44W	RGBW	4275	1594	6°/6°	42°/42°	25	7.5



[LE]

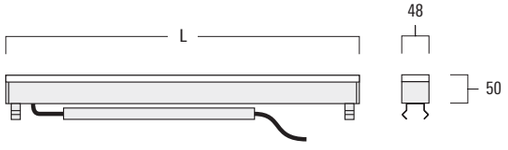


[LEE]

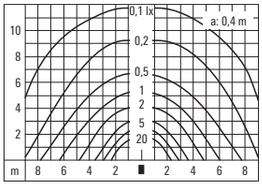
[LA10]

[LA10] Linear, wallwash distribution, asymmetric

[LA10]	Part ID	Light source		K	lm*	cd/klm	C_0C_{180}	$C_{90}C_{270}$	°C**	kg
ETV120	186-0248	120 LED	15W	3000	2250	959	17°/12°	43°/43°	25	4.6
ETV130	186-0263	180 LED	22.5W	3000	3375	959	17°/12°	43°/43°	25	6.0
	186-0265 [DMX]	96 LED	33W	RGBW	3206	959	17°/12°	43°/43°	25	6.0
ETV140	186-0278	240 LED	30W	3000	4500	959	17°/12°	43°/43°	25	7.5
	186-0280 [DMX]	128 LED	44W	RGBW	4275	959	17°/12°	43°/43°	25	7.5



Dimensions	L
ETV120	627 mm
ETV130	927 mm
ETV140	1227 mm



[LA10]

* Nominal lumen output based on LED manufacturers data at 25°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

** Operational surface temperature, based on ground temperature of 15°C

ETR100 SERIES

Inground luminaire, linear, diffused distribution.

IP67, Class I. IK10+. Die-cast body made from marine-grade aluminium alloy. Stainless steel frame including PCS hardware. Silicone rubber gasket. Factory-sealed termination chamber complete with cable gland and 1.5 m of flexible PVC free cable. IP68 in-line connector. Safety glass; max. load 5 tonnes. Luminaire can be driven over at low speed.

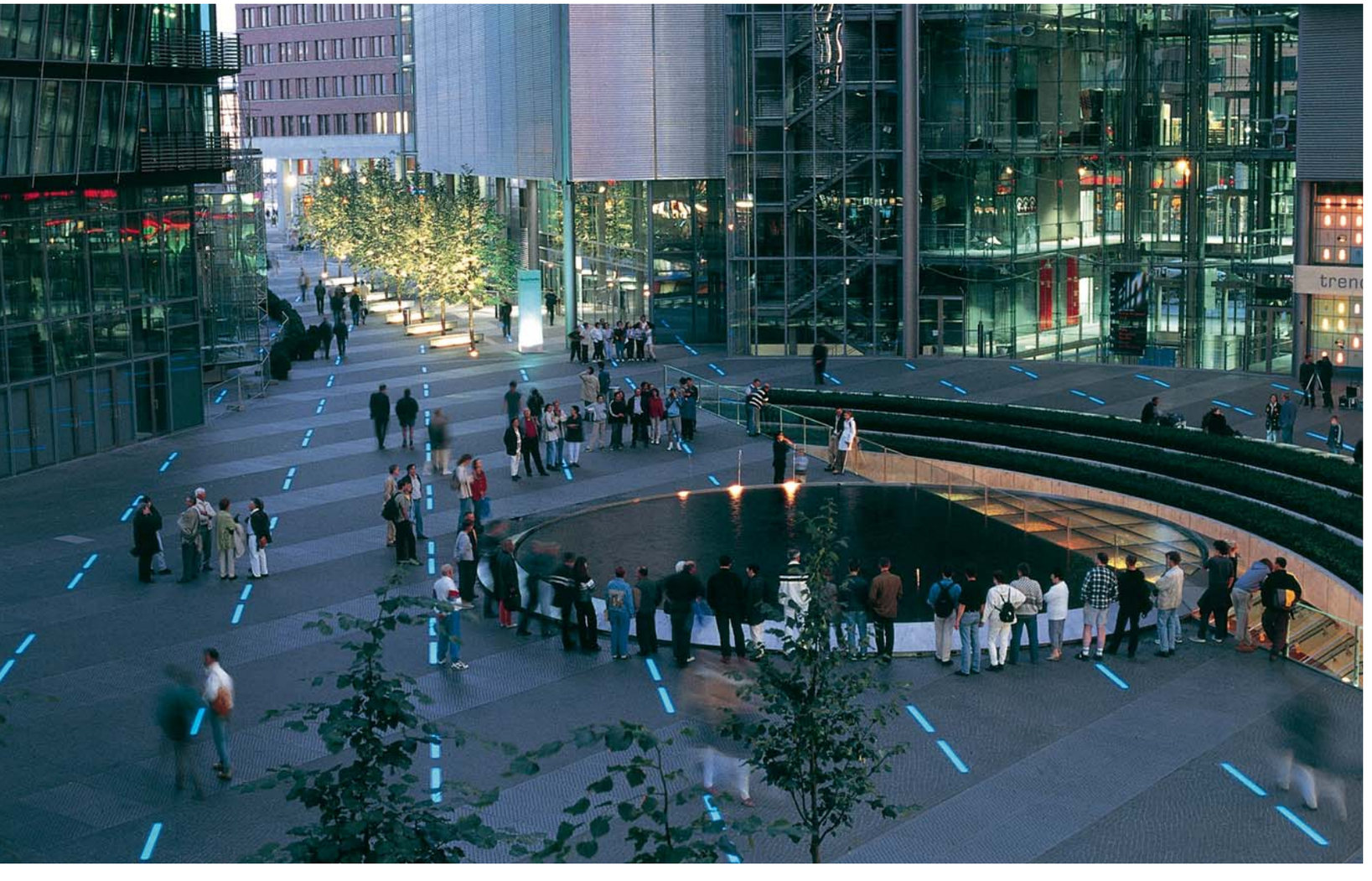
Integral EC electronic converter. Factory installed circuit board with LEDs in either white or RGB. Optional 1-10V or DALI interface on request.

Luminaire requires installation blockout BER. To be ordered separately. Option with Anti-Slip ceramic Coating ASC to DIN 51130 (Trip Classification 10) available on request.

Light source
LED 9-79 W

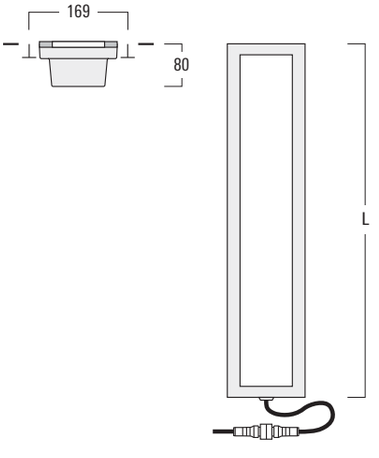
Accessories

- **Mounting, page 48**
- **Electrical, page 50**

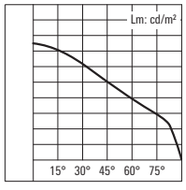


SonyCenter. Berlin (D). Architect: Murphy/Jahn, Chicago. Lighting design: L'Observatoire International, New York.

	Part ID	Light source		lm*	Lm [cd/m²]	kg
ETR139	186-0072	72 LED 9W	white	241	644	7.6
	186-0054 [DMX]	72 LED 9W	white	241	644	7.6
	186-0059 [DMX]	3 x 72 LED 26W	red-green-blue	435	889	7.6
ETR149	186-0124	144 LED 18W	white	482	644	14.0
	186-0060 [DMX]	144 LED 18W	white	482	644	14.0
	186-0065 [DMX]	3 x 144 LED 53W	red-green-blue	870	889	14.0
ETR159	186-0082	216 LED 27W	white	723	644	20.5
	186-0066 [DMX]	216 LED 27W	white	723	644	20.5
	186-0123 [DMX]	3 x 216 LED 79W	red-green-blue	1305	889	20.5



Dimensions	L
ETR139	558 mm
ETR149	1008 mm
ETR159	1485 mm



* Nominal lumen output based on LED manufacturers data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

ETR100 SERIES

Inground luminaire, linear, diffused distribution.

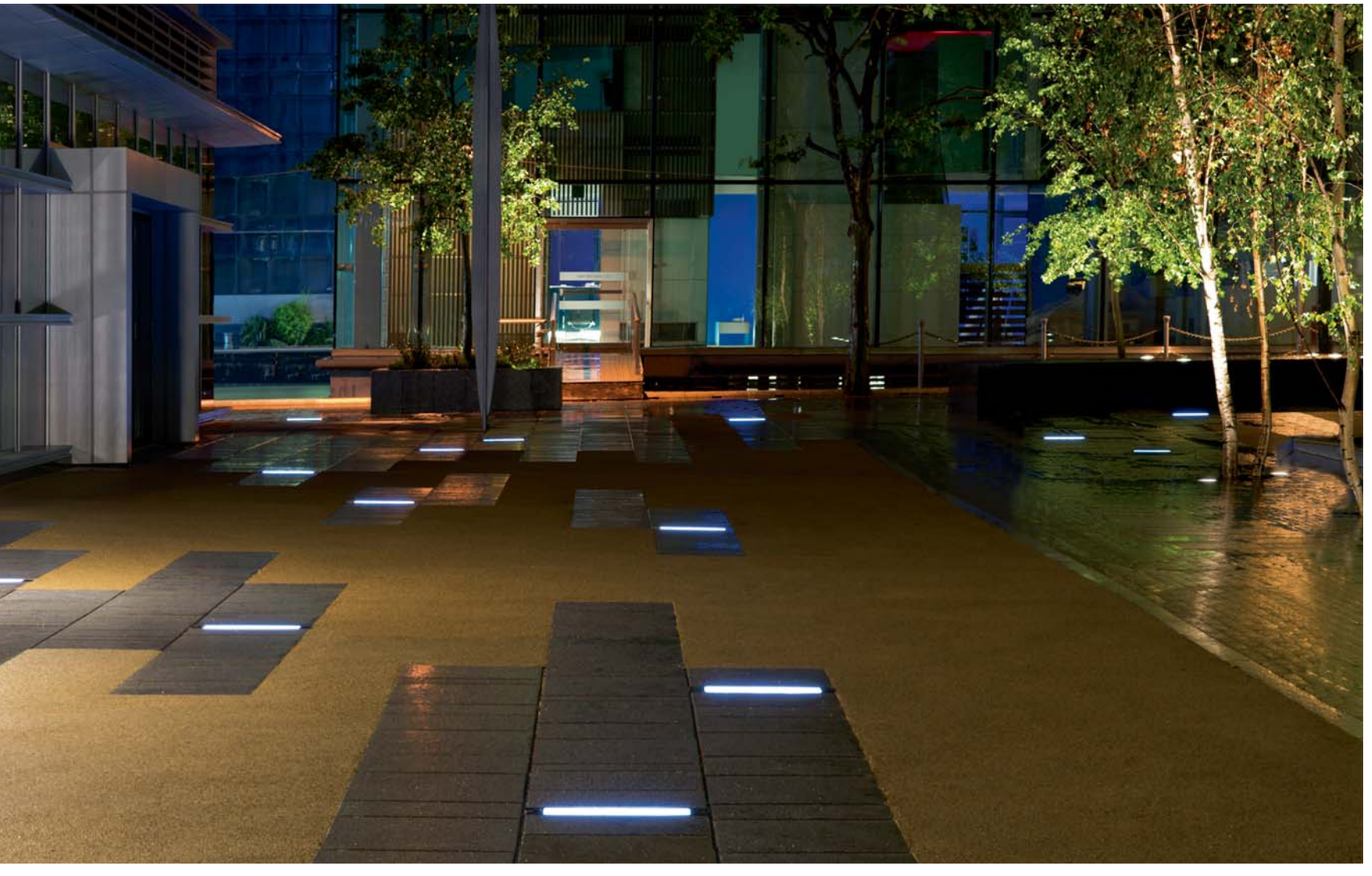
IP67, Class I. IK10+. Die-cast body made from marine-grade aluminium alloy. Stainless steel frame including PCS hardware. Silicone rubber gasket. Factory-sealed termination chamber complete with cable gland and 1.5 m of flexible PVC free cable. IP68 in-line connector. Safety glass; max. load 5 tonnes. Luminaire can be driven over at low speed.

Anodised reflector. Integral ECG control gear.

Luminaire requires installation blockout BER. To be ordered separately. Option with Anti-Slip ceramic Coating ASC to DIN 51130 (Trip Classification 10) available on request.

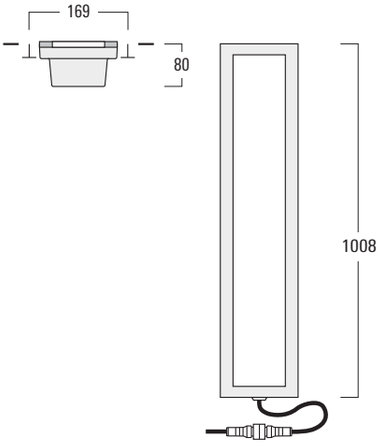
Light source
T5 21-39 W

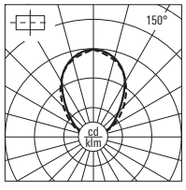
Accessories
- **Mounting, page 48**
- **Electrical, page 50**



Pan Peninsula Canary Wharf. London (UK). Architect: SOM. Landscape architect: Urban Land Studios. Lighting design: MBLD.

	Part ID	Light source	lm	cd/klm	C_0C_{180}	$C_{90}C_{270}$	kg
ETR149	186-0043 [ECG]	T5 21W G5	1900	239	41°/41°	44°/44°	14.0
	186-0044 [ECG]	T5 39W G5	3100	239	41°/41°	44°/44°	14.0





ETR100 SERIES

Inground luminaire, linear, wallwash distribution, asymmetric.

IP67, Class I. IK10+. Die-cast body made from marine-grade aluminium alloy. Stainless steel frame including PCS hardware. Silicone rubber gasket. Factory-sealed termination chamber complete with cable gland and 1.5 m of flexible PVC free cable. IP68 in-line connector. Safety glass; max. load 5 tonnes. Luminaire can be driven over at low speed.

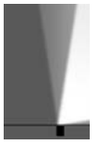
Anodised reflector with 6° or 20° tilt. Integral ECG control gear. Optional 1-10V or DALI interface on request.

Luminaire requires installation blockout BER. To be ordered separately. Option with Anti-Slip ceramic Coating ASC to DIN 51130 (Trip Classification 10) available on request.

Light source
T5 21-39 W

Light distributions
[LA6] [LA20]

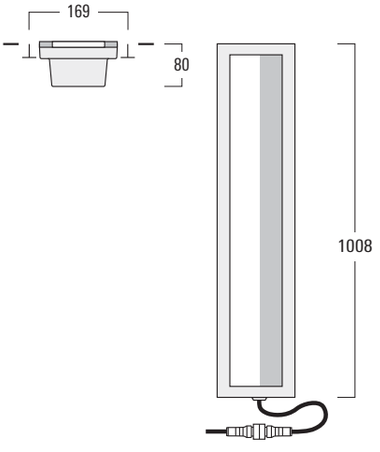
Accessories
- **Mounting, page 48**
- **Electrical, page 50**

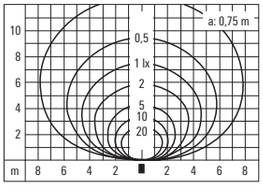


[LA6] Linear, wallwash distribution, asymmetric
[LA20] Linear, wallwash distribution, asymmetric

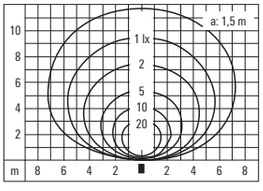
[LA6]	Part ID	Light source	lm	Factor*	kg
ETR140	186-0099 [ECG]	T5 21W G5	1900	1.00	14.0
	186-0100 [ECG]	T5 39W G5	3100	1.63	14.0

[LA20]	Part ID	Light source	lm	Factor*	kg
ETR140	186-0097 [ECG]	T5 21W G5	1900	1.00	14.0
	186-0098 [ECG]	T5 39W G5	3100	1.63	14.0





[LA6]

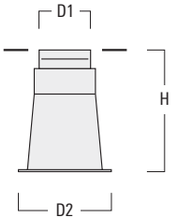


[LA20]

* Multiplier for Isolux value

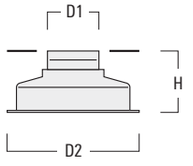
MOUNTING ACCESSORIES

Installation Cover			kg
for ETC109	185-1850	BE	0.04
for ETC110 / 119	185-0414	BE	0.06
for ETC120 / 129	185-0796	BE	0.17
for ETC329	185-0796	BE	0.17
for ETC130 / 139	185-0325	BE	0.45
for ETC330 / 339	185-0325	BE	0.45
for ETC140	185-0326	BE	0.66
for ETC150	185-1623	BE	1.00

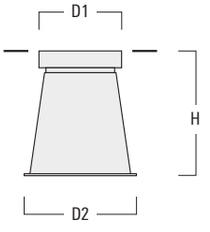


Installation Blockout for
ETC109
ETC110
ETC119

Installation blockouts			D1 / D2	H	Material	kg
for ETC109	185-1855	BET	65/95	120	PA	0.3
for ETC110 / 119	185-0797	BET	95/170	220	PA	0.5
for ETC110 / 119	185-0412	BET	95/240	110	PA	0.5
for ETC120	185-0923	BET	160/225	300	MDPE	1.0
for ETC329	185-9546	BET	160/350	180	PA	1.0
for ETC330 / 339	185-0924	BET	250/305	230	MDPE	1.5
for ETC130 / 139	185-0322	BET	250/270	375	MDPE	1.5
for ESC130	185-0322	BET	250/270	375	MDPE	1.5
for ETC140 ≤ 70 W	185-0323	BET	300/325	420	MDPE	2.5
for ESC140 ≤ 70 W	185-0323	BET	300/325	420	MDPE	2.5
for ETC140 ≥ 100 W	185-1036	BET	300/325	420	AlSi	6.5
for ETC150	185-1622	BET	369/380	435	AlSi	8.0

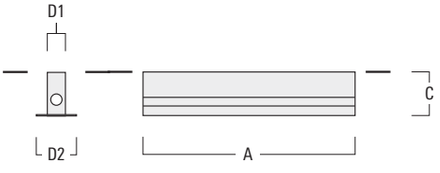


Installation Blockout for
ETC110
ETC119
ETC329
ETC330 / ETC339



Installation Blockout for
ETC120 / ETC129
ETC130 / ETC139
ETC140 ≤70 W
ETC140 ≥100 W
ETC150
ESC130 / ESC140

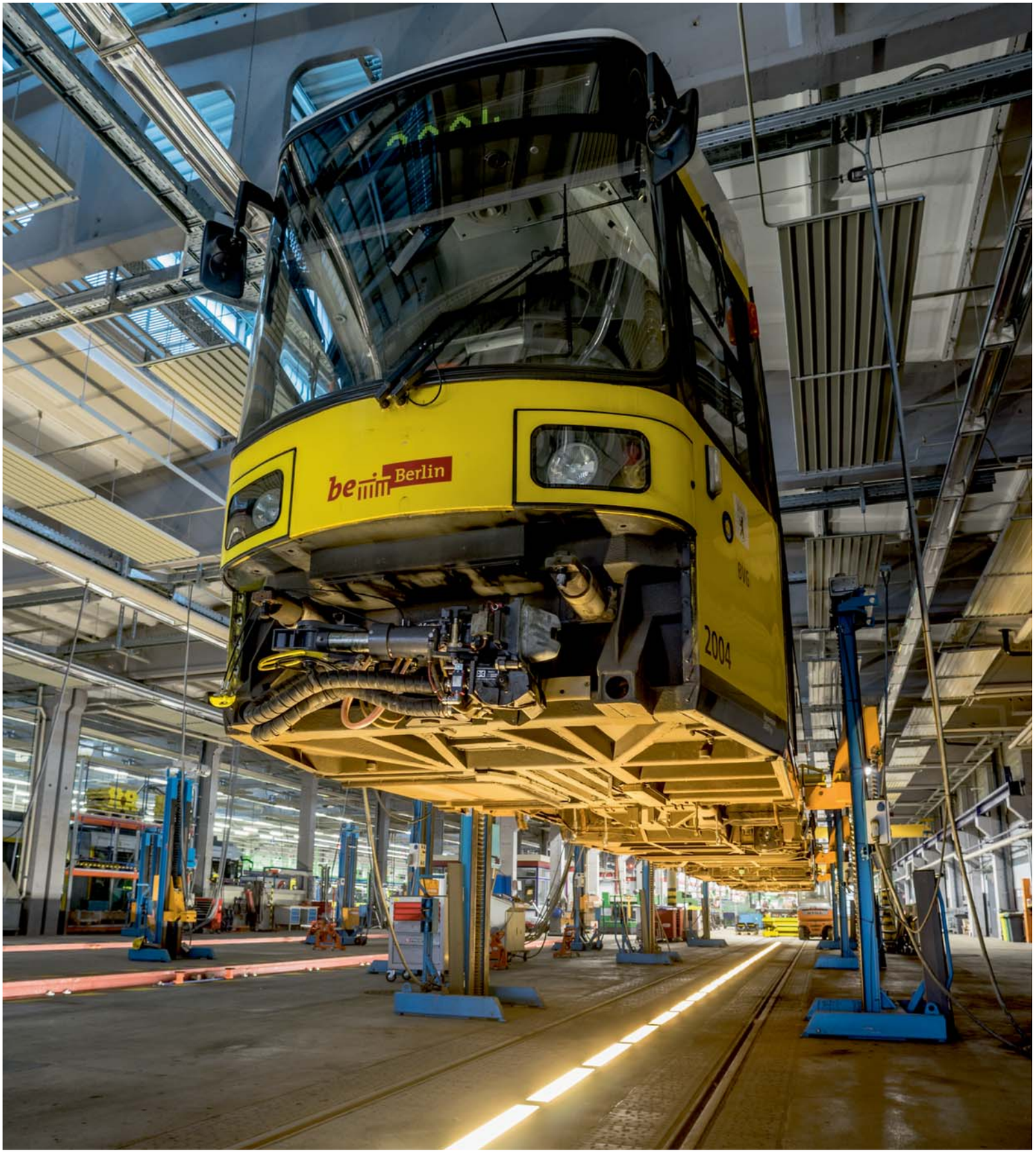
Installation blockouts made from anodised aluminium			D1	D2	C	A	kg
for ETV120	186-0281	BEV (for 1 luminaire)	54	120	130	675	2.4
	186-0282	BEV (for 2 luminaires)	54	120	130	1304	4.8
	186-0283	BEV (for 3 luminaires)	54	120	130	1933	7.2
	186-0284	BEV (for 4 luminaires)	54	120	130	2562	9.6
for ETV130	186-0285	BEV (for 1 luminaire)	54	120	130	975	3.5
	186-0286	BEV (for 2 luminaires)	54	120	130	1904	7.0
	186-0287	BEV (for 3 luminaires)	54	120	130	2833	10.5
	186-0288	BEV (for 4 luminaires)	54	120	130	3762	14.0
for ETV140	186-0289	BEV (for 1 luminaire)	54	120	130	1275	4.6
	186-0290	BEV (for 2 luminaires)	54	120	130	2504	9.2
	186-0291	BEV (for 3 luminaires)	54	120	130	3733	13.8
	186-0292	BEV (for 4 luminaires)	54	120	130	4962	18.4



Installation Blockout for
ETV120
ETV130
ETV140

Installation blockouts made from anodised aluminium and stainless steel			D1	D2	C	A	kg
for ETR139	186-0101	BER (for 1 luminaire)	169	251	150	570	7.6
for ETR140 / 149	186-0102	BER (for 1 luminaire)	169	251	150	1020	12.7
for ETR159	186-0103	BER (for 1 luminaire)	169	251	150	1470	17.9

Installation Blockout for
ETR139
ETR140 / ETR149
ETR159



Tram maintenance workshop Marzahn. Berlin (D)

ELECTRICAL ACCESSORIES

Mains converter (230V / 12V)

IP20, Class I. Mounting to 35 mm rail.			A	B	C
for ETC109	400-0302	TVE-DC 12 V/12 W	89	59	54
	400-0309	TVE-DC 12 V/48 W	89	59	72

Mains converter (230V / 24V)

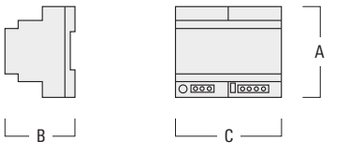
IP20, Class I. Mounting to 35 mm rail.			A	B	C
for ETC110 / 119	400-0310	TVE-DC 24 V/12 W	90	61	18
	400-0311	TVE-DC 24 V/60 W	89	59	72

Magnetic transformer (230V / 24V)

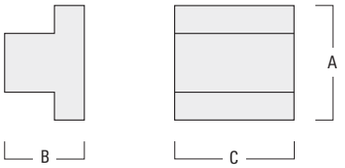
IP65, Class II.			A	B	C
for ETC110 / 119	185-2884	TVM-AC 24 V/20 W	40	65	90
	185-2885	TVM-AC 24 V/50 W	140	65	90

Sealable Junction Box

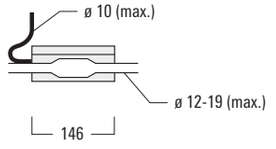
for EFC/ESC/ETC/ETV/ETR	185-1624	SJB			



Mains converter



Magnetic transformer



Sealable Junction Box

Sculpture installation "Im Aufbruch". Parliament NRW Duesseldorf (D). Architect: Peter Andres, Hamburg. Artists: Stefanie Schenk-Busse & Björn Busse, Visbeck-Meschede.
Planning: Heuel-Schauerte, Meschede.

OPTICAL ACCESSORIES

Gimbal

A maximum of one internal optical accessory.

Flood lens IO-360

for ETC120-GB	185-2865
for ETC130-GB / ETC330-GB	185-2866
for ETC140-GB	185-2867

Linear spread lens IO-180

for ETC120-GB	185-9612
for ETC130-GB / ETC330-GB	185-2632
for ETC140-GB	185-2719

Honeycomb louvre IW*

for ETC120-GB	185-2869
for ETC130-GB / ETC330-GB	185-2870
for ETC140-GB	185-2871

* not suitable für [B] version

Fixed

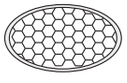
A maximum of one internal optical accessory.

Flood lens IO-360

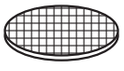
for ETC110 – 1 LED / 3 LED	185-0899

Linear spread lens IO-180

for ETC110 – 1 LED / 3 LED	185-0895

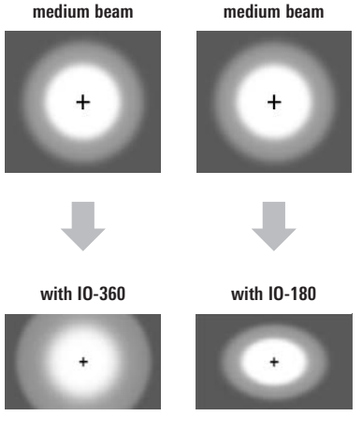


IW



IO-360

IO-180



OPTICAL ACCESSORIES

Gimbal

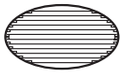
A maximum of two internal optical accessories.

Flood lens IO-360	
for ETC130-GB	185-2465
for ETC140-GB	185-2467

Linear spread lens IO-180	
for ETC130-GB	185-2466
for ETC140-GB	185-2468

Colour filter IF	red	green	blue	yellow
for ETC130-GB	185-2457	185-2458	185-2459	185-2460
for ETC140-GB	185-2461	185-2462	185-2463	185-2464

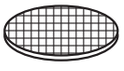
IR



IL

IQ

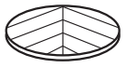
IF



IO-360

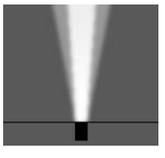
IO-180

IO-6

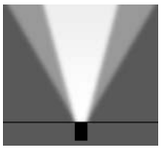


IO-20

very narrow beam



medium beam



CTA®

with IO-6

with IO-20

slip resistant ASC coating optional

Fixed

ETC330: A maximum of one internal optical accessory.

ESC130 / ESC140 / ETC120 / ETC130 / ETC140 / ETC150:

A maximum of three internal optical accessories.

Flood lens IO-360	
for ETC120	185-0900
for ETC130 / ETC330	185-0901
for ETC140	185-0902
for ETC150	185-1640

Linear spread lens IO-180	
for ETC120	185-0896
for ETC130 / ETC330	185-0897
for ETC140	185-0898
for ETC150	185-1639

Directional lens IO-6	
for ETC120	185-1634
for ETC130 / ETC330	185-0891
for ETC140	185-0893
for ETC150	185-1635

Directional lens IO-20	
for ETC120	185-1637
for ETC130 / ETC330	185-0892
for ETC140	185-0894
for ETC150	185-1638

Colour filter IF	red	green	blue	yellow
for ETC120	185-0904	185-0912	185-0908	185-0884
for ETC130 / ETC330	185-0905	185-0415	185-0909	185-0885
for ETC140	185-0906	185-0419	185-0910	185-0886
for ETC150	185-1641	185-1642	185-1643	185-1644

Linear louvre IL	
for ETC120 [M]	185-0793
for ETC130 [B] [M]	185-0794
for ETC140 [B] [M]	185-0795
for ETC150 [M]	185-1626

Concentric louvre IR	
for ETC120 [EE]	185-0789
for ETC130 [EE]	185-0790
for ETC140 [EE]	185-0791
for ETC150 [EE]	185-1625

Source Shield IQ	
for ETC130 [EE]	185-0876
for ETC140 [EE]	185-0877
for ETC150 [EE]	185-1632

Cool Touch Adaptor CTA®	
for ETC130	185-0728
for ESC130	185-0728
for ETC140	185-0727
for ESC140	185-0727
for ETC150	185-1645

IOS® Beam distributions for wall luminaires recessed

[A75] **forward throw, asymmetric**

[ ] **diffused**

Wall luminaires recessed

TRO200 SERIES

Recessed luminaire, diffused distribution.

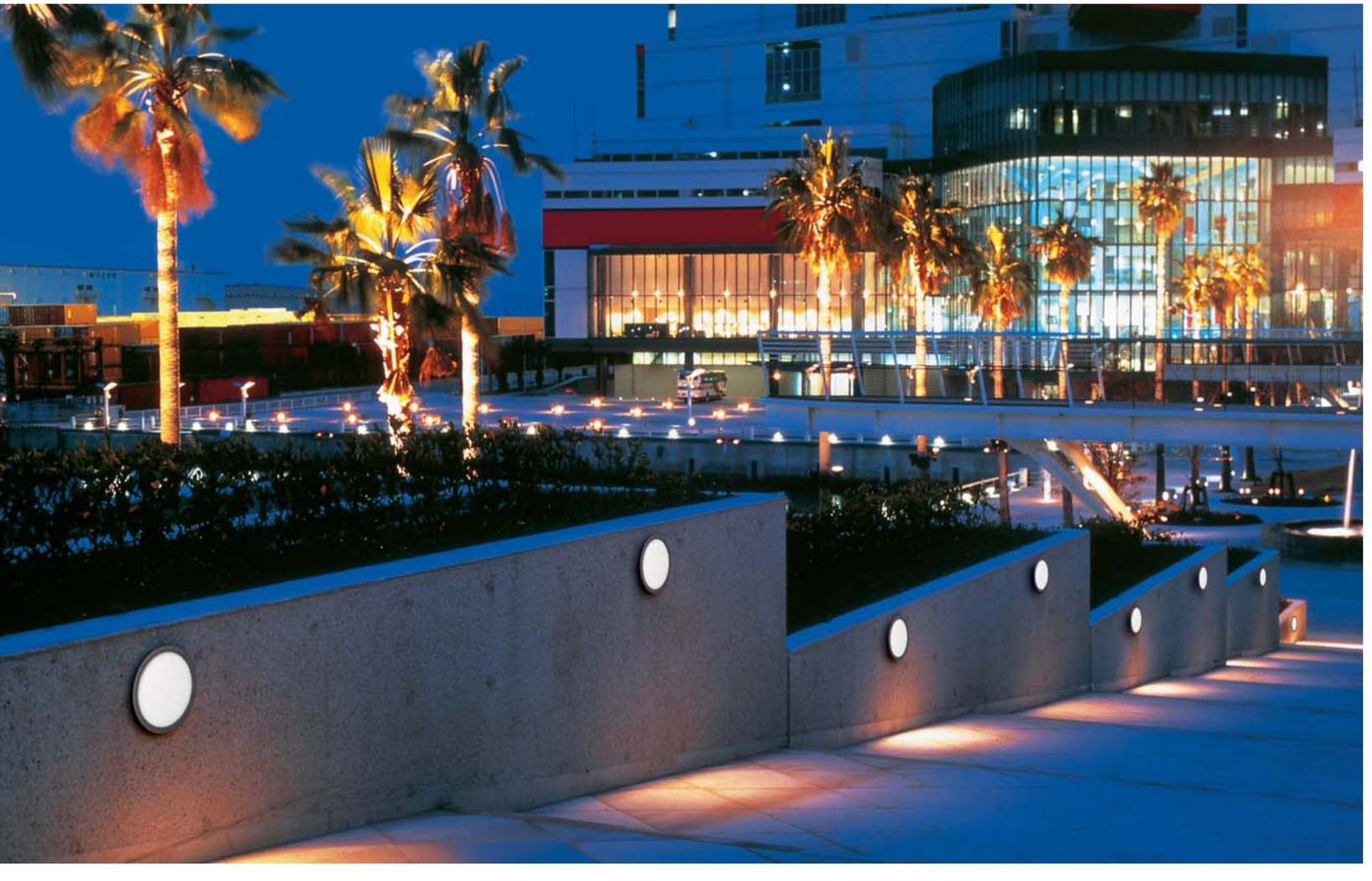
IP55, Class I. IK10. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gasket. Polycarbonate lens. Two cable entries.

Integral EC electronic converter. Factory installed LED circuit board. LED boards can be easily removed for upgrading.

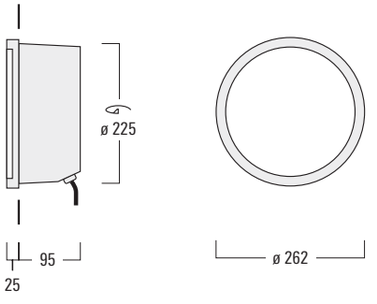
A pre-installation blockout is available and recommended for mounting in concrete walls. To be ordered separately.

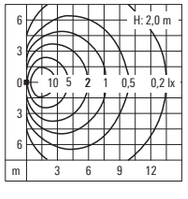
Light source
LED 12 W, 3000 K,
for 4000 K refer to www.we-ef.com

Accessories
■ **Mounting, page 74**



	Part ID	Light source	K	lm*	Factor**	kg
TRO259	195-9146	LED-FT 12W	3000	1860	1.00	2.1





* Nominal lumen output based on LED manufacturers data at 25°C T_c. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

** Multiplier for Isolux value

STO100 / STL100 / SVL100 SERIES

Steplights, diffused distribution.

IP66, Class I. IK10. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gasket. Polycarbonate lens. Two cable entries.

Integral EC electronic converter. Factory installed LED circuit board. LED boards can be easily removed for upgrading.

STO134: Optional version with stainless steel frame VA available.

A pre-installation blockout is available and recommended for mounting in concrete walls. To be ordered separately.

Light source
LED 6 W, 3000 K,
for 4000 K refer to www.we-ef.com

Accessories
■ **Mounting, page 74**

STO134

STL134

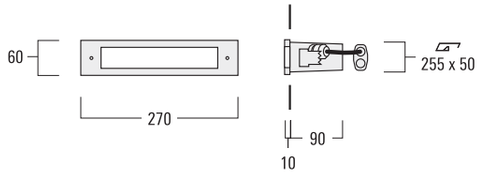
SVL134

	Part ID	Light source	K	lm*	Factor**	kg
STO134	190-9002	LED 6W / 500 mA	3000	710	1.00	0.9
STO134-VA	190-9014	LED 6W / 500 mA	3000	710	1.00	0.9

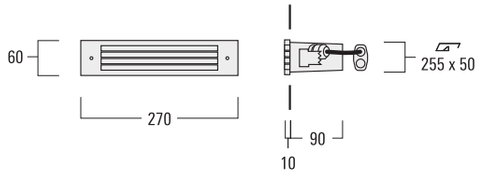
	Part ID	Light source	K	lm*	Factor**	kg
STL134	190-9005	LED 6W / 500 mA	3000	710	1.00	0.9

	Part ID	Light source	K	lm*	Factor**	kg
SVL134	190-9017	LED 6W / 500 mA	3000	710	1.00	0.9

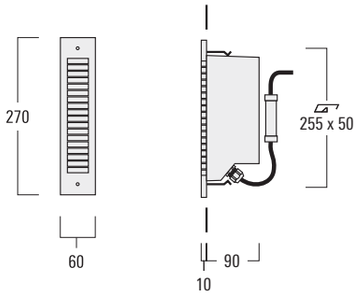
STO134

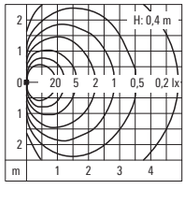


STL134

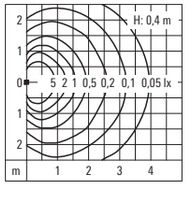


SVL134





STO



STL / SVL

* Nominal lumen output based on LED manufacturers data at 85°C T_c. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

** Multiplier for Isolux value

STI100 / STF100 SERIES

Steplights, forward throw distribution, asymmetric.

IP66, Class I. IK10. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gasket. Polycarbonate lens. Two cable entries.

Integral EC electronic converter. Factory installed LED circuit board. LED boards can be easily removed for upgrading.

A pre-installation blockout is available and recommended for mounting in concrete walls. To be ordered separately.

Light source
LED 6 W, 3000 K,
for 4000 K refer to www.we-ef.com

Light distribution
[A75]

Accessories
■ **Mounting, page 74**

Castle square. Lenzen (D)

[A75] Asymmetric forward throw distribution

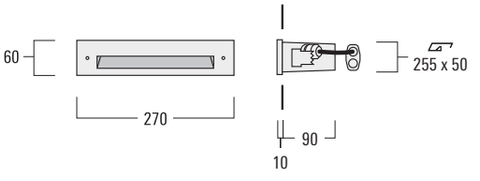
STI134

STF134

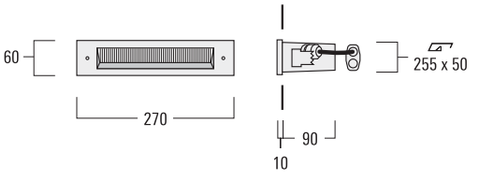
	Part ID	Light source	K	lm*	Factor**	kg
STI134	190-9008	LED 6W / 500 mA	3000	710	1.00	0.9

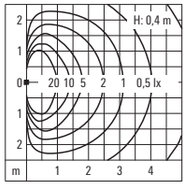
[A75]	Part ID	Light source	K	lm*	Factor**	kg
STF134	190-9011	LED 6W / 500 mA	3000	710	1.00	0.9

STI134

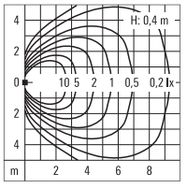


STF134





STI



STF

* Nominal lumen output based on LED manufacturers data at 85°C T_c. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

** Multiplier for Isolux value

SVO200 / SVL200 SERIES

Steplights, diffused distribution.

IP55, Class I. IK10. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gasket. Polycarbonate lens. Two cable entries.

Integral EC electronic converter. Factory installed LED circuit board. LED boards can be easily removed for upgrading.

SVO259: Optional version with stainless steel frame VA available.

A pre-installation blockout is available and recommended for mounting in concrete walls. To be ordered separately.

Light source
LED 6 W, 3000 K,
for 4000 K refer to www.we-ef.com

Accessories
■ **Mounting, page 74**

Harbour promenade. Eckernförde (D). Landscape architect: Seebauer Wefers und Partner, Berlin.

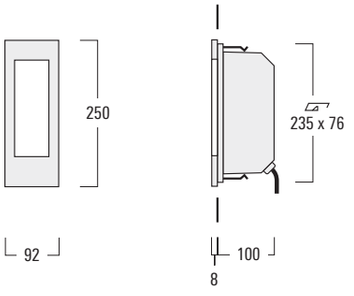
SVO259 VA

SVO259

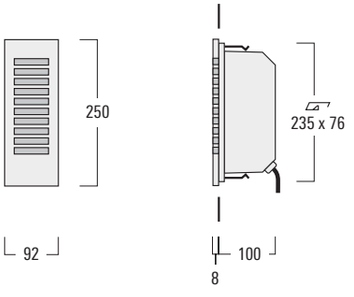
SVL259

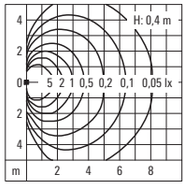
	Part ID	Light source	K	lm*	Factor**	kg
SVO259	133-0323	6 LED 6W / 350 mA	3000	807	1.00	1.1
SVO259 VA	133-0358	6 LED 6W / 350 mA	3000	807	1.00	1.1
SVL259	133-0360	6 LED 6W / 350 mA	3000	807	1.00	1.2

SVO259

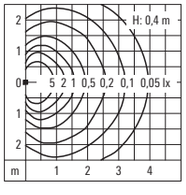


SVL259





SVO



SVL

* Nominal lumen output based on LED manufacturers data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

** Multiplier for Isolux value

STO200 / STL200 SERIES

Steplights, diffused distribution.

STO209 / STL209 / STO259 / STL259: IP55, Class I. IK10. STO279: IP66, Class I. IK10. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gasket. Polycarbonate lens. Two cable entries.

Integral EC electronic converter. Factory installed LED circuit board. LED boards can be easily removed for upgrading.

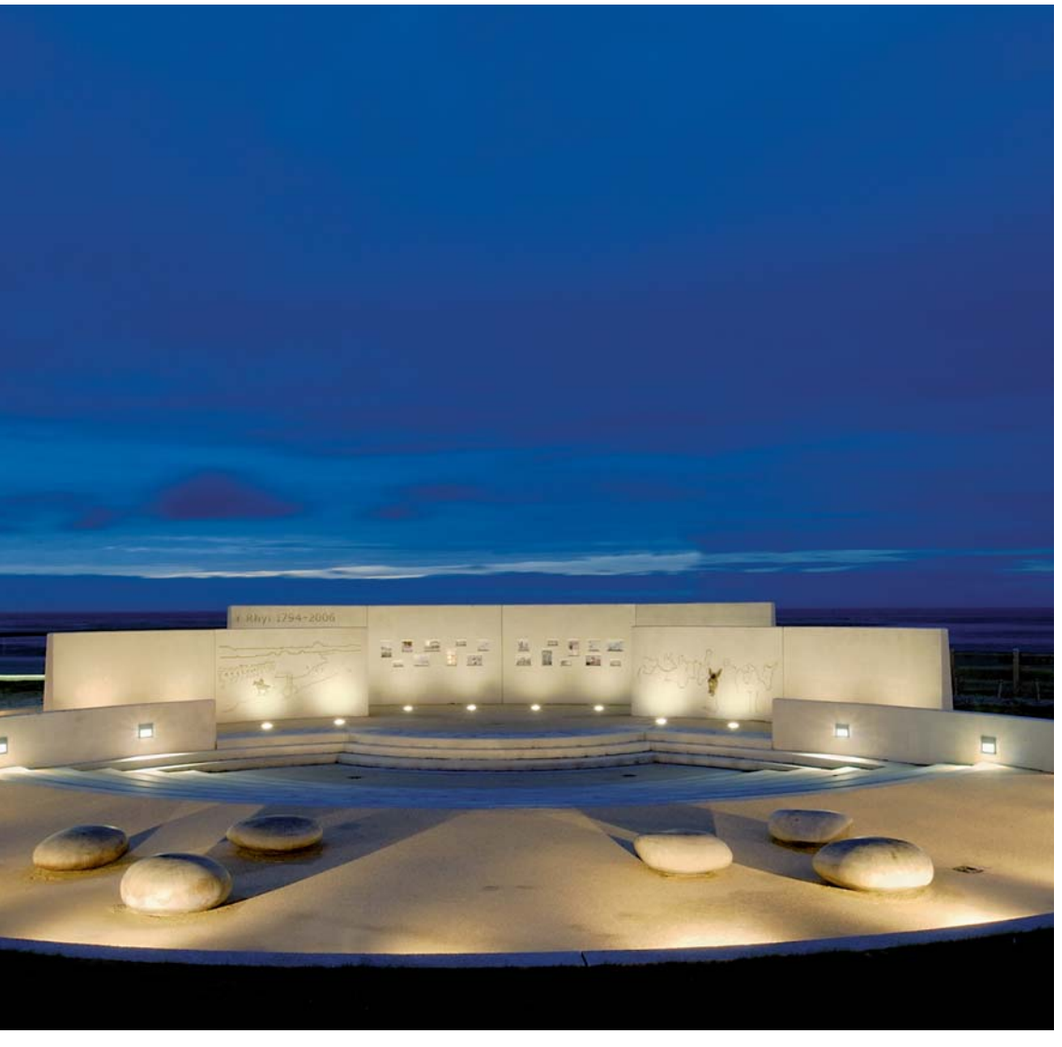
STO209 / STO259 / STO279: Optional version with stainless steel frame VA available.

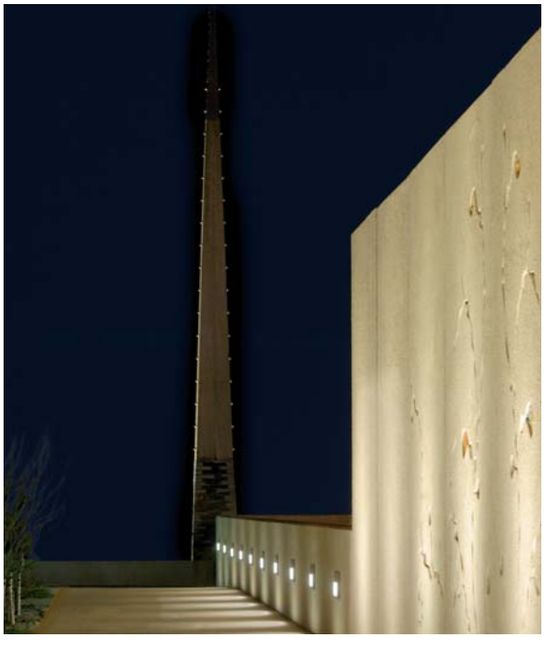
A pre-installation blockout is available and recommended for mounting in concrete walls. To be ordered separately.

Version with emergency light for AC / DC operation, with or without switching gate or monitoring module available on request.

Light source
LED 4-9 W, 3000 K,
for 4000 K refer to www.we-ef.com

Accessories
■ **Mounting, page 74**

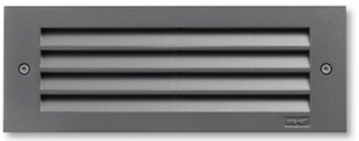




Drift Park. Rhyl, North Wales (UK). Landscape architect: Brock Carmichael Landscape Architects, Liverpool.

STO259 VA

STO259

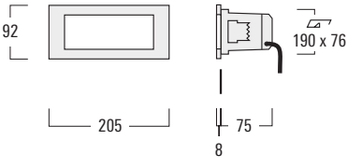


STL259

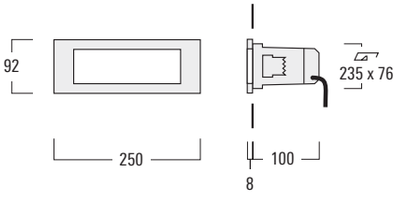
	Part ID	Light source	K	lm*	Factor**	kg
STO209	133-0328	4 LED 4W / 350 mA	3000	538	0.67	0.9
STO209 VA	133-0329	4 LED 4W / 350 mA	3000	538	0.67	0.9
STO259	133-0340	6 LED 6W / 350 mA	3000	807	1.00	1.2
STO259 VA	133-0319	6 LED 6W / 350 mA	3000	807	1.00	1.2
STO279	133-0352	9 LED 9W / 350 mA	3000	1211	1.50	2.3
STO279 VA	133-0354	9 LED 9W / 350 mA	3000	1211	1.50	2.3

	Part ID	Light source	K	lm*	Factor**	kg
STL209	133-0324	4 LED 4W / 350 mA	3000	538	0.67	1.0
STL259	133-0308	6 LED 6W / 350 mA	3000	807	1.00	1.3

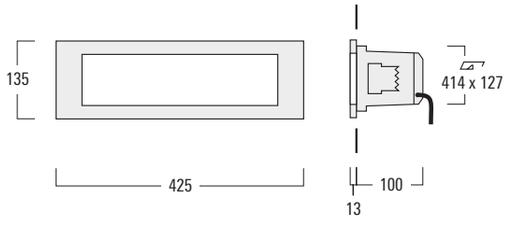
STO209



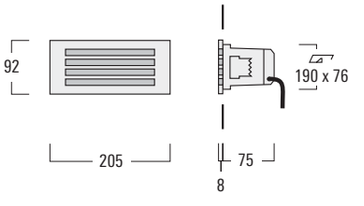
STO259



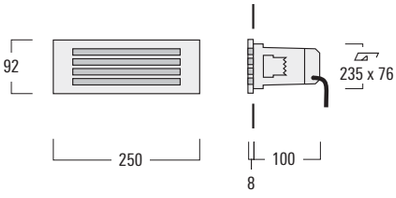
STO279

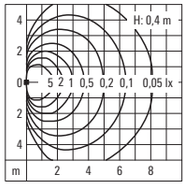


STL209

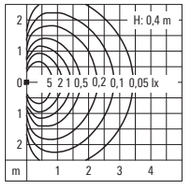


STL259





STO



STL

* Nominal lumen output based on LED manufacturers data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

** Multiplier for Isolux value

STI200 SERIES

Steplight, forward throw distribution, asymmetric.

STI259: IP55, Class I. IK10. STI279: IP66, Class I. IK10. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gasket. Safety glass lens. Two cable entries.

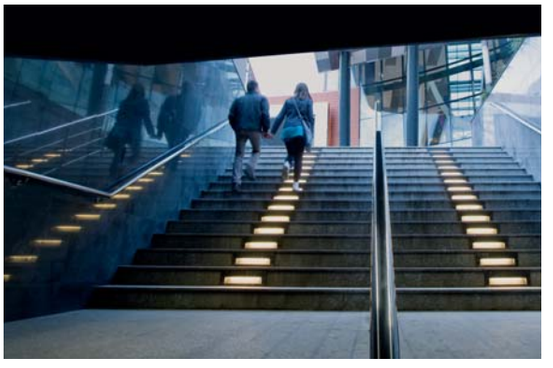
Integral EC electronic converter. Factory installed LED circuit board. LED boards can be easily removed for upgrading.

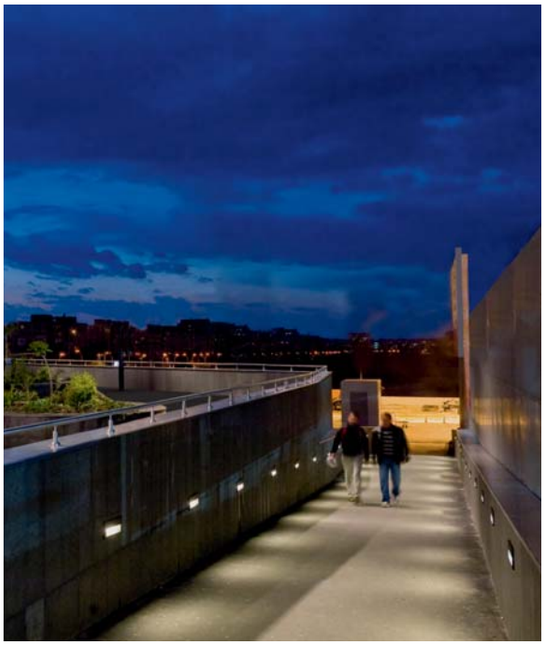
A pre-installation blockout is available and recommended for mounting in concrete walls. To be ordered separately.

Version with emergency light for AC / DC operation, with or without switching gate or monitoring module available on request.

Light source
LED 6-9 W, 3000 K,
for 4000 K refer to www.we-ef.com

Accessories
■ **Mounting, page 74**

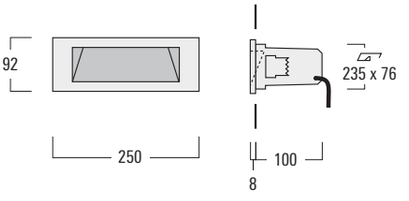




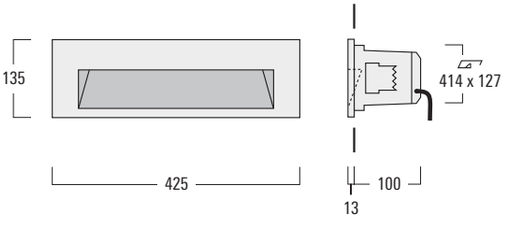
Sun Plaza Shopping Mall. Bucarest (RO). Architects: Chapman Taylor. Lighting design: Scott Beleuchtung.

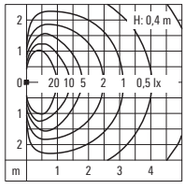
	Part ID	Light source	K	lm*	Factor**	kg
STI259	133-0405	40 LED 6W / 250 mA	3000	840	1.00	1.2
STI279	133-0402	60 LED 9W / 250 mA	3000	1260	1.50	3.0

STI259



STI279





* Nominal lumen output based on LED manufacturers data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

** Multiplier for Isolux value

QRO300 SERIES

Recessed luminaire, diffused distribution.

IP55, Class I. IK10. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gasket. Polycarbonate lens. Two cable entries.

Integral EC electronic converter. Factory installed LED circuit board. LED boards can be easily removed for upgrading.

A pre-installation blockout is available and recommended for mounting in concrete walls. To be ordered separately.

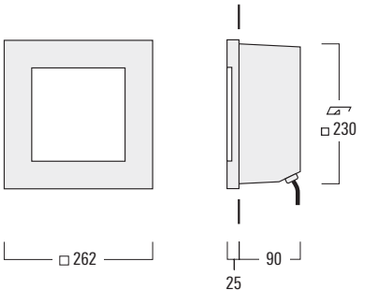
Light source
LED 12-24 W, 3000 K,
for 4000 K refer to www.we-ef.com

Accessories
■ **Mounting, page 74**

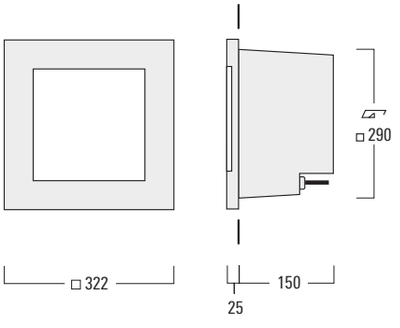
Train station Berlin Südkreuz. Berlin (D). Architect: J.S.K. GmbH, Berlin. Lighting design: DE Consult, Berlin.

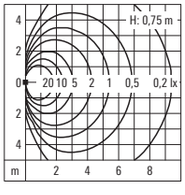
	Part ID	Light source	K	lm*	Factor**	kg
QRO359	197-0041	LED-FT 12W	3000	1860	1.00	3.2
QRO379	197-9081	LED-FT 24W	3000	3795	2.04	4.3

QRO359



QRO379





* Nominal lumen output based on LED manufacturers data at 25°C T_c. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

** Multiplier for Isolux value

QRI300 SERIES

Recessed luminaire, forward throw distribution, asymmetric.

IP55, Class I. IK08. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gasket. Safety glass lens. Two cable entries.

Integral EC electronic converter. Factory installed LED circuit board. LED boards can be easily removed for upgrading.

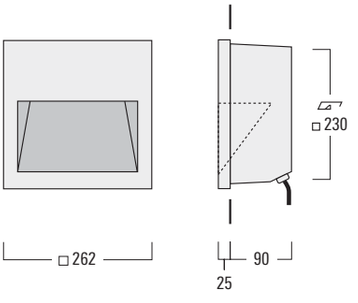
A pre-installation blockout is available and recommended for mounting in concrete walls. To be ordered separately.

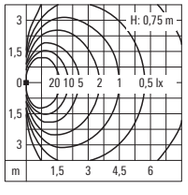
Light source
LED 6 W, 3000 K,
for 4000 K refer to www.we-ef.com

Accessories
■ **Mounting, page 74**

John Curtain School of Medical Research. Canberra (AUS). Architect: Lyons. Lighting design: Umow Lai & Associates.

	Part ID	Light source	K	lm*	Factor**	kg
QRI359	197-0367	40 LED 6W / 250 mA	3000	840	1.00	3.4





* Nominal lumen output based on LED manufacturers data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

** Multiplier for Isolux value

QRI300 SERIES

Recessed luminaire, forward throw distribution, asymmetric.

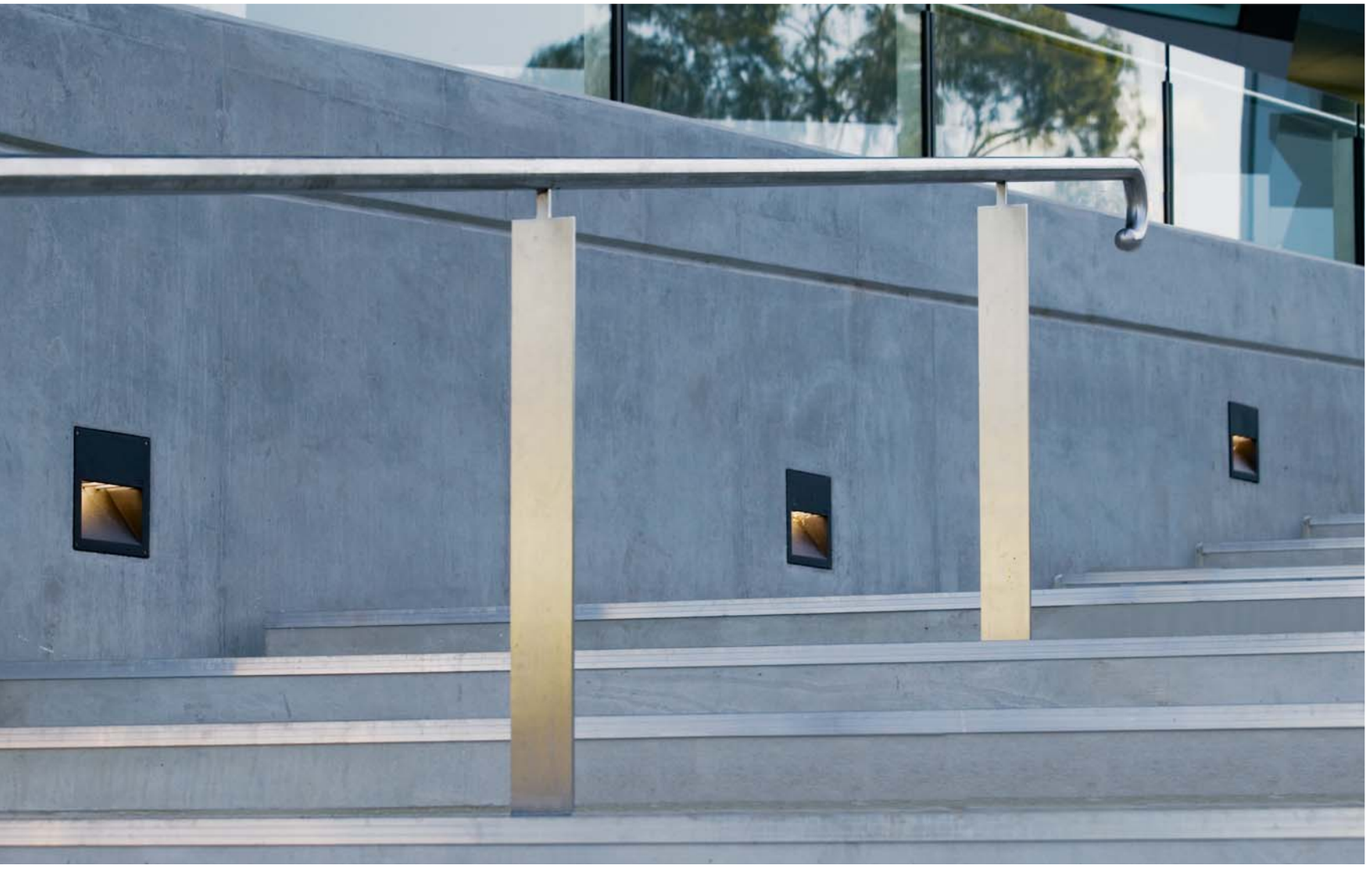
IP55, Class I. IK08. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gasket. Textured safety glass lens. Two cable entries.

Integral HPF or ECG control gear.

A pre-installation blockout is available and recommended for mounting in concrete walls. To be ordered separately.

Light source
HIT 20-70 W

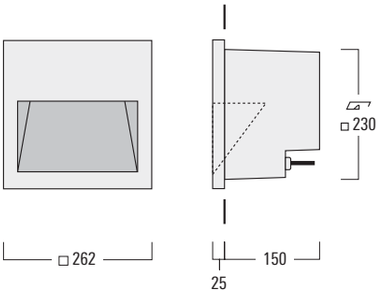
Accessories
■ **Mounting, page 74**



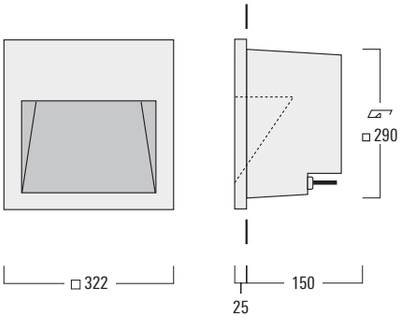
John Curtain School of Medical Research. Canberra (AUS). Architect: Lyons. Lighting design: Umow Lai & Associates.

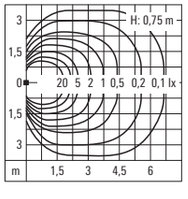
	Part ID	Light source	lm	Factor*	kg
QRI354	197-0324 [ECG]	HIT-CE 20W G12	1650	0.46	4.2
	197-0326 [ECG]	HIT-CE 35W G12	3600	1.00	4.2
	197-0327 [HPF]	HIT-CE 70W G12	7300	2.03	5.4
QRI374	197-0329 [ECG]	HIT-CE 70W G12	7300	2.03	5.8

QRI354



QRI374



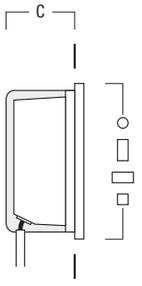


* Multiplier for Isolux value

MOUNTING ACCESSORIES

Installation blockouts — Luminaire frame proud of surface

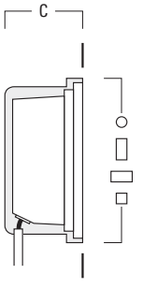
for round luminaires			C
for TRO259	195-0191	BTR25-I	125
for rectangular steplights – vertical orientation			C
for SVL134	190-9030	BST13-I	125
for SVO259 / SVL259	133-0076	BST25-I	130
for rectangular steplights – horizontal orientation			C
for STO134 / STL134 / STI134 / STF134	190-9030	BST13-I	125
for STO209 / STL209	133-0075	BST20-I	105
for STO259 / STL259 / STI259	133-0076	BST25-I	130
for STO279 / STI279	133-0217	BST27-I	125
for square luminaires (installation depth 90 mm)			C
for QRO359 / QRI354	197-0129	BQR25-I	125
for square luminaires (installation depth 150 mm)			C
for QRI354	197-0130	BQR25-I	180
for QRI374	197-0131	BQR30-I	180



Type I
Luminaire frame proud of surface

Installation blockouts — Luminaire frame flush with surface

for round luminaires			C
for TRO259	195-0193	BTR25-II	150
for rectangular luminaires – vertical orientation			C
for SVL134	190-9031	BST13-II	135
for SVO259 / SVL259	133-0078	BST25-II	140
for rectangular steplights – horizontal orientation			C
for STO134 / STL134 / STI134 / STF134	190-9031	BST13-II	135
for STO209 / STL209	133-0077	BST20-II	115
for STO259 / STL259 / STI259	133-0078	BST25-II	140
for STO279 / STI279	133-0219	BST27-II	135
for square luminaires (installation depth 90 mm)			C
for QRO359 / QRI359	197-0132	BQR25-II	150
for square luminaires (installation depth 150 mm)			C
for QRI354	197-0133	BQR25-II	205
for QRI374	197-0134	BQR30-II	205



Type II
Luminaire frame flush with surface

Marine Hall Gardens. Fleetwood (UK). Landscape architect & Lighting designer: BCA Landscape.

IOS® Beam distributions for wall luminaires surface mounted

[LB] linear, wide beam, symmetric
[LM] linear, medium beam, symmetric
[LE] linear, narrow beam, symmetric
[LEE] linear, very narrow beam, symmetric
[LA10] linear, wallwash, asymmetric

[P/O] precision beam up, wide beam down
[P/M] precision beam up, medium beam down
[P/P] precision beam up and down
[M/M] medium beam up and down

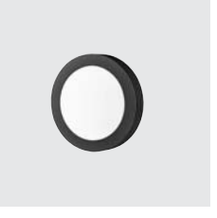
[M] medium beam, symmetric
[E] narrow beam, symmetric
[EE] very narrow beam, symmetric
[EES] very narrow beam, symmetric, 'sharp cut-off'

[M/M] medium beam up and down
[E/E] narrow beam up and down
[E/M] narrow beam up and medium beam down
[E/S] narrow beam up and side throw down

[S70] streetlighting
[R65] rectangular forward throw
[A60] forward throw, asymmetric
[S] side throw, asymmetric
[A] forward throw, asymmetric

[ ] diffused

Wall luminaires surface mounted



VLR100 SERIES

Wall luminaire, linear, wide, medium, narrow or very narrow beam distribution, symmetric or wallwash distribution, asymmetric.

IP68 (up to 1 m), Class I. Marine-grade all aluminium construction. Anodized aluminium extrusion. PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. PMMA cover. Silicone rubber gasket.

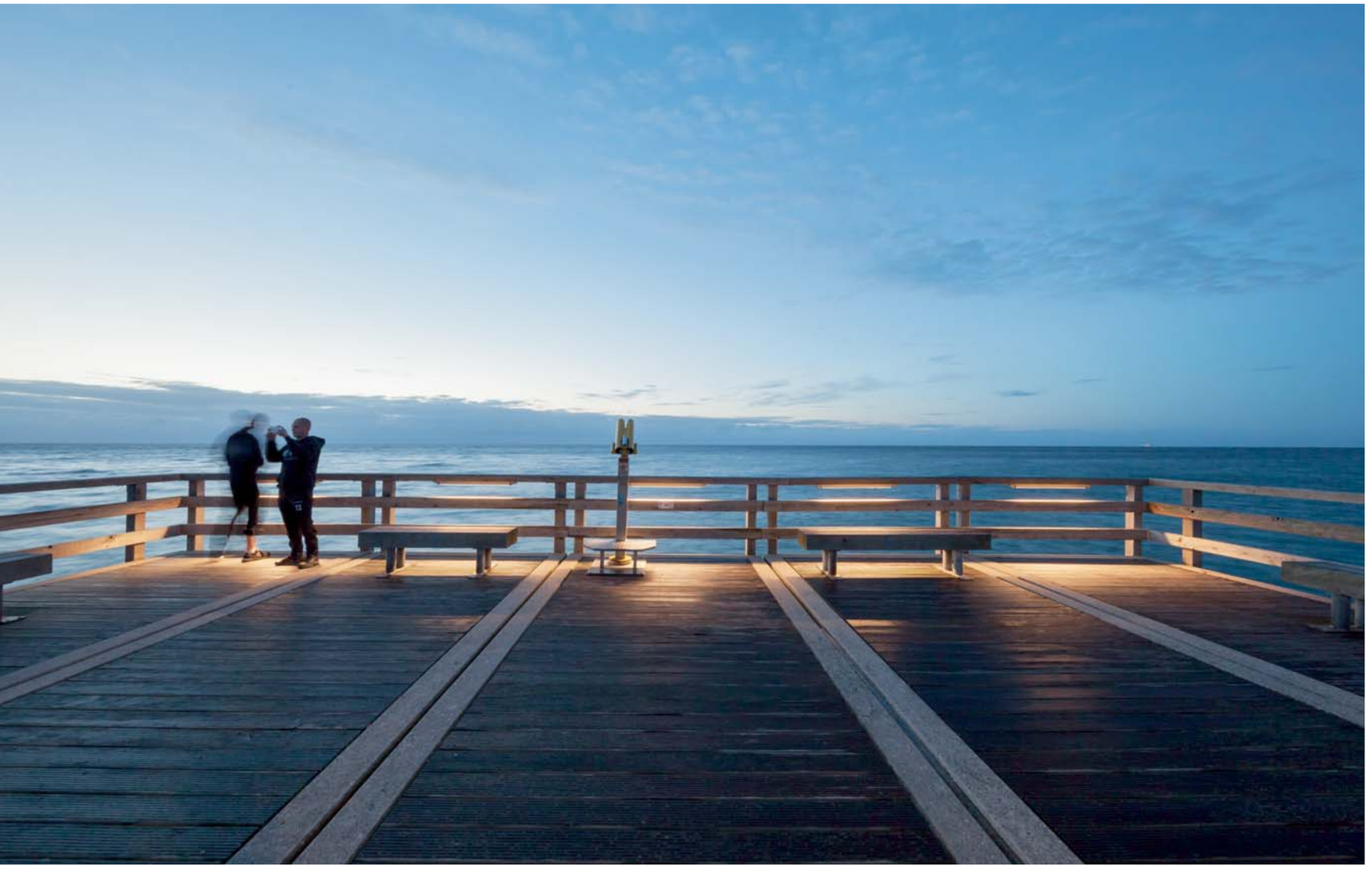
Linear PMMA LED lens. Factory installed LED circuit board. LED boards can be easily removed for upgrading.

Complete with IP68 cable connector. 1.5 m connecting cable, UV stabilized, PVC free. Luminaire is factory sealed and does not need to be opened during installation and can be tilted up to 180°.

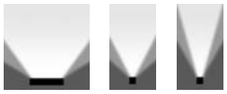
VLR110: Separate LED driver with DALI interface.
VLR120 / VLR130 / VLR140 / VLR150: Integral LED driver with DALI interface.
Separate LED driver on request.

Light source
LED 7.5-37.5 W, 3000 K,
for 4000 K refer to www.we-ef.com

Light distributions
[LB] [LM] [LE] [LEE] [LA10]



Pier seaside Heiligendamm (D). Lighting design: Institut für Gebäude + Energie + Licht Planung, Prof. Dr.-Ing. Thomas Röhmhild, Wismar.



[LB] [LM]

[LB] Linear, wide beam distribution, symmetric

[LM] Linear, medium beam distribution, symmetric

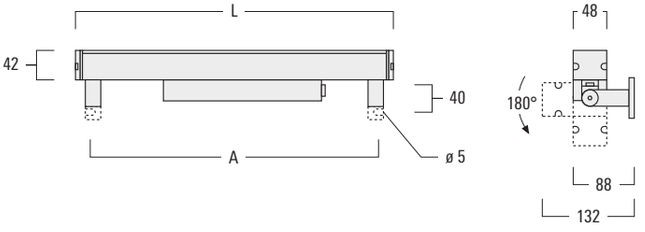
[LB]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}	$C_{90}C_{270}$	kg
VLR110	187-0023	60 LED 7.5W	3000	1125	430	29°/29°	45°/45°	1.20
VLR120	187-0024	120 LED 15W	3000	2250	430	29°/29°	45°/45°	1.20
VLR130	187-0025	180 LED 22.5W	3000	3375	430	29°/29°	45°/45°	3.25
VLR140	187-0026	240 LED 30W	3000	4500	430	29°/29°	45°/45°	4.00
VLR150	187-0027	300 LED 37.5W	3000	5625	430	29°/29°	45°/45°	4.75

[LM]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}	$C_{90}C_{270}$	kg
VLR110	187-0001	60 LED 7.5W	3000	1125	827	14°/14°	49°/49°	1.20
VLR120	187-0002	120 LED 15W	3000	2250	827	14°/14°	49°/49°	1.20
VLR130	187-0003	180 LED 22.5W	3000	3375	827	14°/14°	49°/49°	3.25
VLR140	187-0004	240 LED 30W	3000	4500	827	14°/14°	49°/49°	4.00
VLR150	187-0028	300 LED 37.5W	3000	5625	827	14°/14°	49°/49°	4.75

Honeycomb louvre IW**

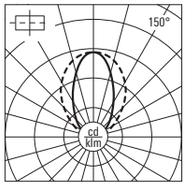
for VLR110	187-0320
for VLR120	187-0321
for VLR130	187-0322
for VLR140	187-0323
for VLR150	187-0324

** not suitable for [LB] and [LA10]

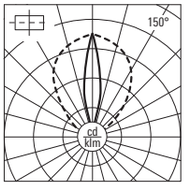


Dimensions	L	A	
VLR110	328 mm	287 mm	(separate LED driver)
VLR120	628 mm	587 mm	
VLR130	928 mm	887 mm	
VLR140	1228 mm	1187 mm	
VLR150	1528 mm	1487 mm	

Other lengths in 100 mm increments available on request (228 mm –1528 mm)

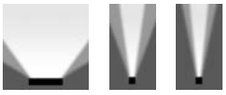


[LB]



[LM]

* Nominal lumen output based on LED manufacturers data at 25°C T_c. For rated lumens at 25°C T_s and latest data refer to www.we-ef.com.



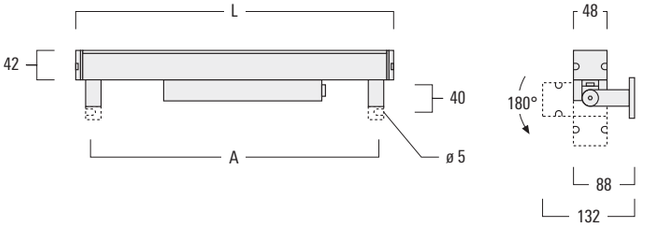
[LE] [LEE]

[LE] Linear, narrow beam distribution, symmetric

[LEE] Linear, very narrow beam distribution, symmetric

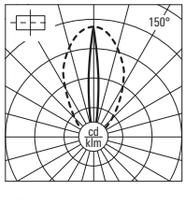
[LE]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}	$C_{90}C_{270}$	kg
VLR110	187-0005	60 LED 7.5W	3000	1125	1097	8°/8°	42°/42°	1.20
VLR120	187-0006	120 LED 15W	3000	2250	1097	8°/8°	42°/42°	1.20
VLR130	187-0007	180 LED 22.5W	3000	3375	1097	8°/8°	42°/42°	3.25
VLR140	187-0008	240 LED 30W	3000	4500	1097	8°/8°	42°/42°	4.00
VLR150	187-0029	300 LED 37.5W	3000	5625	1097	8°/8°	42°/42°	4.75

[LEE]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}	$C_{90}C_{270}$	kg
VLR110	187-0009	60 LED 7.5W	3000	1125	1594	6°/6°	42°/42°	1.20
VLR120	187-0010	120 LED 15W	3000	2250	1594	6°/6°	42°/42°	1.20
VLR130	187-0011	180 LED 22.5W	3000	3375	1594	6°/6°	42°/42°	3.25
VLR140	187-0012	240 LED 30W	3000	4500	1594	6°/6°	42°/42°	4.00
VLR150	187-0030	300 LED 37.5W	3000	5625	1594	6°/6°	42°/42°	4.75

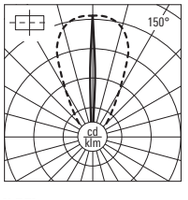


Dimensions	L	A	
VLR110	328 mm	287 mm	(separate LED driver)
VLR120	628 mm	587 mm	
VLR130	928 mm	887 mm	
VLR140	1228 mm	1187 mm	
VLR150	1528 mm	1487 mm	

Other lengths in 100 mm increments available on request (228 mm –1528 mm)



[LE]

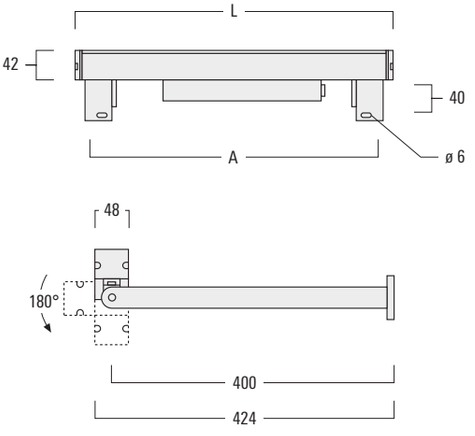


[LEE]

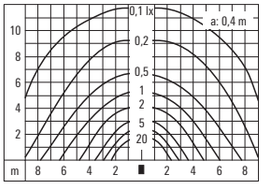
[LA10]

[LA10] Wallwash distribution, asymmetric

[LA10]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}	$C_{90}C_{270}$	kg
VLR120	187-0014	120 LED 15W	3000	2250	959	17°/12°	43°/43°	1.20
VLR130	187-0015	180 LED 22.5W	3000	3375	959	17°/12°	43°/43°	3.25
VLR140	187-0016	240 LED 30W	3000	4500	959	17°/12°	43°/43°	4.00



Dimensions	L	A
VLR120	628 mm	587 mm
VLR130	928 mm	887 mm
VLR140	1228 mm	1187 mm



[LA10]

* Nominal lumen output based on LED manufacturers data at 25°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

UDN300 SERIES

Wall luminaire, precision beam up, wide or medium beam down.

IP66, Class I. IK10. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gaskets. Safety glass lens. [P/O] and [P/M] with one contour lens up. Two cable entries.

Integral ECG control gear.

Beam width variation through optional shutter. Colour filters also available.

Light source
QT 100 W
HIT 20-70 W

Light distributions
[P/O] [P/M]

Accessories
■ **Optical, page 83**

Town hall. Munster (D). Architect: Renken + Szygula.

[P/O] [P/M]

[P/O] Precision beam distribution up, wide beam distribution down
[P/M] Precision beam distribution up, medium beam distribution down

[P/O]	Part ID	Light source	lm	cd/klm	Up	Down	kg
UDN320	112-0008	QT 18 100W/m B15d	1470	225	2°/2°	21°/21°	4.3
	112-0009 [ECG]	HIT-TC-CE 20W G8.5	1700	225	2°/2°	21°/21°	4.4
UDN330	112-0010 [ECG]	HIT-TC-CE 35W G8.5	3500	225	2°/2°	21°/21°	5.3
	112-0011 [ECG]	HIT-TC-CE 70W G8.5	6900	195	2°/2°	21°/21°	5.3

[P/M]	Part ID	Light source	lm	cd/klm	Up	Down	kg
UDN330	112-0012 [ECG]	HIT-TC-CE 35W G8.5	3500	787	2°/2°	9°/9°	5.4
	112-0013 [ECG]	HIT-TC-CE 70W G8.5	6900	1063	2°/2°	7°/7°	5.4

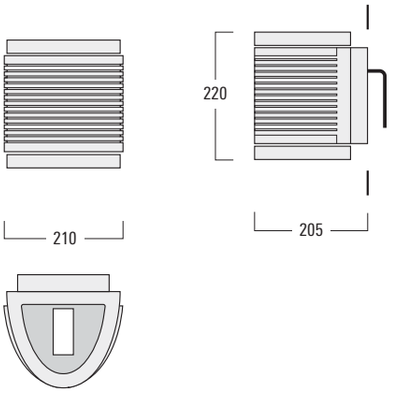
Colour Filter IF	red	green	blue	yellow
UDN320 / UDN330	112-0222	112-0226	112-0227	112-0228

(Shutter/adaptor required for colour or conversion filter)

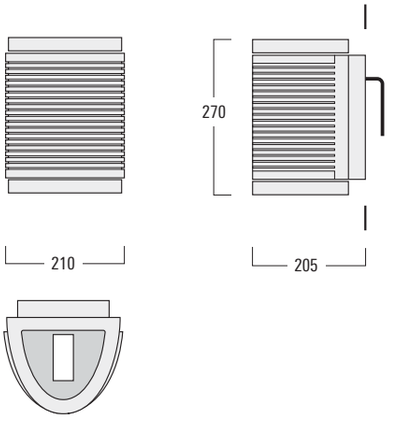
Shutter/Adaptor for [P/O] and [P/M] distributions

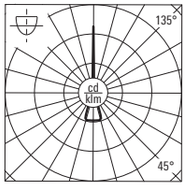
UDN320 / UDN330	112-0070	P	1.5° Beam
	112-0080	P	3.5° Beam
	112-0045	P	4.5° Beam
	112-0084	O or M	Colour filter adaptor

UDN320

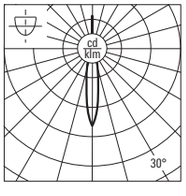


UDN330





[P/O]



[P/M]

UDN300 SERIES

Wall luminaire, precision or medium beam up and down.

IP66, Class I. IK10. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gaskets. Safety glass lens. [P/P] with two contour lenses. Two cable entries.

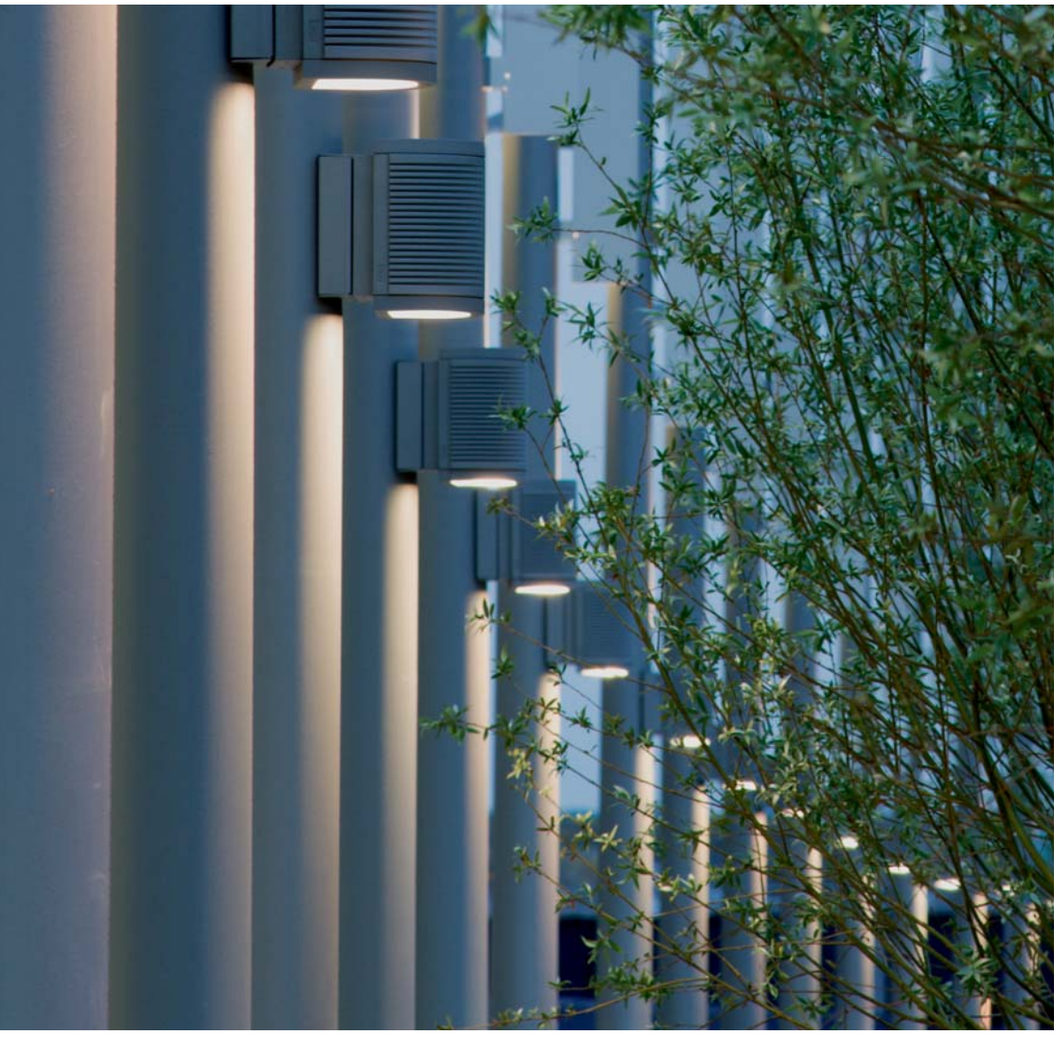
Integral ECG control gear.

Beam width variation through optional shutter. Colour filters also available.

Light source
QT 100 W
HIT 20-70 W

Light distributions
[P/P] [M/M]

Accessories
■ **Optical, page 85**



Temple Quay. Bristol (UK). Architect: Landscape Projects.

[P/P] [M/M]

[P/P] Precision beam distribution up and down
[M/M] Medium beam distribution up and down

[P/P]	Part ID	Light source	lm	cd/klm	Up	Down	kg
UDN320	112-0004	QT 18 100W/m B15d	1470	225	2°/2°	2°/2°	4.4
	112-0005 [ECG]	HIT-TC-CE 20W G8.5	1700	225	2°/2°	2°/2°	4.5
UDN330	112-0006 [ECG]	HIT-TC-CE 35W G8.5	3500	225	2°/2°	2°/2°	5.6
	112-0007 [ECG]	HIT-TC-CE 70W G.5	6900	195	2°/2°	2°/2°	5.6

[M/M]	Part ID	Light source	lm	cd/klm	Up	Down	kg
UDN320	112-0265 [ECG]	HIT-TC-CE 20W G8.5	1700	787	9°/9°	9°/9°	4.5
UDN330	112-0014 [ECG]	HIT-TC-CE 35W G8.5	3500	787	9°/9°	9°/9°	5.3
	112-0015 [ECG]	HIT-TC-CE 70W G8.5	6900	1063	7°/7°	7°/7°	5.3

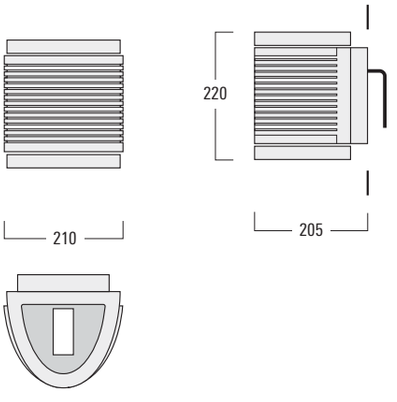
Colour Filter IF	red	green	blue	yellow
UDN320 / UDN330	112-0222	112-0226	112-0227	112-0228

(Shutter/adaptor required for colour or conversion filter)

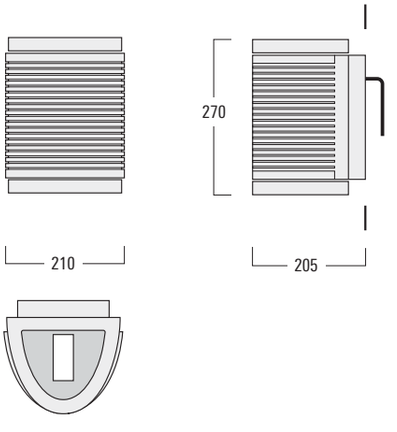
Shutter/Adaptor for [P/P] and [M/M] distributions

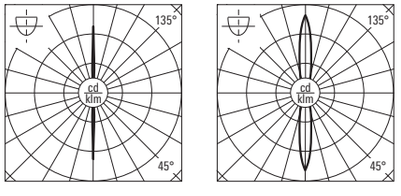
UDN320 / UDN330	112-0070	P	1.5° Beam
	112-0080	P	3.5° Beam
	112-0045	P	4.5° Beam
	112-0084	M	Colour filter adaptor

UDN320



UDN330





[P/P]

[M/M]

QLS400 SERIES

Wall luminaire, medium or narrow beam distribution, symmetric or side throw, asymmetric down, or combined up and down.

IP66, Class I. IK07. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gaskets. Safety glass lens. Two cable entries.

Integral EC electronic converter.

Factory installed LED circuit board. LED boards can be easily removed for upgrading. PMMA OLC® LED lenses for superior illumination and glare control.

1-10V or DALI interface on request.

Light source
LED 6-24 W, 3000 K,
for 4000 K refer to www.we-ef.com

Light distributions
[M] [M/M] [E] [E/E] [E/M] [S] [E/S]

[M] [M/M] [E] [E/E]

[M] Medium beam distribution down
[M/M] Medium beam distribution up and down
[E] Narrow beam distribution down
[E/E] Narrow beam distribution up and down

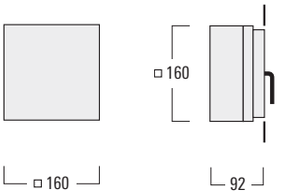
[M]	Part ID	Light source	K	lm*	cd/klm	Up	Down	kg
QLS410	131-9401	3 LED 6W / 700 mA	3000	738	3505	–	12°/12°	1.9
QLS420	131-9438	6 LED 12W / 700 mA	3000	1476	3505	–	12°/12°	3.1

[M/M]	Part ID	Light source	K	lm*	cd/klm	Up	Down	kg
QLS410	131-9409	2 x 3 LED 12W / 700 mA	3000	2 x 738	3505/3505	12°/12°	12°/12°	1.9
QLS420	131-9446	2 x 6 LED 24W / 700 mA	3000	2 x 1476	3505/3505	12°/12°	12°/12°	3.1

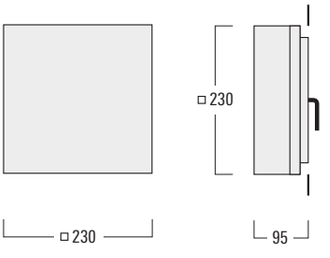
[E]	Part ID	Light source	K	lm*	cd/klm	Up	Down	kg
QLS410	131-0101	3 LED 6W / 700 mA	3000	738	11593	–	6°/6°	1.9
QLS420	131-0097	6 LED 12W / 700 mA	3000	1476	11593	–	6°/6°	3.1

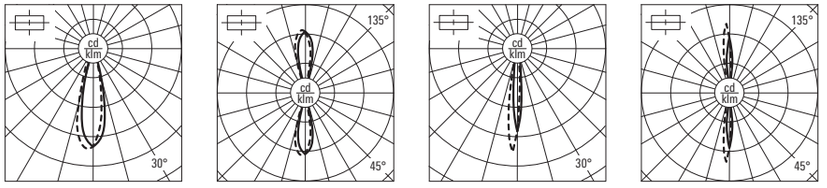
[E/E]	Part ID	Light source	K	lm*	cd/klm	Up	Down	kg
QLS410	131-0103	2 x 3 LED 12W / 700 mA	3000	2 x 738	11593/11593	6°/6°	6°/6°	1.9
QLS420	131-0099	2 x 6 LED 24W / 700 mA	3000	2 x 1476	11593/11593	6°/6°	6°/6°	3.1

QLS410



QLS420





[M] [M/M] [E] [E/E]

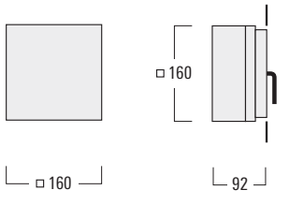
* Nominal lumen output based on LED manufacturers data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

[E/M]

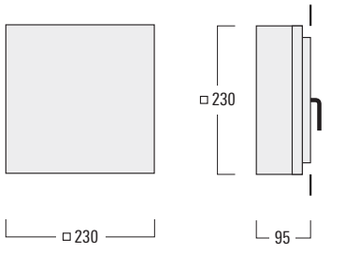
[E/M] Narrow beam distribution up and medium beam down

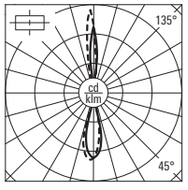
[E/M]	Part ID	Light source	K	lm*	cd/klm	Up	Down	kg
QLS410	131-0112	2 x 3 LED 12W / 700 mA	3000	2 x 738	11593/3505	6°/6°	12°/12°	1.9
QLS420	131-0110	2 x 6 LED 24W / 700 mA	3000	2 x 1476	11593/3505	6°/6°	12°/12°	3.1

QLS410



QLS420





[E/M]

[S]

[E/S]

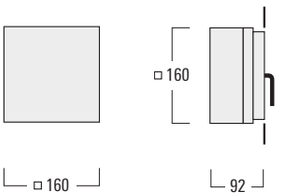
[S] Side throw distribution down

[E/S] Narrow beam distribution up and side throw down

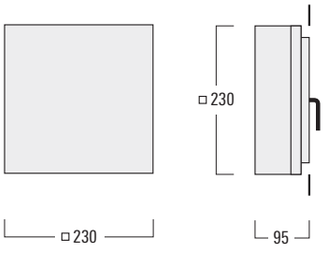
[S]	Part ID	Light source	K	lm*	cd/klm	Up	Down	kg
QLS410	131-9400	3 LED 6W / 700 mA	3000	738	3123	–	28°/28°	1.9
QLS420	131-9437	6 LED 12W / 700 mA	3000	1476	3123	–	28°/28°	3.1

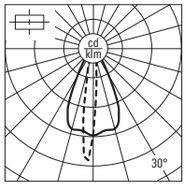
[E/S]	Part ID	Light source	K	lm*	cd/klm	Up	Down	kg
QLS410	131-0106	2 x 3 LED 12W / 700 mA	3000	2 x 738	11593/3123	6°/6°	28°/28°	1.9
QLS420	131-0108	2 x 6 LED 24W / 700 mA	3000	2 x 1476	11593/3123	6°/6°	28°/28°	3.1

QLS410

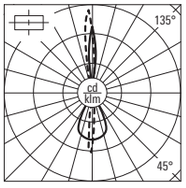


QLS420





[S]



[E/S]

* Nominal lumen output based on LED manufacturers data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

VLS400 SERIES

Wall luminaire, medium or narrow beam distribution, symmetric or side throw beam, asymmetric down, or combined up and down.

IP66, Class I. IK07. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gaskets. Safety glass lens. Two cable entries.

Integral EC electronic converter.

Factory installed LED circuit board. LED boards can be easily removed for upgrading. PMMA OLC® LED lenses for superior illumination and glare control.

1-10V or DALI interface on request.

Light source
LED 6-24 W, 3000 K,
for 4000 K refer to www.we-ef.com

Light distributions
[M] [M/M] [E] [E/E] [E/M] [S] [E/S]

[M] [M/M] [E] [E/E]

[M] Medium beam distribution down
[M/M] Medium beam distribution up and down
[E] Narrow beam distribution down
[E/E] Narrow beam distribution up and down

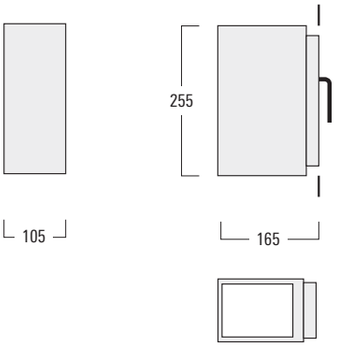
[M]	Part ID	Light source	K	lm*	cd/klm	Up	Down	kg
VLS410	131-9503	3 LED 6W / 700 mA	3000	738	3505	–	12°/12°	1.9
VLS420	131-9153	6 LED 12W / 700 mA	3000	1476	3505	–	12°/12°	3.1

[M/M]	Part ID	Light source	K	lm*	cd/klm	Up	Down	kg
VLS410	131-9513	2 x 3 LED 12W / 700 mA	3000	2 x 738	3505/3505	12°/12°	12°/12°	1.9
VLS420	131-9163	2 x 6 LED 24W / 700 mA	3000	2 x 1476	3505/3505	12°/12°	12°/12°	3.1

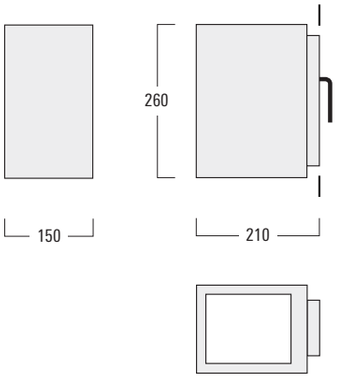
[E]	Part ID	Light source	K	lm*	cd/klm	Up	Down	kg
VLS410	131-0137	3 LED 6W / 700 mA	3000	738	11593	–	6°/6°	1.9
VLS420	131-0129	6 LED 12W / 700 mA	3000	1476	11593	–	6°/6°	3.1

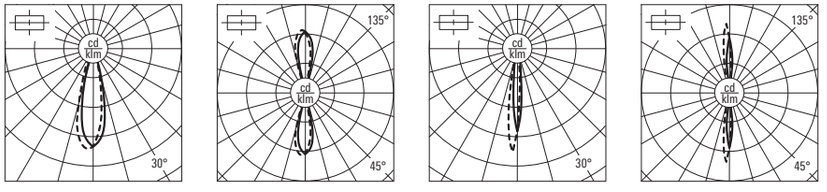
[E/E]	Part ID	Light source	K	lm*	cd/klm	Up	Down	kg
VLS410	131-0143	2 x 3 LED 12W / 700 mA	3000	2 x 738	11593/11593	6°/6°	6°/6°	1.9
VLS420	131-0135	2 x 6 LED 24W / 700 mA	3000	2 x 1476	11593/11593	6°/6°	6°/6°	3.1

VLS410



VLS420





[M] [M/M] [E] [E/E]

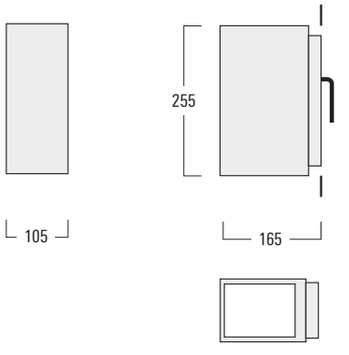
* Nominal lumen output based on LED manufacturers data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

[E/M]

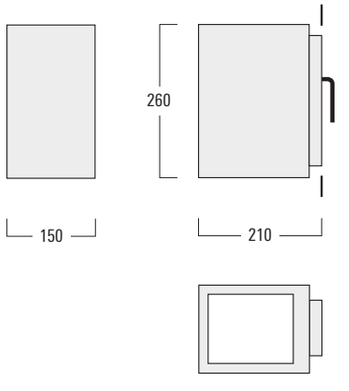
[E/M] Narrow beam distribution up and medium beam down

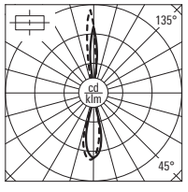
[E/M]	Part ID	Light source	K	lm*	cd/klm	Up	Down	kg
VLS410	131-0141	2 x 3 LED 12W / 700 mA	3000	2 x 738	11593/3505	6°/6°	12°/12°	1.9
VLS420	131-0133	2 x 6 LED 24W / 700 mA	3000	2 x 1476	11593/3505	6°/6°	12°/12°	3.1

VLS410



VLS420





[E/M]

[S] [E/S]

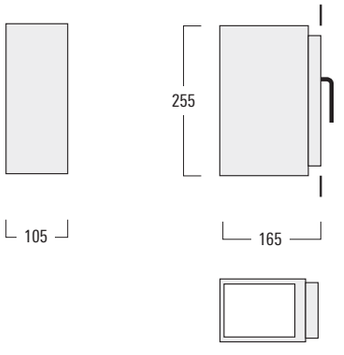
[S] Side throw distribution down

[E/S] Narrow beam distribution up and side throw down

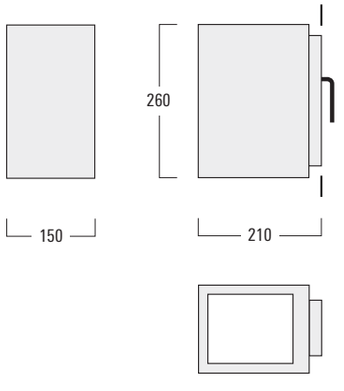
[S]	Part ID	Light source	K	lm*	cd/klm	Up	Down	kg
VLS410	131-9502	3 LED 6W / 700 mA	3000	738	3123	–	28°/28°	1.9
VLS420	131-0145	6 LED 12W / 700 mA	3000	1476	3123	–	28°/28°	3.1

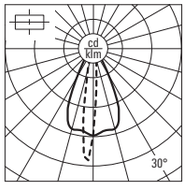
[E/S]	Part ID	Light source	K	lm*	cd/klm	Up	Down	kg
VLS410	131-0139	2 x 3 LED 12W / 700 mA	3000	2 x 738	11593/3123	6°/6°	28°/28°	1.9
VLS420	131-0131	2 x 6 LED 24W / 700 mA	3000	2 x 1476	11593/3123	6°/6°	28°/28°	3.1

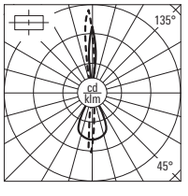
VLS410



VLS420







[S] [E/S]

* Nominal lumen output based on LED manufacturers data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

SLS400 SERIES

Wall luminaire, medium or narrow beam distribution, symmetric or side throw beam, asymmetric down, or combined up and down.

IP66, Class I. IK07. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gaskets. Safety glass lens. Two cable entries.

Integral EC electronic converter.

Factory installed LED circuit board. LED boards can be easily removed for upgrading. PMMA OLC® LED lenses for superior illumination and glare control.

1-10V or DALI interface on request.

Light source
LED 6-24 W, 3000 K,
for 4000 K refer to www.we-ef.com

Light distributions
[M] [M/M] [E] [E/E] [E/M] [S] [E/S]

[M] [M/M] [E] [E/E]

[M] Medium beam distribution down
[M/M] Medium beam distribution up and down
[E] Narrow beam distribution down
[E/E] Narrow beam distribution up and down

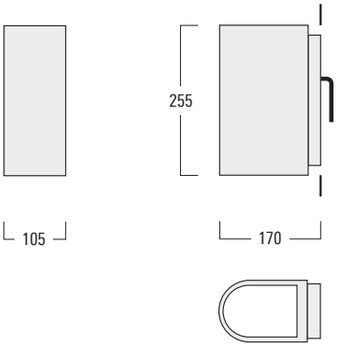
[M]	Part ID	Light source	K	lm*	cd/klm	Up	Down	kg
SLS410	131-9473	3 LED 6W / 700 mA	3000	738	3505	–	12°/12°	3.3
SLS420	131-9533	6 LED 12W / 700 mA	3000	1476	3505	–	12°/12°	5.2

[M/M]	Part ID	Light source	K	lm*	cd/klm	Up	Down	kg
SLS410	131-9483	2 x 3 LED 12W / 700 mA	3000	2 x 738	3505	–	12°/12°	3.3
SLS420	131-9543	2 x 6 LED 24W / 700 mA	3000	2 x 1476	3505	–	12°/12°	5.2

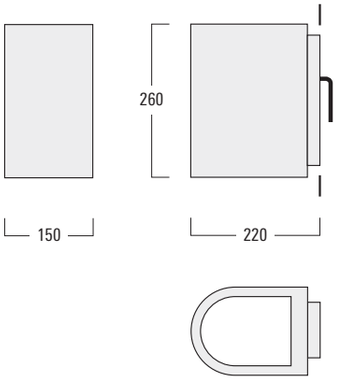
[E]	Part ID	Light source	K	lm*	cd/klm	Up	Down	kg
SLS410	131-0115	3 LED 6W / 700 mA	3000	738	11593	–	6°/6°	3.3
SLS420	131-0121	6 LED 12W / 700 mA	3000	1476	11593	–	6°/6°	5.2

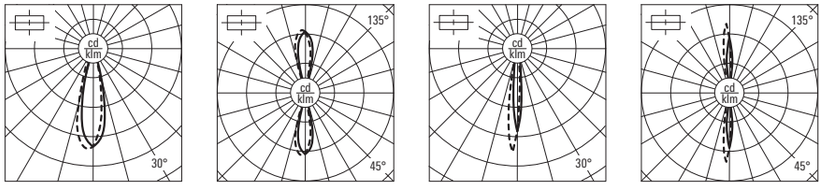
[E/E]	Part ID	Light source	K	lm*	cd/klm	Up	Down	kg
SLS410	131-0119	2 x 3 LED 12W / 700 mA	3000	2 x 738	11593	–	6°/6°	3.3
SLS420	131-0127	2 x 6 LED 24W / 700 mA	3000	2 x 1476	11593	–	6°/6°	5.2

SLS410



SLS420





[M] [M/M] [E] [E/E]

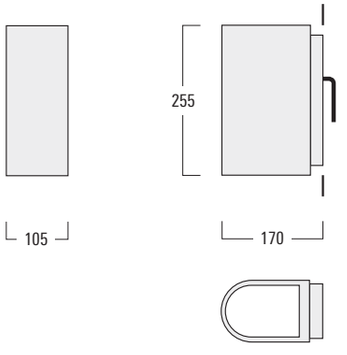
* Nominal lumen output based on LED manufacturers data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

[E/M]

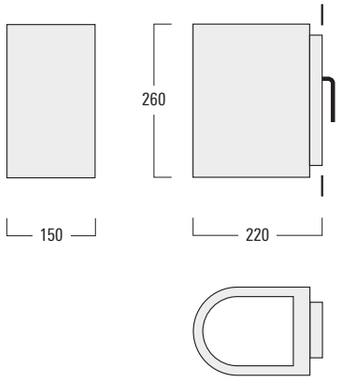
[E/M] Narrow beam distribution up and medium beam down

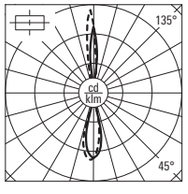
[E/M]	Part ID	Light source	K	lm*	cd/klm	Up	Down	kg
SLS410	131-0149	2 x 3 LED 12W / 700 mA	3000	2 x 738	11593/3505	6°/6°	12°/12°	3.3
SLS420	131-0126	2 x 6 LED 24W / 700 mA	3000	2 x 1476	11593/3505	6°/6°	12°/12°	5.2

SLS410



SLS420





[E/M]

[S]

[E/S]

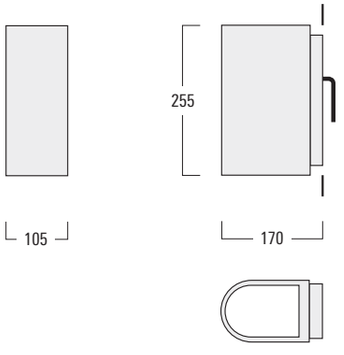
[S] Side throw distribution down

[E/S] Narrow beam distribution up and side throw down

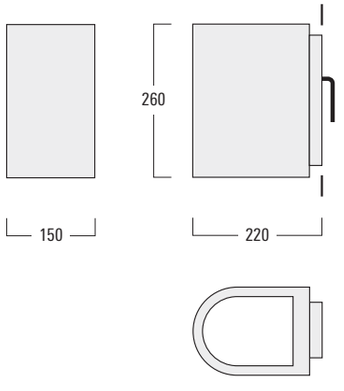
[S]	Part ID	Light source	K	lm*	cd/klm	Up	Down	kg
SLS410	131-9472	3 LED 6W / 700 mA	3000	738	3123	–	28°/28°	3.3
SLS420	131-0147	6 LED 12W / 700 mA	3000	1476	3123	–	28°/28°	5.2

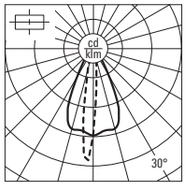
[E/S]	Part ID	Light source	K	lm*	cd/klm	Up	Down	kg
SLS410	131-0117	2 x 3 LED 12W / 700 mA	3000	2 x 738	11593/3123	6°/6°	28°/28°	3.3
SLS420	131-0123	2 x 6 LED 24W / 700 mA	3000	2 x 1476	11593/3123	6°/6°	28°/28°	5.2

SLS410

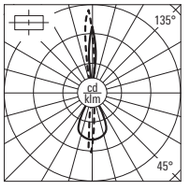


SLS420





[S]



[E/S]

* Nominal lumen output based on LED manufacturers data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

OLV300 SERIES

Wall luminaire, medium or very narrow beam distribution 'sharp cut-off', symmetric.

IP65, Class I. IK08. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gaskets. Safety glass lens. Two cable entries.

Integral EC electronic converter.

Factory installed LED circuit board. LED boards can be easily removed for upgrading. PMMA OLC® LED lenses for superior illumination and glare control.

Can be mounted up or down.

Light source
LED 12-36 W, 3000 K,
for 4000 K refer to www.we-ef.com

Light distributions
[M] [EES]

Le Meridien. New Delhi (IN). Architect & Lighting design: Bobby Mukherjee & Associates.

[M]

[EES]

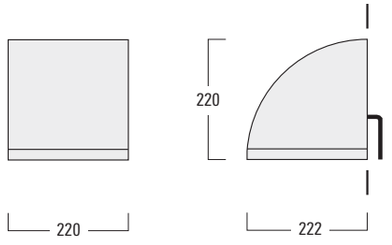
[M] Medium beam distribution, symmetric

[EES] Very narrow beam distribution, symmetric, 'sharp cut-off'

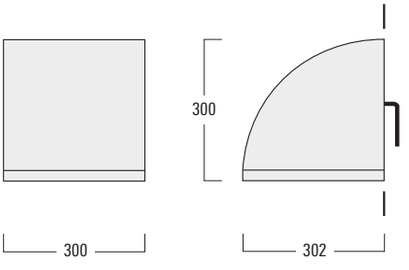
[M]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}	kg
OLV330	132-0522	12 LED 12W / 350 mA	3000	1614	2196	16°/16°	6.6
	132-0532	12 LED 18W / 500 mA	3000	2217	2196	16°/16°	6.6
OLV340	132-0542	24 LED 24W / 350 mA	3000	3228	2196	16°/16°	11.4
	132-0552	24 LED 36W / 500 mA	3000	4435	2196	16°/16°	11.4

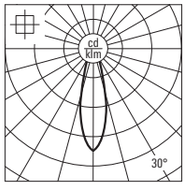
[EES]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}	kg
OLV330	132-0524	12 LED 12W / 350 mA	3000	1614	20389	5°/5°	6.6
	132-0534	12 LED 18W / 500 mA	3000	2217	20389	5°/5°	6.6
OLV340	132-0544	24 LED 24W / 350 mA	3000	3228	20389	5°/5°	11.4
	132-0554	24 LED 36W / 500 mA	3000	4435	20389	5°/5°	11.4

OLV330

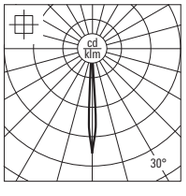


OLV340





[M]



[EES]

* Nominal lumen output based on LED manufacturers data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

OLV300 SERIES

Wall luminaire, streetlighting or forward throw distribution, asymmetric.

IP65, Class I. IK08. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gaskets. Safety glass lens. Two cable entries.

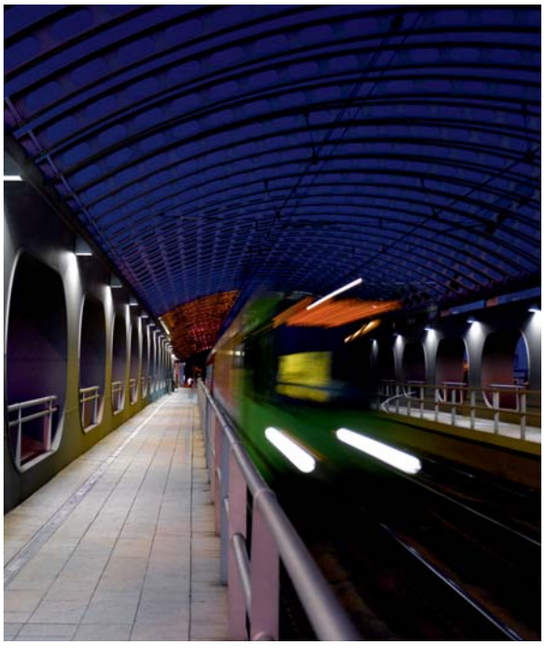
Integral EC electronic converter.

Factory installed LED circuit board. LED boards can be easily removed for upgrading. PMMA OLC® LED lenses for superior illumination and glare control.

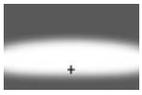
Can be mounted up or down.

Light source
LED 12-48 W, 000 K,
for 4000 K refer to www.we-ef.com

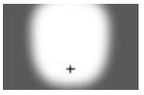
Light distributions
[S70] [A60] [R65]



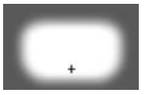
Noltemeyer Bridge. Hannover (D)



[S70]



[A60]



[R65]

[S70] Streetlighting distribution

[A60] Forward throw distribution, asymmetric

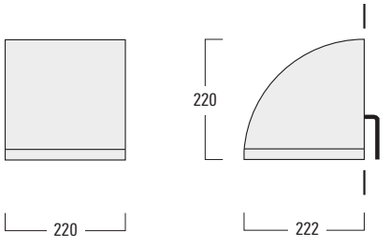
[R65] Rectangular forward throw distribution

[S70]	Part ID	Light source	K	lm*	Factor**	kg
OLV334	132-0526	12 LED 12W / 350 mA	3000	1614	1.00	6.6
	132-0536	12 LED 24W / 700 mA	3000	2951	1.83	6.6
OLV344	132-0546	24 LED 24W / 350 mA	3000	3228	2.00	11.4
	132-0556	24 LED 48W / 700 mA	3000	5903	3.66	11.4

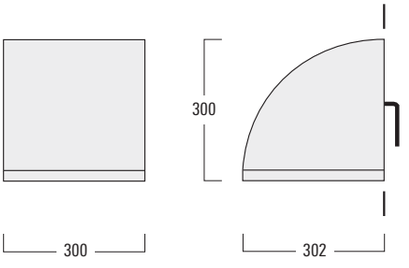
[A60]	Part ID	Light source	K	lm*	Factor**	kg
OLV334	132-0530	12 LED 12W / 350 mA	3000	1614	1.00	6.6
	132-0540	12 LED 24W / 700 mA	3000	2951	1,83	6.6
OLV344	132-0550	24 LED 24W / 350 mA	3000	3228	2.00	11.4
	132-0560	24 LED 48W / 700 mA	3000	5903	3.66	11.4

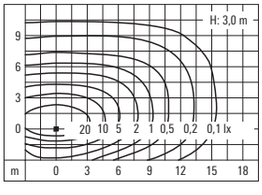
[R65]	Part ID	Light source	K	lm*	Factor**	kg
OLV334	132-0528	12 LED 12W / 350 mA	3000	1614	1.00	6.6
	132-0538	12 LED 24W / 700 mA	3000	2951	1,83	6.6
OLV344	132-0548	24 LED 24W / 350 mA	3000	3228	2.00	11.4
	132-0558	24 LED 48W / 700 mA	3000	5903	3.66	11.4

OLV334

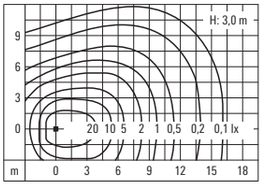


OLV344

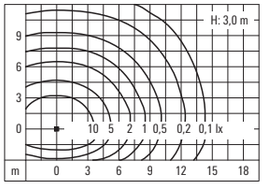




[S70]



[A60]



[R65]

* Nominal lumen output based on LED manufacturers data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

** Multiplier for Isolux value

OLV300 SERIES

Wall luminaire, medium or very narrow beam distribution, symmetric.

IP65, Class I. IK08. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gaskets. Safety glass lens. Anodised aluminium reflector. Two cable entries.

Integral HPF or ECG control gear.

Can be mounted up or down.

Light source
HIT 35-150 W

Light distributions
[M] [EE]

Hotel Dream Castle Eurodisney. Paris (F). Architect: D. Paysage, Paris.

[M]

[EE]

[M] Medium beam distribution, symmetric

[EE] Very narrow beam distribution, symmetric

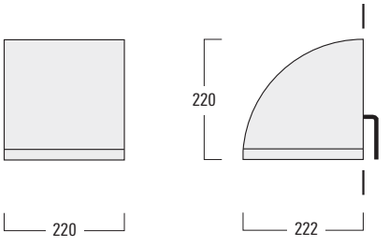
[M]	Part ID	Light source	lm	cd/klm	C_0C_{180}	kg
OLV330	132-0330 [ECG]	HIT-TC-CE 35W G8,5	3500	2214	12°/12°	5.2
	132-0216 [HPF]	HIT-TC-CE 70W G8,5	6900	2046	13°/13°	6.3
OLV340	132-0331 [ECG]	HIT-CE 70W G12	7300	1643	20°/20°	7.8
	132-0083 [HPF]	HIT-CE 150W G12	15000	1280	23°/23°	9.4

[EE]	Part ID	Light source	lm	cd/klm	C_0C_{180}	kg
OLV330	132-0332 [ECG]	HIT-TC-CE 35W G8,5	3500	20113	3°/3°	5.2
	132-0220 [HPF]	HIT-TC-CE 70W G8,5	6900	13527	4°/4°	6.3
OLV340	132-0333 [ECG]	HIT-CE 70W G12	7300	29929	3°/3°	7.8
	132-0091 [HPF]	HIT-CE 150W G12	15000	18752	4°/4°	9.4

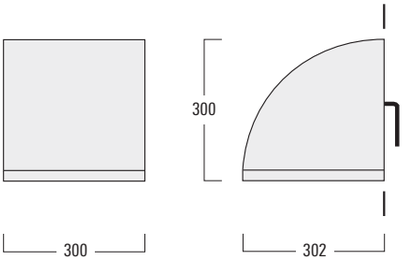
Colour Filter IF	red	green	blue	yellow
OLV330	132-0458	132-0459	132-0460	132-0403
OLV340	132-0461	132-0462	132-0463	132-0464

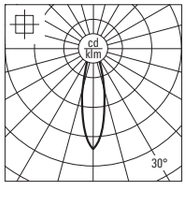
Lenses IO	IO-360 flood lens	IO-180 linear spread lens
OLV330	132-0319	132-0467
OLV340	132-0294	132-0438

OLV330

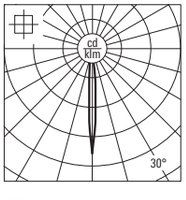


OLV340





[M]



[EE]

OLV300 SERIES

Wall luminaire, side or forward throw distribution, asymmetric.

IP65, Class I. IK08. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gaskets. Safety glass lens. Anodised aluminium reflector. Two cable entries.

Integral HPF or ECG control gear.

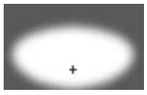
Sidewards and rearward cut-off shields on request.

Can be mounted up or down.

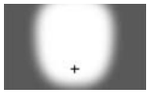
Light source
HIT 35-150 W

Light distributions
[S] [A]

Endeavour Bridge, Whitianga Waterways. Whitianga (NZ). Lighting design: Airey Consultants / Modus Lighting.



[S]



[A]

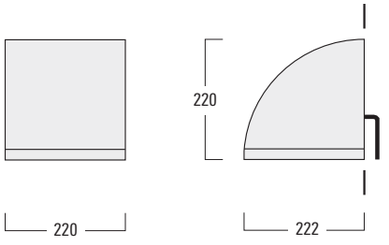
[S] Side throw distribution

[A] Forward throw distribution, asymmetric

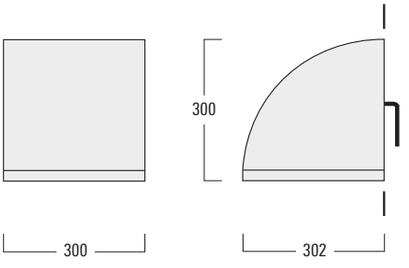
[S]	Part ID	Light source	lm	Factor*	kg
OLV330	132-0334 [ECG]	HIT-CE 35W G12	3600	0.49	5.5
	132-0335 [HPF]	HIT-CE 70W G12	7300	1.00	6.6
OLV340	132-0336 [ECG]	HIT-CE 70W G12	7300	1.00	8.1
	132-0241 [HPF]	HIT-CE 150W G12	15000	2.05	9.7

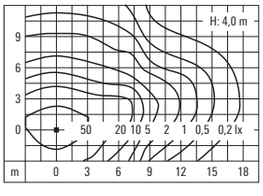
[A]	Part ID	Light source	lm	Factor*	kg
OLV330	132-0337 [ECG]	HIT-CE 35W G8.5	3500	0.51	5.3
	132-0226 [HPF]	HIT-CE 70W G8.5	6900	1.01	6.4
OLV340	132-0339 [ECG]	HIT-DE-CE 70W RX7s	6800	1.00	7.9
	132-0254 [HPF]	HIT-DE-CE 150W RX7s	14500	2.13	9.5

OLV330

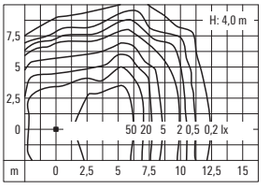


OLV340





[S]



[A]

* Multiplier for Isolux value

PIA200 SERIES

Facade and ceiling washlight, side and forward throw distribution, asymmetric.

IP66, Class I. IK08. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gaskets. Non-reflecting safety glass lens.

PIA230: ±30° tilt, PIA240: +15°/-30° tilt.

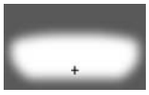
Integral EC electronic converter. Factory installed LED circuit board. LED boards can be easily removed for upgrading. PMMA OLC® LED lenses for superior illumination and glare control.

Can be mounted up or down.

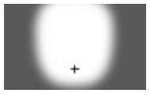
Light source
LED 24-72 W, 3000 K,
for 4000 K refer to www.we-ef.com

Light distributions
[S65] [A60] [R65]

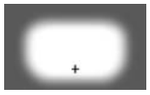
McCarran International Airport, Terminal 3. Las Vegas, Nevada (USA). Lighting design: Horton Lees Brogden Lighting Design.



[S65]



[A60]



[R65]

[S65] Streetlighting distribution
[A60] Forward throw distribution, asymmetric
[R65] Rectangular forward throw distribution

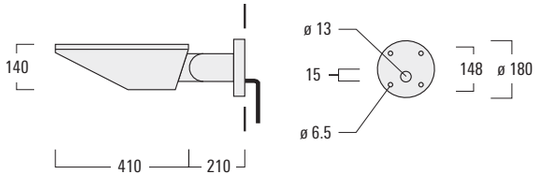
[S65]	Part ID	Light source	K	lm*	Factor**	kg
PIA230	108-1660	12 LED 24W / 700 mA	3000	2951	1.00	8.5
	108-1747	18 LED 36W / 700 mA	3000	4427	1.50	8.5
PIA240	108-1649	18 LED 54W / 1050 mA	3000	7020	2.38	12.7
	108-1759	24 LED 72W / 1050 mA	3000	9360	3.17	12.7

[A60]	Part ID	Light source	K	lm*	Factor**	kg
PIA230	108-1666	12 LED 24W / 700 mA	3000	2951	1.00	8.5
	108-1751	18 LED 36W / 700 mA	3000	4427	1.50	8.5
PIA240	108-1655	18 LED 54W / 1050 mA	3000	7020	2.38	12.7
	108-1763	24 LED 72W / 1050 mA	3000	9360	3.17	12.7

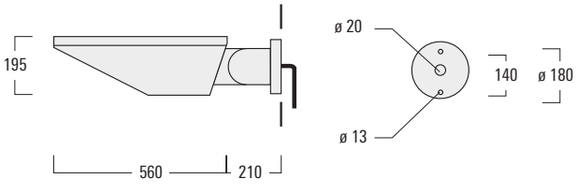
[R65]	Part ID	Light source	K	lm*	Factor**	kg
PIA230	108-1664	12 LED 24W / 700 mA	3000	2951	1.00	8.5
	108-1749	18 LED 36W / 700 mA	3000	4427	1.50	8.5
PIA240	108-1653	18 LED 54W / 1050 mA	3000	7020	2.38	12.7
	108-1761	24 LED 72W / 1050 mA	3000	9360	3.17	12.7

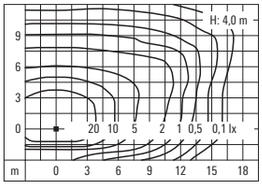
Flood lens	**IO-360*** **
for PIA230 [A60]	108-1851
for PIA240 [A60]	108-1852

PIA230

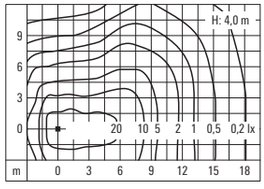


PIA240

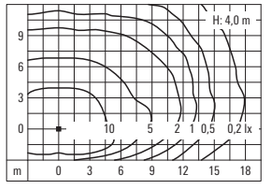




[S65]



[A60]



[R65]

* Nominal lumen output based on LED manufacturers data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.
** Multiplier for Isolux value
*** Ideal for uniform ceiling washing applications.

PIA200 SERIES

Facade and ceiling washlight, side or forward throw distribution, asymmetric.

IP66, Class I. IK08. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gaskets. Safety glass lens. Anodised aluminium reflector.

PIA230: ±30° tilt, PIA240: +15°/-30° tilt.

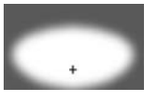
Integral HPF or ECG control gear.

Can be mounted up or down.

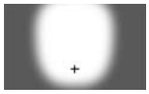
Light source
HIT 20-250 W

Light distributions
[S] [A]

Shopping Center Cap Sud. Avignon (F). Lighting design: Acrobat, Saint Etienne.



[S]



[A]

[S] Side throw distribution

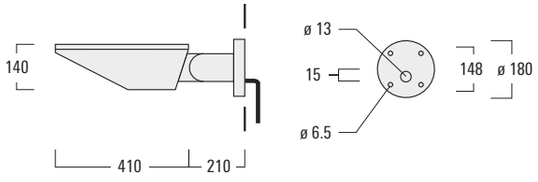
[A] Forward throw distribution, asymmetric

[S]	Part ID	Light source	lm	Factor*	kg
PIA230	108-0755 [ECG]	HIT-CE 20W G12	1650	0.11	8.5
	108-0417 [ECG]	HIT-CE 35W G12	3600	0.25	8.5
	108-0418 [ECG]	HIT-CE 70W G12	7300	0.50	8.5
PIA240	108-0450 [ECG]	HIT-CE 150W E40	14500	1.00	12.7
	108-0452 [HPF]	HIT-CE 250W E40	26000	1.79	15.3

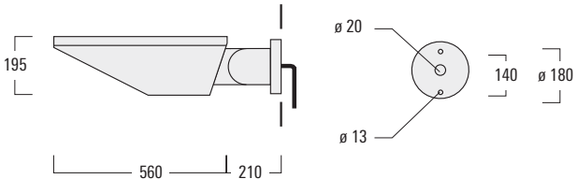
[A]	Part ID	Light source	lm	Factor*	kg
PIA230	108-0758 [ECG]	HIT-CE 20W G12	1650	0.11	8.5
	108-0419 [ECG]	HIT-CE 35W G12	3600	0.25	8.5
	108-0420 [ECG]	HIT-CE 70W G12	7300	0.50	8.5
PIA240	108-0458 [ECG]	HIT-DE-CE 150W RX7s	14500	1.00	12.9
	108-0211 [HPF]	HIT-DE-CE 250W Fc2	25000	1.72	15.5

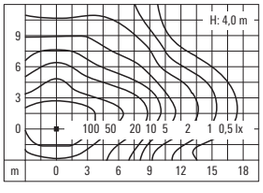
Rearward cut-off shield for [S] version, with side throw distribution		Sidewards cut-off shield for [A] versions, with forward throw distribution	
PIA230	108-0427	PIA230	108-0428
PIA240	108-0469	PIA240	108-0470

PIA230

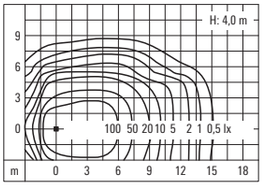


PIA240





[S]



[A]

* Multiplier for Isolux value

DLO200 / DLG200 SERIES

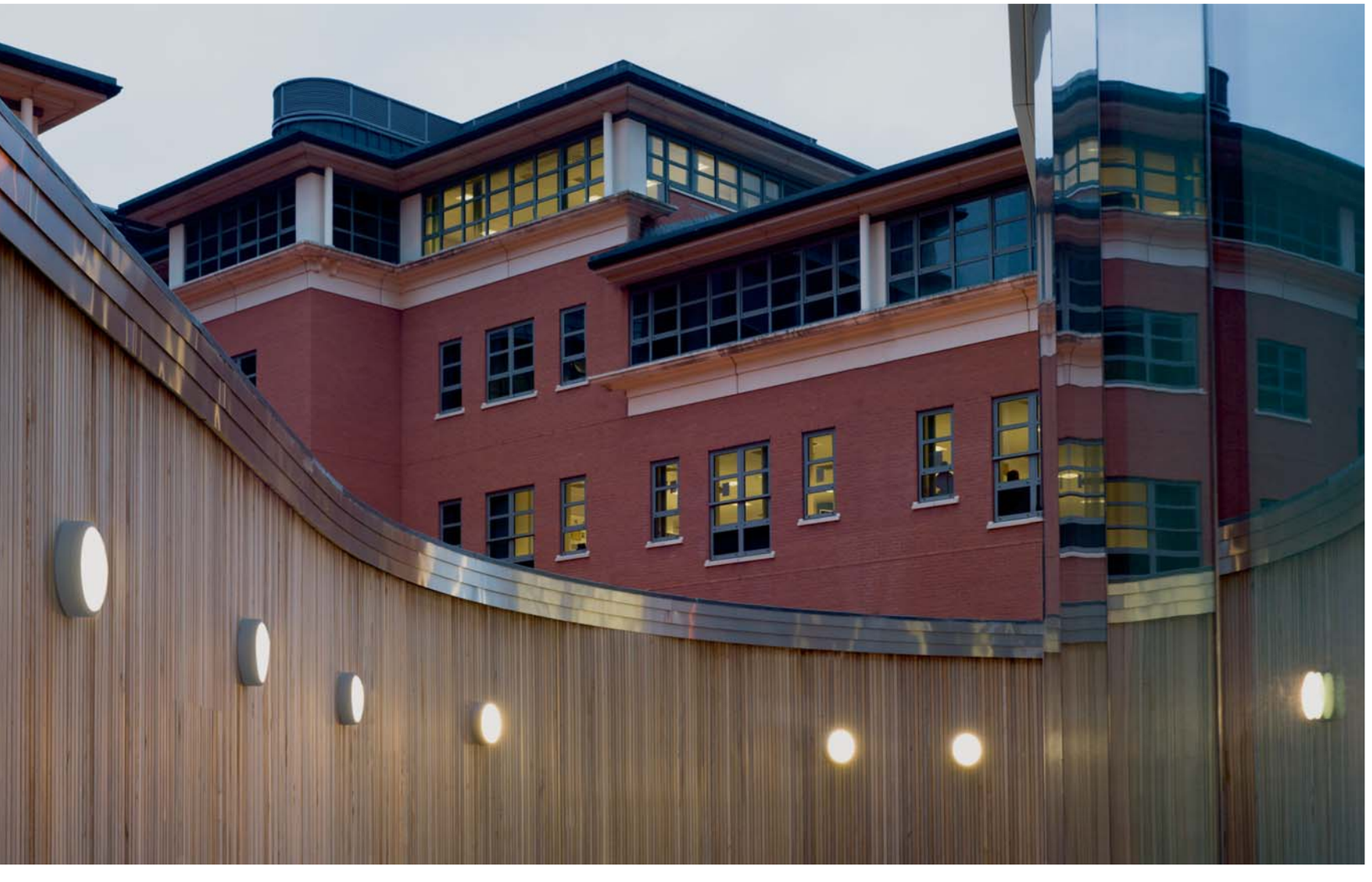
Wall luminaires, diffused distribution.

IP55, Class I. IK10. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gasket. Polycarbonate lens. Two cable entries.

Integral EC electronic converter.

Factory installed LED circuit board. LED boards can be easily removed for upgrading.

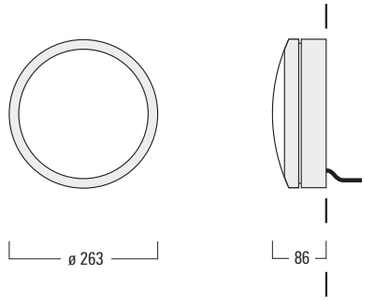
Light source
LED 12-24 W, 3000 K,
for 4000 K refer to www.we-ef.com



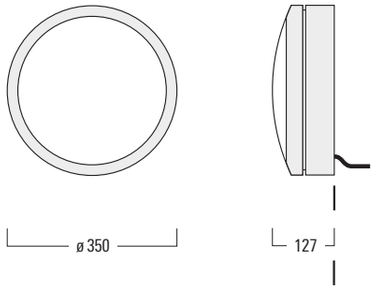
Temple Quay. Bristol (UK). Architect: Landscape Projects.

	Part ID	Light source	K	lm*	Factor**	kg
DLO229	195-9521	LED-FT 12W	3000	1860	1.00	2.0
DLO239	195-9536	LED-FT 24W	3000	3795	2.04	3.5
DLG229	195-9524	LED-FT 12W	3000	1860	1.00	2.1
DLG239	195-9539	LED-FT 24W	3000	3795	2.04	3.6

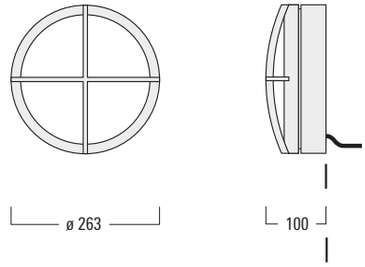
DLO229



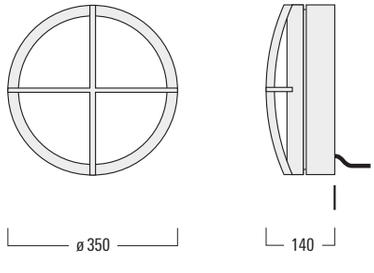
DLO239

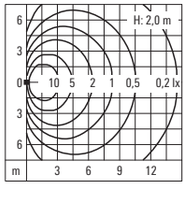


DLG229



DLG239





* Nominal lumen output based on LED manufacturers data at 25°C T_c. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

** Multiplier for Isolux value

XLO200 SERIES

Wall luminaire, diffused distribution.

IP55, Class I. IK10. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gasket. Polycarbonate lens. Two cable entries.

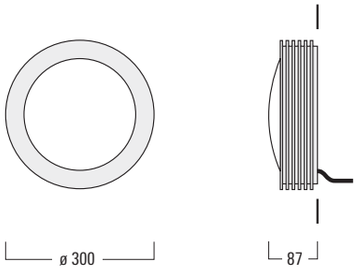
Integral EC electronic converter.

Factory installed LED circuit board. LED boards can be easily removed for upgrading.

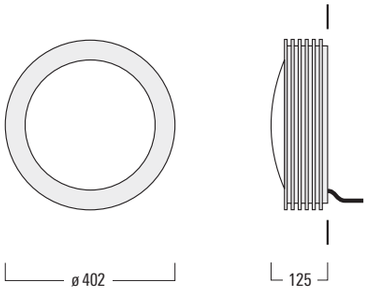
Light source
LED 12-24 W, 3000 K,
for 4000 K refer to www.we-ef.com

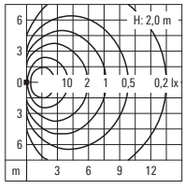
	Part ID	Light source	K	lm*	Factor**	kg
XLO229	195-9533	LED-FT 12W	3000	1860	1.00	3.2
XLO239	195-9548	LED-FT 24W	3000	3795	2.04	7.0

XLO229



XLO239





* Nominal lumen output based on LED manufacturers data at 25°C T_c. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

** Multiplier for Isolux value

IOS® Beam distributions for ceiling luminaires

[B] wide beam, symmetric

[BD] wide beam, symmetric – Darklight

[M] medium beam, symmetric

[EE] very narrow beam, symmetric

[EES] very narrow beam, symmetric, 'sharp cut-off'

[A20] wallwash, asymmetric

Ceiling luminaires

DOC200 GIMBAL SERIES

Downlight, wide, medium, very narrow or very narrow beam distribution 'sharp cut-off', symmetric, or wallwash distribution, asymmetric. Tilt and rotatable.

IP66, Class I. IK07. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gasket. Safety glass lens, hinged. Frame with safety catch. Two cable entries.

EC electronic converter in thermally separated compartment.

Factory installed LED circuit board. LED boards can be easily removed for upgrading. PMMA LED lens array. 30° tilt and 355° rotatable.

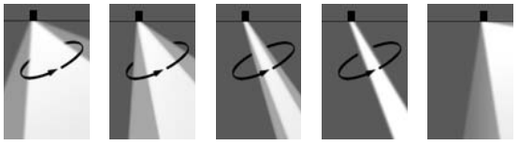
A pre-installation blockout, proud or flush, is available and recommended for mounting in concrete ceilings. To be ordered separately.

Light source
LED 18 W, 3000 K,
for 4000 K refer to www.we-ef.com

Light distributions
[B] [M] [EE] [EES] [A20]

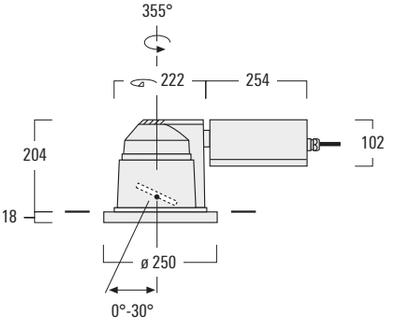
Accessories
- **Mounting, page 132**
- **Optical, page 134**

White City. London (UK). Lighting design: Speirs & Majors Associates.



[B] [M] [EE] [EES] [A20]

[B] Wide beam distribution, symmetric
[M] Medium beam distribution, symmetric,
[EE] Very narrow beam distribution, symmetric
[EES] Very narrow beam distribution, symmetric, 'sharp cut-off'
[A20] Wallwash distribution, asymmetric



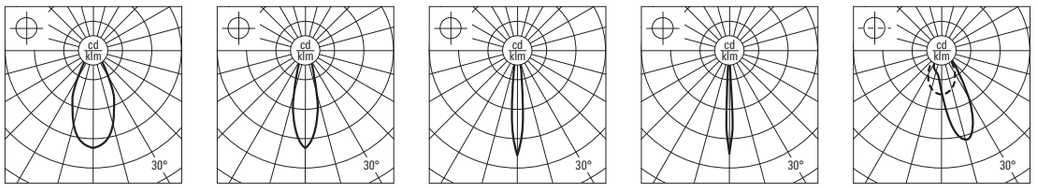
[B]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}		kg
DOC240-GB	134-1344	12 LED 18W / 500 mA	3000	2217	920	25°/25°		5.5

[M]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}		kg
DOC240-GB	134-1253	12 LED 18W / 500 mA	3000	2217	2196	16°/16°		5.5

[EE]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}		kg
DOC240-GB	134-1347	12 LED 18W / 500 mA	3000	2217	7191	7°/7°		5.5

[EES]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}		kg
DOC240-GB	134-1256	12 LED 18W / 500 mA	3000	2217	20389	5°/5°		5.5

[A20]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}	$C_{90}C_{270}$	kg
DOC240-GB	134-1611	12 LED 18W / 500 mA	3000	2217	787	15°/16°	35°/35°	5.5



[B] [M] [EE] [EES] [A20]

* Nominal lumen output based on LED manufacturers data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

DOC200 GIMBAL SERIES

Downlight, medium or very narrow beam distribution, symmetric. Tilt and rotatable.

IP66, Class I, IK 07. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gasket. Safety glass lens, hinged. Frame with safety catch. Two cable entries.

Anodised aluminium reflector. 25° tilt and 355° rotatable.

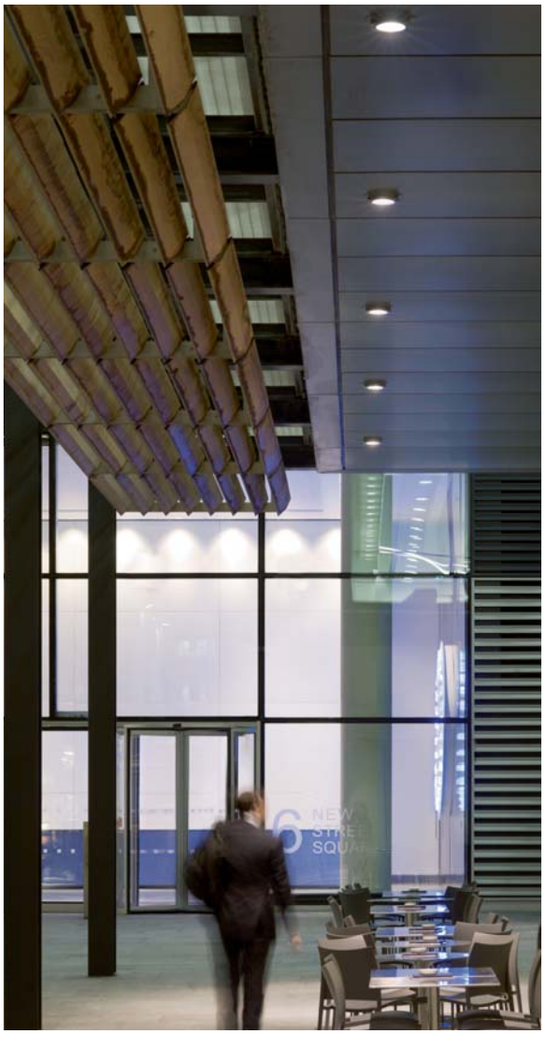
ECG control gear in thermally separated compartment.

A pre-installation blockout, proud or flush, is available and recommended for mounting in concrete ceilings. To be ordered separately.

Light source
HIT 20-70 W

Light distributions
[M] [EE]

Accessories
- **Mounting, page 132**
- **Optical, page 134**



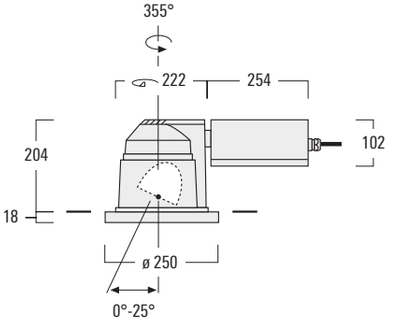
New Street Square. London (UK). Architect: Bennett Associates, London. Lighting design: Speirs & Majors Associates, London.

[M]

[EE]

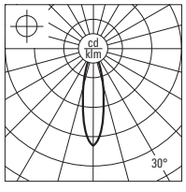
[M] Medium beam distribution, symmetric

[EE] Very narrow beam distribution, symmetric

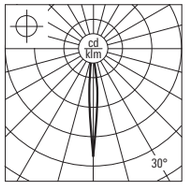


[M]	Part ID	Light source	lm	cd/klm	C_0C_{180}	kg
DOC240-GB	134-1155 [ECG]	HIT-TC-CE 20W G8.5	1700	2145	12°/12°	6.8
	134-1156 [ECG]	HIT-TC-CE 35W G8.5	3500	1441	18°/18°	6.8
	134-1157 [ECG]	HIT-TC-CE 70W G8.5	6900	1296	17°/17°	6.8

[EE]	Part ID	Light source	lm	cd/klm	C_0C_{180}	kg
DOC240-GB	134-1158 [ECG]	HIT-TC-CE 20W G8.5	1700	10244	4°/4°	6.8
	134-1159 [ECG]	HIT-TC-CE 35W G8.5	3500	11214	4°/4°	6.8
	134-1160 [ECG]	HIT-TC-CE 70W G8.5	6900	7479	4°/4°	6.8



[M]



[EE]

DOC200 SERIES

Downlight, wide, medium, very narrow beam or very narrow beam distribution 'sharp cut-off', symmetric.

IP66, Class I. IK07. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gasket. Safety glass lens, hinged. Frame with safety catch. Two cable entries.

EC electronic converter in thermally separated compartment.

Factory installed LED circuit board. LED boards can be easily removed for upgrading. PMMA LED lens array.

A pre-installation blockout, proud or flush, is available and recommended for mounting in concrete ceilings. To be ordered separately.

Light source
LED 12-48 W, 3000 K,
for 4000 K refer to www.we-ef.com

Light distributions
[B] [M] [EE] [EES]

Accessories
- **Mounting, page 132**
- **Optical, page 134**

Metro station Breslauer Platz, Köln (D). Architect: Architekturbüro Bueder + Wenzel Architekten, Köln. Lichting design: Licht Kunst Licht, Bonn/Berlin.


[B]


[M]


[EE]


[EES]

[B] Wide beam distribution, symmetric

[M] Medium beam distribution, symmetric

[EE] Very narrow beam distribution, symmetric

[EES] Very narrow beam distribution, symmetric, 'sharp cut-off'

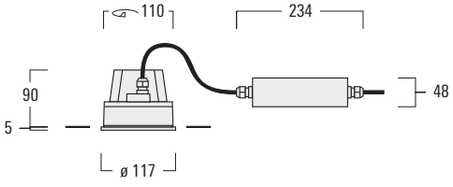
[B]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}	kg
DOC210	134-1625	6 LED 12W / 700 mA	3000	1476	934	25°/25°	1.2
DOC220	134-1332	12 LED 24W / 700 mA	3000	2951	920	25°/25°	2.0
DOC240	134-1396	24 LED 48W / 700 mA	3000	5903	934	25°/25°	2.0

[M]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}	kg
DOC210	134-1627	6 LED 12W / 700 mA	3000	1476	2196	16°/16°	1.2
DOC220	134-1210	12 LED 24W / 700 mA	3000	2951	2196	16°/16°	2.0
DOC240	134-1398	24 LED 48W / 700 mA	3000	5903	2196	16°/16°	2.0

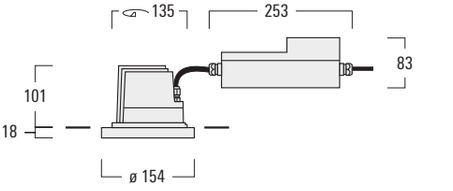
[EE]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}	kg
DOC210	134-1631	6 LED 12W / 700 mA	3000	1476	7207	7°/7°	1.2
DOC220	134-1335	12 LED 24W / 700 mA	3000	2951	7191	7°/7°	2.0
DOC240	134-1400	24 LED 48W / 700 mA	3000	5903	7207	7°/7°	2.0

[EES]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}	kg
DOC210	134-1633	6 LED 12W / 700 mA	3000	1476	22108	5°/5°	1.2
DOC220	134-1211	12 LED 24W / 700 mA	3000	2951	20398	5°/5°	2.0
DOC240	134-1402	24 LED 48W / 700 mA	3000	5903	22108	5°/5°	2.0

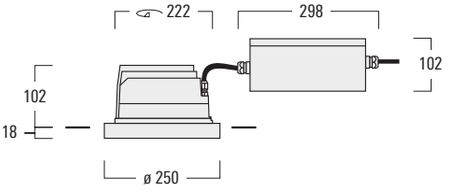
DOC210

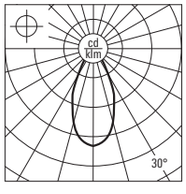


DOC220

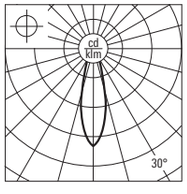


DOC240

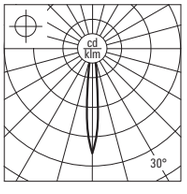




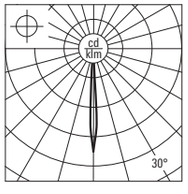
[B]



[M]



[EE]



[EES]

* Nominal lumen output based on LED manufacturers data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

DOC200 SERIES

Downlight, wide beam distribution, 'darklight', symmetric.

IP66, Class I. IK07. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gasket. Safety glass lens, hinged. Frame with safety catch. Two cable entries. Anodised aluminium reflector with PMMA LED diffuser.

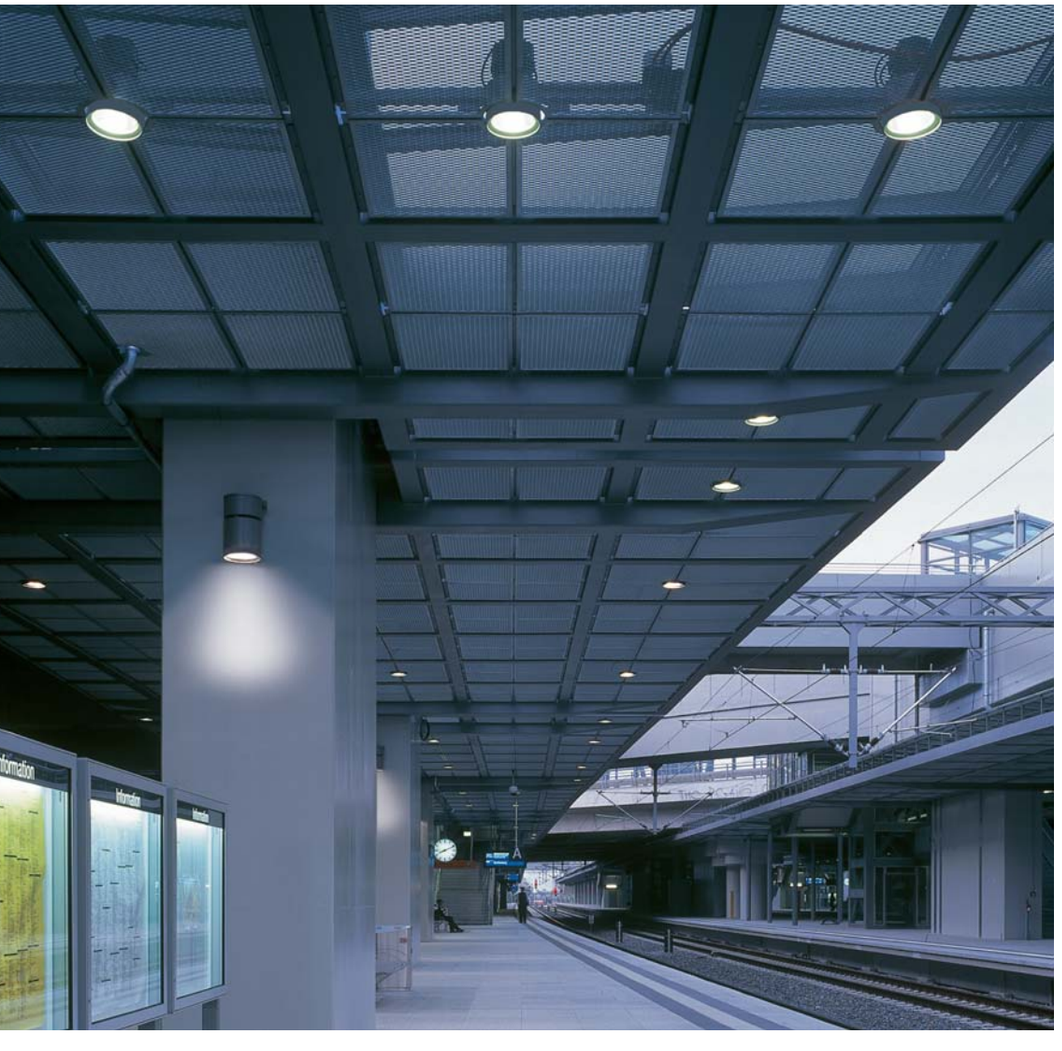
EC electronic converter in thermally separated compartment.

A pre-installation blockout, proud or flush, is available and recommended for mounting in concrete ceilings. To be ordered separately.

Light source
LED 24 W, 3000 K,
for 4000 K refer to www.we-ef.com

Light distribution
[BD]

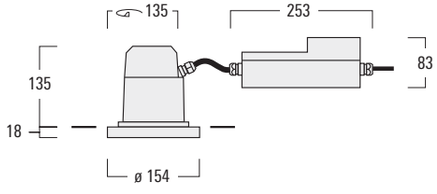
Accessories
■ **Mounting, page 132**

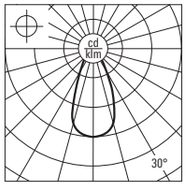


Train station Berlin Südkreuz. Berlin (D). Architect: J.S.K. GmbH, Berlin. Lighting design: DE Consult, Berlin.

[BD] Wide beam distribution, symmetric – Darklight

[BD]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}	kg
DOC220	134-1483	LED-FT 24W	3000	3795	752	25°/25°	2.3





[BD]

* Nominal lumen output based on LED manufacturers data at 25°C T_c. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

DOC200 SERIES

Downlight, medium or very narrow beam distribution, symmetric.

IP66, Class I. IK07. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gasket. Safety glass lens, hinged. Frame with safety catch. Two cable entries. Anodised aluminium reflector.

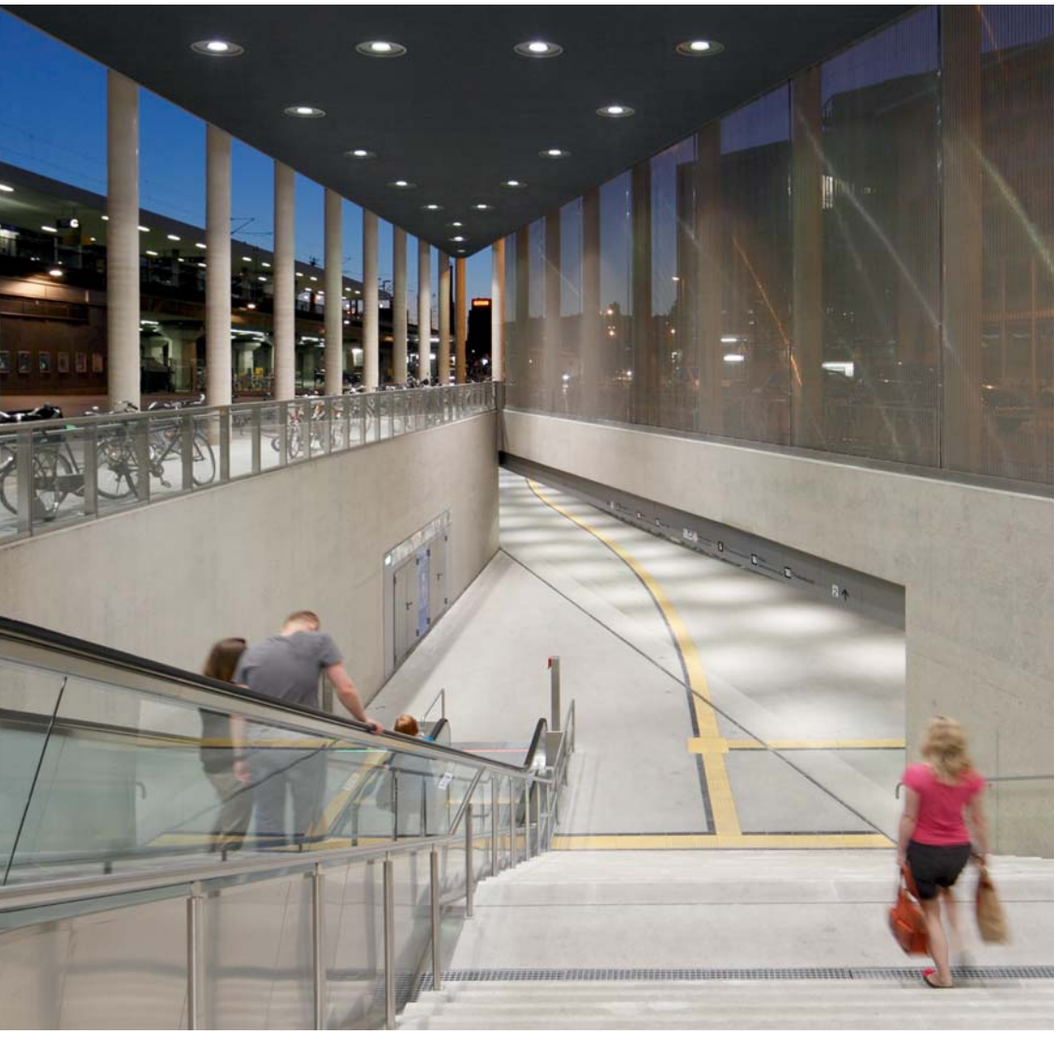
HPF or ECG control gear in thermally separated compartment.

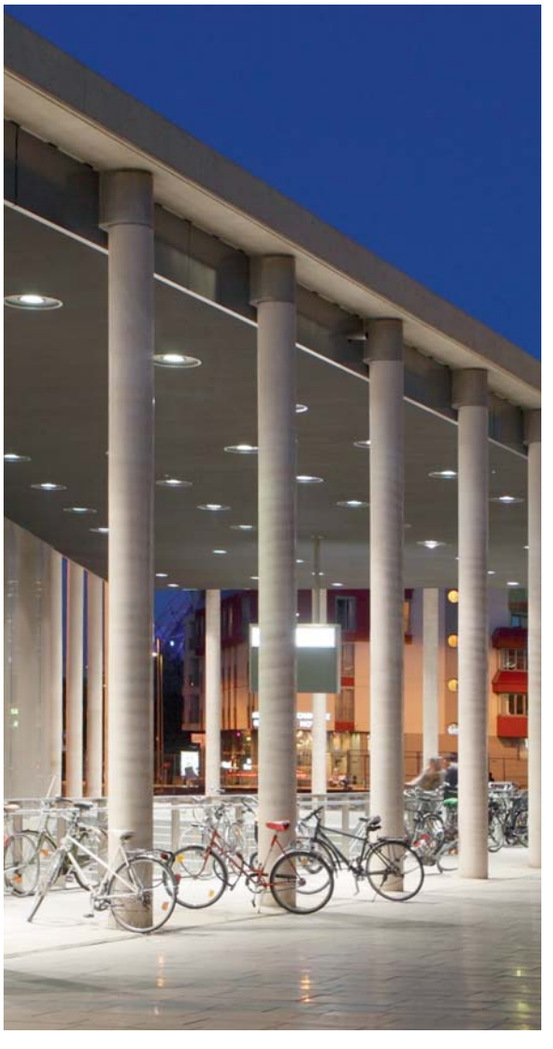
A pre-installation blockout, proud or flush, is available and recommended for mounting in concrete ceilings.

Light source
HIT 20-150 W

Light distributions
[M] [EE]

Accessories
- **Mounting, page 132**
- **Optical, page 134**





Metro station Breslauer Platz, Koeln (D). Architect: Architekturbüro Büder + Wenzel Architekten. Lighting design: Licht Kunst Licht.

[M]

[EE]

[M] Medium beam distribution, symmetric

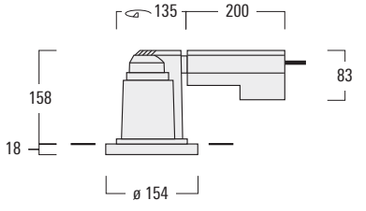
[EE] Very narrow beam distribution, symmetric

[M]	Part ID	Light source	lm	cd/klm	C_0C_{180}	kg
DOC220	134-0802 [ECG]	HIT-TC-CE 20W G8.5	1700	2145	12°/12°	2.6
	134-0803 [ECG]	HIT-TC-CE 35W G8.5	3500	1441	18°/18°	2.6
DOC240	134-0815 [ECG]	HIT-CE 70W G12	7300	1643	20°/20°	5.8
	134-0816 [ECG+G9]*	HIT-CE 70W G12	7300	1643	20°/20°	5.8
	134-0819 [HPF]	HIT-CE 150W G12	15000	1280	23°/23°	7.5
	134-0820 [HPF+G9]*	HIT-CE 150W G12	15000	1280	23°/23°	7.5

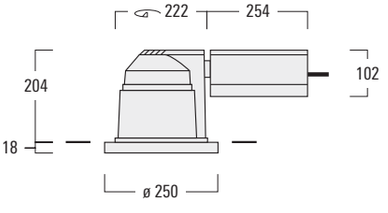
[EE]	Part ID	Light source	lm	cd/klm	C_0C_{180}	kg
DOC220	134-0805 [ECG]	HIT-TC-CE 20W G8.5	1700	10244	4°/4°	2.6
	134-0806 [ECG]	HIT-TC-CE 35W G8.5	3500	11214	4°/4°	2.6
DOC240	134-0825 [ECG]	HIT-CE 70W G12	7300	29929	3°/3°	5.8
	134-0826 [ECG+G9]*	HIT-CE 70W G12	7300	29929	3°/3°	5.8
	134-0829 [HPF]	HIT-CE 150W G12	15000	18752	4°/4°	7.5
	134-0830 [HPF+G9]*	HIT-CE 150W G12	15000	18752	4°/4°	7.5

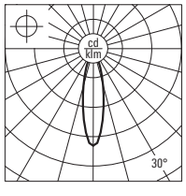
* Version with HPF or ECG control gear and lampholder G9 for emergency light.

DOC220

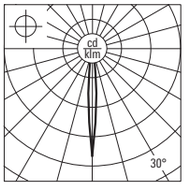


DOC240





[M]



[EE]

DAC200 GIMBAL SERIES

Surface mounted downlight, wide, medium, very narrow or very narrow beam distribution 'sharp cut-off', symmetric, or wallwash distribution, asymmetric. Tilt and rotatable.

IP65, Class I. IK07. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gasket. Safety glass lens, hinged. Frame with safety catch. Two cable entries.

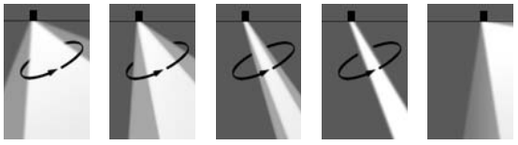
EC electronic converter in thermally separated compartment.

Factory installed LED circuit board. LED boards can be easily removed for upgrading. PMMA LED lens array. 30° tilt and 355° rotatable.

Light source
LED 18 W, 3000 K,
for 4000 K refer to www.we-ef.com

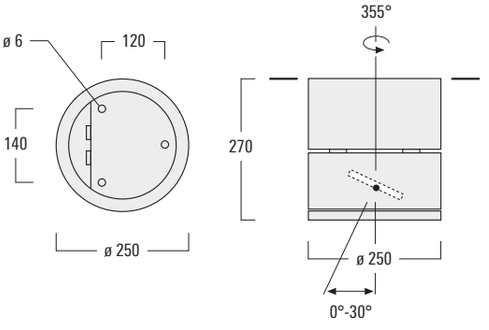
Light distributions
[B] [M] [EE] [EES] [A20]

Accessories
■ **Optical, page 134**



[B] [M] [EE] [EES] [A20]

[B] Wide beam distribution, symmetric
[M] Medium beam distribution, symmetric,
[EE] Very narrow beam distribution, symmetric
[EES] Very narrow beam distribution, symmetric, 'sharp cut-off'
[A20] Wallwash distribution, asymmetric



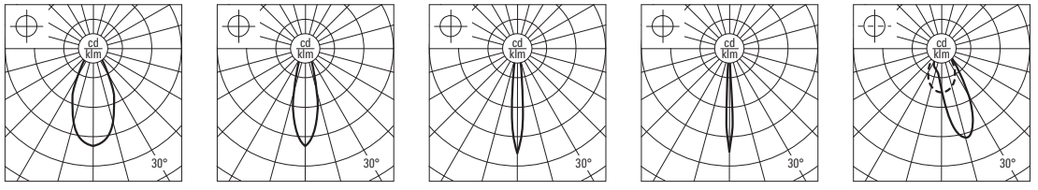
[B]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}		kg
DAC240-GB	134-1596	12 LED 18W / 500 mA	3000	2217	920	25°/25°		8.5

[M]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}		kg
DAC240-GB	134-1598	12 LED 18W / 500 mA	3000	2217	2196	16°/16°		8.5

[EE]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}		kg
DAC240-GB	134-1602	12 LED 18W / 500 mA	3000	2217	7191	7°/7°		8.5

[EES]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}		kg
DAC240-GB	134-1605	12 LED 18W / 500 mA	3000	2217	20389	5°/5°		8.5

[A20]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}	$C_{90}C_{270}$	kg
DAC240-GB	134-1600	12 LED 18W / 500 mA	3000	2217	787	15°/16°	35°/35°	8.5



[B] [M] [EE] [EES] [A20]

* Nominal lumen output based on LED manufacturers data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

DAC200 SERIES

Surface mounted downlight, wide, medium, very narrow or very narrow beam 'sharp cut-off' distribution, symmetric.

IP65, Class I. IK07. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gasket. Safety glass lens, hinged. Frame with safety catch. Two cable entries.

EC electronic converter in thermally separated compartment.

Factory installed LED circuit board. LED boards can be easily removed for upgrading. PMMA LED lens array.

Light source
LED 24-48 W, 3000 K,
for 4000 K refer to www.we-ef.com

Light distributions
[B] [M] [EE] [EES]

Accessories
■ **Optical, page 134**

Steinmüller passage. Gummersbach (D)


[B]


[M]


[EE]


[EES]

[B] Wide beam distribution, symmetric

[M] Medium beam distribution, symmetric

[EE] Very narrow beam distribution, symmetric

[EES] Very narrow beam distribution, symmetric, 'sharp cut-off'

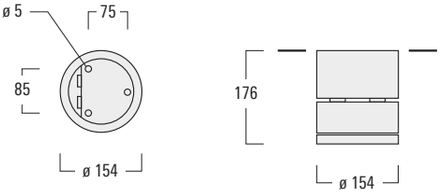
[B]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}	kg
DAC220	134-1424	12 LED 24W / 700 mA	3000	2951	920	25°/25°	2.9
DAC240	134-1432	24 LED 48W / 700 mA	3000	5903	934	25°/25°	7.6

[M]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}	kg
DAC220	134-1425	12 LED 24W / 700 mA	3000	2951	2196	16°/16°	2.9
DAC240	134-1433	24 LED 48W / 700 mA	3000	5903	2196	16°/16°	7.6

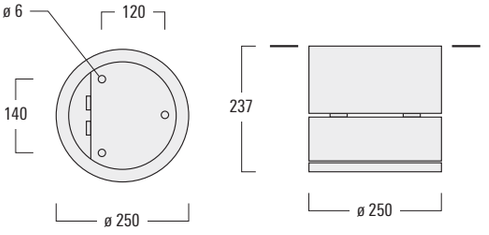
[EE]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}	kg
DAC220	134-1426	12 LED 24W / 700 mA	3000	2951	7191	7°/7°	2.9
DAC240	134-1434	24 LED 48W / 700 mA	3000	5903	7207	7°/7°	7.6

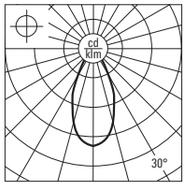
[EES]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}	kg
DAC220	134-1427	12 LED 24W / 700 mA	3000	2951	20398	5°/5°	2.9
DAC240	134-1435	24 LED 48W / 700 mA	3000	5903	22108	5°/5°	7.6

DAC220

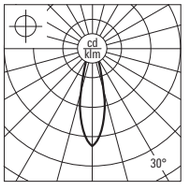


DAC240

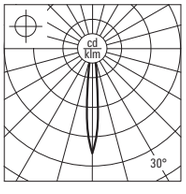




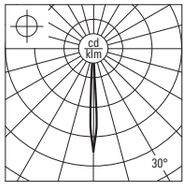
[B]



[M]



[EE]



[EES]

* Nominal lumen output based on LED manufacturers data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

DAC200 SERIES

Surface mounted downlight, medium or very narrow beam distribution, symmetric.

IP65, Class I. IK07. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gasket. Safety glass lens, hinged. Frame with safety catch. Two cable entries. Anodised aluminium reflector.

HPF or ECG control gear in thermally separated compartment.

Light source
QT 65 W
HIT 20-150 W

Light distributions
[M] [EE]

Accessories
■ **Optical, page 134**

Southern Cross Station. Melbourne (AUS). Architect: Nicholas Grimshaw & Partners. Lighting design: Vision Design Studio.

[M]

[EE]

[M] Medium beam distribution, symmetric

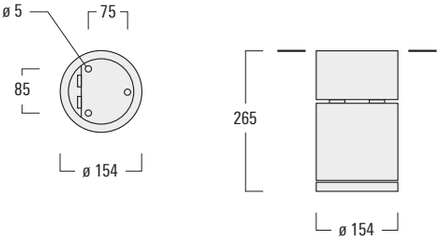
[EE] Very narrow beam distribution, symmetric

[M]	Part ID	Light source	lm	cd/klm	C_0C_{180}	kg
DAC220	134-1456 [ET]	QT 12ax 65W/c GY6.35	1650	1481	10°/10°	3.2
	134-1457 [ECG]	HIT-TC-CE 20W G8.5	1700	2145	12°/12°	3.3
	134-1458 [ECG]	HIT-TC-CE 35W G8.5	3500	1441	18°/18°	3.3
DAC240	134-1470 [ECG]	HIT-CE 70W G12	7300	1643	20°/20°	8.8
	134-1471 [ECG+G9]*	HIT-CE 70W G12	7300	1643	20°/20°	8.9
	134-1472 [HPF]	HIT-CE 150W G12	15000	1280	23°/23°	10.0
	134-1473 [HPF+G9]*	HIT-CE 150W G12	15000	1280	23°/23°	10.1

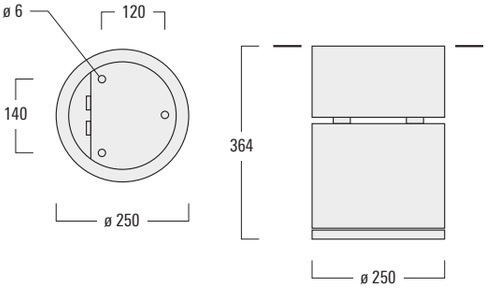
[EE]	Part ID	Light source	lm	cd/klm	C_0C_{180}	kg
DAC220	134-1459 [ET]	QT 12ax 65W/c GY6.35	1650	20740	3°/3°	3.2
	134-1460 [ECG]	HIT-TC-CE 20W G8.5	1700	10244	4°/4°	3.3
	134-1461 [ECG]	HIT-TC-CE 35W G8.5	3500	11214	4°/4°	3.3
DAC240	134-1476 [ECG]	HIT-CE 70W G12	7300	29929	3°/3°	8.8
	134-1477 [ECG+G9]*	HIT-CE 70W G12	7300	29929	3°/3°	8.9
	134-1478 [HPF]	HIT-CE 150W G12	15000	18752	4°/4°	10.0
	134-1479 [HPF+G9]*	HIT-CE 150W G12	15000	18752	4°/4°	10.1

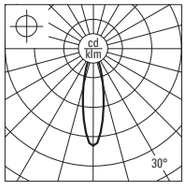
* Version with HPF or ECG control gear and lampholder G9 for emergency light.

DAC220

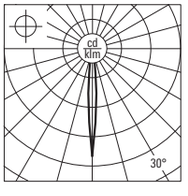


DAC240





[M]



[EE]

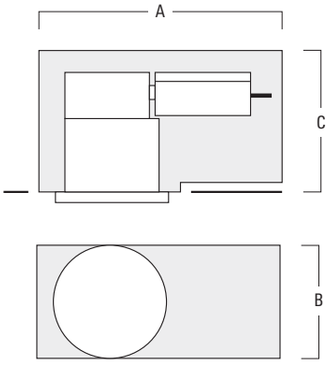
MOUNTING ACCESSORIES

Installation blockout — Luminaire frame proud of surface			A	B	C
BDO21-I	134-1639	for DOC210	383	200	160
BDO22-I	134-0797	for DOC220	383	200	209
BDO24-I	134-0798	for DOC240 / DOC240-GB	570	305	285

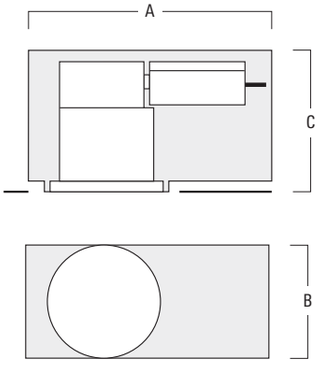
Installation blockout — Luminaire frame flush with surface			A	B	C
BDO21-II	134-1640	for DOC210	383	200	178
BDO22-II	134-1161	for DOC220	383	200	227
BDO24-II	134-1162	for DOC240 / DOC240-GB	573	305	303

Installation blockout — Luminaire frame flush with surface, with shadow line			A	B	C
BDO21-III	134-1641	for DOC210	383	200	178
BDO22-III	134-1497	for DOC220	383	200	227
BDO24-III	134-1498	for DOC240 / DOC240-GB	573	305	303

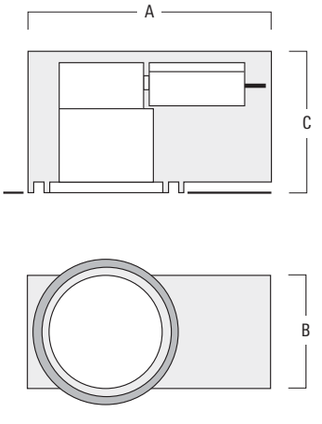
Installation blockouts to suit project specific requirements are available on request.



Type I
Luminaire frame proud of surface



Type II
Luminaire frame flush with surface



Type III
Luminaire frame flush with surface, with shadow line

Metro station Heumarkt, Köln (D). Planning: Lichtdesign Ingenieurgesellschaft Prof. Dr. Ing Heinrich Kramer, Köln.

OPTICAL ACCESSORIES

Gimbal and Fixed

A maximum of one internal optical accessory.

Flood lens IO-360	
for DOC220* / DAC220	134-1440
for DOC240 / DAC240	134-1441
for DOC240-GB / DAC240-GB	134-1442

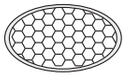
Linear spread lens IO-180	
for DOC220* / DAC220	134-1381
for DOC240 / DAC240	134-1382
for DOC240-GB / DAC240-GB	185-2632

Wallwash lens IO-20	
for DOC220* / DAC220 [M]	134-1491
for DOC240 / DAC240 [M]	134-1492

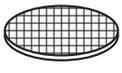
Honeycomb louvre IW**	
for DOC220* / DAC220	134-1444
for DOC240 / DAC240	134-1445
for DOC240-GB / DAC240-GB	134-1449

* not suitable for [BD] version

** not suitable for [B] version



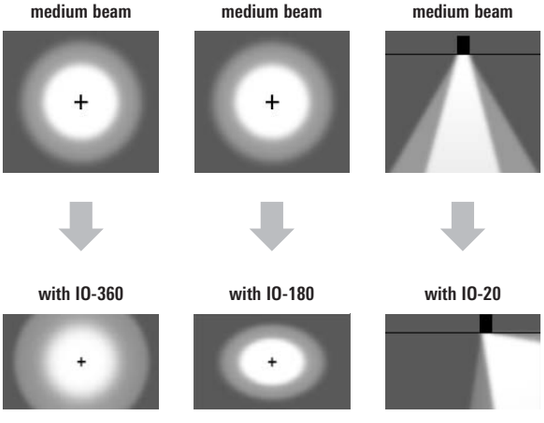
IW



IO-360

IO-180

IO-20



OPTICAL ACCESSORIES

Gimbal and Fixed

A maximum of two internal optical accessories for Gimbal and one for Fixed.

Flood lens IO-360	
for DOC220 / DAC220	134-1167
for DOC240 / DAC240	134-1174
for DOC240-GB	134-1181

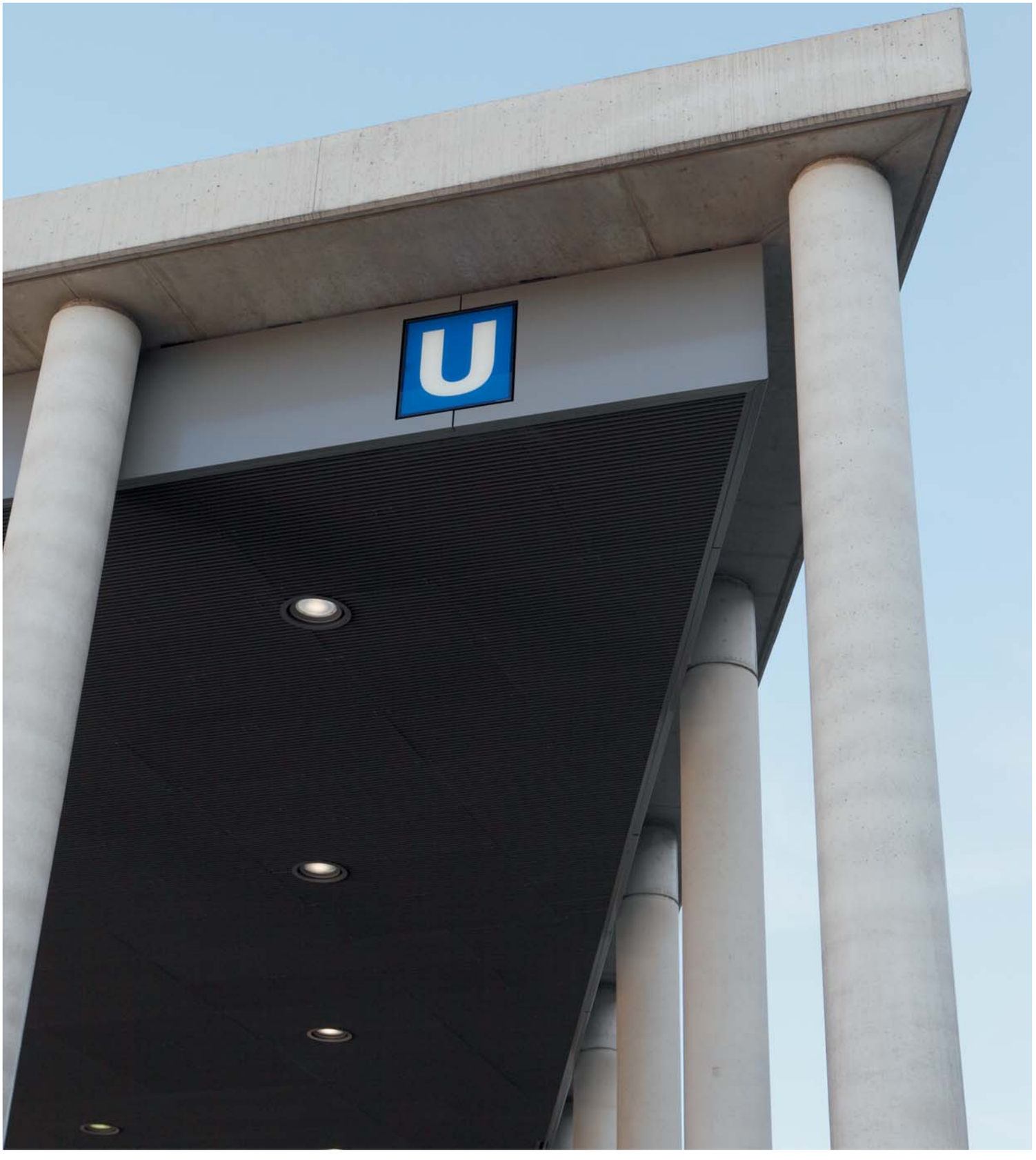
Linear spread lens IO-180	
for DOC220 / DAC220	134-1168
for DOC240 / DAC240	134-1175
for DOC240-GB	134-1182

Dichroic Colour Filter IF	red	green	blue	yellow
for DOC220 / DAC220	134-1163	134-1164	134-1165	134-1166
for DOC240 / DAC240	134-1170	134-1171	134-1172	134-1173
for DOC240-GB	134-1177	134-1178	134-1179	134-1180

Concentric louvre IQ	
for DOC220 / DAC220 [EE]	134-1169
for DOC240 / DAC240 [EE]	134-1176
for DOC240-GB [EE]	134-1183

IQ

IF



Metro station Heumarkt, Köln (D). Planning: Lichtdesign Ingenieurgesellschaft Prof. Dr. Ing Heinrich Kramer, Köln.

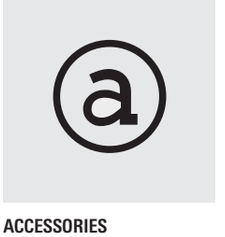
IOS® Beam distributions for bollards and pathway luminaires

[C60] controlled, symmetric

[A60] forward throw distribution, asymmetric

[ ] diffused

Bollards and pathway luminaires



GTX200 / GTY200 SERIES

Bollards and pathway luminaires, shielded light source, symmetric.

IP55, Class I. IK10. Marine-grade, all aluminium construction. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gaskets. Polycarbonate lens.

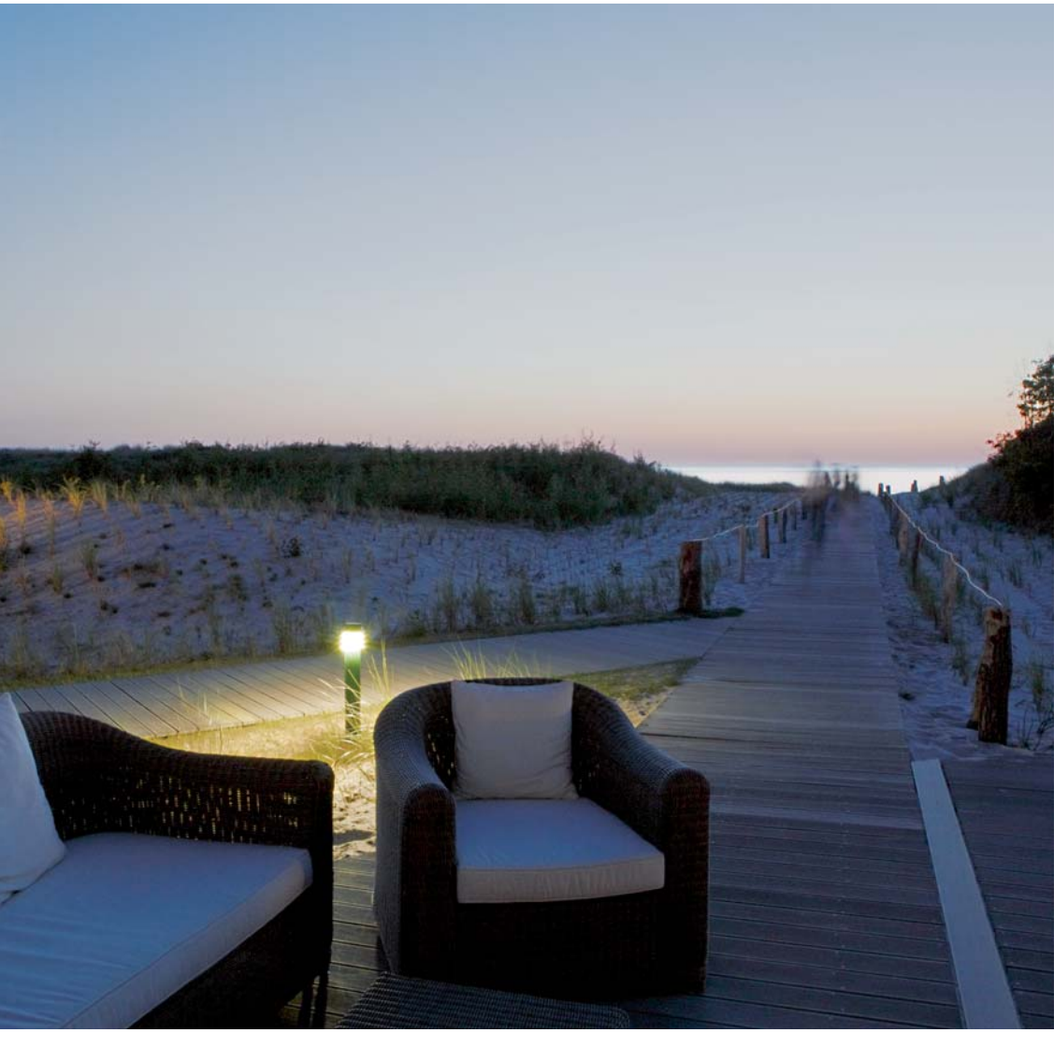
Integral EC electronic converter.

Factory installed LED circuit board. LED boards can be easily removed for upgrading.

GTY224 / GTY234: Pre-wired post complete with cable connecting box and service door for mains connection.

Light source
LED 8-12 W, 3000 K,
for 4000 K refer to www.we-ef.com

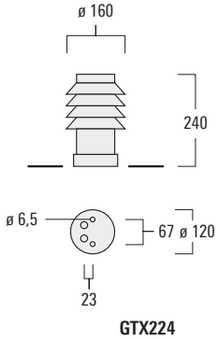
Accessories
■ **Mounting, page 152**



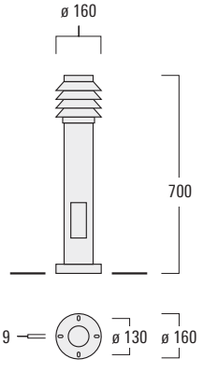
Seaside hotel Dünenmeer. Ostseebad Dierhagen (D)

GTX224

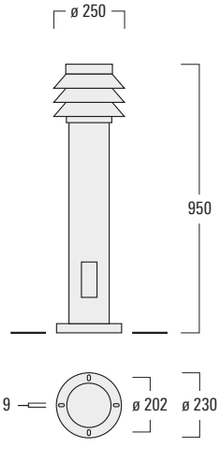
	Part ID	Light source	K	lm*	Factor**	kg
GTX224	114-9051	LED 8W / 350 mA	3000	1020	1.00	1.9
GTY224	114-9165	LED 8W / 350 mA	3000	1020	1.00	4.4
GTY234	115-9086	LED 12W / 500 mA	3000	1420	1.00	9.0



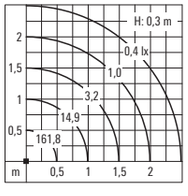
GTX224



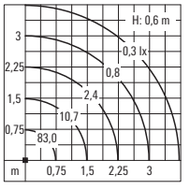
GTY224



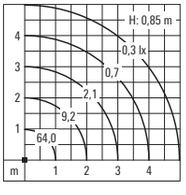
GTY234



GTX224



GTY224



GTY234

GTY224

* Nominal lumen output based on LED manufacturers data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

** Multiplier for Isolux value

XRX300 / XRY300 SERIES

Bollards and pathway luminaires, diffused distribution, symmetric.

IP55, Class I. IK10. Marine-grade, all aluminium construction. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gaskets. Polycarbonate (XRX324 / XRY324) or borosilicate glass lens (XRX334 / XRY334).

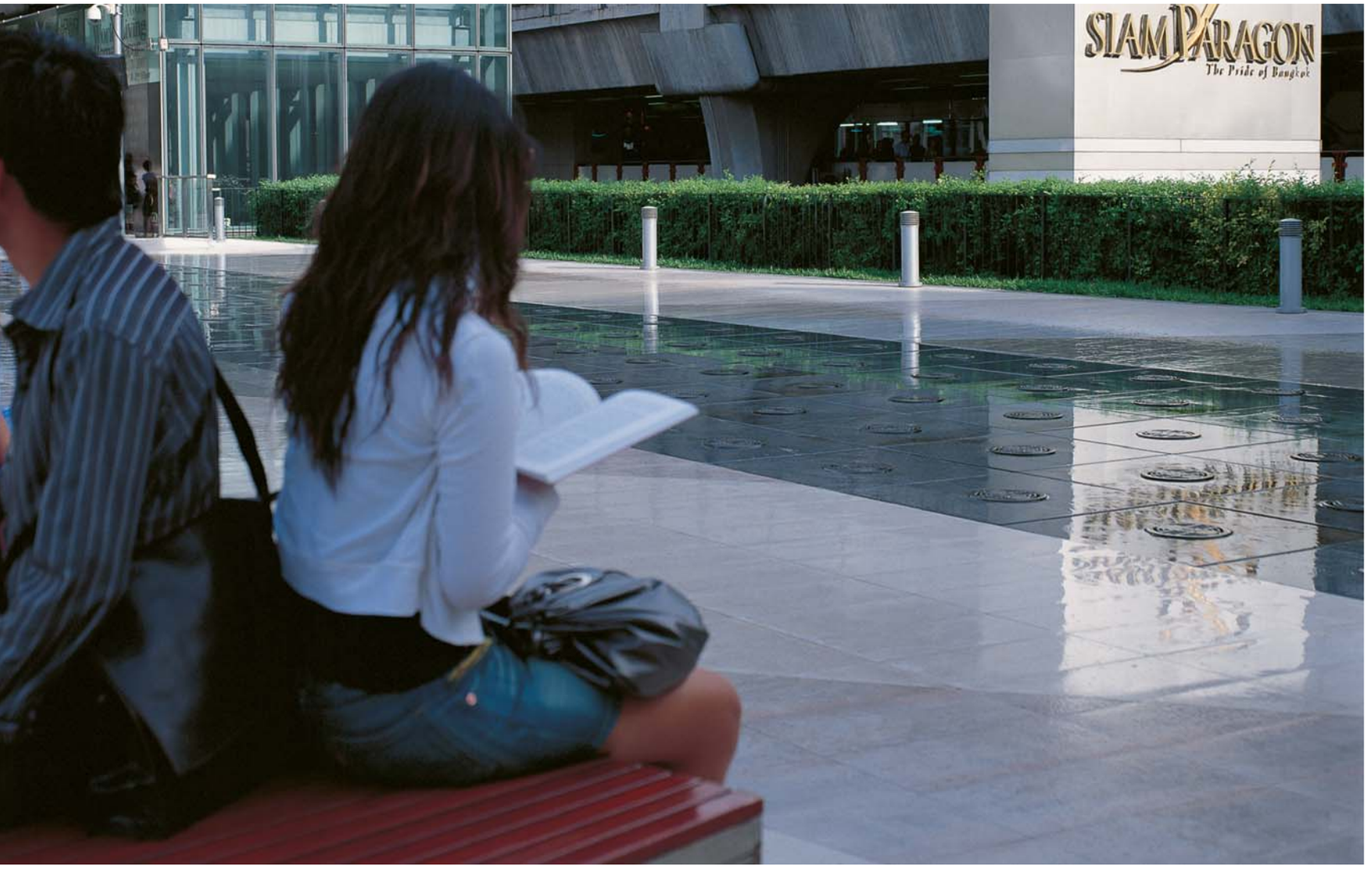
Integral EC electronic converter.

Factory installed LED circuit board. LED boards can be easily removed for upgrading.

XRY324 / XRY334: Pre-wired post complete with cable connecting box and service door for mains connection.

Light source
LED 8-12 W, 3000 K,
for 4000 K refer to www.we-ef.com

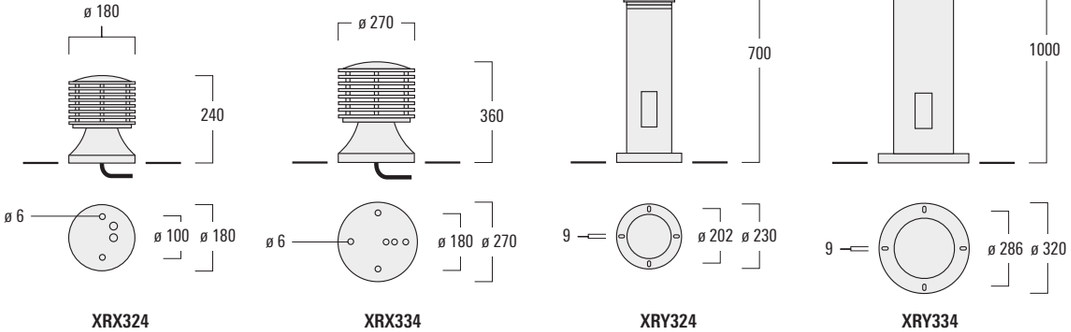
Accessories
■ **Mounting, page 152**



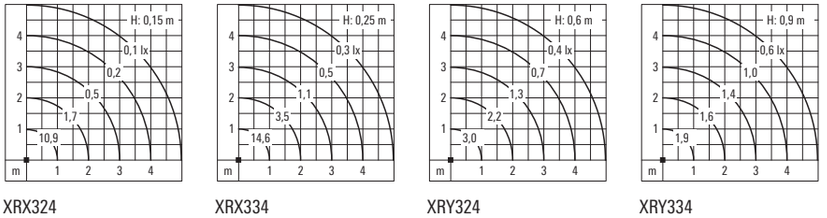
Siam Paragon Shopping Center. Bangkok (TH). Architect: Wimberly Allison Tong and Goo/RTKL International. Lighting design: LPA.

XRX334

	Part ID	Light source	K	lm*	Factor**	kg
XRX324	115-9687	LED 8W / 350 mA	3000	1020	1.00	3.4
XRX334	114-9624	LED 12W / 500 mA	3000	1420	1.00	8.3
XRY324	115-9214	LED 8W / 350 mA	3000	1020	1.00	7.5
XRY334	115-9612	LED 12W / 500 mA	3000	1420	1.00	16.8



XRX324 **XRX334** **XRY324** **XRY334**



XRX324 XRX334 XRY324 XRY334

XRY334

* Nominal lumen output based on LED manufacturers data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

** Multiplier for Isolux value

KTY200 SERIES

Bollard, controlled distribution, symmetric.

IP66, Class I. IK10. Marine-grade, all aluminium construction. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gaskets. Polycarbonate lens.

Integral EC electronic converter.

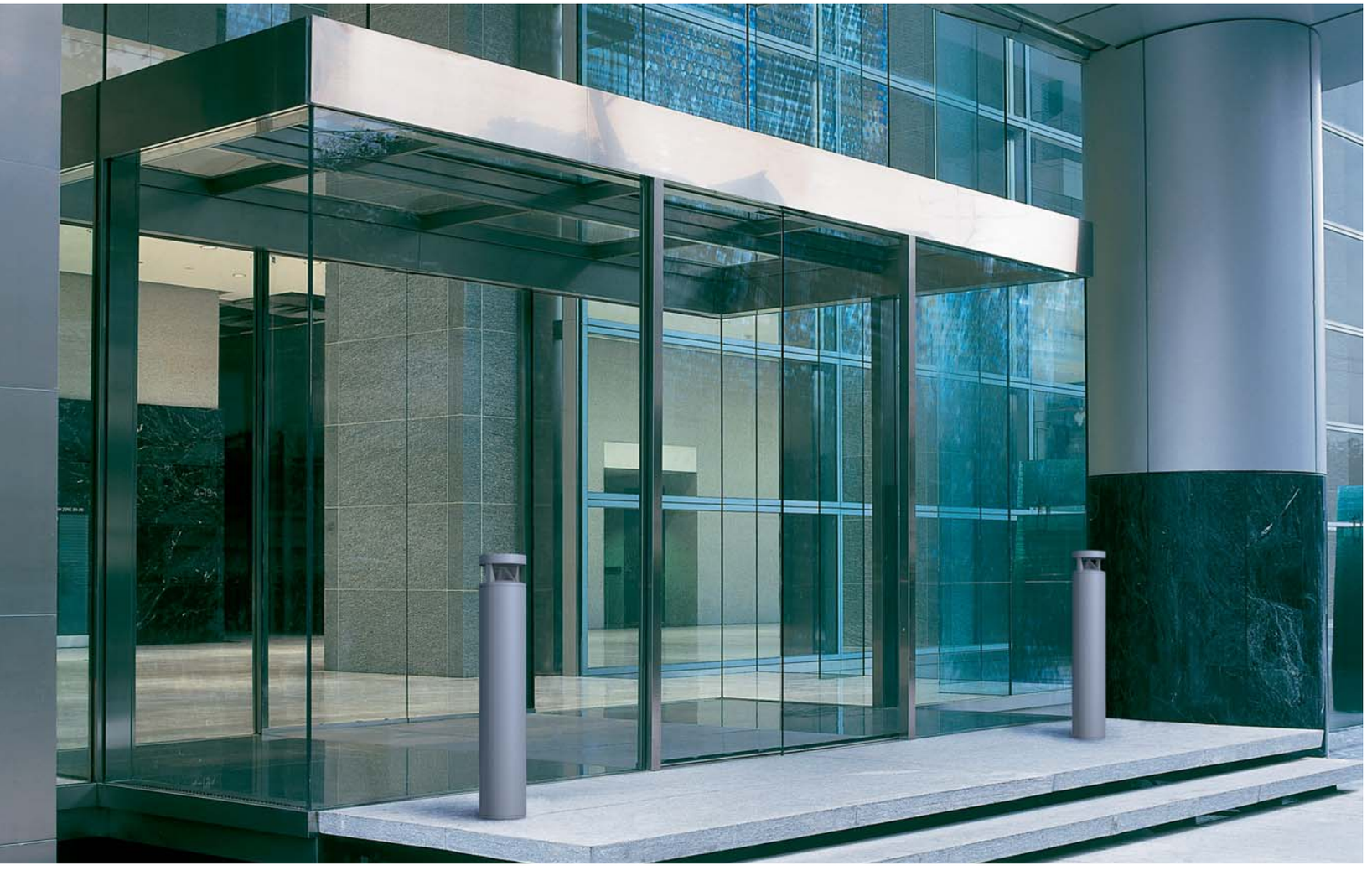
Factory installed LED circuit board. LED boards can be easily removed for upgrading.

Pre-wired post complete with cable connecting box for mains connection.

Light source
LED 18-26 W, 3000 K,
for 4000 K refer to www.we-ef.com

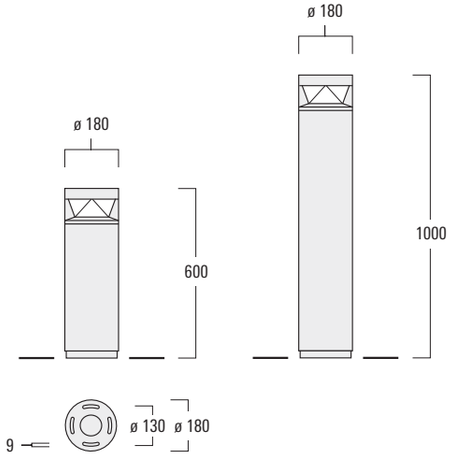
Light distribution
[C60]

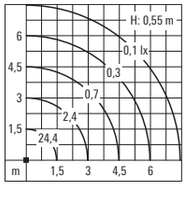
Accessories
■ **Mounting, page 152**



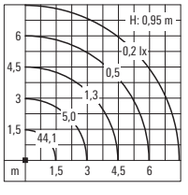
[C60] Controlled distribution, symmetric

[C60]	Height	Part ID	Light source	K	lm*	Factor**	kg
KTY234	600	114-9179	6 LED 18W / 1050 mA	3000	2340	1.00	12.8
	600	114-9181	6 LED 26W / 1400 mA	3000	2993	1.28	12.8
KTY234	1000	114-9091	6 LED 18W / 1050 mA	3000	2340	1.00	14.7
	1000	114-9093	6 LED 26W / 1400 mA	3000	2993	1.28	14.7





[C60] – H = 600 mm



[C60] – H = 1000 mm

KTY234

* Nominal lumen output based on LED manufacturers data at 85°C T_c. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

** Multiplier for Isolux value

ZFY200 SERIES

Bollard, controlled distribution, symmetric.

IP66, Class I. IK10. Marine-grade, all aluminium construction. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gaskets. Polycarbonate lens.

Integral EC electronic converter.

Factory installed LED circuit board. LED board can be easily removed for upgrading. PMMA double lens.

Pre-wired post complete with cable connecting box for mains connection.

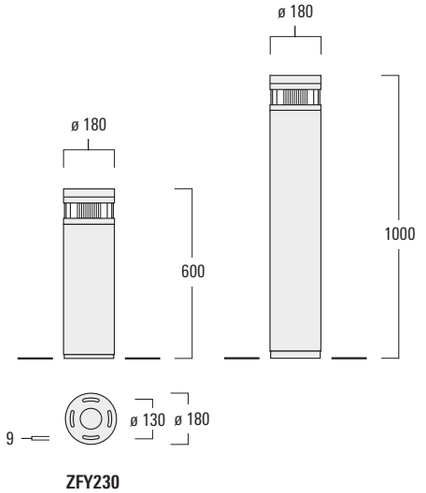
Light source
LED 17-24 W, 3000 K,
for 4000 K refer to www.we-ef.com

Light distribution
[C60]

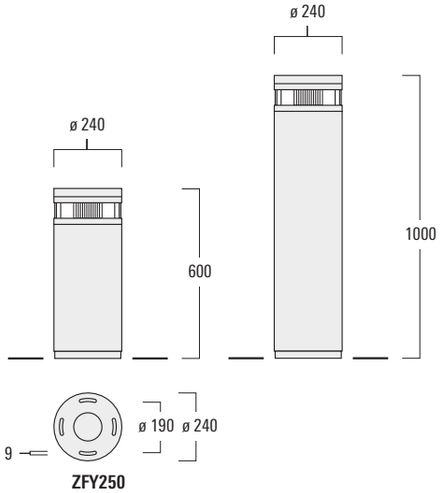
Accessories
■ **Mounting, page 152**

[C60] Controlled distribution, symmetric

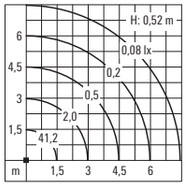
[C60]	Height	Part ID	Light source	K	lm*	Factor**	kg
ZFY230	600	117-0201	LED-FT 17W	3000	2800	1.00	12.8
ZFY230	1000	117-0199	LED-FT 17W	3000	2800	1.00	14.7
ZFY250	600	117-0207	LED-FT 17W	3000	2800	1.00	19.4
ZFY250	600	117-0209	LED-FT 24W	3000	3795	1.36	19.4
ZFY250	1000	117-0203	LED-FT 17W	3000	2800	1.00	21.5
ZFY250	1000	117-0205	LED-FT 24W	3000	3795	1.36	21.5



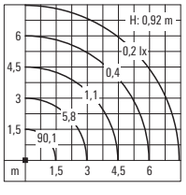
ZFY230



ZFY250



[C60] – H = 600 mm



[C60] – H = 1000 mm

ZFY230

* Nominal lumen output based on LED manufacturers data at 25°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

** Multiplier for Isolux value

CFY200 SERIES

Bollard, forward throw distribution, asymmetric.

IP66, Class I. IK10. Marine-grade, all aluminium construction. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gaskets. Polycarbonate lens.

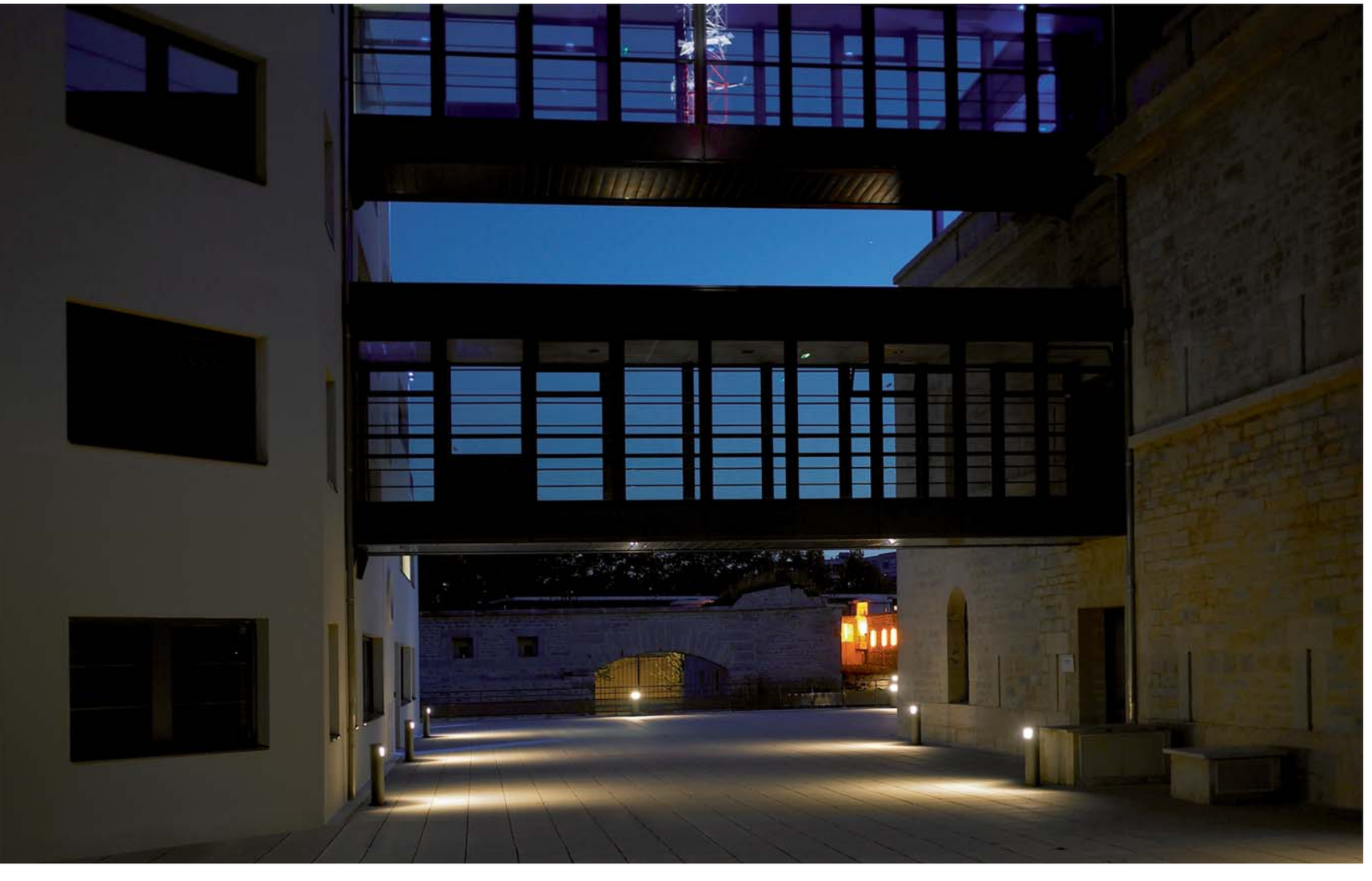
Integral EC electronic converter.

Factory installed LED circuit board. LED boards can be easily removed for upgrading.

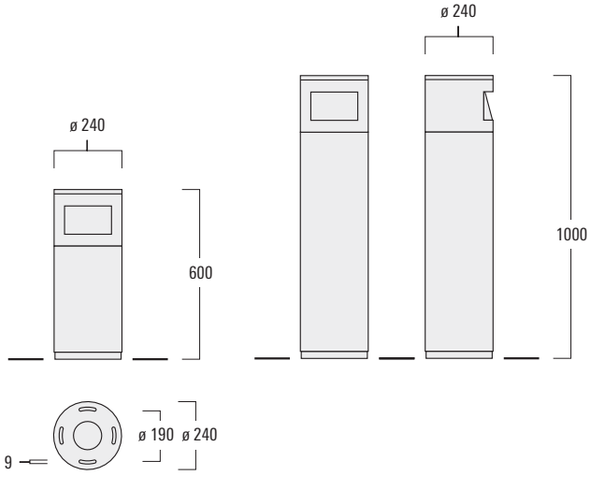
Pre-wired post complete with cable connecting box for mains connection.

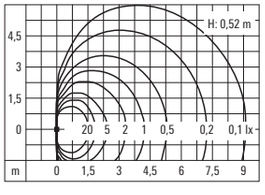
Light source
LED 6-12 W, 3000 K,
for 4000 K refer to www.we-ef.com

Accessories
■ **Mounting, page 152**

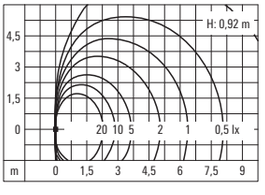


	Height	Part ID	Light source	K	lm*	Factor**	kg
CFY259	600	117-0211	40 LED 6W	3000	840	1.00	15.0
CFY259	1000	117-0217	40 LED 12W	3000	1680	1.00	17.0





H = 600 mm



H = 1000 mm

* Nominal lumen output based on LED manufacturers data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

** Multiplier for Isolux value

NTY100 SERIES

Bollard, forward throw distribution, asymmetric, single or double sided.

IP65, Class I. IK10. Marine-grade, all aluminium construction. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gaskets. Prismatic polycarbonate lens. Single or double sided distribution.

Integral EC electronic converter.

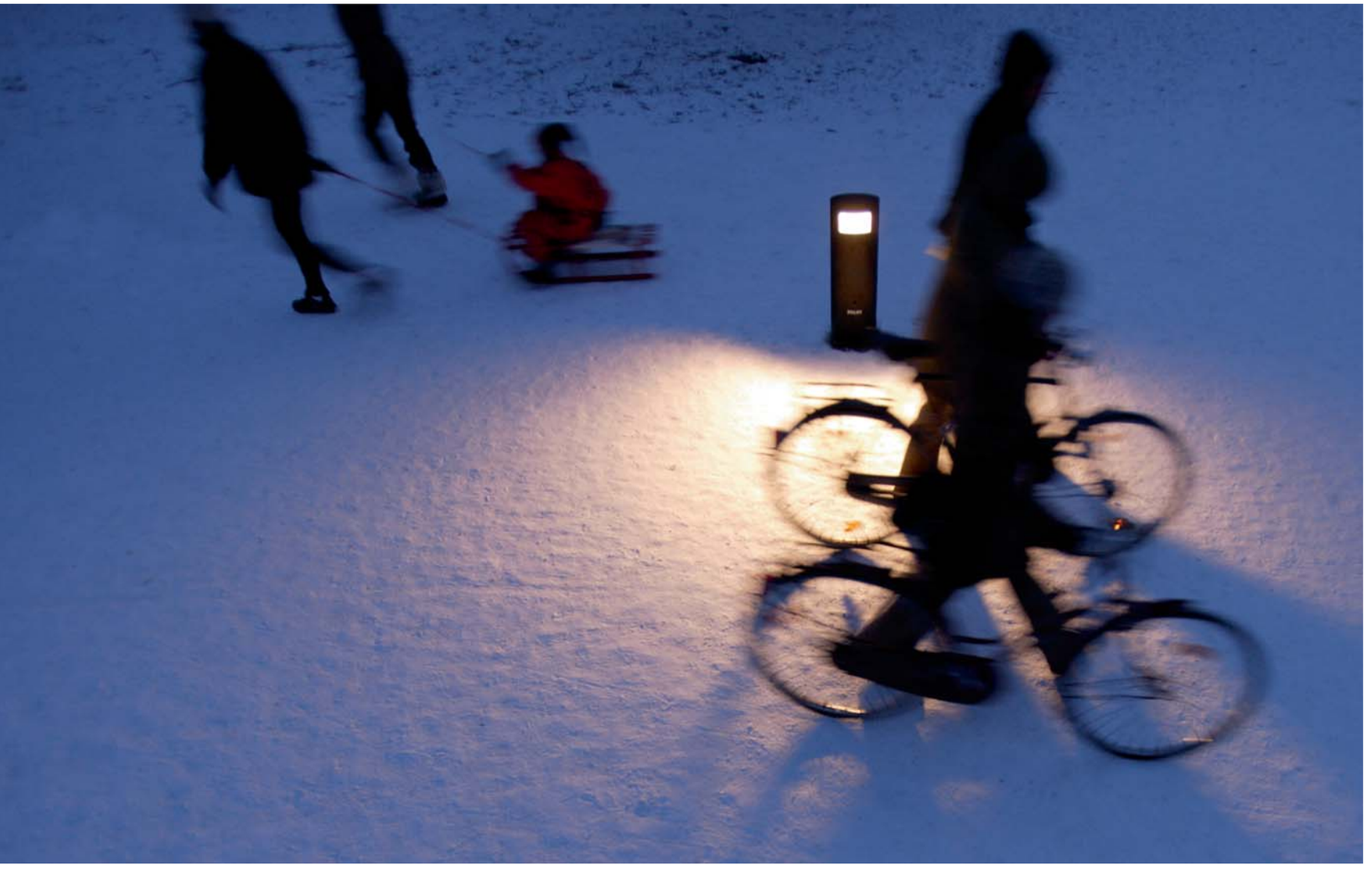
Factory installed LED circuit board. LED boards can be easily removed for upgrading.

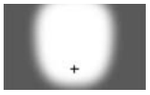
Pre-wired post complete with cable connecting box and service door for mains connection.

Light source
LED 12-36 W, 3000 K,
for 4000 K refer to www.we-ef.com

Light distribution
[A60]

Accessories
■ **Mounting, page 152**

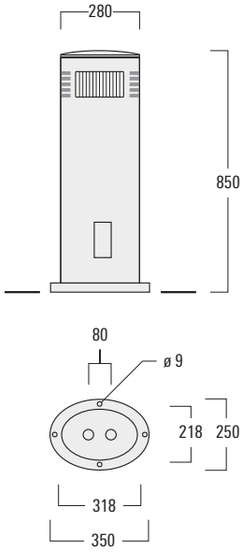


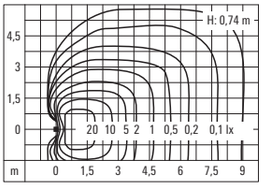


[A60] Forward throw distribution, asymmetric

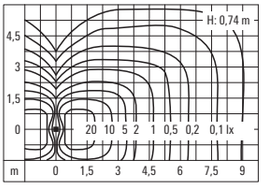
[A60] single sided	Part ID	Light source	K	lm*	Factor**	kg
NTY184	112-0303	6 LED 12W / 700 mA	3000	1476	1.00	17.0
	112-0299	6 LED 18W / 1050 mA	3000	2340	1.59	17.0

[A60] double sided	Part ID	Light source	K	lm*	Factor**	kg
NTY184	112-0305	2 x 6 LED 24W / 700 mA	3000	2 x 1476	1.00	17.0
	112-0301	2 x 6 LED 36W / 1050 mA	3000	2 x 2340	1.59	17.0





[A60] single sided



[A60] double sided

* Nominal lumen output based on LED manufacturers data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

** Multiplier for Isolux value

NTY100 SERIES

Bollard, controlled single or double sided distribution.

IP65, Class I. IK10. Marine-grade, all aluminium construction. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gaskets. Prismatic polycarbonate lens. Anodised aluminium reflector. Single or double sided distribution.

Integral ECG control gear.

Pre-wired post complete with cable connecting box and service door for mains connection.

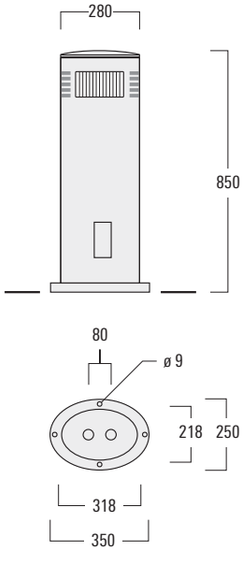
Light source
HIT 35-70 W

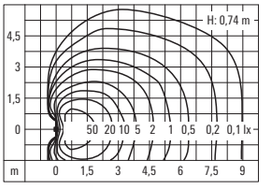
Accessories
■ **Mounting, page 152**

Fort Montluc. Lyon (F). Lighting design: Cobalt.

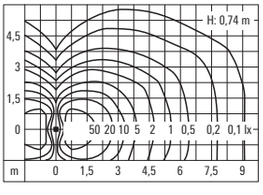
single sided	Part ID	Light source	lm	Factor*	kg
NTY184	112-0020 [ECG]	HIT-CE 35W G12	3600	1.00	17.5
	112-0021 [ECG]	HIT-CE 70W G12	7300	2.03	17.5

double sided	Part ID	Light source	lm	Factor*	kg
NTY184	112-0034 [ECG]	HIT-CE 35W G12	3600	1.00	17.5
	112-0035 [ECG]	HIT-CE 70W G12	7300	2.03	17.5





single sided



double sided

* Multiplier for Isolux value

MOUNTING ACCESSORIES

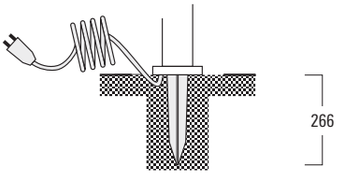
Ground spike

Stainless steel, powdercoated. Including 5 m of flexible cable and plug.

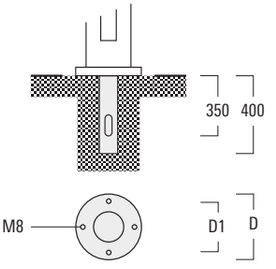
For the portable installation of border lights.			kg
for GTX224	114-9151	EF1-2 / M5	1.0

Planted roots

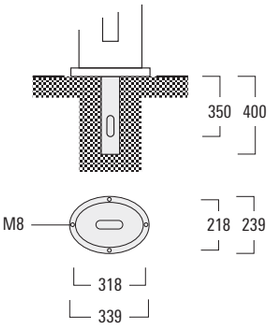
Galvanised steel, for bollards.			D	D1	kg
for KTY234 / ZFY230	300-1168	ESV4	180	130	5.0
for CFY259 / ZFY250	300-1167	ESV4	240	190	6.0
for GTY224	300-0461	ESV4	145	130	4.4
for GTY234 / XRY324	300-0464	ESV4	220	200	6.0
for XRY334	300-0586	ESV4	305	285	7.2
for NTY184	112-0022	ESV4			8.3



Ground spike EF1



Planted root ESV4
300-1168
300-1167
300-0461
300-0464
300-0586



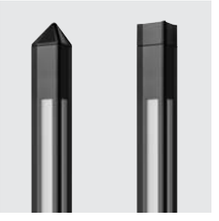
Planted root ESV4
112-0022

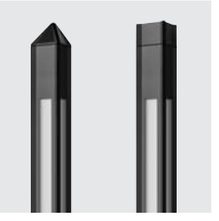
IOS® Beam distributions for light columns

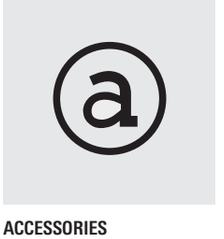
[C60] controlled, symmetric

[ ] diffused

Light columns







LSP400 / LTP400 SERIES

Trilight column, three sided light output, diffused distribution, symmetric.

IP44, Class I. IK10. Marine-grade, all aluminium construction. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gaskets. Prismatic polycarbonate lenses, 3 x 120° offset. Anodised aluminium reflector.

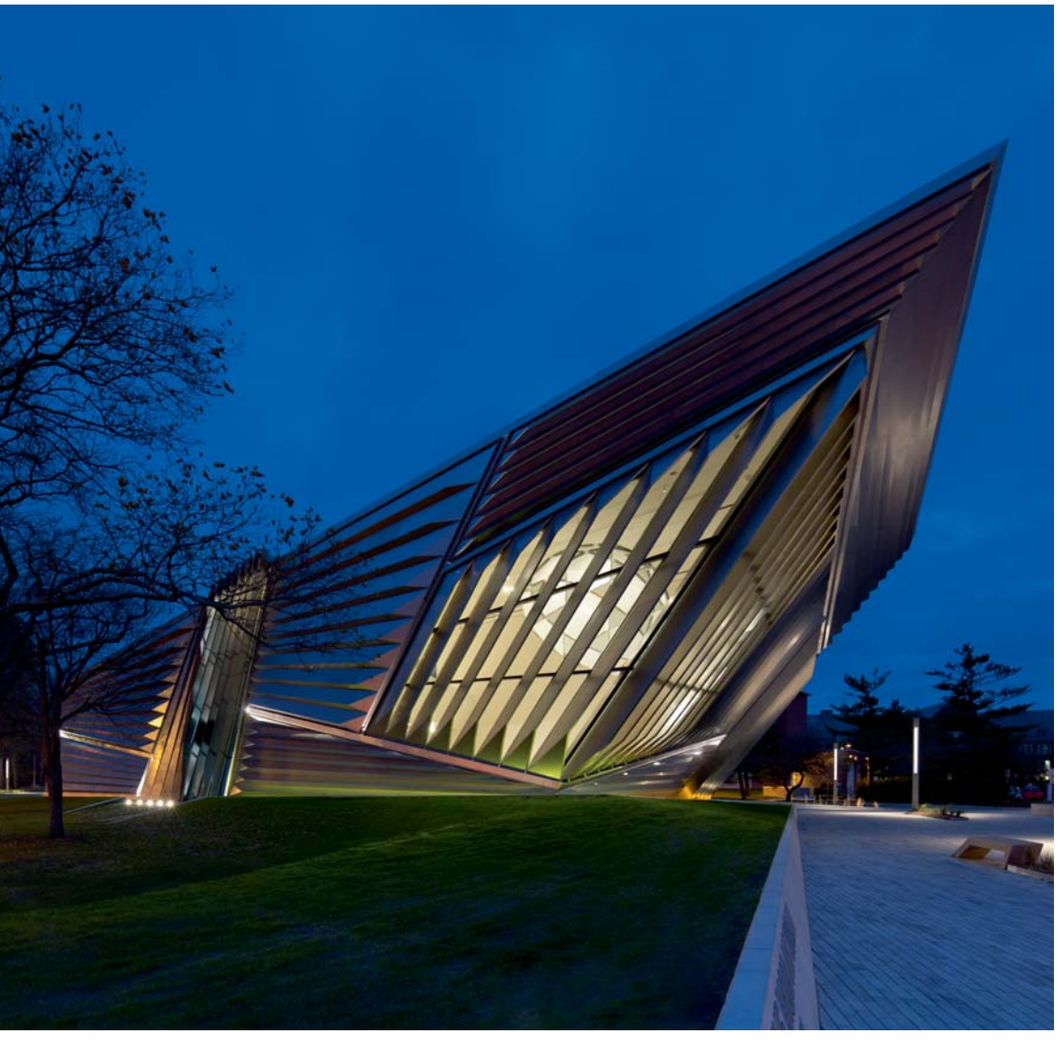
Integral EC electronic converter.

Factory installed LED circuit board. LED boards can be easily removed for upgrading.

Service door with fused cable connecting box.

Light source
LED 37 W, 3000 K,
for 4000 K refer to www.we-ef.com

Accessories
■ **Mounting, page 170**



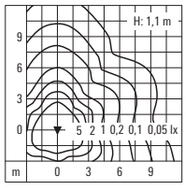
Eli and Edythe Broad Art Museum. Michigan State University. East Lansing, Michigan (USA). Archictect: Zaha Hadid Architects. Lighting design: ARUP & Peter Basso Associates.

LSP434 / LSP444

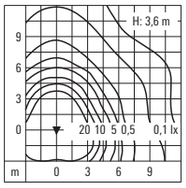
LTP444

	Part ID	Light source	K	lm*	Factor**	kg
LSP434	116-0212	LED-FT 37 W	3000	5720	1.00	16.9
LSP444	116-0208	LED-FT 37 W	3000	5720	1.00	32.6

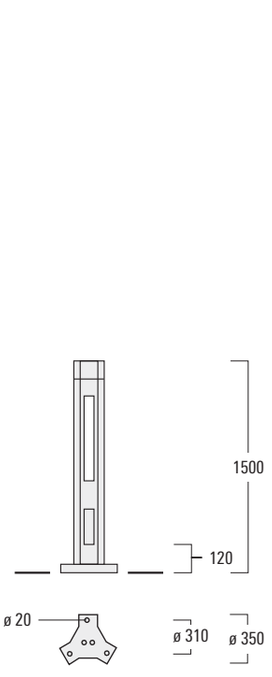
	Part ID	Light source	K	lm*	Factor**	kg
LTP434	116-0210	LED-FT 37 W	3000	5720	1.00	16.9
LTP444	116-0207	LED-FT 37 W	3000	5720	1.00	32.6



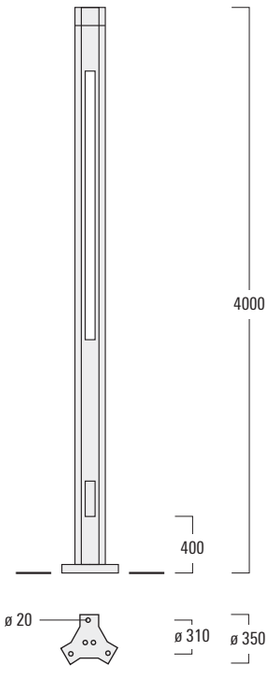
LTP434



LTP444



LTP434



LTP444

* Nominal lumen output based on LED manufacturers data at 25°C T_c. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

** Multiplier for Isolux value

LSP400 / LTP400 SERIES

Trilight column, three sided light output, diffused distribution, symmetric.

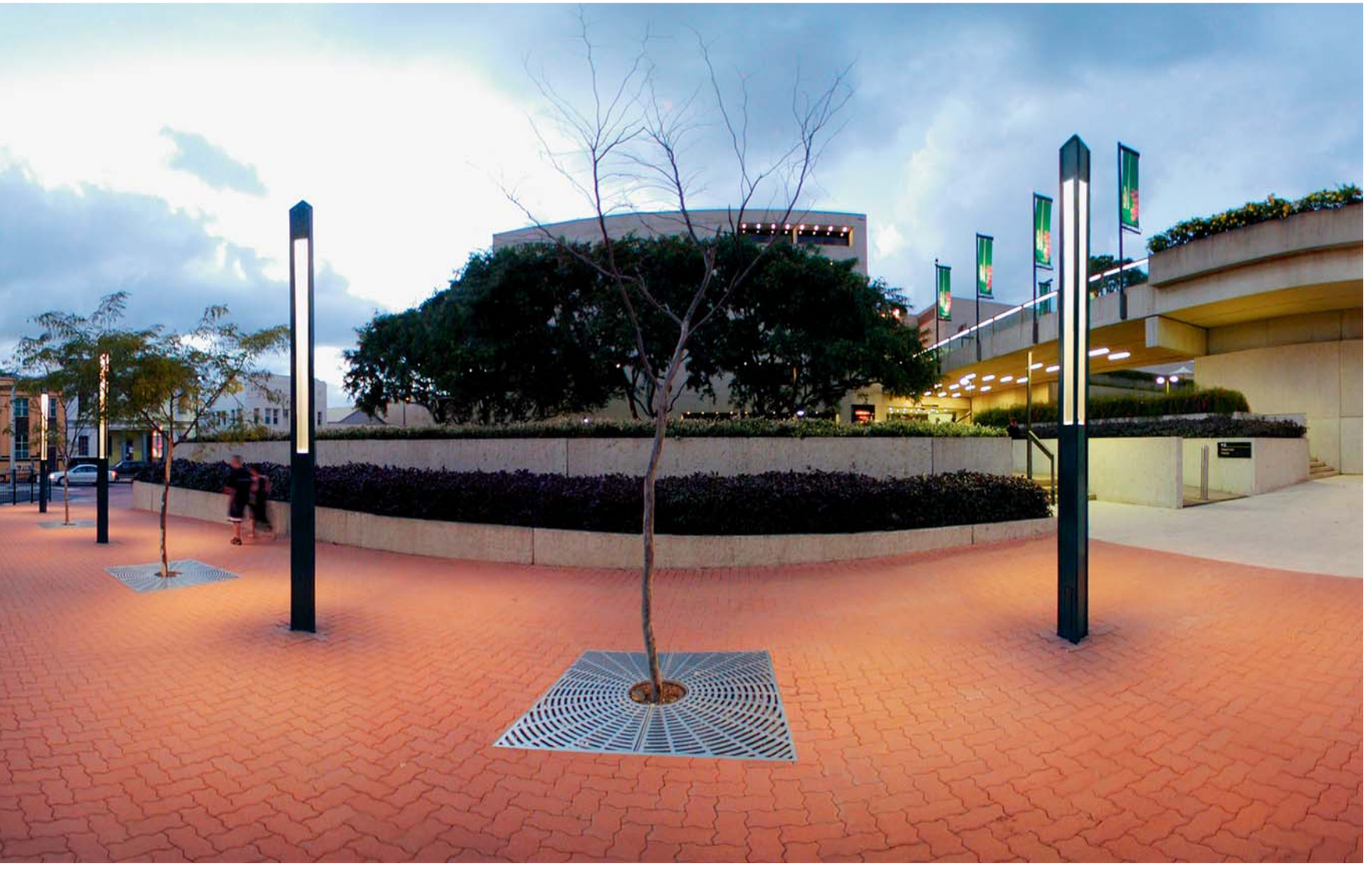
IP44, Class I. IK10. Marine-grade, all aluminium construction. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gaskets. Prismatic polycarbonate lenses, 3 x 120° offset. Anodised aluminium reflector.

Integral HPF control gear.

Service door with fused cable connecting box.

Light source
HIT 35-150 W

Accessories
■ **Mounting, page 170**



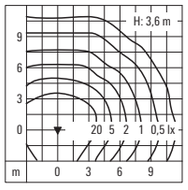
South Eastern Busway. Cultural Centre Station. Brisbane (AUS)

LSP434 / LSP444

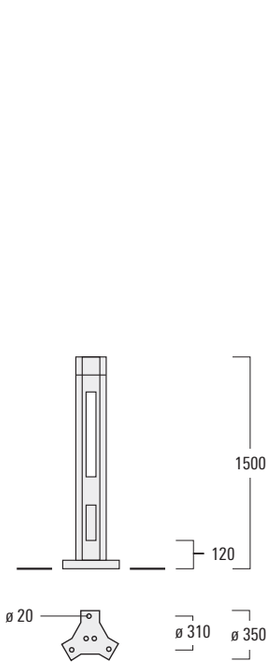
LTP444

	Part ID	Light source	lm	Factor*	kg
LSP434	116-0013 [HPF]	HIT-CE 35W G12	3600	1.00	16.7
LSP444	116-0050 [HPF]	HIT-CE 70W G12	7300	1.00	32.5
	116-0188 [HPF]	HIT-CE 100W G12	9500	1.30	32.6
	116-0040 [HPF]	HIT-CE 150W G12	15000	2.05	32.8

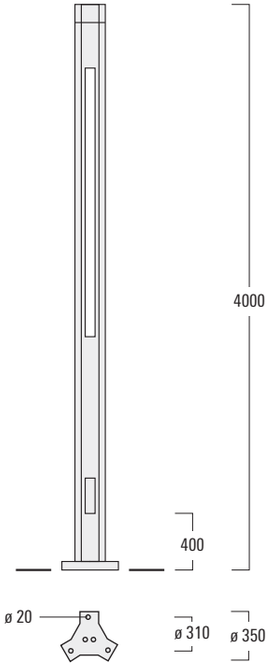
	Part ID	Light source	lm	Factor*	kg
LTP434	116-0087 [HPF]	HIT-CE 35W G12	3600	1.00	17.8
LTP444	116-0093 [HPF]	HIT-CE 70W G12	7300	1.00	33.6
	116-0187 [HPF]	HIT-CE 100W G12	9500	1.30	33.7
	116-0091 [HPF]	HIT-CE 150W G12	15000	2.05	33.9



LSP444



LTP434



LTP444

* Multiplier for Isolux value

LTM400 SERIES

Lightspike, controlled distribution, symmetric.

IP55, Class I. IK10. Marine-grade, all aluminium construction. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gaskets. Polycarbonate main lens.

Integral EC electronic converter.

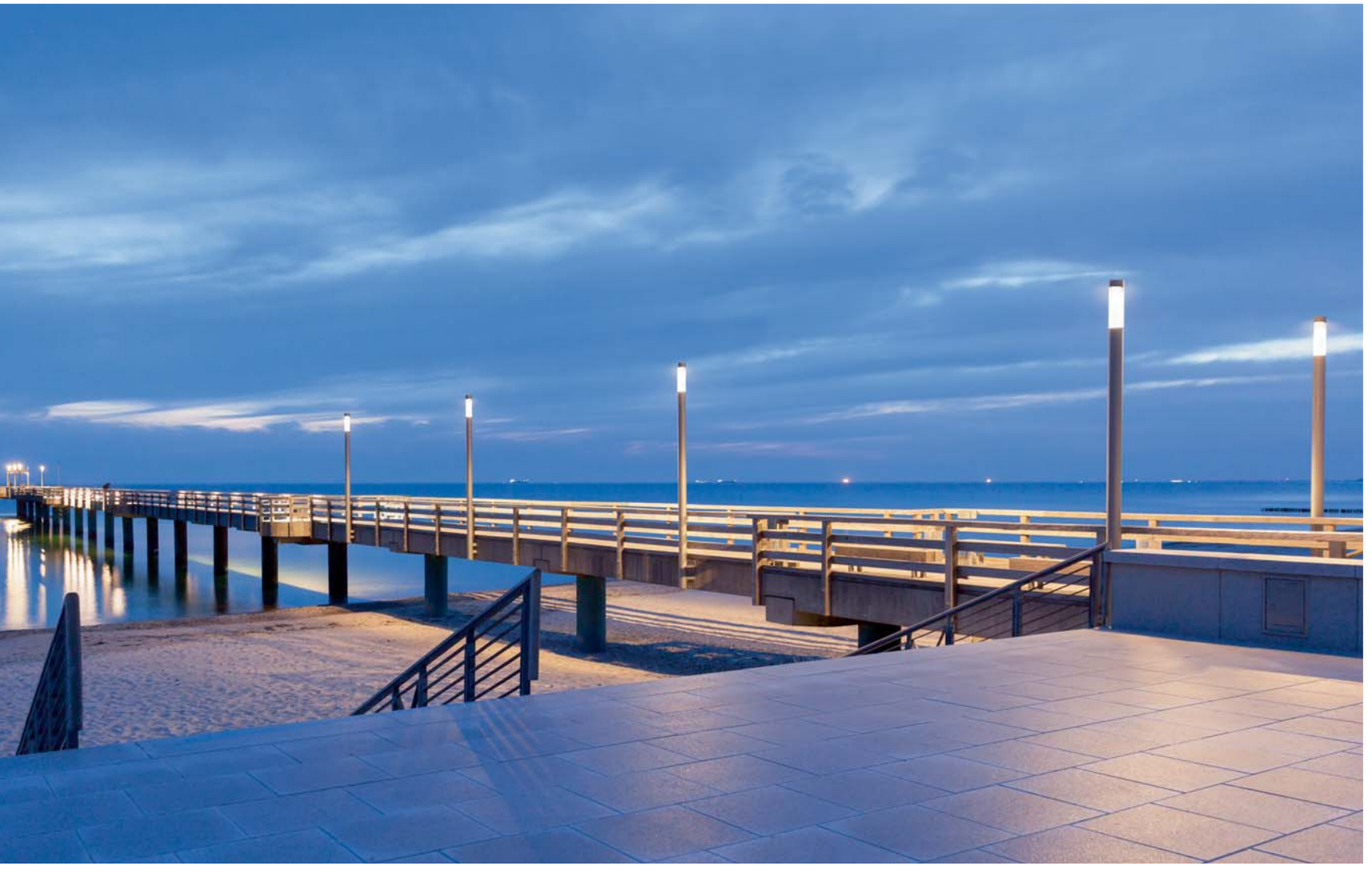
Factory installed LED circuit board. LED boards can be easily removed for upgrading. PMMA double lens.

Service door with fused cable connecting box.

Light source
LED 17-24 W, 3000 K,
for 4000 K refer to www.we-ef.com

Light distribution
[C60]

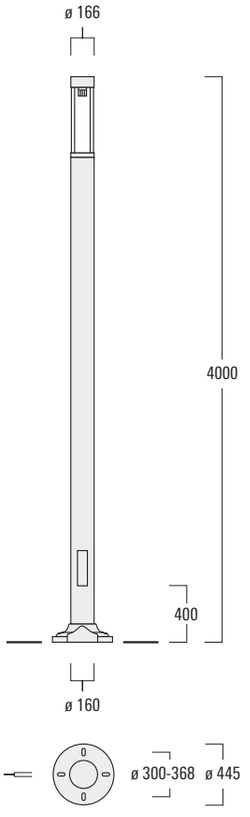
Accessories
■ **Mounting, page 170**

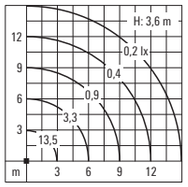


Pier seaside Heiligendamm (D). Lighting design: Institut für Gebäude + Energie + Licht Planung, Prof. Dr.-Ing. Thomas Röhmhild, Wismar.

[C60] Controlled distribution, symmetric

[C60]	Part ID	Light source	K	lm*	Factor**	kg
LTM440	115-1227	LED-FT 17W	3000	2800	1.00	25.0
	115-1229	LED-FT 24W	3000	3795	1.36	25.0





[C60]

* Nominal lumen output based on LED manufacturers data at 25°C T_c. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

** Multiplier for Isolux value

LSM400 / LTM400 SERIES

Lightspike, shielded light source, symmetric.

IP55, Class I. IK10. Marine-grade, all aluminium construction. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gaskets. Polycarbonate lens. Anodised aluminium reflector.

Integral HPF and ECG control gear.

Service door with fused cable connecting box.

Light source
HIE 70-100 W

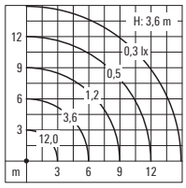
Accessories
■ **Mounting, page 170**

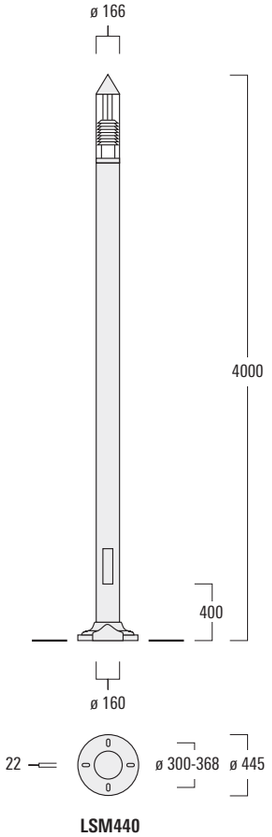
Dovenshire Square. London (UK). Lighting design: Speirs & Majors Associates.

LSM440

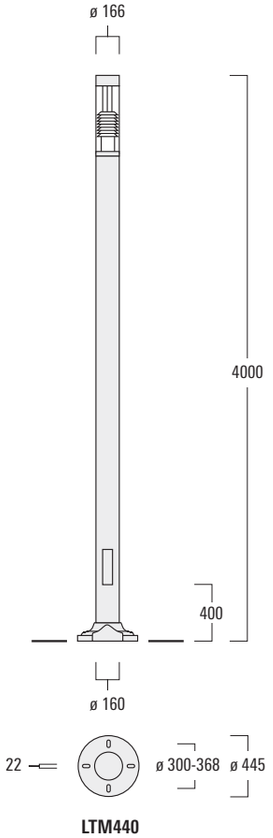
LTM440

	Part ID	Light source	lm	Factor*	kg
LSM440	115-1141 [ECG]	HIE-CE 70W E27	6700	1.00	21.1
	115-1129 [HPF]	HIE-CE 100W E27	8500	1.27	22.5
LTM440	115-1144 [ECG]	HIE-CE 70W E27	6700	1.00	20.9
	115-1133 [HPF]	HIE-CE 100W E27	8500	1.27	22.3





LSM440



LTM440

* Multiplier for Isolux value

LTC400 SERIES

Light column, shielded light source, symmetric.

IP55, Class I. IK10. Marine-grade, all aluminium construction. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gaskets. Polycarbonate lens.

Reflector and indirect reflector made from anodised aluminium for light control and shielding.

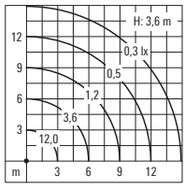
Integral HPF and ECG control gear.

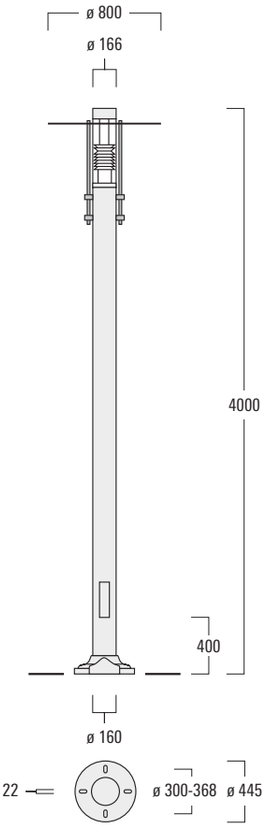
Service door with fused cable connecting box.

Light source
HIE 70-100 W

Accessories
■ **Mounting, page 170**

	Part ID	Light source	lm	Factor*	kg
LTC440	115-1146 [ECG]	HIE-CE 70W E27	6700	1.00	25.7
	115-1110 [HPF]	HIE-CE 100W E27	8500	1.27	27.1





* Multiplier for Isolux value

LCI400 SERIES

Light column, indirect distribution, adjustable reflector system.

IP66, Class I. IK08. Marine-grade, all aluminium construction. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gaskets. Safety glass lens.

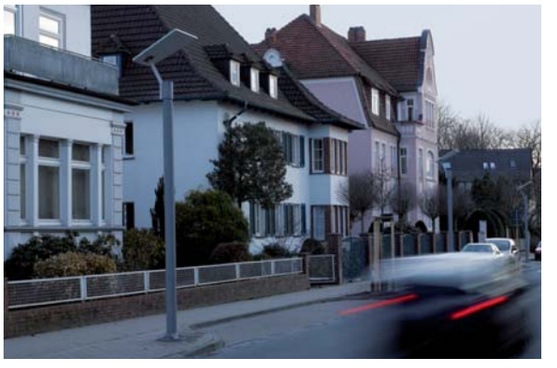
Reflector and indirect reflector made from anodised aluminium for light control and shielding. Adjustable from 10°-30°.

ECG control gear, thermally separated.

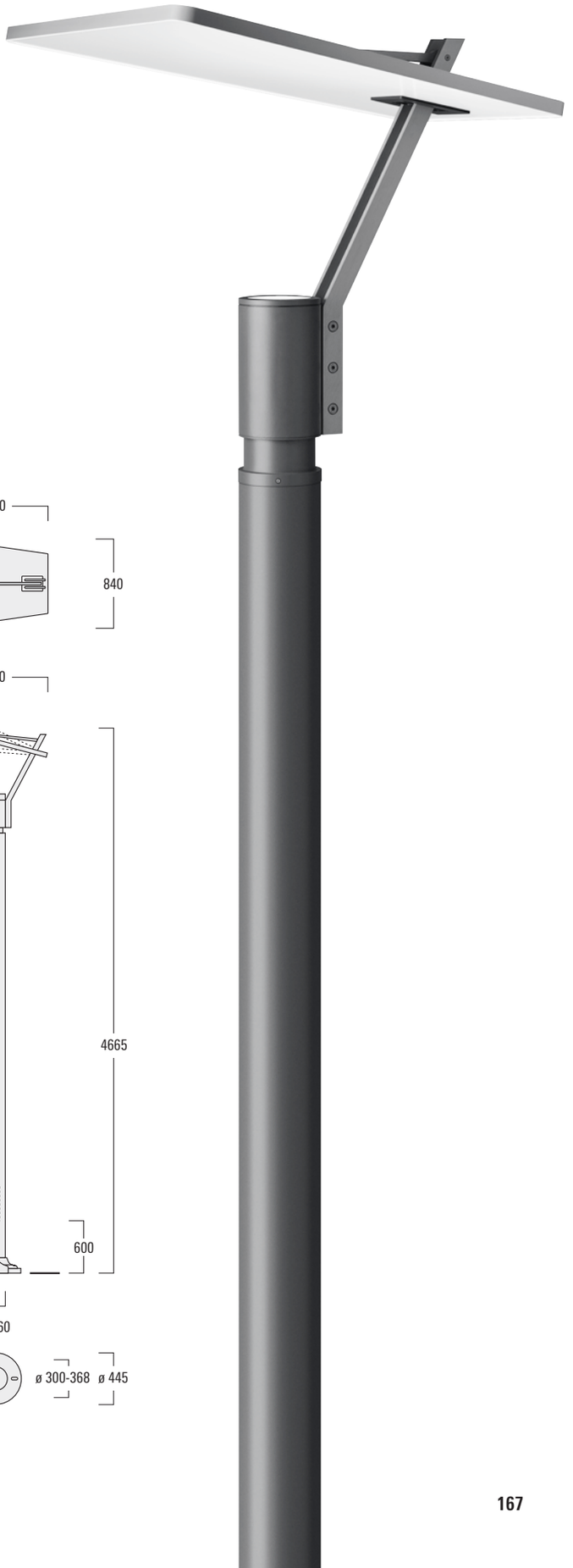
Service door with fused cable connecting box.

Light source
HIT 70-150 W

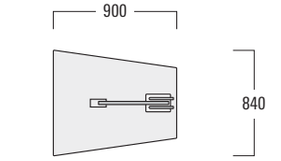
Accessories
■ **Mounting, page 170**

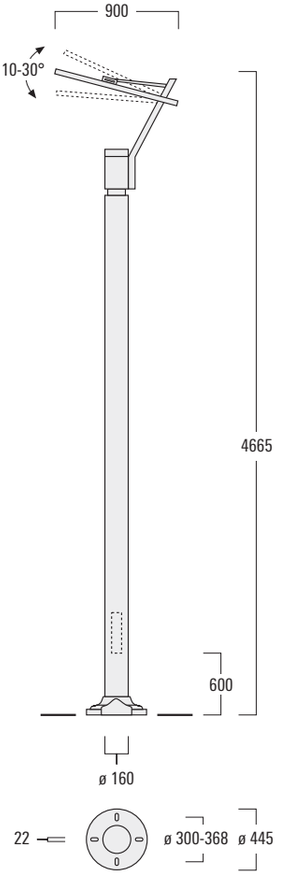


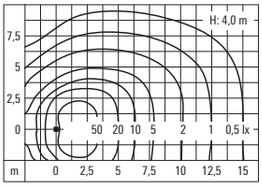
Duderstadt (D)



	Part ID	Light source	lm	Factor*	kg
LCI440	118-0045 [ECG]	HIT-CE 70W G12	7300	1.00	36.0
	118-0082 [ECG]	HIT-CE 100W G12	9500	1.30	37.1
	118-0048 [ECG]	HIT-CE 150W G12	15000	2.05	37.2







* Multiplier for Isolux value

LGI400 SERIES

Light column, indirect distribution, adjustable reflector system.

IP66, Class I. IK10. Marine-grade, all aluminium construction. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gaskets. Safety glass lens.

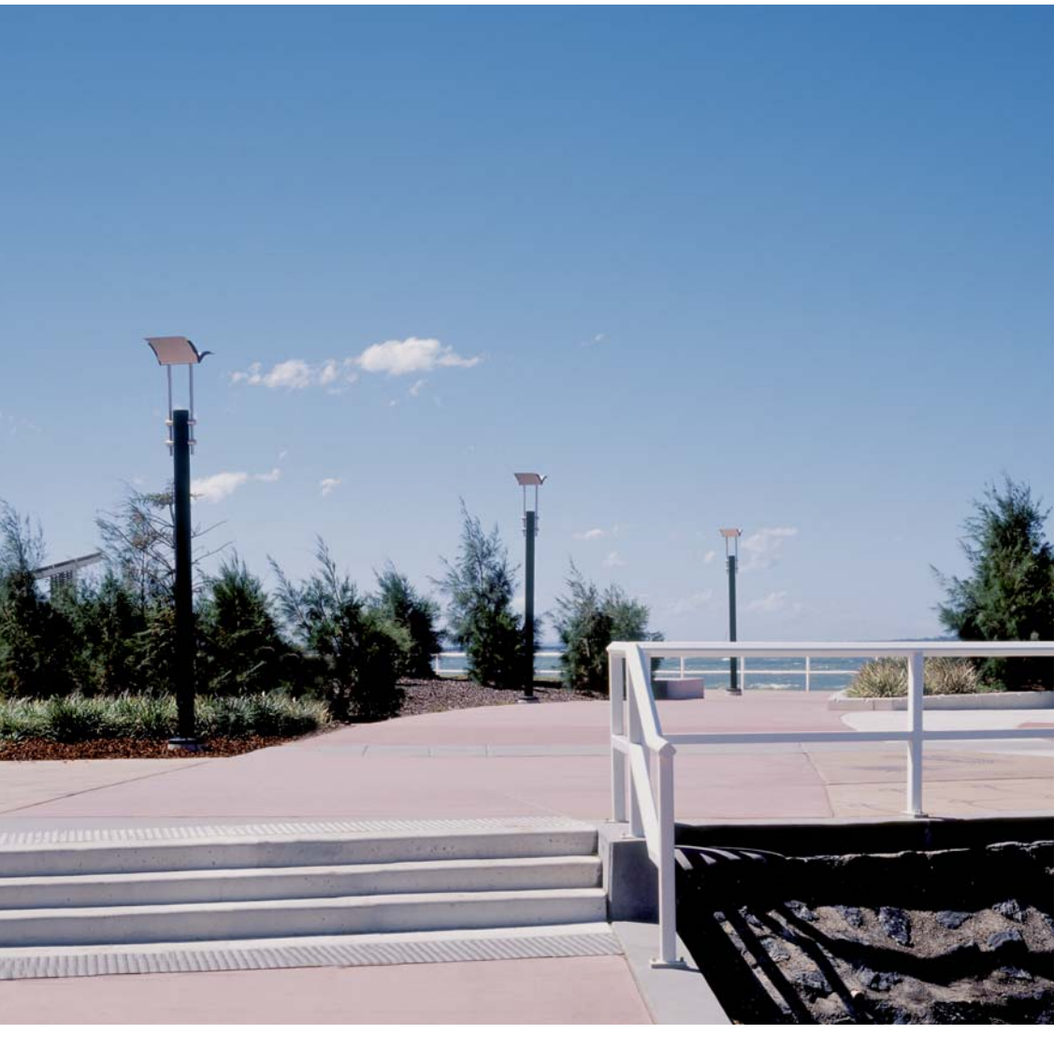
Reflector and indirect reflector made from anodised aluminium for light control and shielding. Adjustable from ± 7.5°.

ECG control gear, thermally separated.

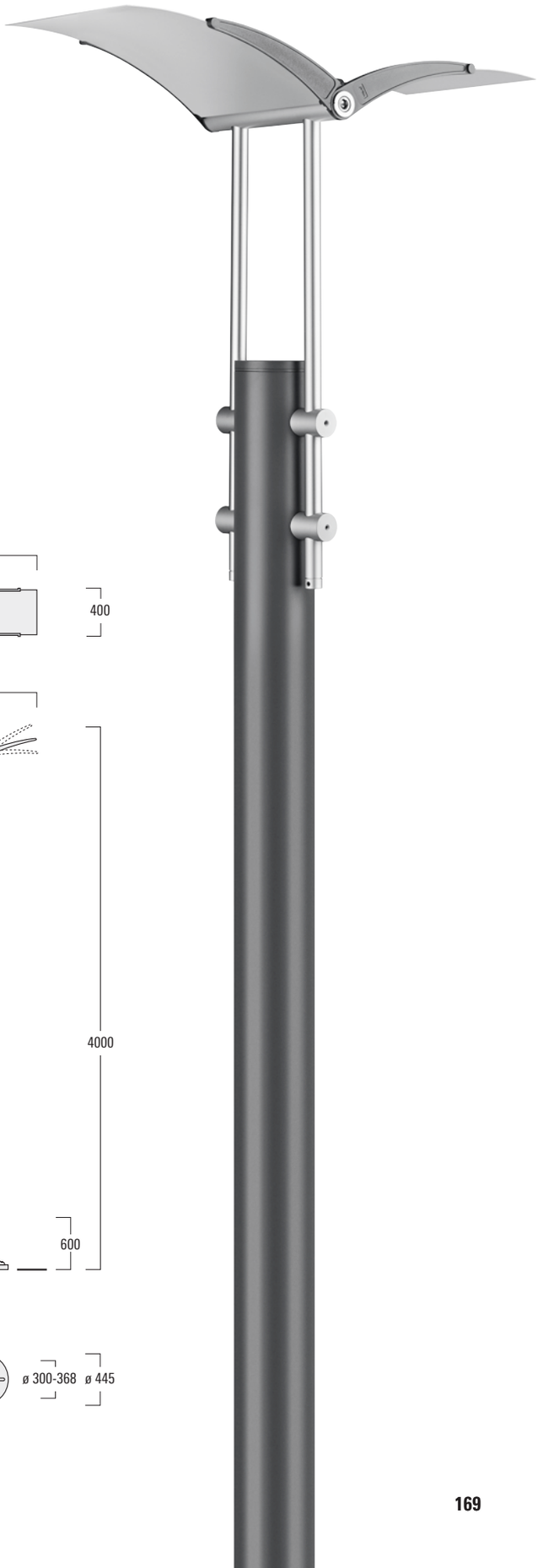
Service door with fused cable connecting box.

Light source
HIT 70-150 W

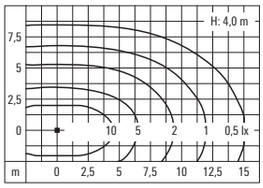
Accessories
■ **Mounting, page 170**

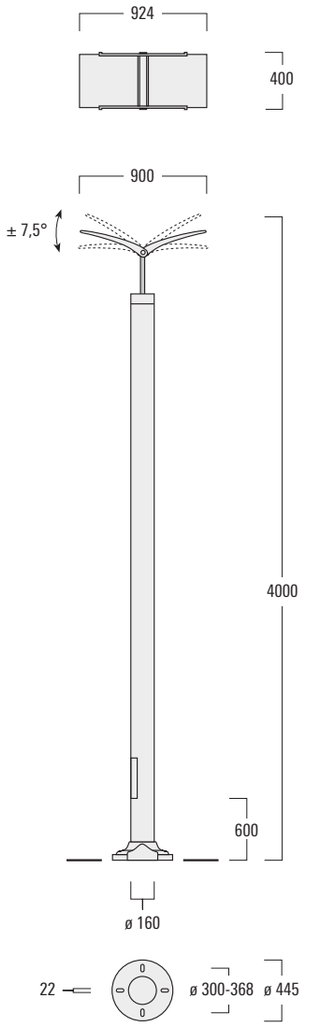


Moora Park Foreshore. Brisbane (AUS). Landscape architect & Lighting design: Neil Ariel, Brisbane City Council Design.



	Part ID	Light source	lm	Factor*	kg
LGI440	118-0079 [ECG]	HIT-CE 70W G12	7300	1.00	28.5
	118-0084 [ECG]	HIT-CE 100W G12	9500	1.30	29.6
	118-0078 [ECG]	HIT-CE 150W G12	15000	2.05	29.7



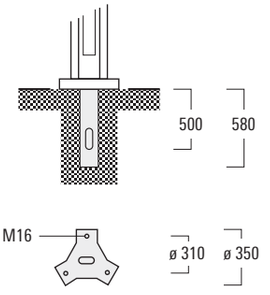


* Multiplier for Isolux value

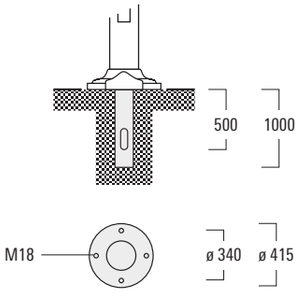
MOUNTING ACCESSORIES

Planted roots

Galvanised steel, for light columns.			kg
for LSP / LTP	300-0456	ESD6	10.4
for LSM / LTM / LTC / LCI / LGI	300-0949	ESV10	25.3



Planted root ESD6



Planted root ESV10

Pier seaside Heiligendamm (D). Lighting design: Institut für Gebäude + Energie + Licht Planung, Prof. Dr.-Ing. Thomas Röhmhild, Wismar.

IOS® Beam distributions for street and area lighting

[P65] pedestrian / bicycle lane
[S60] streetlighting
[S65] streetlighting
[S70] streetlighting
[A60] forward throw, asymmetric
[R65] rectangular forward throw
[R] rectangular
[C50] medium beam, symmetric
[C60] controlled, symmetric

ZFT400 LED 174

CFT500 LED 190

PFL500 LED 218

ZFT400 SERIES

Post mounted luminaire, symmetric or side or forward throw distribution, asymmetric.

IP66, Class I. IK09. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone CCG® Controlled Compression Gasket. PMMA cover. Luminaire is factory-sealed and does not need to be opened during installation.

Integral EC electronic converter.

Factory installed LED circuit board. LED boards can be easily removed for upgrading. PMMA OLC® LED lenses or double lens for superior illumination and glare control.

Recommended mounting height 3.0–6.0 m, depending on wattage selected.

Light source
LED 9-54 W, 4000 K,
for 3000 K refer to www.we-ef.com

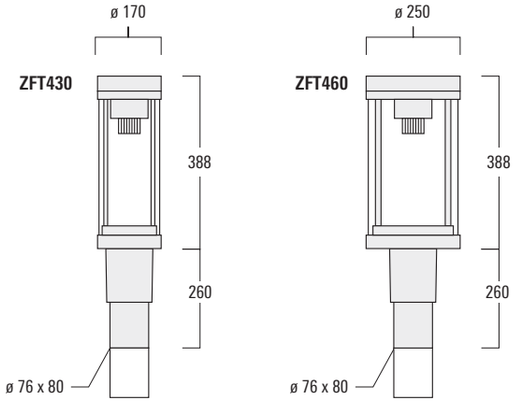
Light distribution
[C60] [S65] [R65]

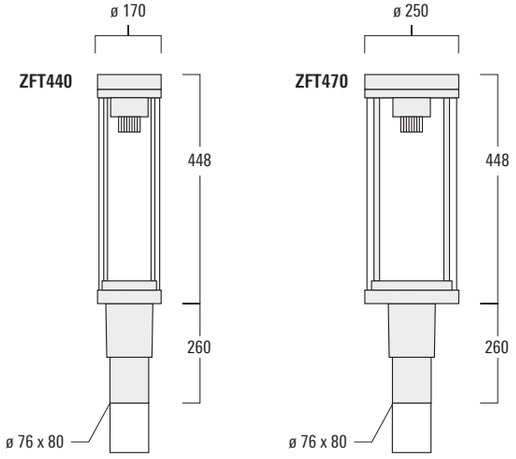
Accessories
- **Mounting, page 178**
- **Eco Step Dim®, page 264**
- **Surge protection, page 374**

Photo: Double lens [C60]

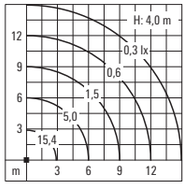
[C60] Controlled distribution, symmetric

[C60]	Part ID	Light source	K	lm*	Factor**	kg
ZFT430	115-1344	LED-FT 12W	4000	1915	0.49	5.4
	115-1242	LED-FT 24W	4000	3940	1.00	5.4
ZFT440	115-1342	LED-FT 12W	4000	1915	0.49	5.5
	115-1244	LED-FT 24W	4000	3940	1.00	5.5
ZFT460	115-1346	LED-FT 24W	4000	3940	1.00	7.1
	115-1348	LED-FT 37W	4000	5890	1.49	7.1
ZFT470	115-1354	LED-FT 24W	4000	3940	1.00	7.2
	115-1356	LED-FT 37W	4000	5890	1.49	7.2





Optional ø 60 x 80 version available.
Must be indicated during order placement.



[C60]

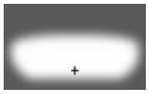
* Nominal lumen output based on LED manufacturers data at 25°C T_c. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.
** Multiplier for Isolux value

Optional accessory:
Bird spikes

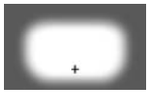
Optional accessory:
Wireless antenna for remote control

Optional accessory:
Photocell for ZFT460/464 and ZFT470/474

Photo: OLC® lenses [R65]



[S65]



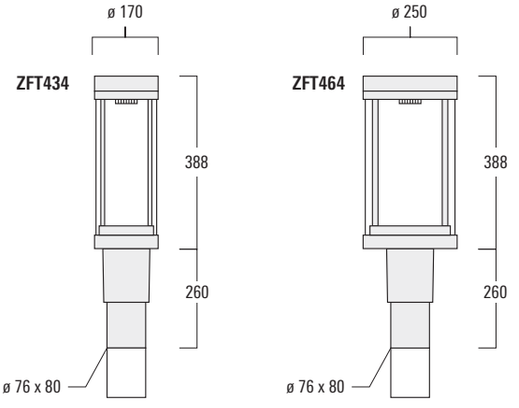
[R65]

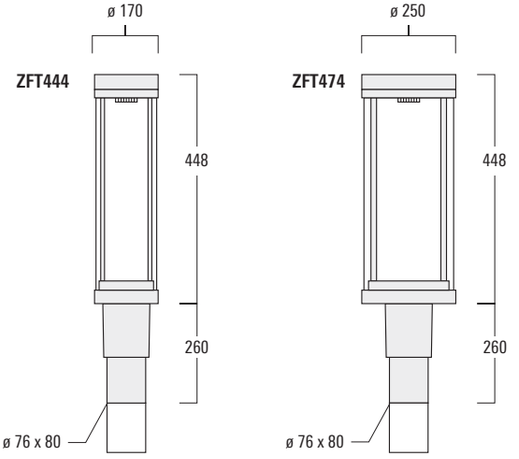
[S65] Streetlighting distribution

[R65] Rectangular forward throw distribution

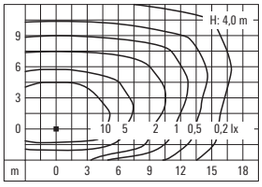
[S65]	Part ID	Light source	K	lm*	Factor**	kg
ZFT434	115-1364	9 LED 9W / 350 mA	4000	1211	0.55	5.5
	115-1292	9 LED 18W / 700 mA	4000	2213	1.00	5.5
ZFT444	115-1370	9 LED 9W / 350 mA	4000	1211	0.55	5.6
	115-1372	9 LED 18W / 700 mA	4000	2213	1.00	5.6
ZFT464	115-1311	18 LED 36W / 700 mA	4000	4427	2.00	7.2
	115-1352	18 LED 54W / 1050 mA	4000	8100	3.66	7.2
ZFT474	115-1360	18 LED 36W / 700 mA	4000	4427	2.00	7.3
	115-1315	18 LED 54W / 1050 mA	4000	8100	3.66	7.3

[R65]	Part ID	Light source	K	lm*	Factor**	kg
ZFT434	115-1362	9 LED 9W / 350 mA	4000	1211	0.55	5.5
	115-1288	9 LED 18W / 700 mA	4000	2213	1.00	5.5
ZFT444	115-1366	9 LED 9W / 350 mA	4000	1211	0.55	5.6
	115-1368	9 LED 18W / 700 mA	4000	2213	1.00	5.6
ZFT464	115-1309	18 LED 36W / 700 mA	4000	4427	2.00	7.2
	115-1350	18 LED 54W / 1050 mA	4000	8100	3.66	7.2
ZFT474	115-1358	18 LED 36W / 700 mA	4000	4427	2.00	7.3
	115-1313	18 LED 54W / 1050 mA	4000	8100	3.66	7.3

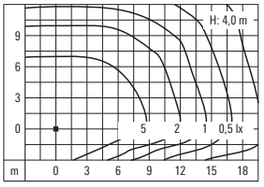




Optional ø 60 x 80 version available.
Must be indicated during order placement.



[S65]



[R65]

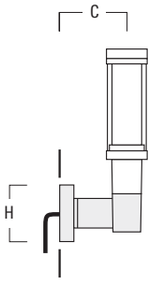
* Nominal lumen output based on LED manufacturers data at 85°C T_c. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

** Multiplier for Isolux value

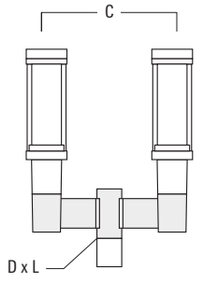
MOUNTING ACCESSORIES – ZFT400 SERIES

Marine-grade aluminium construction. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016.

Wall / Pole brackets RZ Series				D x L	H	C	kg
for ZFT400	115-1324	RZ0-400	Wall bracket		231	277	3.5
	115-1323	RZ2-400	Pole bracket	ø 76 x 100		516	4.9



Wall bracket RZ0



Pole bracket RZ2


we-ef

ZA600 SERIES

Post mounted luminaire, controlled distribution, symmetric.

IP55, Class I. IK10. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gaskets. Polycarbonate main lens.

Integral EC electronic converter.

Factory installed LED circuit board. LED boards can be easily removed for upgrading. PMMA double lens for superior illumination and glare control.

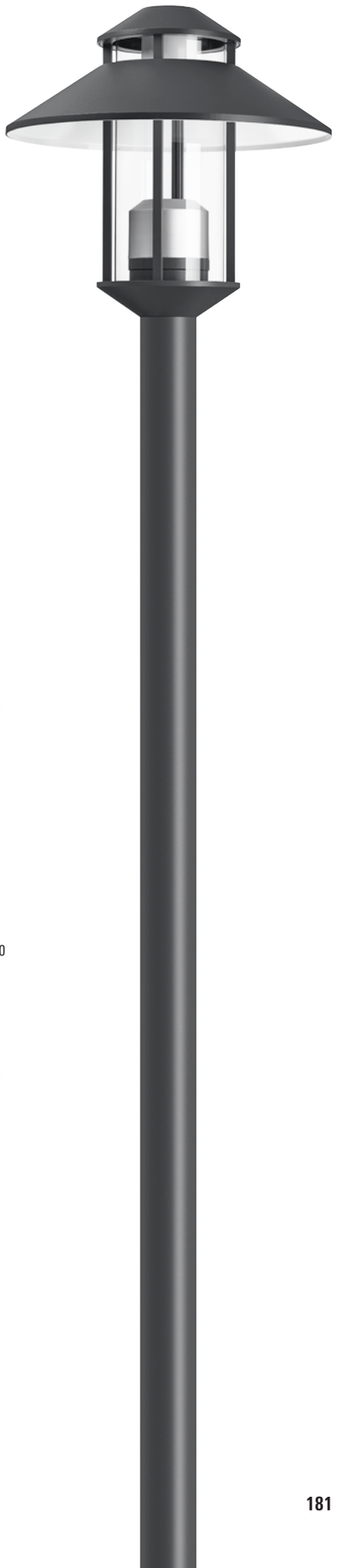
Recommended mounting height 3.0–4.5 m, depending on wattage selected.

Light source
LED 17-24 W, 4000 K,
for 3000 K refer to www.we-ef.com

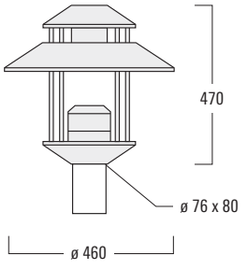
Light distribution
[C60]

Accessories
- **Mounting, page 182**
- **Eco Step Dim®, page 264**
- **Surge protection, page 374**

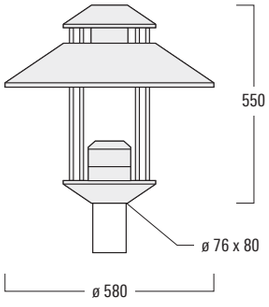
[C60] Controlled distribution, symmetric



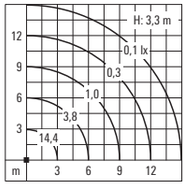
[C60]	Part ID	Light source	K	lm*	Factor**	kg
ZA630	159-0299	LED-FT 17W	4000	2915	1.00	7.7
	159-0307	LED-FT 24W	4000	3940	1.35	7.7
ZA640	159-0303	LED-FT 17W	4000	2915	1.00	9.1
	159-0309	LED-FT 24W	4000	3940	1.35	9.1



ZA630



ZA640



[C60]

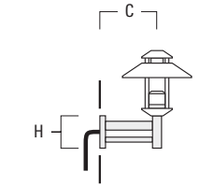
* Nominal lumen output based on LED manufacturers data at 25°C T_c. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

** Multiplier for Isolux value

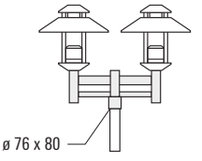
MOUNTING ACCESSORIES – ZA600 SERIES

Marine-grade aluminium construction. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016.

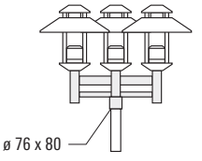
Wall / Pole brackets AZ Series				C	kg
for ZA630	155-0269	AZ0-300	Wall bracket	300	3.6
	155-0550	AZ20-300	Pole bracket	300	6.2
	155-0551	AZ30-300	Pole bracket	300	8.6
for ZA640	155-0266	AZ0-400	Wall bracket	400	4.0
	155-0304	AZ20-400	Pole bracket	400	7.0
	155-0306	AZ30-400	Pole bracket	400	9.8



Wall bracket AZ0



Pole bracket AZ20



Pole bracket AZ30

Endeavour Bridge, Whitianga Waterways. Whitianga (NZ)

RMC300 SERIES

Post mounted luminaire, side or forward throw distribution, asymmetric and pedestrian/ bicycle lane distribution.

IP66. Class I. IK08. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. RFC® Reflection Free Contour cover. Silicone CCG® Controlled Compression Gasket. Luminaire is factory-sealed and does not need to be opened during installation.

Integral EC electronic converter.

Factory installed LED circuit board. LED boards can be easily removed for upgrading. PMMA OLC® LED lenses for superior illumination and glare control.

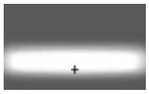
Maximum spacing for streetlighting applications depends on wattage and light distribution: 5.5 to 9 times the mounting height. Recommended mounting height 3.0–5.0 m, depending on wattage selected.

Light source
LED 18-54 W, 4000 K,
for 3000 K refer to www.we-ef.com

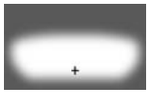
Light distributions
[P65] [S65] [R65]

Accessories
- **Mounting, page 186**
- **Eco Step Dim®, page 264**
- **Surge protection, page 374**

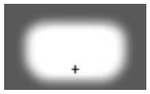
Bayer AG. Berlin (D)



[P65]



[S65]



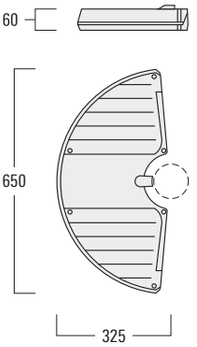
[R65]

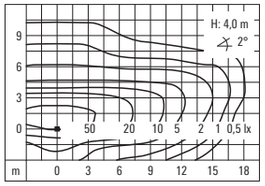
[P65] Pedestrian / bicycle lane distribution
[S65] Streetlighting distribution
[R65] Rectangular forward throw distribution

[P65]	Part ID	Light source	K	lm*	Factor**	kg
RMC320	105-0101	18 LED 18W / 350 mA	4000	2421	0.55	7.5
	105-0103	18 LED 36W / 700 mA	4000	4427	1.00	7.5
	105-0105	18 LED 54W / 1050 mA	4000	8100	1.83	7.5

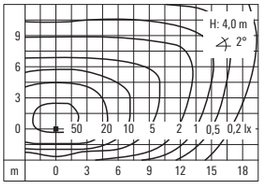
[S65]	Part ID	Light source	K	lm*	Factor**	kg
RMC320	105-9790	18 LED 18W / 350 mA	4000	2421	0.55	7.5
	105-9791	18 LED 36W / 700 mA	4000	4427	1.00	7.5
	105-9792	18 LED 54W / 1050 mA	4000	8100	1.83	7.5

[R65]	Part ID	Light source	K	lm*	Factor**	kg
RMC320	105-9835	18 LED 18W / 350 mA	4000	2421	0.57	7.5
	105-9836	18 LED 36W / 700 mA	4000	4427	1.00	7.5
	105-9837	18 LED 54W / 1050 mA	4000	8100	1.49	7.5

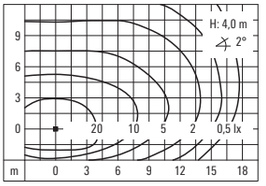




[P65]



[S65]



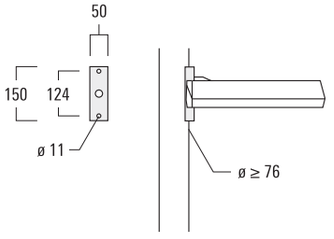
[R65]

* Nominal lumen output based on LED manufacturers data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.
** Multiplier for Isolux value

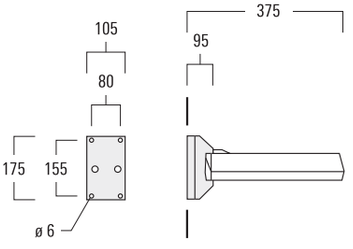
MOUNTING ACCESSORIES – RMC300 SERIES

Marine-grade aluminium construction. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016.

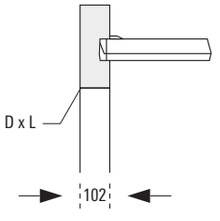
Wall / Pole brackets RM Series				D x L	kg
for RMC320	105-9845	RM1-S	Short bracket		0.6
	105-9846	RM1-W	Wall bracket		1.3
	105-9847	RM1-76	Pole bracket	ø 76 x 80	1.0
	105-9848	RM2-76	Pole bracket	ø 76 x 80	1.0



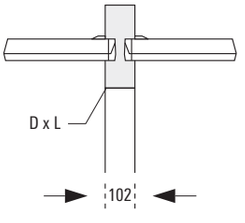
Short bracket RM1-S



Wall bracket RM1-W



Pole bracket RM1-76



Pole bracket RM2-76

RMT300 SERIES

Post mounted luminaire, side or rectangular forward throw distribution, asymmetric and pedestrian/bicycle lane distribution, two-sided.

IP66. Class I. IK09. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. RFC® Reflection Free Contour cover. Silicone CCG® Controlled Compression Gasket. Luminaire is factory-sealed and does not need to be opened during installation.

Integral EC electronic converter.

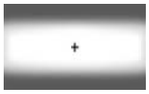
Factory installed LED circuit board. LED boards can be easily removed for upgrading. PMMA OLC® LED lenses for superior illumination and glare control.

Maximum spacing for streetlighting applications depends on wattage and light distribution: 5.5 to 9 times the mounting height. Recommended mounting height 3.0–5.0 m, depending on wattage selected.

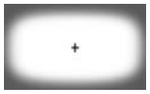
Light source
LED 24-72 W, 4000 K,
for 3000 K refer to www.we-ef.com

Light distributions
[P65] [S65] [R65]

Accessories
- **Eco Step Dim®, page 264**
- **Surge protection, page 374**



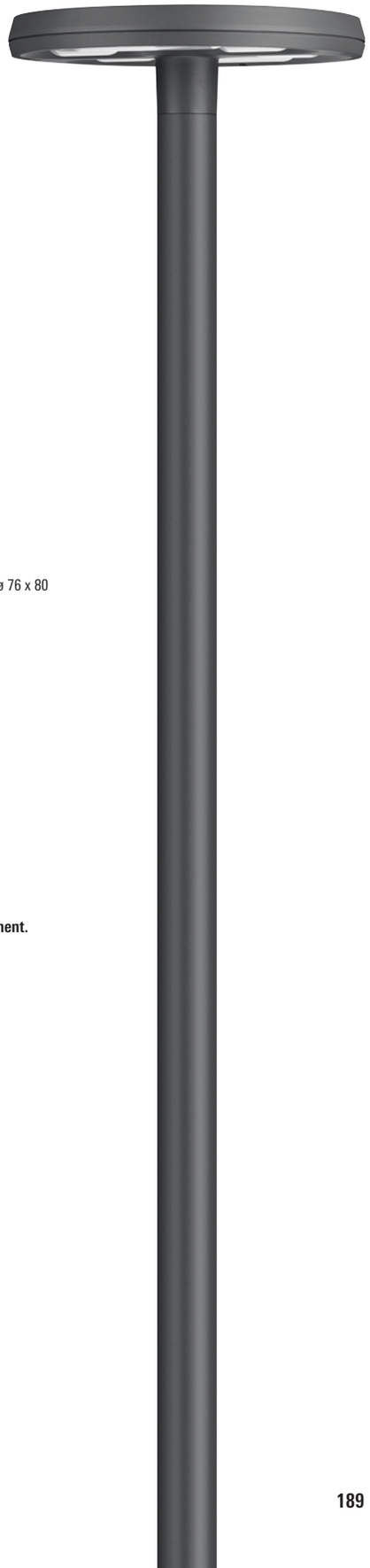
[P65] two-sided



[S65] two-sided

[R65] two-sided

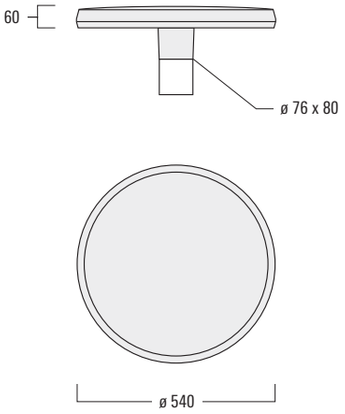
[P65] Pedestrian / bicycle lane distribution, two sided
[S65] Streetlighting distribution, two sided
[R65] Rectangular forward throw distribution, two-sided



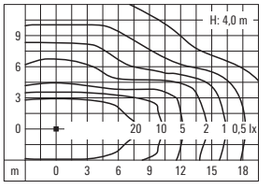
[P65] two-sided	Part ID	Light source	K	lm*	Factor**	kg
RMT320	105-7028	24 LED 24W / 350 mA	4000	3228	0.51	8.5
	105-7029	24 LED 48W / 700 mA	4000	5903	1.00	8.5
	105-7034	24 LED 72W / 1050 mA	4000	10800	1.83	8.5

[S65] two-sided	Part ID	Light source	K	lm*	Factor**	kg
RMT320	105-9886	24 LED 24W / 350 mA	4000	3228	0.51	8.5
	105-9887	24 LED 48W / 700 mA	4000	5903	1.00	8.5
	105-9938	24 LED 72W / 1050 mA	4000	10800	1.83	8.5

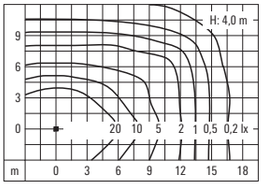
[R65] two-sided	Part ID	Light source	K	lm*	Factor**	kg
RMT320	105-9926	24 LED 24W / 350 mA	4000	3228	0.51	8.5
	105-9927	24 LED 48W / 700 mA	4000	5903	1.00	8.5
	105-7046	24 LED 72W / 1050 mA	4000	10800	1.83	8.5



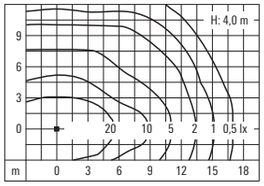
Optional ø 60 x 80 version available.
Must be indicated during order placement.



[P65] two-sided



[S65] two-sided



[R65] two-sided

* Nominal lumen output based on LED manufacturers data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.
** Multiplier for Isolux value

CFT500 SERIES

Post mounted luminaire, medium beam, symmetric or rectangular distribution.

IP66. Class I. IK08. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone CCG® Controlled Compression Gasket. PMMA RFC® Reflection Free Contour cover. The luminaire is factory sealed and does not need to be opened during installation.

Integral EC electronic converter.

Factory installed LED circuit board. LED boards can be easily removed for upgrading. PMMA OLC® LED lenses for superior illumination and glare control.

Recommended mounting height 3.0–6.0 m, depending on wattage selected.

Light source
LED 24-108 W, 4000 K,
for 3000 K refer to www.we-ef.com

Light distributions
[C50] [R]

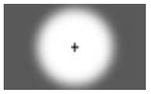
Accessories
- **Eco Step Dim®, page 264**
- **Surge protection, page 374**

LED

reddot award 2015
winner

Focus Open 2015
Silver

WE-EF LEUCHTEN Head Office. Bispingen (D). Architect: Braunholz Architekten. Lighting design: Ulrike Brandi Licht.

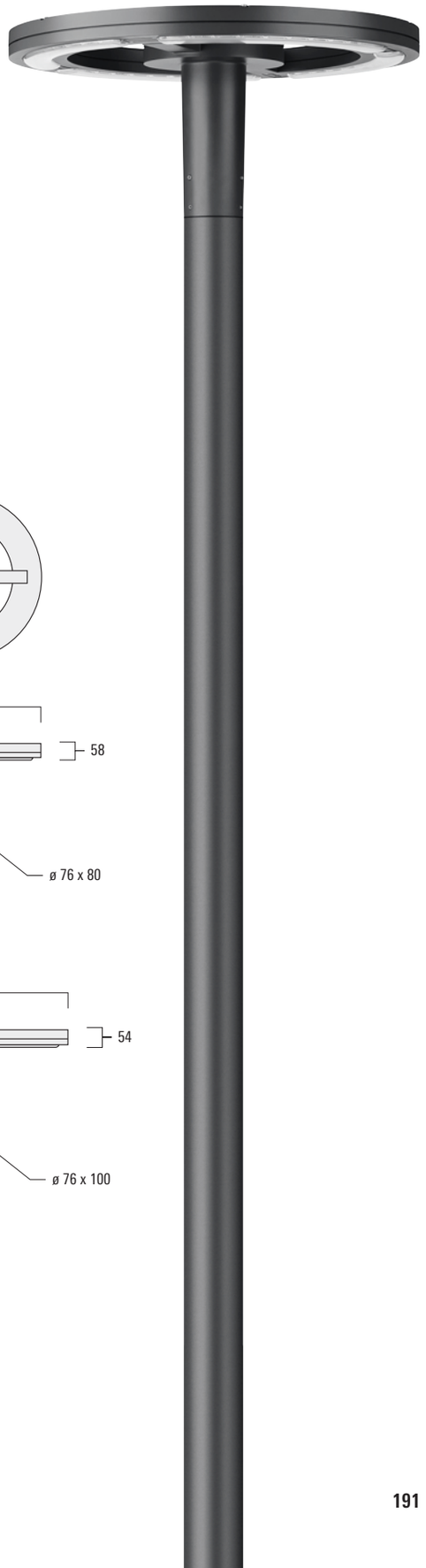


[C50]

[R]

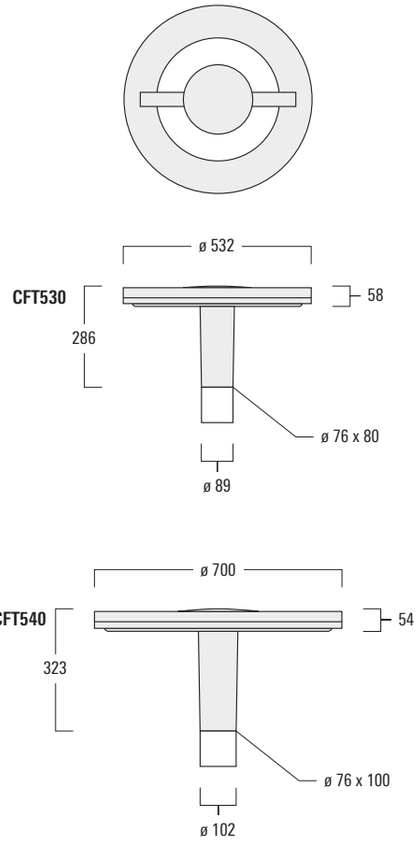
[C50] Medium beam distribution, symmetric

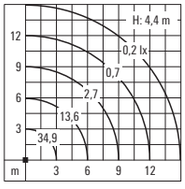
[R] Rectangular distribution



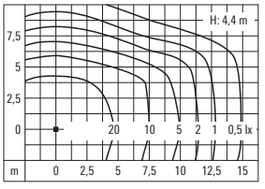
[C50]	Part ID	Light source	K	Im*	Factor**	kg
CFT530	105-0093	24 LED 24 W / 350 mA	4000	3228	0.67	9.8
	105-0097	24 LED 48 W / 700 mA	4000	5903	1.22	9.8
CFT540	105-0077	36 LED 36W / 350 mA	4000	4842	1.00	13.3
	105-0079	36 LED 72W / 700 mA	4000	8854	1.83	13.3
	105-0081	36 LED 108W / 1050 mA	4000	16200	3.35	13.3

[R]	Part ID	Light source	K	Im*	Factor**	kg
CFT530	105-0095	24 LED 24 W / 350 mA	4000	3228	0.67	9.8
	105-0099	24 LED 48 W / 700 mA	4000	5903	1.22	9.8
CFT540	105-0083	36 LED 36W / 350 mA	4000	4842	1.00	13.3
	105-0085	36 LED 72W / 700 mA	4000	8854	1.83	13.3
	105-0087	36 LED 108W / 1050 mA	4000	16200	3.35	13.3





[C50]



[R]

* Nominal lumen output based on LED manufacturers data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

** Multiplier for Isolux value

RFS500 SERIES

Catenary mounted luminaire, side throw distribution, asymmetric, two-sided.

IP66. Class I. IK07. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone CCG® Controlled Compression Gasket. Non-reflecting safety glass lens, hinged.

Includes cable connector, for cable 6-12 mm. Cable inclination angle: Maximum 10°.

Integral EC electronic converter.

Factory installed LED circuit board. LED boards can be easily removed for upgrading. PMMA OLC® LED lenses for superior illumination and glare control.

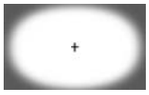
Maximum spacing, for streetlighting applications, depends on wattage and light distribution: 5.5 up to 9 times the mounting height. Recommended mounting height 3.0–6.0 m, depending on wattage selected.

Light source
LED 12-96 W, 4000 K,
for 3000 K refer to www.we-ef.com

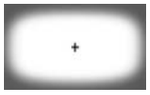
Light distributions
[S60] [S65] [S70]

Accessories
- **Eco Step Dim®, page 264**
- **Surge protection, page 374**

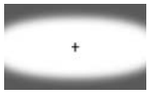
Train station TGV Belfort-Montbeliard (F)



[S60] two-sided



[S65] two-sided



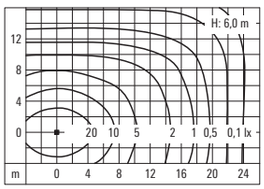
[S70] two-sided

[S60] Streetlighting distribution, two-sided
[S65] Streetlighting distribution, two-sided
[S70] Streetlighting distribution, two-sided

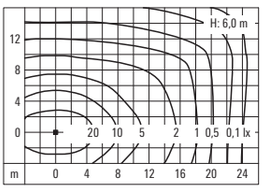
[S60] two-sided	Part ID	Light source	K	lm*	Factor**	kg
RFS530	111-0707	12 LED 12W / 350 mA	4000	1614	0.29	11.6
	111-0719	12 LED 24W / 700 mA	4000	2951	0.50	11.6
	111-0709	24 LED 24W / 350 mA	4000	3228	0.58	11.9
	111-0697	24 LED 48W / 700 mA	4000	5903	1.00	11.9
RFS540	111-0440	36 LED 36W / 350 mA	4000	4842	0.86	14.7
	111-0623	36 LED 72W / 700 mA	4000	8854	1.50	14.7
	111-0441	48 LED 48W / 350 mA	4000	6456	1.15	15.0
	111-0403	48 LED 96W / 700 mA	4000	11805	2.00	15.0

[S65] two-sided	Part ID	Light source	K	lm*	Factor**	kg
RFS530	111-0711	12 LED 12W / 350 mA	4000	1614	0.29	11.6
	111-0722	12 LED 24W / 700 mA	4000	2951	0.50	11.6
	111-0713	24 LED 24W / 350 mA	4000	3228	0.58	11.9
	111-0724	24 LED 48W / 700 mA	4000	5903	1.00	11.9
RFS540	111-0442	36 LED 36W / 350 mA	4000	4842	0.86	14.7
	111-0702	36 LED 72W / 700 mA	4000	8854	1.50	14.7
	111-0443	48 LED 48W / 350 mA	4000	6456	1.15	15.0
	111-0704	48 LED 96W / 700 mA	4000	11805	2.00	15.0

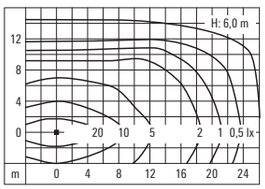
[S70] two-sided	Part ID	Light source	K	lm*	Factor**	kg
RFS530	111-0715	12 LED 12W / 350 mA	4000	1614	0.29	11.6
	111-0726	12 LED 24W / 700 mA	4000	2951	0.50	11.6
	111-0717	24 LED 24W / 350 mA	4000	3228	0.58	11.9
	111-0728	24 LED 48W / 700 mA	4000	5903	1.00	11.9
RFS540	111-0444	36 LED 36W / 350 mA	4000	4842	0.86	14.7
	111-0402	36 LED 72W / 700 mA	4000	8854	1.50	14.7
	111-0629	48 LED 48W / 350 mA	4000	6456	1.15	15.0
	111-0593	48 LED 96W / 700 mA	4000	11805	2.00	15.0



[S60] two-sided

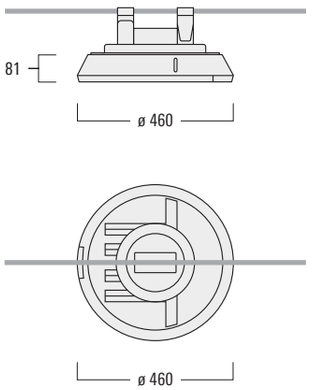


[S65] two-sided

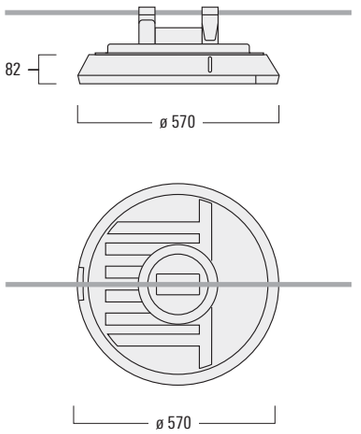


[S70] two-sided

RFS530



RFS540



* Nominal lumen output based on LED manufacturers data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.
** Multiplier for Isolux value

RFL500-SE SERIES

Post mounted luminaire, side or forward throw distribution, asymmetric and pedestrian/ bicycle lane distribution.

IP66. Class I. IK07. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone CCG® Controlled Compression Gasket. Non-reflecting safety glass lens, hinged. The luminaire is factory sealed and does not need to be opened during installation.

Integral EC electronic converter.

Factory installed LED circuit board. LED boards can be easily removed for upgrading. PMMA OLC® LED lenses for superior illumination and glare control.

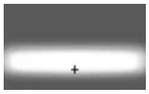
Maximum spacing, for streetlighting applications, depends on wattage and light distribution: 5.5 up to 9 times the mounting height. Recommended mounting height 3.0–6.0 m, depending on wattage selected.

Light source
LED 12-96 W, 4000 K,
for 3000 K refer to www.we-ef.com

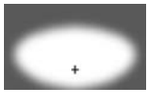
Light distributions
[P65] [S60] [S65] [S70] [A60] [R65]

Accessories
- **Mounting, page 200**
- **Eco Step Dim®, page 264**
- **Surge protection, page 374**

Residential area Zauberwinkel. Poing (D). Planning: Südhausbau München.

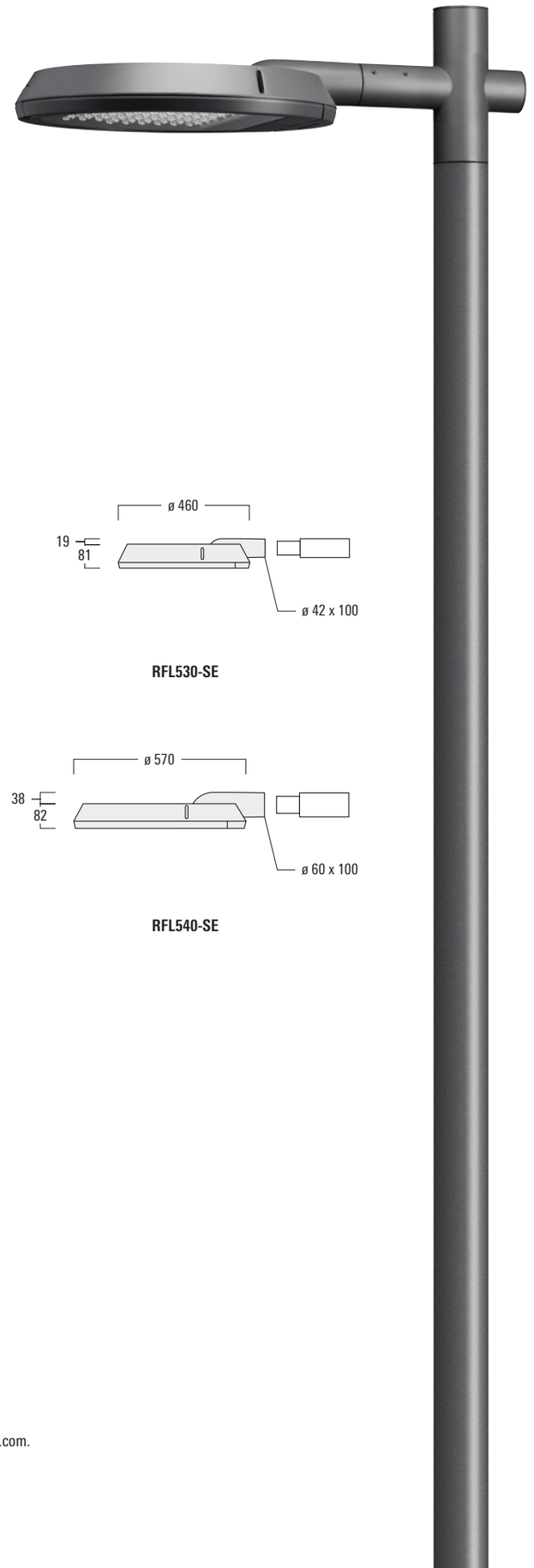


[P65]



[S60]

[P65] Pedestrian / bicycle lane distribution
[S60] Streetlighting distribution

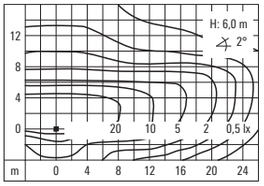


[P65]	Part ID	Light source	K	lm*	Factor**	kg
RFL530-SE	111-0821	12 LED 12W / 350 mA	4000	1614	0.29	9.3
	111-0822	12 LED 24W / 700 mA	4000	2951	0.50	9.3
	111-0823	24 LED 24W / 350 mA	4000	3228	0.58	9.3
	111-0824	24 LED 48W / 700 mA	4000	5903	1.00	9.3

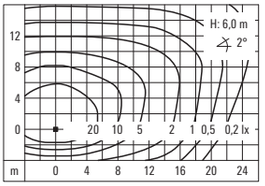
[S60]	Part ID	Light source	K	lm*	Factor**	kg
RFL530-SE	111-0406	12 LED 12W / 350 mA	4000	1614	0.29	9.3
	111-0337	12 LED 24W / 700 mA	4000	2951	0.50	9.3
	111-0407	24 LED 24W / 350 mA	4000	3228	0.58	9.3
	111-0339	24 LED 48W / 700 mA	4000	5903	1.00	9.3
RFL540-SE	111-0420	36 LED 36W / 350 mA	4000	4842	0.86	15.0
	111-0341	36 LED 72W / 700 mA	4000	8854	1.50	15.0
	111-0421	48 LED 48W / 350 mA	4000	6456	1.15	15.0
	111-0343	48 LED 96W / 700 mA	4000	11805	2.00	15.0

RFL530-SE

RFL540-SE

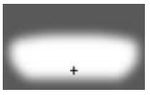


[P65]

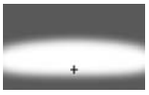


[S60]

* Nominal lumen output based on LED manufacturers data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.
** Multiplier for Isolux value



[S65]



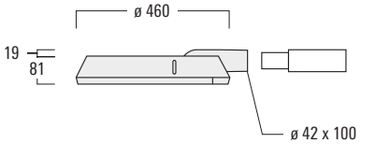
[S70]

[S65] Streetlighting distribution

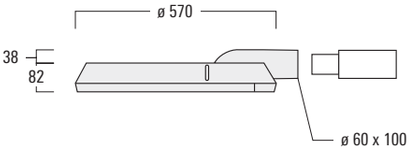
[S70] Streetlighting distribution

[S65]	Part ID	Light source	K	lm*	Factor**	kg
RFL530-SE	111-0408	12 LED 12W / 350 mA	4000	1614	0.29	9.3
	111-0409	12 LED 24W / 700 mA	4000	2951	0.50	9.3
	111-0410	24 LED 24W / 350 mA	4000	3228	0.58	9.3
	111-0411	24 LED 48W / 700 mA	4000	5903	1.00	9.3
RFL540-SE	111-0422	36 LED 36W / 350 mA	4000	4842	0.86	15.0
	111-0423	36 LED 72W / 700 mA	4000	8854	1.50	15.0
	111-0424	48 LED 48W / 350 mA	4000	6456	1.15	15.0
	111-0425	48 LED 96W / 700 mA	4000	11805	2.00	15.0

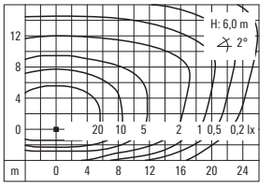
[S70]	Part ID	Light source	K	lm*	Factor**	kg
RFL530-SE	111-0412	12 LED 12W / 350 mA	4000	1614	0.29	9.3
	111-0345	12 LED 24W / 700 mA	4000	2951	0.50	9.3
	111-0413	24 LED 24W / 350 mA	4000	3228	0.58	9.3
	111-0347	24 LED 48W / 700 mA	4000	5903	1.00	9.3
RFL540-SE	111-0426	36 LED 36W / 350 mA	4000	4842	0.86	15.0
	111-0349	36 LED 72W / 700 mA	4000	8854	1.50	15.0
	111-0427	48 LED 48W / 350 mA	4000	6456	1.15	15.0
	111-0351	48 LED 96W / 700 mA	4000	11805	2.00	15.0



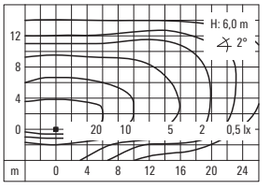
RFL530-SE



RFL540-SE



[S65]



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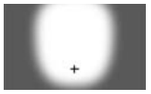
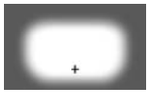
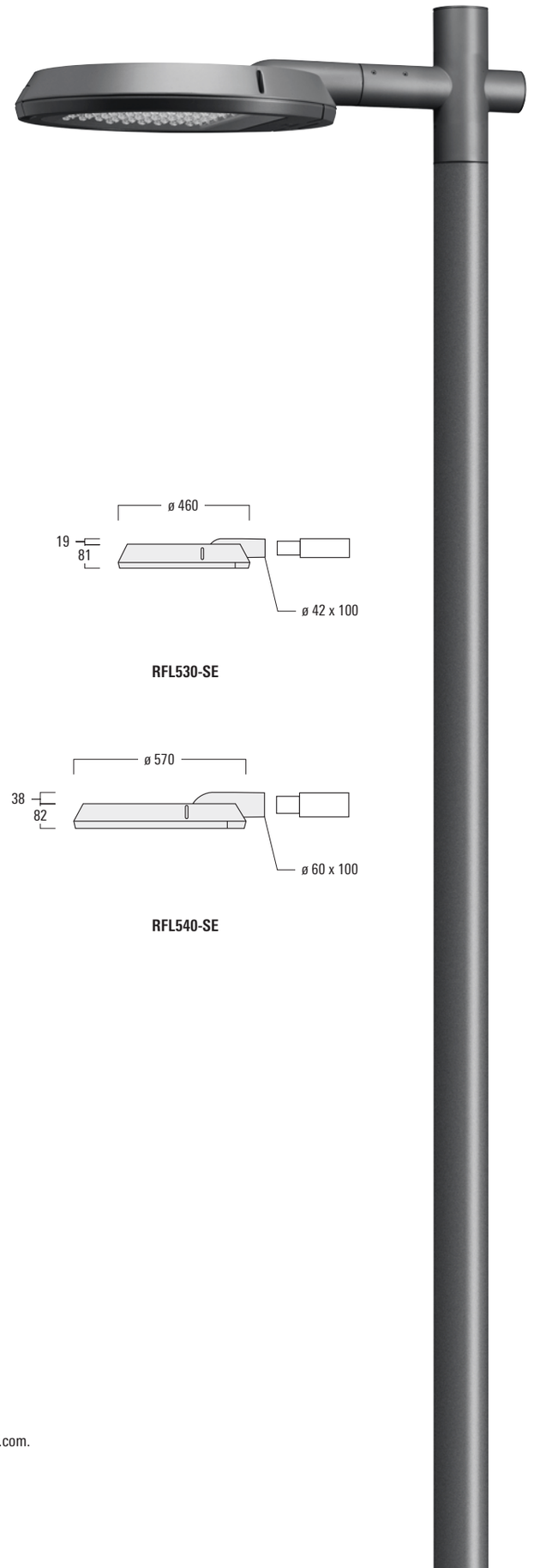


[A60]



[R65]

[A60] Forward throw distribution, asymmetric
[R65] Rectangular forward throw distribution

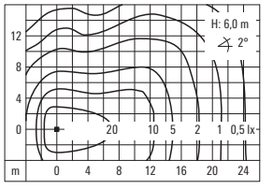


[A60]	Part ID	Light source	K	lm*	Factor**	kg
RFL530-SE	111-0414	12 LED 12W / 350 mA	4000	1614	0.29	9.3
	111-0353	12 LED 24W / 700 mA	4000	2951	0.50	9.3
	111-0415	24 LED 24W / 350 mA	4000	3228	0.58	9.3
	111-0355	24 LED 48W / 700 mA	4000	5903	1.00	9.3
RFL540-SE	111-0428	36 LED 36W / 350 mA	4000	4842	0.86	15.0
	111-0357	36 LED 72W / 700 mA	4000	8854	1.50	15.0
	111-0429	48 LED 48W / 350 mA	4000	6456	1.15	15.0
	111-0359	48 LED 96W / 700 mA	4000	11805	2.00	15.0

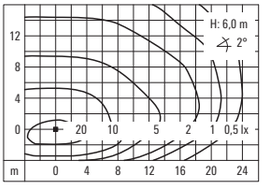
[R65]	Part ID	Light source	K	lm*	Factor**	kg
RFL530-SE	111-0416	12 LED 12W / 350 mA	4000	1614	0.29	9.3
	111-0417	12 LED 24W / 700 mA	4000	2951	0.50	9.3
	111-0418	24 LED 24W / 350 mA	4000	3228	0.58	9.3
	111-0419	24 LED 48W / 700 mA	4000	5903	1.00	9.3
RFL540-SE	111-0430	36 LED 36W / 350 mA	4000	4842	0.86	15.0
	111-0431	36 LED 72W / 700 mA	4000	8854	1.50	15.0
	111-0432	48 LED 48W / 350 mA	4000	6456	1.15	15.0
	111-0433	48 LED 96W / 700 mA	4000	11805	2.00	15.0

RFL530-SE

RFL540-SE



[A60]



[R65]

* Nominal lumen output based on LED manufacturers data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.
** Multiplier for Isolux value

RFL500-SE SERIES

Post mounted luminaire, side or forward throw distribution, asymmetric.

IP66, Class I. IK07. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gaskets. Safety glass lens, hinged.

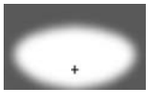
Integral ECG control gear on hinged and 'no tool' removable gear tray. Anodised aluminium reflector, for beam efficiency and glare control. 'No tool' lamp replacement.

Recommended mounting height 3.0–6.0 m, depending on wattage selected. Mounting brackets to be ordered separately.

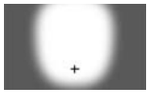
Light source
HIT 20-150 W

Light distributions
[S60] [A60]

Accessories
- **Mounting, page 200**
- **Optical, page 204**

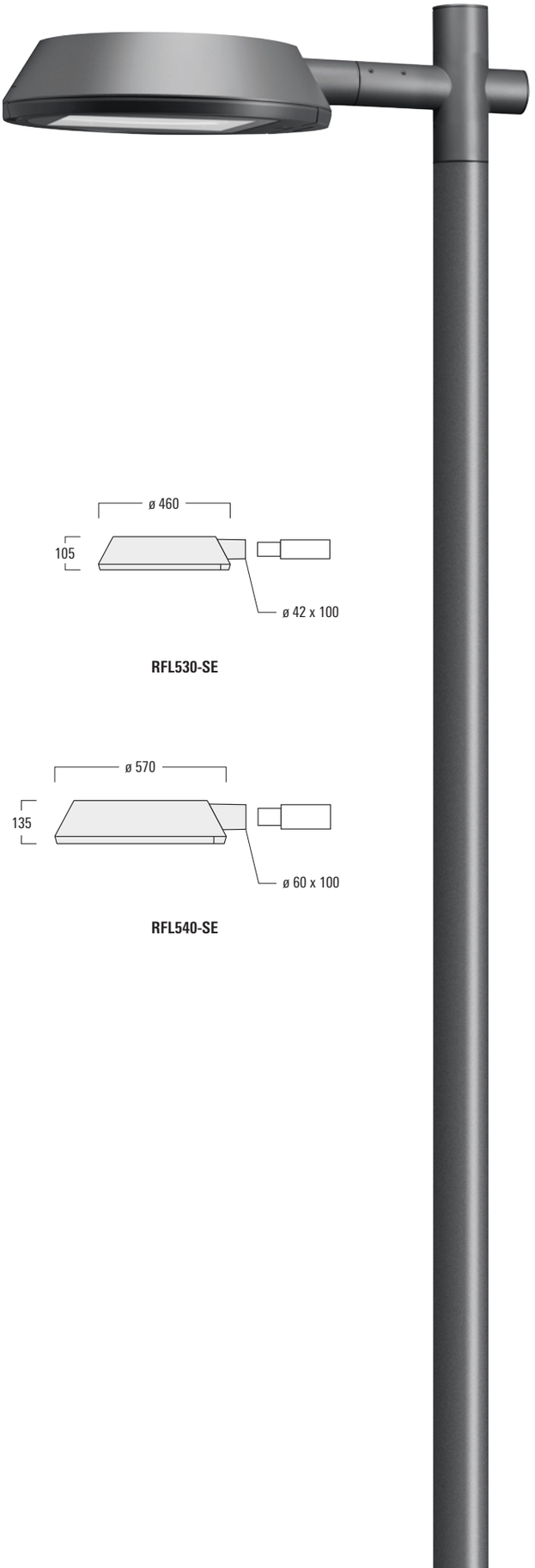


[S60]



[A60]

[S60] Side throw distribution, asymmetric
[A60] Forward throw distribution, asymmetric

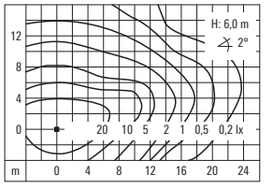


[S60]	Part ID	Light source	lm	Factor*	kg
RFL530-SE	111-0003 [ECG]	HIT-COS 45W PGZ12	4300	0.59	9.2
	111-0004 [ECG]	HIT-COS 60W PGZ12	6850	0.94	9.2
	111-0126 [ECG]	HIT-CE 20W G12	1650	0.23	8.6
	111-0005 [ECG]	HIT-CE 35W G12	3600	0.49	8.6
	111-0006 [ECG]	HIT-CE 70W G12	7300	1.00	8.6
RFL540-SE	111-0017 [ECG]	HIT-COS 90W PGZ12	10450	1.43	12.2
	111-0018 [ECG]	HIT-COS 140W PGZ12	16500	2.26	12.6
	111-0019 [ECG]	HIT-CE 150W E40	14500	1.99	11.3

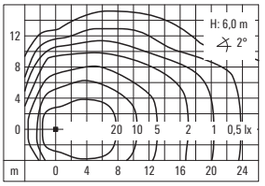
[A60]	Part ID	Light source	lm	Factor*	kg
RFL530-SE	111-0009 [ECG]	HIT-COS 45W PGZ12	4300	0.59	9.2
	111-0010 [ECG]	HIT-COS 60W PGZ12	6850	0.94	9.2
	111-0128 [ECG]	HIT-CE 20W G12	1650	0.23	8.6
	111-0011 [ECG]	HIT-CE 35W G12	3600	0.49	8.6
	111-0012 [ECG]	HIT-CE 70W G12	7300	1.00	8.6
RFL540-SE	111-0023 [ECG]	HIT-COS 90W PGZ12	10450	1.43	12.2
	111-0024 [ECG]	HIT-COS 140W PGZ12	16500	2.26	12.6
	111-0025 [ECG]	HIT-CE 150W E40	14500	1.99	11.4

RFL530-SE

RFL540-SE



[S60]



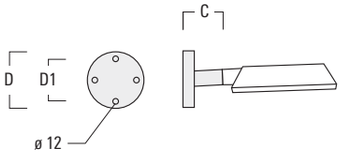
[A60]

* Multiplier for Isolux value

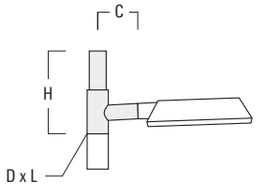
MOUNTING ACCESSORIES – RFL500-SE SERIES

Marine-grade aluminium construction. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016.

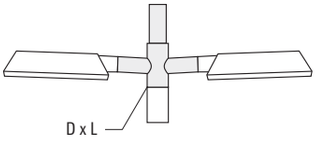
Wall / Pole brackets RE Series				D x L	D / D1	H	C	kg
for RFL530	111-0052	RE0-530	Wall bracket		230 / 195		180	2.9
	111-0040	RE1-530	Pole bracket	ø 76 x 80		400	180	3.2
	111-0041	RE2-530	Pole bracket	ø 76 x 80		400	180	3.6
for RFL540	111-0084	RE0-540	Wall bracket		230 / 195		180	3.2
	111-0042	RE1-540	Pole bracket	ø 76 x 130		550	200	4.6
	111-0043	RE2-540	Pole bracket	ø 76 x 130		550	200	5.3



Wall bracket RE0

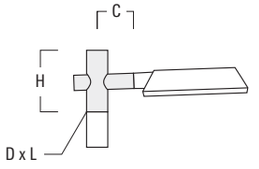


Pole bracket RE1

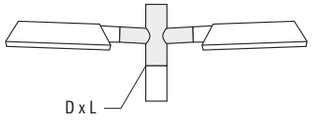


Pole bracket RE2

Pole brackets RF Series				D x L	H	C	kg
for RFL530	111-0044	RF1-530	Pole bracket	ø 76 x 80	275	190	2.3
	111-0045	RF2-530	Pole bracket	ø 76 x 80	275	190	3.0
for RFL540	111-0046	RF1-540	Pole bracket	ø 76 x 80	300	200	2.6
	111-0047	RF2-540	Pole bracket	ø 76 x 80	300	200	3.3



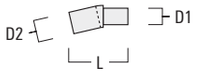
Pole bracket RF1



Pole bracket RF2

Tilt brackets TB Series				L	D1 / D2	Angle	kg
for RFL530	111-0639	TB-530.42.10	Tilt bracket*	205	ø 42x90 / ø 42x100	7°	0.5
	111-0640	TB-530.42.15	Tilt bracket*	205	ø 42x90 / ø 42x100	13°	0.5
for RFL540	111-0636	TB-540.60.10	Tilt bracket*	205	ø 60x90 / ø 60x100	7°	0.7
	111-0637	TB-540.60.15	Tilt bracket*	205	ø 60x90 / ø 60x100	13°	0.7

* for adjusting luminaire angle



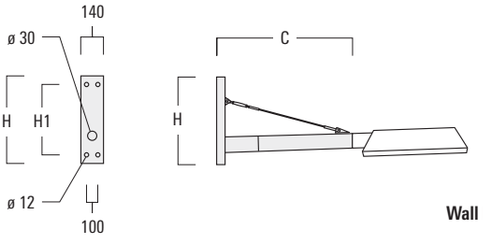
Tilt bracket TB

Residential area Graylingwell Park. Chichester (UK). Architect: John Thompson and Partners. Landscape Architect: Studio Engleback.

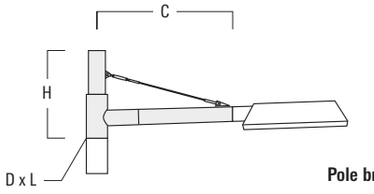
MOUNTING ACCESSORIES – RFL500-SE SERIES

Marine-grade aluminium construction. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016.

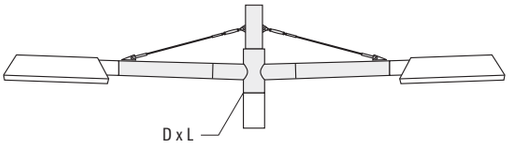
Wall / Pole brackets RX Series				D x L	H / H1	H	C	kg
for RFL530	111-0053	RX0-530	Wall bracket		350 / 285		710	3.3
	111-0088	RX1-530	Pole bracket	ø 76 x 80		400	710	4.5
	111-0089	RX2-530	Pole bracket	ø 76 x 80		400	710	6.2
for RFL540	111-0086	RX0-540	Wall bracket		450 / 385		1000	5.2
	111-0054	RX1-540	Pole bracket	ø 76 x 130		550	1000	6.8
	111-0055	RX2-540	Pole bracket	ø 76 x 130		550	1000	9.7



Wall bracket RX0



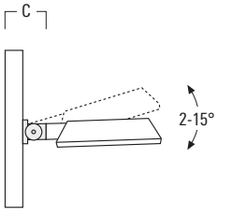
Pole bracket RX1



Pole bracket RX2

Wall / Pole brackets RI Series				D*	C	kg
for RFL530	111-0178	RI-530	Wall / pole bracket	ø 102-133	96	1.5
for RFL540	111-0179	RI-540	Wall / pole bracket	ø 102-133	110	1.5

* Pole diameter (structural limitations of pole must be considered)



Bracket RI -
pole & wall installation

Residential area Zauberwinkel. Poing (D). Planning: Südhausbau München.

OPTICAL ACCESSORIES – RFL500-SE SERIES

A maximum of one internal accessory.

Rearward cut-off shield IL

for [S] version, with side throw distribution.

for RFL530	111-0184
for RFL540	111-0076

Rearward cut-off shield IL

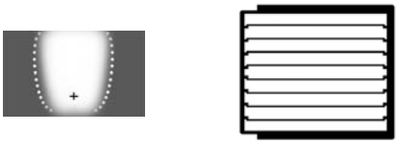
for [A] version, with forward throw distribution.

for RFL530	147-0655
for RFL540	147-0656

Sidewards cut-off shield IL

for [A] version, with forward throw distribution.

for RFL530	111-0075
for RFL540	111-0077




we-ef

VFL500 SERIES

Post mounted luminaire, side or forward throw distribution, asymmetric and pedestrian/ bicycle lane distribution.

IP66. Class I. IK08. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone CCG® Controlled Compression Gasket. RFC® Reflection Free Contour cover. The luminaire is factory sealed and does not need to be opened during installation.

Integral EC electronic converter.

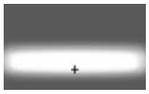
Factory installed LED circuit board. LED boards can be easily removed for upgrading. PMMA OLC® LED lenses for superior illumination and glare control.

Maximum spacing, for streetlighting applications, depends on wattage and light distribution: 5.5 up to 9 times the mounting height. Recommended mounting height 3.0–6.0 m, depending on wattage selected.

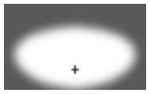
Light source
LED 12-84 W, 4000 K,
for 3000 K refer to www.we-ef.com

Light distributions
[P65] [S60] [S65] [S70] [A60] [R65]

Accessories
- **Mounting, page 214**
- **Eco Step Dim®, page 264**
- **Surge protection, page 374**

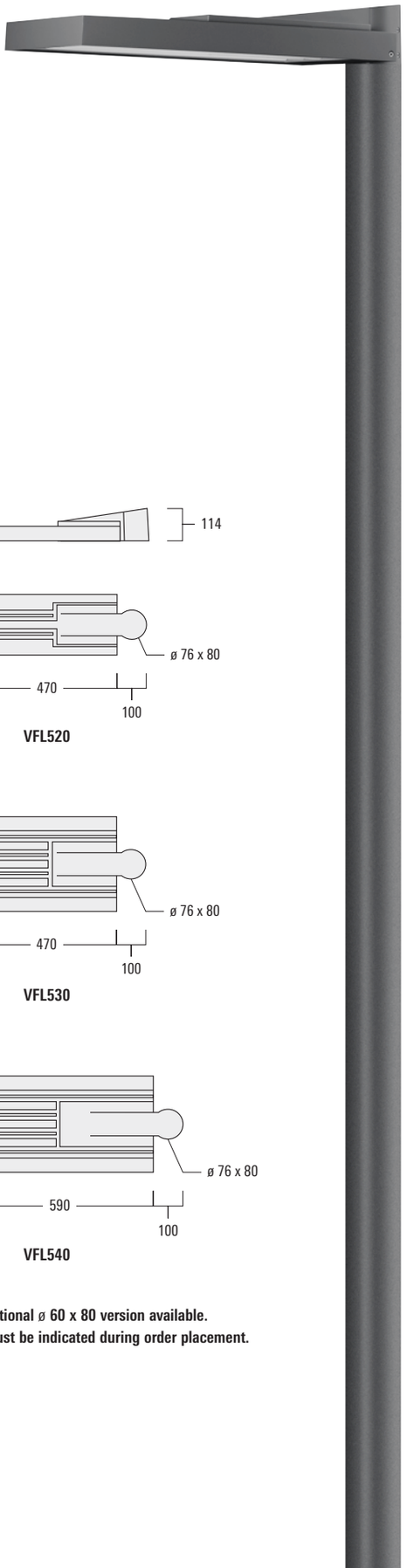


[P65]



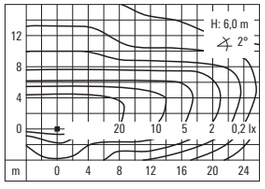
[S60]

[P65] Pedestrian / bicycle lane distribution
[S60] Streetlighting distribution



[P65]	Part ID	Light source	K	lm*	Factor**	kg
VFL520	108-1501	12 LED 12W / 350 mA	4000	1614	0.29	4.7
	108-1503	12 LED 24W / 700 mA	4000	2951	0.50	4.7
VFL530	108-1553	12 LED 12W / 350 mA	4000	1614	0.29	6.4
	108-1557	24 LED 24W / 350 mA	4000	3228	0.58	6.6
	108-1555	12 LED 24W / 700 mA	4000	2951	0.50	6.4
	108-1559	24 LED 48W / 700 mA	4000	5903	1.00	6.6

[S60]	Part ID	Light source	K	lm*	Factor**	kg
VFL520	108-1481	12 LED 12W / 350 mA	4000	1614	0.29	4.7
	108-1483	12 LED 24W / 700 mA	4000	2951	0.50	4.7
VFL530	108-1124	12 LED 12W / 350 mA	4000	1614	0.29	6.4
	108-1154	24 LED 24W / 350 mA	4000	3228	0.58	6.6
	108-1139	12 LED 24W / 700 mA	4000	2951	0.50	6.4
	108-1169	24 LED 48W / 700 mA	4000	5903	1.00	6.6
VFL540	108-0875	24 LED 24W / 350 mA	4000	3228	0.58	7.8
	108-0877	36 LED 36W / 350 mA	4000	4842	0.86	8.2
	108-0879	42 LED 42W / 350 mA	4000	5649	1.00	8.2
	108-0901	24 LED 48W / 700 mA	4000	5903	1.00	7.8
	108-0907	36 LED 72W / 700 mA	4000	8854	1.50	8.2
	108-0913	42 LED 84W / 700 mA	4000	10329	1.75	8.2



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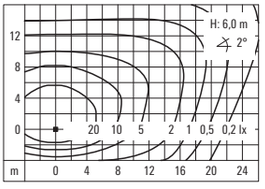

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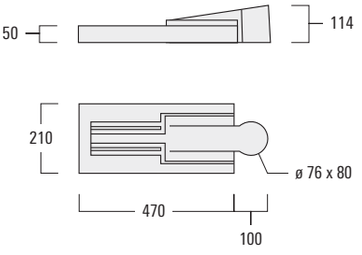
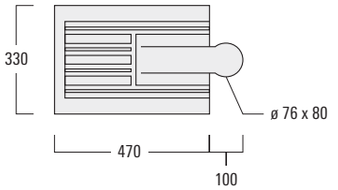
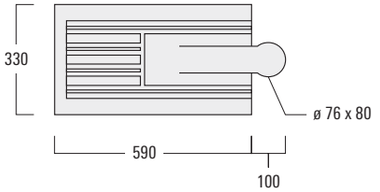


VFL520



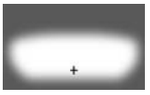
VFL530



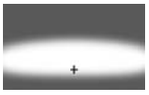
VFL540

Optional ø 60 x 80 version available.
Must be indicated during order placement.

* Nominal lumen output based on LED manufacturers data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.
** Multiplier for Isolux value



[S65]



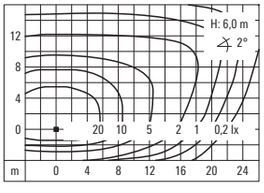
[S70]

[S65] Streetlighting distribution

[S70] Streetlighting distribution

[S65]	Part ID	Light source	K	lm*	Factor**	kg
VFL520	108-1485	12 LED 12W / 350 mA	4000	1614	0.29	4.7
	108-1487	12 LED 24W / 700 mA	4000	2951	0.50	4.7
VFL530	108-1133	12 LED 12W / 350 mA	4000	1614	0.29	6.4
	108-1163	24 LED 24W / 350 mA	4000	3228	0.58	6.6
	108-1148	12 LED 24W / 700 mA	4000	2951	0.50	6.4
	108-1178	24 LED 48W / 700 mA	4000	5903	1.00	6.6
VFL540	108-0967	24 LED 24W / 350 mA	4000	3228	0.58	7.8
	108-0969	36 LED 36W / 350 mA	4000	4842	0.86	8.2
	108-0971	42 LED 42W / 350 mA	4000	5649	1.00	8.2
	108-0968	24 LED 48W / 700 mA	4000	5903	1.00	7.8
	108-0970	36 LED 72W / 700 mA	4000	8854	1.50	8.2
	108-0972	42 LED 84W / 700 mA	4000	10329	1.75	8.2

[S70]	Part ID	Light source	K	lm*	Factor**	kg
VFL520	108-1489	12 LED 12W / 350 mA	4000	1614	0.29	4.7
	108-1491	12 LED 24W / 700 mA	4000	2951	0.50	4.7
VFL530	108-1127	12 LED 12W / 350 mA	4000	1614	0.29	6.4
	108-1157	24 LED 24W / 350 mA	4000	3228	0.58	6.6
	108-1142	12 LED 24W / 700 mA	4000	2951	0.50	6.4
	108-1172	24 LED 48W / 700 mA	4000	5903	1.00	6.6
VFL540	108-0881	24 LED 24W / 350 mA	4000	3228	0.58	7.8
	108-0883	36 LED 36W / 350 mA	4000	4842	0.86	8.2
	108-0885	42 LED 42W / 350 mA	4000	5649	1.00	8.2
	108-0904	24 LED 48W / 700 mA	4000	5903	1.00	7.8
	108-0910	36 LED 72W / 700 mA	4000	8854	1.50	8.2
	108-0916	42 LED 84W / 700 mA	4000	10329	1.75	8.2



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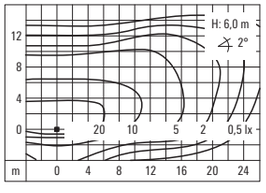
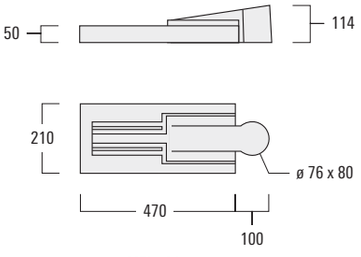
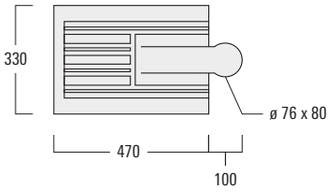


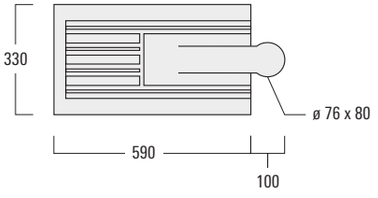
[S70]



VFL520

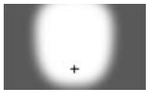


VFL530

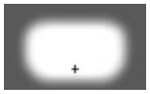


VFL540

Optional ø 60 x 80 version available.
Must be indicated during order placement.



[A60]

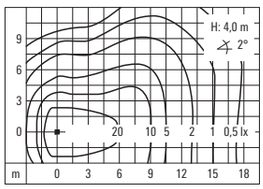


[R65]

[A60] Forward throw distribution, asymmetric
[R65] Rectangular forward throw distribution

[A60]	Part ID	Light source	K	lm*	Factor**	kg
VFL520	108-1497	12 LED 12W / 350 mA	4000	1614	0.29	4.7
	108-1499	12 LED 24W / 700 mA	4000	2951	0.50	4.7
VFL530	108-1130	12 LED 12W / 350 mA	4000	1614	0.29	6.4
	108-1160	24 LED 24W / 350 mA	4000	3228	0.58	6.6
	108-1145	12 LED 24W / 700 mA	4000	2951	0.50	6.4
	108-1175	24 LED 48W / 700 mA	4000	5903	1.00	6.6
VFL540	108-0926	24 LED 24W / 350 mA	4000	3228	0.58	7.8
	108-0929	36 LED 36W / 350 mA	4000	4842	0.86	8.2
	108-0932	42 LED 42W / 350 mA	4000	5649	1.00	8.2
	108-0938	24 LED 48W / 700 mA	4000	5903	1.00	7.8
	108-0941	36 LED 72W / 700 mA	4000	8854	1.50	8.2
	108-0944	42 LED 84W / 700 mA	4000	10329	1.75	8.2

[R65]	Part ID	Light source	K	lm*	Factor**	kg
VFL520	108-1493	12 LED 12W / 350 mA	4000	1614	0.29	4.7
	108-1495	12 LED 24W / 700 mA	4000	2951	0.50	4.7
VFL530	108-1136	12 LED 12W / 350 mA	4000	1614	0.29	6.4
	108-1166	24 LED 24W / 350 mA	4000	3228	0.58	6.6
	108-1151	12 LED 24W / 700 mA	4000	2951	0.50	6.4
	108-1181	24 LED 48W / 700 mA	4000	5903	1.00	6.6
VFL540	108-0973	24 LED 24W / 350 mA	4000	3228	0.58	7.8
	108-0975	36 LED 36W / 350 mA	4000	4842	0.86	8.2
	108-0977	42 LED 42W / 350 mA	4000	5649	1.00	8.2
	108-0974	24 LED 48W / 700 mA	4000	5903	1.00	7.8
	108-0976	36 LED 72W / 700 mA	4000	8854	1.50	8.2
	108-0978	42 LED 84W / 700 mA	4000	10329	1.75	8.2



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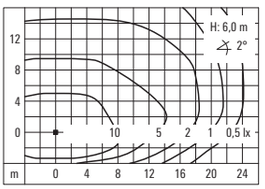
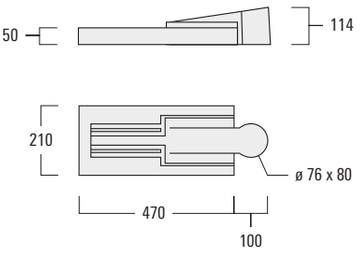
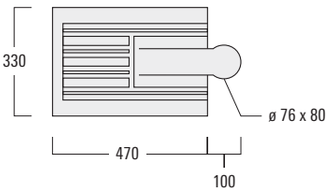


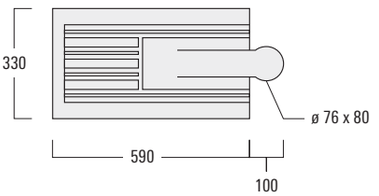
[R65]



VFL520



VFL530



VFL540

Optional ø 60 x 80 version available.
Must be indicated during order placement.

* Nominal lumen output based on LED manufacturers data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.
** Multiplier for Isolux value

VFL500-SE SERIES

Post mounted luminaire, side or forward throw distribution, asymmetric and pedestrian/ bicycle lane distribution.

IP66. Class I. IK08. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone CCG® Controlled Compression Gasket. RFC® Reflection Free Contour cover. The luminaire is factory sealed and does not need to be opened during installation.

Integral EC electronic converter.

Factory installed LED circuit board. LED boards can be easily removed for upgrading. PMMA OLC® LED lenses for superior illumination and glare control.

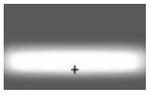
Maximum spacing, for streetlighting applications, depends on wattage and light distribution: 5.5 up to 9 times the mounting height. Recommended mounting height 3.0–6.0 m, depending on wattage selected.

Light source
LED 12-96 W, 4000 K,
for 3000 K refer to www.we-ef.com

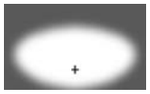
Light distributions
[P65] [S60] [S65] [S70] [A60] [R65]

Accessories
- **Mounting, page 214**
- **Eco Step Dim®, page 264**
- **Surge protection, page 374**

Main square. Landsberg am Lech (D). Landscape Architect: Lohrer Hochrein Landschaftsarchitekten und Stadtplaner. Lighting design: Day & Light Lichtplanung.

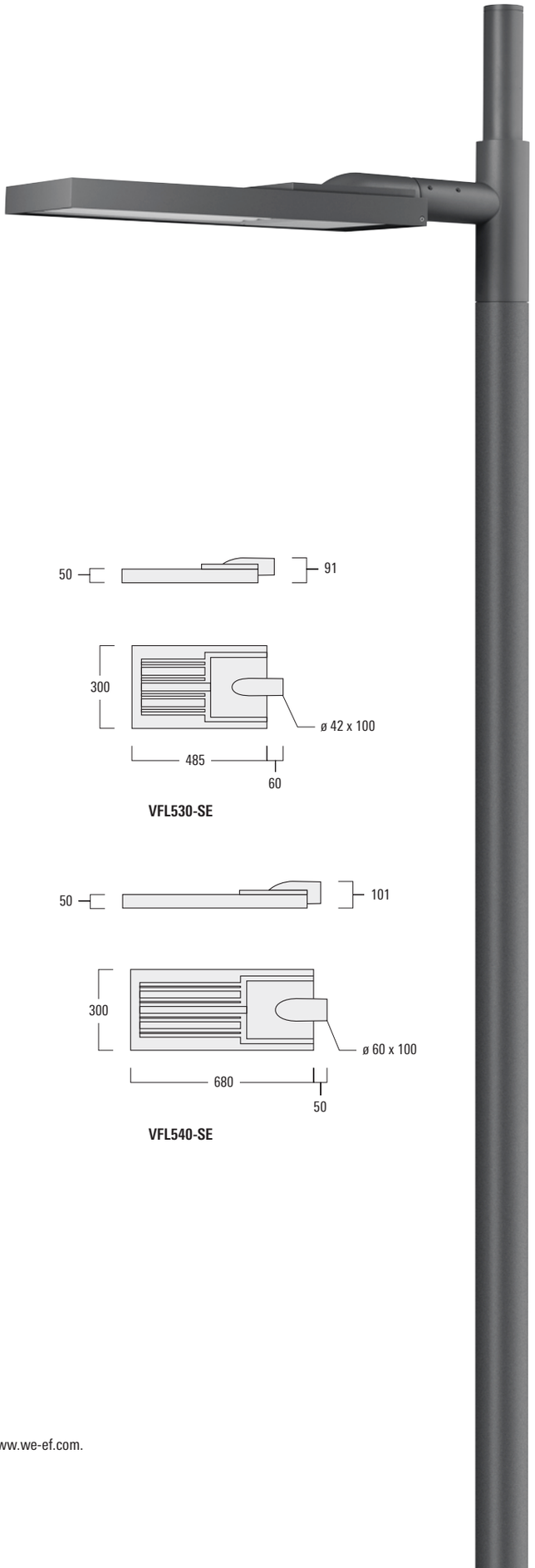


[P65]



[S60]

[P65] Pedestrian / bicycle lane distribution
[S60] Streetlighting distribution

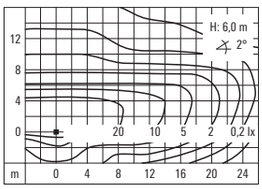


[P65]	Part ID	Light source	K	lm*	Factor**	kg
VFL530-SE	108-1884	12 LED 12W / 350 mA	4000	1614	0.29	5.6
	108-1882	24 LED 24W / 350 mA	4000	3228	0.58	5.8
	108-1880	12 LED 24W / 700 mA	4000	2951	0.50	5.6
	108-1878	24 LED 48W / 700 mA	4000	5903	1.00	5.8

[S60]	Part ID	Light source	K	lm*	Factor**	kg
VFL530-SE	108-1318	12 LED 12W / 350 mA	4000	1614	0.29	5.6
	108-1308	24 LED 24W / 350 mA	4000	3228	0.58	5.8
	108-1298	12 LED 24W / 700 mA	4000	2951	0.50	5.6
	108-1288	24 LED 48W / 700 mA	4000	5903	1.00	5.8
VFL540-SE	108-1268	36 LED 36W / 350 mA	4000	4842	0.86	8.2
	108-1278	48 LED 48W / 350 mA	4000	6456	1.15	8.2
	108-1248	36 LED 72W / 700 mA	4000	8854	1.50	8.2
	108-1258	48 LED 96W / 700 mA	4000	11805	2.00	8.2

VFL530-SE

VFL540-SE



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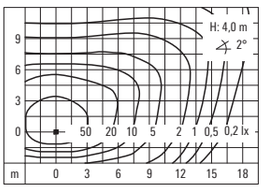
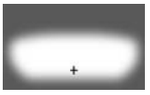
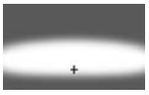


[S60]

* Nominal lumen output based on LED manufacturers data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.
** Multiplier for Isolux value



[S65]



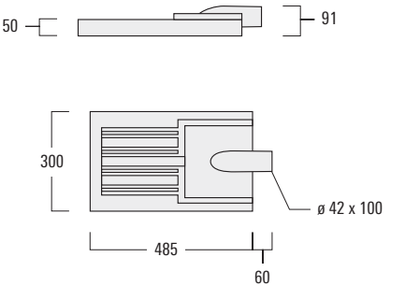
[S70]

[S65] Streetlighting distribution

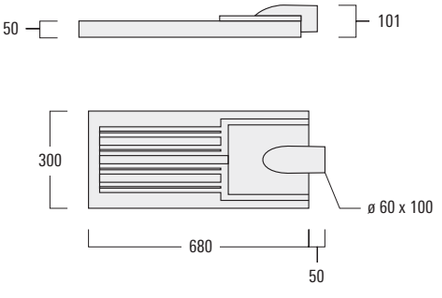
[S70] Streetlighting distribution

[S65]	Part ID	Light source	K	lm*	Factor**	kg
VFL530-SE	108-1324	12 LED 12W / 350 mA	4000	1614	0.29	5.6
	108-1314	24 LED 24W / 350 mA	4000	3228	0.58	5.8
	108-1304	12 LED 24W / 700 mA	4000	2951	0.50	5.6
	108-1294	24 LED 48W / 700 mA	4000	5903	1.00	5.8
VFL540-SE	108-1274	36 LED 36W / 350 mA	4000	4842	0.86	8.2
	108-1284	48 LED 48W / 350 mA	4000	6456	1.15	8.2
	108-1254	36 LED 72W / 700 mA	4000	8854	1.50	8.2
	108-1264	48 LED 96W / 700 mA	4000	11805	2.00	8.2

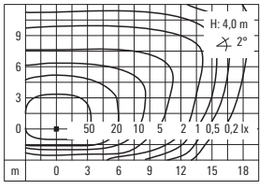
[S70]	Part ID	Light source	K	lm*	Factor**	kg
VFL530-SE	108-1320	12 LED 12W / 350 mA	4000	1614	0.29	5.6
	108-1310	24 LED 24W / 350 mA	4000	3228	0.58	5.8
	108-1300	12 LED 24W / 700 mA	4000	2951	0.50	5.6
	108-1290	24 LED 48W / 700 mA	4000	5903	1.00	5.8
VFL540-SE	108-1270	36 LED 36W / 350 mA	4000	4842	0.86	8.2
	108-1280	48 LED 48W / 350 mA	4000	6456	1.15	8.2
	108-1250	36 LED 72W / 700 mA	4000	8854	1.50	8.2
	108-1260	48 LED 96W / 700 mA	4000	11805	2.50	8.2



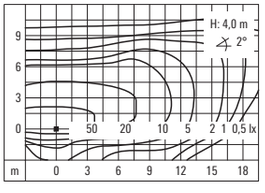
VFL530-SE



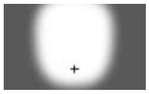
VFL540-SE



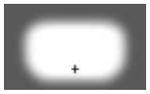
[S65]



[S70]

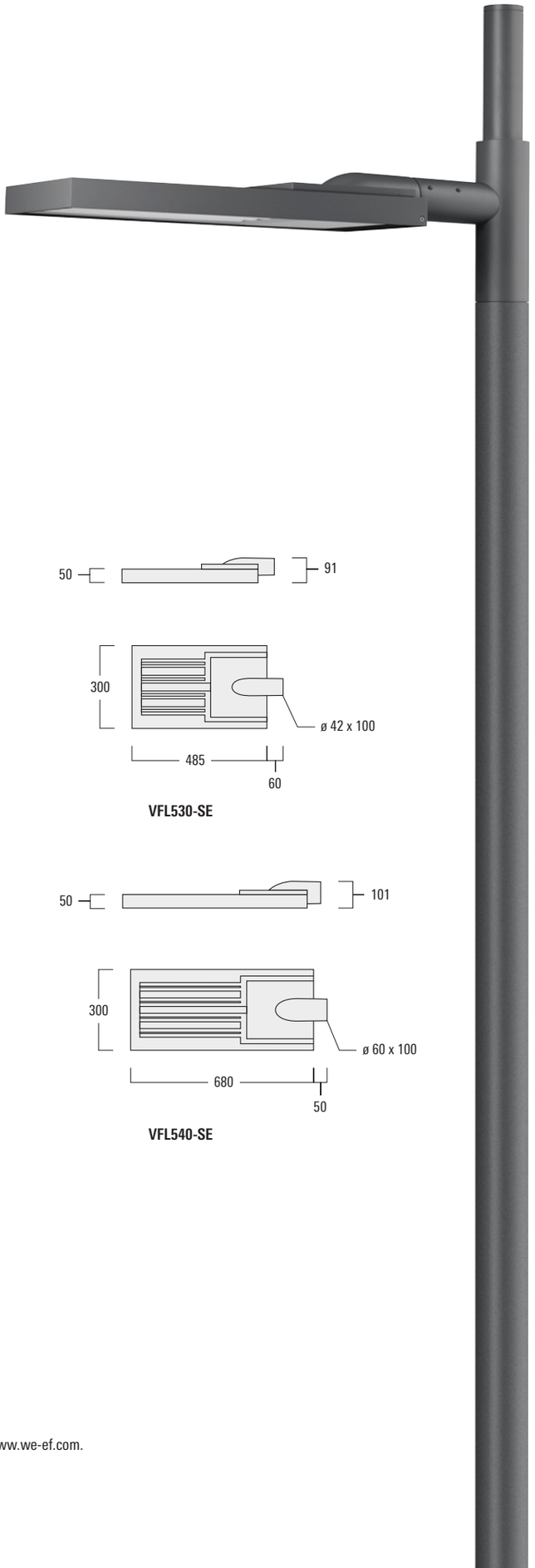


[A60]



[R65]

[A60] Forward throw distribution, asymmetric
[R65] Rectangular forward throw distribution

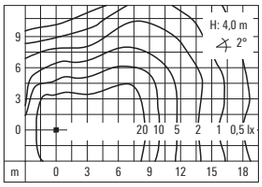


[A60]	Part ID	Light source	K	lm*	Factor**	kg
VFL530-SE	108-1322	12 LED 12W / 350 mA	4000	1614	0.29	5.6
	108-1312	24 LED 24W / 350 mA	4000	3228	0.58	5.8
	108-1302	12 LED 24W / 700 mA	4000	2951	0.50	5.6
	108-1292	24 LED 48W / 700 mA	4000	5903	1.00	5.8
VFL540-SE	108-1272	36 LED 36W / 350 mA	4000	4842	0.86	8.2
	108-1282	48 LED 48W / 350 mA	4000	6456	1.15	8.2
	108-1252	36 LED 72W / 700 mA	4000	8854	1.50	8.2
	108-1262	48 LED 96W / 700 mA	4000	11805	2.00	8.2

[R65]	Part ID	Light source	K	lm*	Factor**	kg
VFL530-SE	108-1326	12 LED 12W / 350 mA	4000	1614	0.29	5.6
	108-1316	24 LED 24W / 350 mA	4000	3228	0.58	5.8
	108-1306	12 LED 24W / 700 mA	4000	2951	0.50	5.6
	108-1296	24 LED 48W / 700 mA	4000	5903	1.00	5.8
VFL540-SE	108-1276	36 LED 36W / 350 mA	4000	4842	0.86	8.2
	108-1286	48 LED 48W / 350 mA	4000	6456	1.15	8.2
	108-1256	36 LED 72W / 700 mA	4000	8854	1.50	8.2
	108-1266	48 LED 96W / 700 mA	4000	11805	2.00	8.2

VFL530-SE

VFL540-SE



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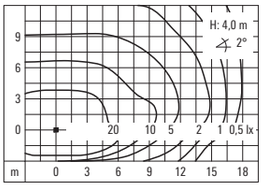


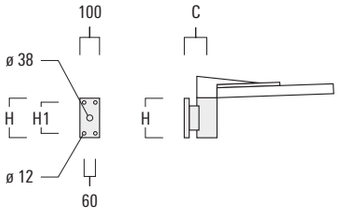
[R65]

* Nominal lumen output based on LED manufacturers data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.
** Multiplier for Isolux value

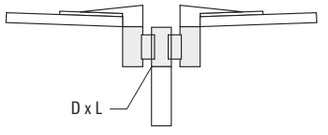
MOUNTING ACCESSORIES – VFL500 / VFL500-SE SERIES

Marine-grade aluminium construction. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016.

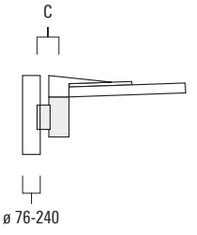
Wall / Pole brackets RV Series				D x L	H / H1	C	kg
for VFL500 Series	108-0979	RV0	Wall bracket		200 / 60	108	2.0
	108-0980	RV2-76	Pole bracket	ø 76 x 100		147	4.8
	108-0981	RV2-60	Pole bracket	ø 60 x 100		147	4.8
	108-0982	RV5	Pole bracket			106	1.6



Wall bracket RV0

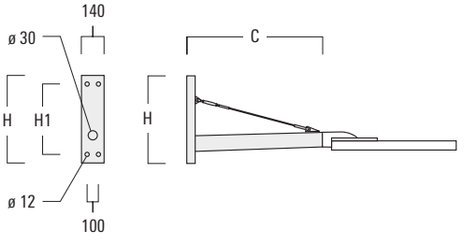


Pole bracket RV2

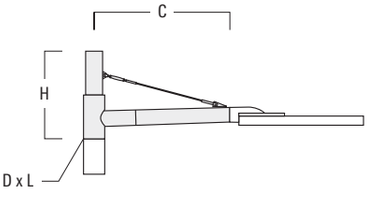


Pole bracket RV5

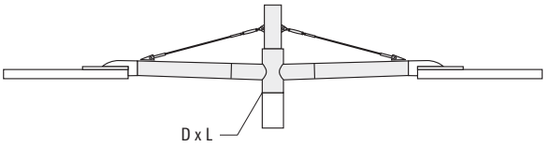
Wall / Pole brackets RX Series				D x L	H / H1	H	C	kg
for VFL530-SE	111-0053	RX0-530	Wall bracket		350 / 285		710	3.3
	111-0088	RX1-530	Pole bracket	ø 76 x 80		400	710	4.5
	111-0089	RX2-530	Pole bracket	ø 76 x 80		400	710	6.2
for VFL540-SE	111-0086	RX0-540	Wall bracket		450 / 385		1000	5.2
	111-0054	RX1-540	Pole bracket	ø 76 x 130		550	1000	6.8
	111-0055	RX2-540	Pole bracket	ø 76 x 130		550	1000	9.7



Wall bracket RX0



Pole bracket RX1



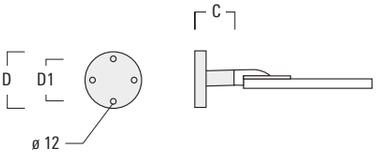
Pole bracket RX2

Main square. Landsberg am Lech (D). Landscape Architect: Lohrer Hochrein Landschaftsarchitekten und Stadtplaner. Lighting design: Day & Light Lichtplanung.

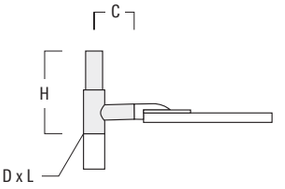
MOUNTING ACCESSORIES – VFL500-SE SERIES

Marine-grade aluminium construction. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016.

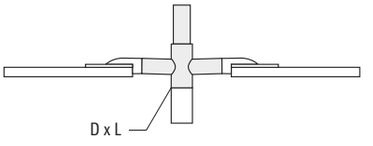
Wall / Pole brackets RE Series				D x L	D / D1	H	C	kg
for VFL530-SE	111-0052	RE0-530	Wall bracket		230 / 195		180	2.9
	111-0040	RE1-530	Pole bracket	ø 76 x 80		400	180	3.2
	111-0041	RE2-530	Pole bracket	ø 76 x 80		400	180	3.6
for VFL540-SE	111-0084	RE0-540	Wall bracket		230 / 195		180	3.2
	111-0042	RE1-540	Pole bracket	ø 76 x 130		550	200	4.6
	111-0043	RE2-540	Pole bracket	ø 76 x 130		550	200	5.3



Wall bracket RE0

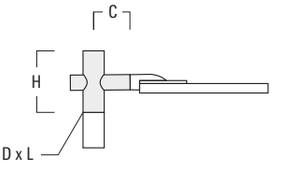


Pole bracket RE1

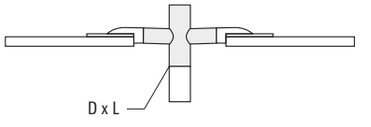


Pole bracket RE2

Pole brackets RF Series				D x L	H	C	kg
for VFL530-SE	111-0044	RF1-530	Pole bracket	ø 76 x 80	275	190	2.3
	111-0045	RF2-530	Pole bracket	ø 76 x 80	275	190	3.0
for VFL540-SE	111-0046	RF1-540	Pole bracket	ø 76 x 80	300	200	2.6
	111-0047	RF2-540	Pole bracket	ø 76 x 80	300	200	3.3



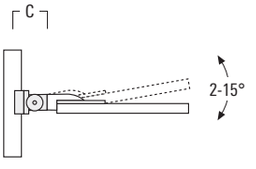
Pole bracket RF1



Pole bracket RF2

Wall / Pole brackets RI Series				D x L*	C	kg
for VFL530-SE	111-0178	RI-530	Wall & Pole bracket	ø 76-108	96	1.5
for VFL540-SE	111-0179	RI-540	Wall & Pole bracket	ø 76-108	110	1.5

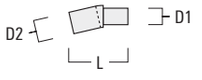
* Pole diameter (structural limitations of pole must be considered)



Wall & pole bracket RI

Tilt brackets TB Series				L	D1 / D2	Angle	kg
for VFL530-SE	111-0639	TB-530.42.10	Tilt bracket*	205	ø 42x90 / ø 42x100	7°	0.5
	111-0640	TB-530.42.15	Tilt bracket*	205	ø 42x90 / ø 42x100	13°	0.5
for VFL540-SE	111-0636	TB-540.60.10	Tilt bracket*	205	ø 60x90 / ø 60x100	7°	0.7
	111-0637	TB-540.60.15	Tilt bracket*	205	ø 60x90 / ø 60x100	13°	0.7

* for adjusting luminaire angle



Tilt bracket TB

Main square. Landsberg am Lech (D). Landscape Architect: Lohrer Hochrein Landschaftsarchitekten und Stadtplaner. Lighting design: Day & Light Lichtplanung.

PFL500 SERIES

Post mounted luminaire, side or forward throw distribution, asymmetric.

IP66. Class I. IK08. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone CCG® Controlled Compression Gasket. RFC® Reflection Free Contour technoloy. The luminaire is factory sealed and does not need to be opened for installation.

Integral EC electronic converter.

Factory installed LED circuit board. LED boards can be easily removed for upgrading. PMMA OLC® LED lenses for superior illumination and glare control.

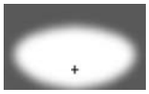
Maximum spacing, for streetlighting applications, depends on wattage and light distribution: 5.5 up to 9 times the mounting height. Recommended mounting height 5.0–8.0 m, depending on wattage selected.

Light source
LED 48-144 W, 4000 K,
for 3000 K refer to www.we-ef.com

Light distributions
[S60] [S65] [S70] [A60] [R65]

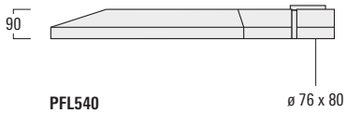
Accessories
- **Mounting, page 222**
- **Eco Step Dim®, page 264**
- **Surge protection, page 374**

BMW car dealer Riller & Schnauck am Hindenburgdamm. Berlin (D). Planning: Uwe Nüßer, Gebäudemanagement Riller & Schnauck.

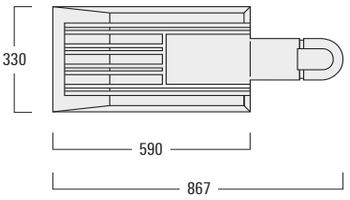


[S60] Streetlighting distribution

[S60]	Part ID	Light source	K	lm*	Factor**	kg
PFL540	108-0949	24 LED 48W / 700 mA	4000	5903	0.55	13.0
	108-0952	24 LED 72W / 1050 mA	4000	10800	1.00	13.0
	108-0950	36 LED 72W / 700 mA	4000	8854	0.82	14.0
	108-0953	36 LED 108W / 1050 mA	4000	16200	1.50	14.0
	108-0951	48 LED 96W / 700 mA	4000	11805	1.03	15.0
	108-0954	48 LED 144W / 1050 mA	4000	21600	2.00	15.0

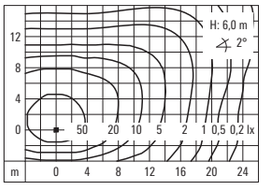


PFL540



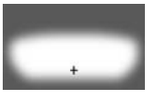
PFL540-SE

Optional side entry version available.
Must be indicated during order placement.

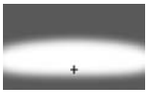


[S60]

* Nominal lumen output based on LED manufacturers data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.
** Multiplier for Isolux value



[S65]



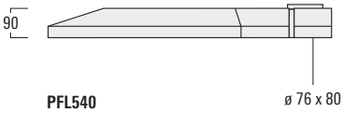
[S70]

[S65] Streetlighting distribution

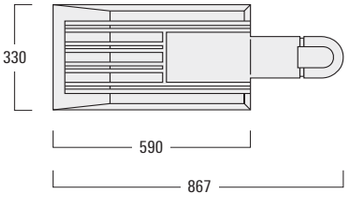
[S70] Streetlighting distribution

[S65]	Part ID	Light source	K	lm*	Factor**	kg
PFL540	108-0828	24 LED 48W / 700 mA	4000	5903	0.55	13.0
	108-0829	24 LED 72W / 1050 mA	4000	10800	1.00	13.0
	108-0830	36 LED 72W / 700 mA	4000	8854	0.82	14.0
	108-0831	36 LED 108W / 1050 mA	4000	16200	1.50	14.0
	108-0832	48 LED 96W / 700 mA	4000	11085	1.33	15.0
	108-0833	48 LED 144W / 1050 mA	4000	21600	2.00	15.0

[S70]	Part ID	Light source	K	lm*	Factor**	kg
PFL540	108-0824	24 LED 48W / 700 mA	4000	5903	0.55	13.0
	108-0825	24 LED 72W / 1050 mA	4000	10800	1.00	13.0
	108-0823	36 LED 72W / 700 mA	4000	8854	0.82	14.0
	108-0826	36 LED 108W / 1050 mA	4000	16200	1.50	14.0
	108-0822	48 LED 96W / 700 mA	4000	11085	1.03	15.0
	108-0827	48 LED 144W / 1050 mA	4000	21600	2.00	15.0

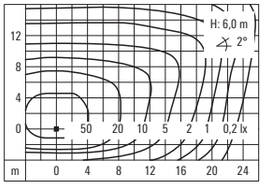


PFL540

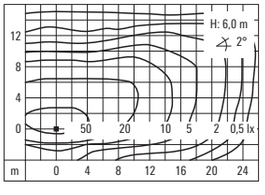


PFL540-SE

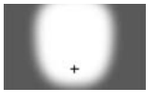
Optional side entry version available.
Must be indicated during order placement.



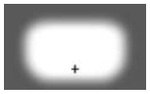
[S65]



[S70]



[A60]

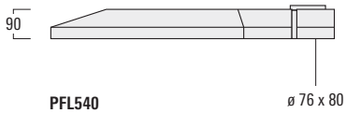


[R65]

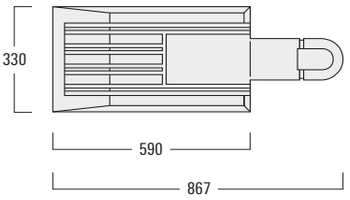
[A60] Forward throw distribution, asymmetric
[R65] Rectangular forward throw distribution

[A60]	Part ID	Light source	K	lm*	Factor**	kg
PFL540	108-0961	24 LED 48W / 700 mA	4000	5903	0.55	13.0
	108-0964	24 LED 72W / 1050 mA	4000	10800	1.00	13.0
	108-0962	36 LED 72W / 700 mA	4000	8854	0.82	14.0
	108-0965	36 LED 108W / 1050 mA	4000	16200	1.50	14.0
	108-0963	48 LED 96W / 700 mA	4000	11085	1.03	15.0
	108-0966	48 LED 144W / 1050 mA	4000	21600	2.00	15.0

[R65]	Part ID	Light source	K	lm*	Factor**	kg
PFL540	108-0955	24 LED 48W / 700 mA	4000	5903	0.55	13.0
	108-0958	24 LED 72W / 700 mA	4000	10800	1.00	13.0
	108-0956	36 LED 72W / 700 mA	4000	8854	0.82	14.0
	108-0959	36 LED 108W / 1050 mA	4000	16200	1.50	14.0
	108-0957	48 LED 96W / 700 mA	4000	11085	1.03	15.0
	108-0960	48 LED 144W / 1050 mA	4000	21600	2.00	15.0

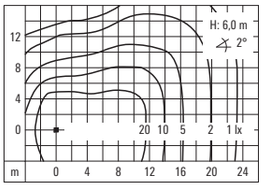


PFL540

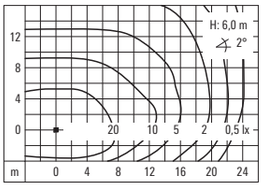


PFL540-SE

Optional side entry version available.
Must be indicated during order placement.



[A60]



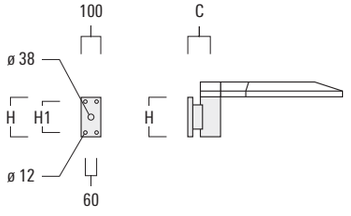
[R65]

* Nominal lumen output based on LED manufacturers data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.
** Multiplier for Isolux value

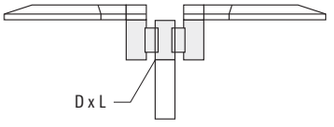
MOUNTING ACCESSORIES – PFL500 SERIES

Marine-grade aluminium construction. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016.

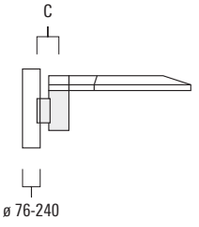
Wall / Pole bracket RV Series				D x L	H / H1	C	kg
for PFL540	108-0979	RV0	Wall bracket		200 / 160	108	2.0
	108-0980	RV2-76	Pole bracket	ø 76 x 100		147	4.8
	108-0981	RV2-60	Pole bracket	ø 60 x 100		147	4.8
	108-0982	RV5	Pole bracket			108	1.7



Wall bracket RV0



Pole bracket RV2



Pole bracket RV5

PFL200 SERIES

Post mounted luminaire, side or forward throw distribution, asymmetric and pedestrian/ bicycle lane distribution.

IP66, Class I. IK08. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gaskets. Safety glass lens, hinged.

Integral EC electronic converter.

Factory installed LED circuit board. LED boards can be easily removed for upgrading. PMMA OLC® LED lenses for superior illumination and glare control.

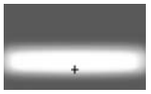
Recommended mounting height 2.5–6.0 m, depending on wattage selected. Mounting brackets to be ordered separately.

Light source
LED 12-72 W, 4000 K,
for 3000 K refer to www.we-ef.com

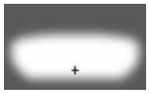
Light distributions
[P65] [S65] [A60] [R65]

Accessories
- **Mounting, page 232**
- **Eco Step Dim®, page 264**
- **Surge protection, page 374**

Carpark. South Leicestershire College. Leicester (UK). Architects: Metz Architects Ltd.



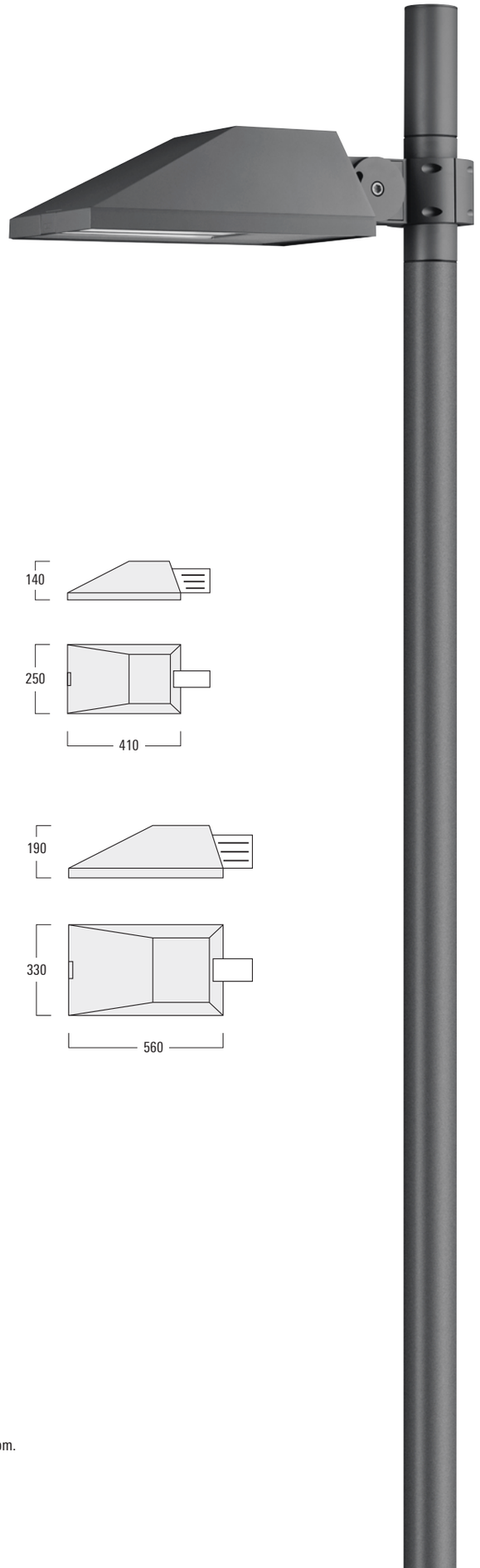
[P65]



[S65]

[P65] Pedestrian / bicycle lane distribution

[S65] Streetlighting distribution

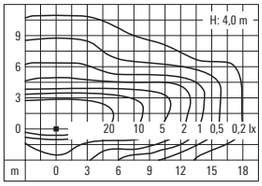


[P65]	Part ID	Light source	K	lm*	Factor**	kg
PFL230	108-1780	12 LED 12W / 350 mA	4000	1614	0.55	10.0
	108-1788	18 LED 18W / 350 mA	4000	2421	0.82	10.0
	108-1630	12 LED 24W / 700 mA	4000	2951	1.00	10.0
	108-1730	18 LED 36W / 700 mA	4000	4427	1.50	10.0

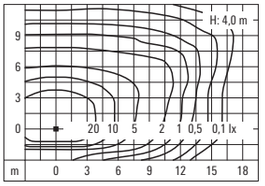
[S65]	Part ID	Light source	K	lm*	Factor**	kg
PFL230	108-1774	12 LED 12W / 350 mA	4000	1614	0.55	10.0
	108-1782	18 LED 18W / 350 mA	4000	2421	0.82	10.0
	108-1632	12 LED 24W / 700 mA	4000	2951	1.00	10.0
	108-1724	18 LED 36W / 700 mA	4000	4427	1.50	10.0
PFL240	108-1700	18 LED 36W / 700 mA	4000	4427	1.50	13.5
	108-1678	24 LED 48W / 700 mA	4000	5903	2.00	13.5
	108-1688	18 LED 54W / 1050 mA	4000	8100	2.75	13.5
	108-1641	24 LED 72W / 1050 mA	4000	10800	3.66	13.5

PFL230

PFL240



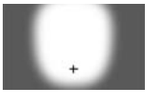
[P65]



[S65]

* Nominal lumen output based on LED manufacturers data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

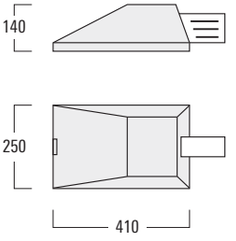
** Multiplier for Isolux value



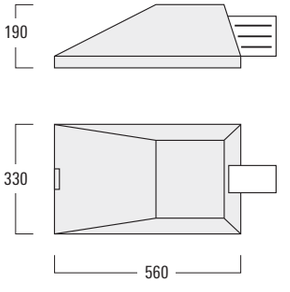
[A60] Forward throw distribution, asymmetric

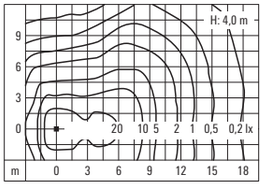
[A60]	Part ID	Light source	K	lm*	Factor**	kg
PFL230	108-1778	12 LED 12W / 350 mA	4000	1614	0.55	10.0
	108-1786	18 LED 18W / 350 mA	4000	2421	0.82	10.0
	108-1629	12 LED 24W / 700 mA	4000	2951	1.00	10.0
	108-1728	18 LED 36W / 700 mA	4000	4427	1.50	10.0
PFL240	108-1704	18 LED 36W / 700 mA	4000	4427	1.50	13.5
	108-1682	24 LED 48W / 700 mA	4000	5903	2.00	13.5
	108-1692	18 LED 54W / 1050 mA	4000	8100	2.75	13.5
	108-1643	24 LED 72W / 1050 mA	4000	10800	3.66	13.5

PFL230

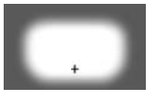


PFL240

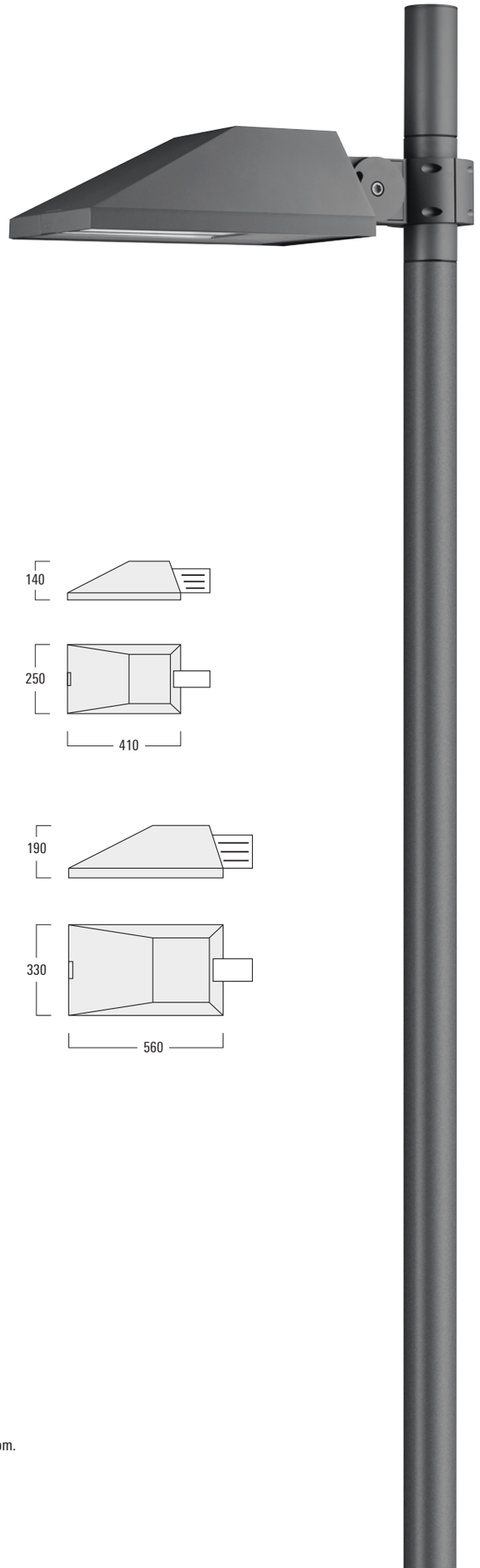




[A60]



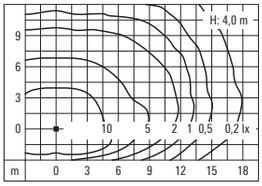
[R65] Rectangular forward throw distribution



[R65]	Part ID	Light source	K	lm*	Factor**	kg
PFL230	108-1776	12 LED 12W / 350 mA	4000	1614	0.55	10.0
	108-1784	18 LED 18W / 350 mA	4000	2421	0.82	10.0
	108-1623	12 LED 24W / 700 mA	4000	2951	1.00	10.0
	108-1726	18 LED 36W / 700 mA	4000	4427	1.50	10.0
PFL240	108-1702	18 LED 36W / 700 mA	4000	4427	1.50	13.5
	108-1680	24 LED 48W / 700 mA	4000	5903	2.00	13.5
	108-1690	18 LED 54W / 1050 mA	4000	8100	2.75	13.5
	108-1639	24 LED 72W / 1050 mA	4000	10800	3.66	13.5

PFL230

PFL240



[R65]

* Nominal lumen output based on LED manufacturers data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

** Multiplier for Isolux value

PFL200 SERIES

Post mounted luminaire, side or forward throw distribution, asymmetric.

IP66, Class I. IK08. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gaskets. Safety glass lens, hinged.

Integral HPF or ECG control gear. Anodised aluminium reflector, for beam efficiency and glare control.

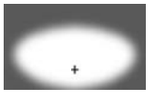
Recommended mounting height 2.5–9.0 m, depending on wattage selected.
Mounting brackets to be ordered separately.

Light source
HIT 20-400 W

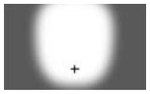
Light distributions
[S60] [A60]

Accessories
- **Mounting, page 232**
- **Optical, page 240**

Main station. Essen (D)

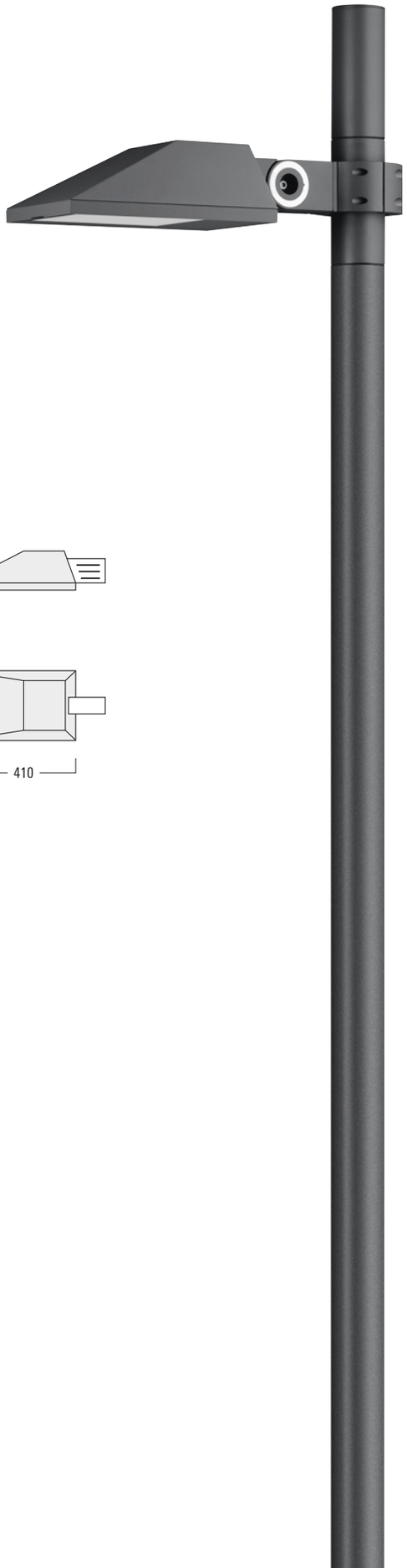


[S60]



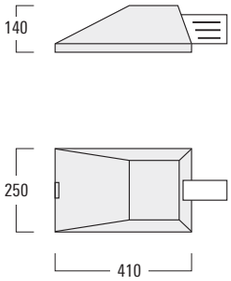
[A60]

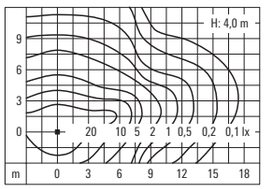
[S60] Side throw distribution, asymmetric
[A60] Forward throw distribution, asymmetric



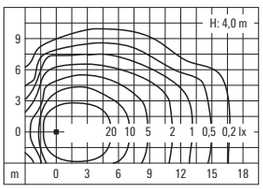
[S60]	Part ID	Light source	lm	Factor*	kg
PFL230	108-0645 [ECG]	HIT-COS 45W PGZ12	4300	1.20	7.3
	108-0749 [ECG]	HIT-CE 20W G12	1650	0.46	5.8
	108-0422 [ECG]	HIT-CE 35W G12	3600	1.00	7.1
	108-0423 [ECG]	HIT-CE 70W G12	7300	2.03	7.1

[A60]	Part ID	Light source	lm	Factor*	kg
PFL230	108-0646 [ECG]	HIT-COS 45W PGZ12	4300	1.20	7.3
	108-0752 [ECG]	HIT-CE 20W G12	1650	0.46	5.8
	108-0425 [ECG]	HIT-CE 35W G12	3600	1.00	7.1
	108-0426 [ECG]	HIT-CE 70W G12	7300	2.03	7.1



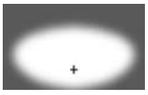


[S60]

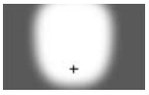


[A60]

* Multiplier for Isolux value



[S60]

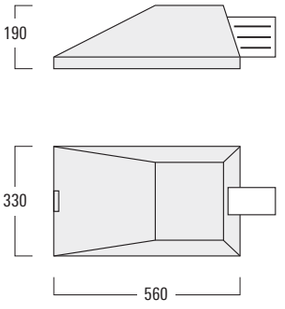


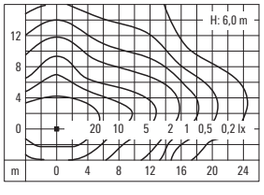
[A60]

[S60] Side throw distribution, asymmetric
[A60] Forward throw distribution, asymmetric

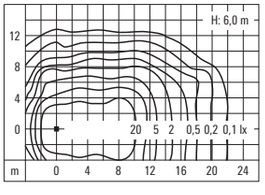
[S60]	Part ID	Light source	lm	Factor*	kg
PFL240	108-0540 [ECG]	HIT-COS 60W PGZ12	6850	0.98	9.4
	108-0543 [ECG]	HIT-COS 90W PGZ12	10450	1.49	9.6
	108-0745 [ECG]	HIT-COS 140W PGZ12	16500	2.36	10.0
	108-0196 [ECG]	HIT-CE 70W E27	7000	1.00	8.1
	108-0016 [ECG]	HIT-CE 150W E40	14500	2.07	9.3

[A60]	Part ID	Light source	lm	Factor*	kg
PFL240	108-0647 [ECG]	HIT-COS 60W PGZ12	6850	0.98	9.4
	108-0705 [ECG]	HIT-COS 90W PGZ12	10450	1.49	9.6
	108-0746 [ECG]	HIT-COS 140W PGZ12	16500	2.36	10.0
	108-0194 [ECG]	HIT-DE-CE 70W RX7s	6800	1.00	8.1
	108-0131 [ECG]	HIT-DE-CE 150W RX7s	14500	2.07	9.3

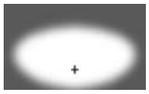




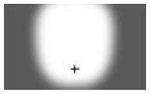
[S60]



[A60]

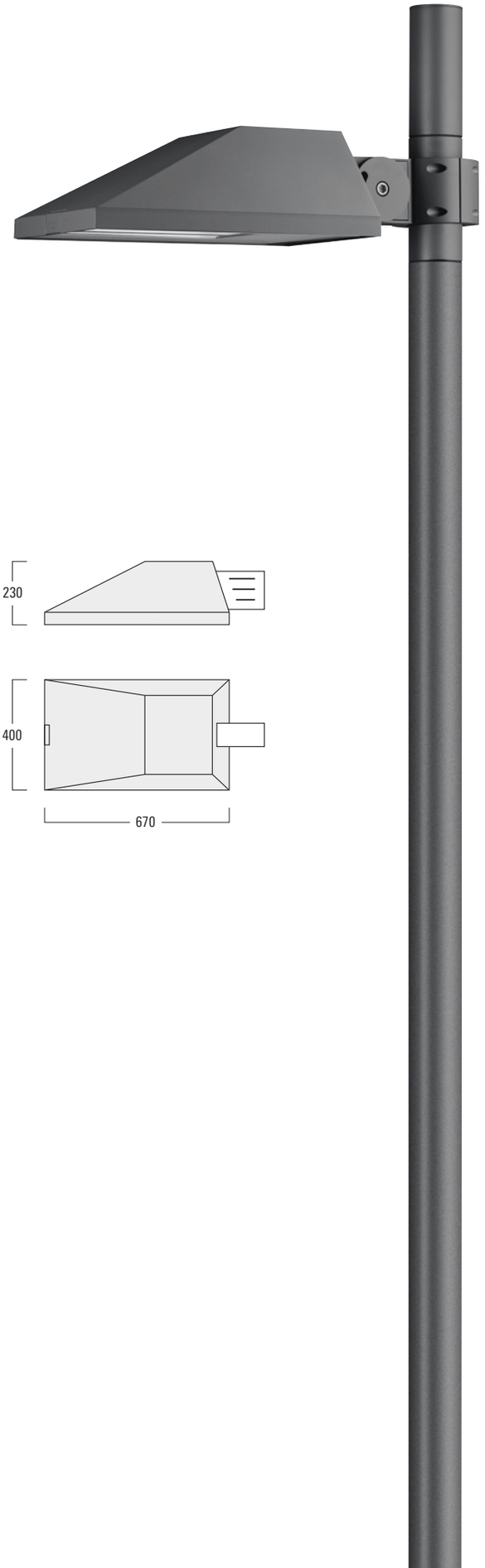


[S60]



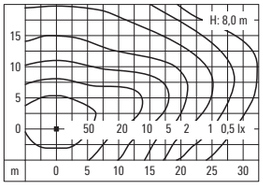
[A60]

[S60] Side throw distribution, asymmetric
[A60] Forward throw distribution, asymmetric

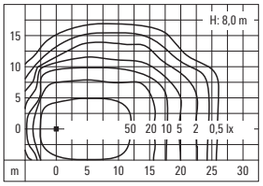


[S60]	Part ID	Light source	lm	Factor*	kg
PFL260	108-0541 [ECG]	HIT-COS 140W PGZ12	16500	0.64	14.1
	108-0024 [HPF]	HIT-CE 250W E40	26000	1.00	16.0
	108-0026 [HPF]	HIT 400W E40	35000	1.35	17.6

[A60]	Part ID	Light source	lm	Factor*	kg
PFL260	108-0648 [ECG]	HIT-COS 140W PGZ12	16500	0.64	14.1
	108-0048 [HPF]	HIT-DE 250W Fc2	20000	1.00	16.0
	108-0050 [HPF]	HIT-DE 400W Fc2	36000	1.35	17.6



[S60]



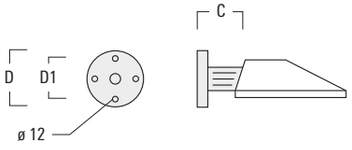
[A60]

* Multiplier for Isolux value

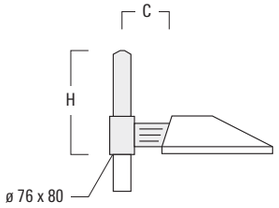
MOUNTING ACCESSORIES – PFL200 SERIES

Marine-grade aluminium construction. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016.

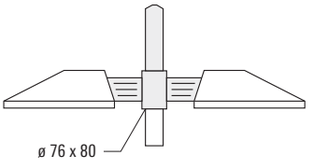
Wall / Pole brackets KP Series				D / D1	H	C	kg
for PFL230	108-0433	KP0-230	Wall bracket	180 / 140		195	1.5
	108-0434	KP1-230	Pole bracket		525	210	3.6
	108-0435	KP2-230	Pole bracket		525	210	4.3
for PFL240	108-0103	KP0-240	Wall bracket	230 / 195		200	2.0
	108-0104	KP1-240	Pole bracket		575	215	3.8
	108-0105	KP2-240	Pole bracket		575	215	4.7
for PFL260	108-0056	KP0-260	Wall bracket	275 / 235		230	2.6
	108-0044	KP1-260	Pole bracket		675	250	4.3
	108-0045	KP2-260	Pole bracket		675	250	5.5



Wall bracket KP0

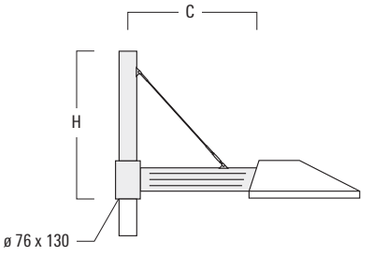


Pole bracket KP1

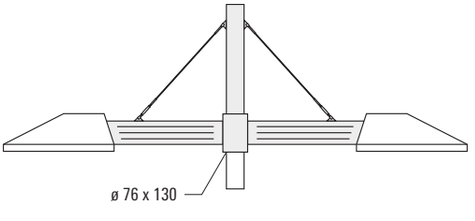


Pole bracket KP2

Pole brackets KP-L Series				H	C	kg
for PFL230	108-0713	KP1-L-230	Pole bracket	525	450	6.3
	108-0714	KP2-L-230	Pole bracket	525	450	9.5
for PFL240	108-0268	KP1-L-240	Pole bracket	575	635	9.1
	108-0373	KP2-L-240	Pole bracket	575	635	15.0
for PFL260	108-0281	KP1-L-260	Pole bracket	675	635	10.4
	108-0280	KP2-L-260	Pole bracket	675	635	17.5



Pole bracket KP1-L



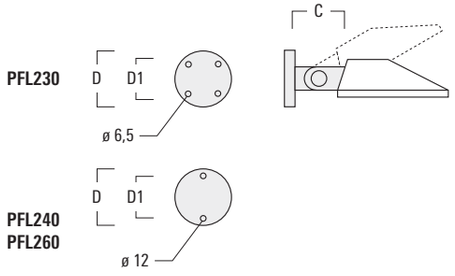
Pole bracket KP2-L

Main station. Essen (D)

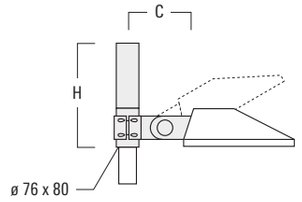
MOUNTING ACCESSORIES – PFL200 SERIES

Marine-grade aluminium construction. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016.

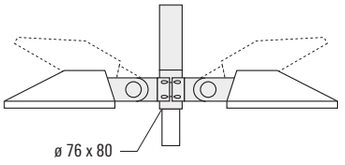
Pole brackets KI Series				D / D1	H	C	kg
for PFL230	108-0430	KI0-230	Wall bracket	180 / 148		210	3.0
	108-0431	KI1-230	Pole bracket		475	210	4.3
	108-0432	KI2-230	Pole bracket		475	210	6.0
Incrementless vertical aiming ± 30°							
for PFL240	108-0493	KI0-240	Wall bracket	180 / 140		210	5.7
	108-0491	KI1-240	Pole bracket		525	210	6.9
	108-0492	KI2-240	Pole bracket		525	210	8.6
Incrementless vertical aiming ± 30°							
for PFL260	108-0493	KI0-260	Wall bracket	180 / 140		210	5.7
	108-0494	KI1-260	Pole bracket		575	210	8.5
	108-0495	KI2-260	Pole bracket		575	210	10.3
Incrementless vertical aiming ± 30°							



Wall bracket KI0

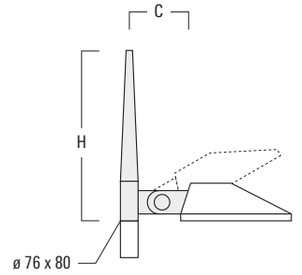


Pole bracket KI1

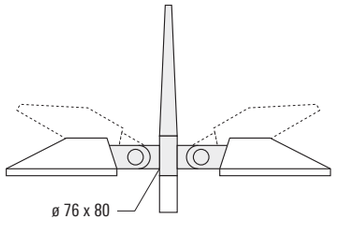


Pole bracket KI2

Pole brackets KY Series				H	C	kg
for PFL230	108-0496	KY1-230	Pole bracket	730	210	8.2
	108-0497	KY2-230	Pole bracket	730	210	9.4
Incrementless vertical aiming ± 30°						
for PFL240	108-0500	KY1-240	Pole bracket	930	210	9.9
	108-0501	KY2-240	Pole bracket	930	210	12.8
Incrementless vertical aiming ± 30°						
for PFL260	108-0500	KY1-260	Pole bracket	930	210	11.7
	108-0501	KY2-260	Pole bracket	930	210	14.6
Incrementless vertical aiming ± 30°						



Pole bracket KY1



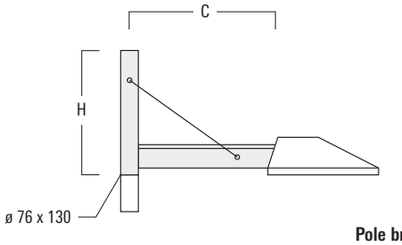
Pole bracket KY2

Theresienhöhe MK2. München (D). Lighting design: Ingenieurgruppe München.

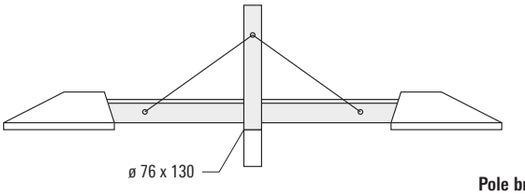
MOUNTING ACCESSORIES – PFL200 SERIES

Marine-grade aluminium construction. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016.

Pole brackets KL Series				H	C	kg
for PFL240	108-0342	KL1-240	Pole bracket	750	735	9.0
	108-0532	KL2-240	Pole bracket	750	735	14.0
for PFL260	108-0380	KL1-260	Pole bracket	1100	1135	14.0
	108-0299	KL2-260	Pole bracket	1100	1135	21.0

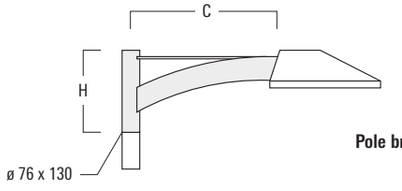


Pole bracket KL1

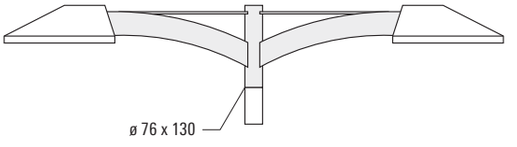


Pole bracket KL2

Pole brackets KX Series				H	C	kg
for PFL240	108-0343	KX1-240	Pole bracket	410	735	7.0
	108-0534	KX2-240	Pole bracket	410	735	11.0
for PFL260	108-0533	KX1-260	Pole bracket	630	1135	11.0
	108-0473	KX2-260	Pole bracket	630	1135	17.0



Pole bracket KX1



Pole bracket KX2

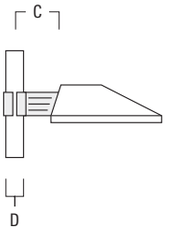
ZAC Champolion. Dijon (F). Lighting design: Vittorio Sparta, Eclar, Chagny.

MOUNTING ACCESSORIES – PFL200 SERIES

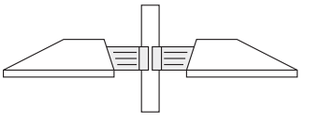
Marine-grade aluminium construction. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016.

Pole clamps SK Series				D*	C	kg
for PFL230	108-0474	SK1-230	Pole clamp	ø 76-89	175	2.1
	108-0475	SK1-230	Pole clamp	ø 102-114	175	2.4
	108-0476	SK2-230	Pole clamp	ø 76-89	175	2.9
	108-0477	SK2-230	Pole clamp	ø 102-114	175	3.2
for PFL240	108-0788	SK1-240	Pole clamp	ø 76-89	175	3.0
	108-0782	SK1-240	Pole clamp	ø 102-114	175	3.4
	108-0789	SK1-240	Pole clamp	ø 114-133	175	3.8
	108-0790	SK2-240	Pole clamp	ø 76-89	175	3.9
	108-0784	SK2-240	Pole clamp	ø 102-114	175	4.3
	108-0791	SK2-240	Pole clamp	ø 114-133	175	4.7
for PFL260	108-0792	SK1-260	Pole clamp	ø 76-89	210	3.6
	108-0793	SK1-260	Pole clamp	ø 102-114	175	4.0
	108-0794	SK1-260	Pole clamp	ø 114-133	210	4.4
	108-0795	SK2-260	Pole clamp	ø 76-89	210	4.8
	108-0796	SK2-260	Pole clamp	ø 102-114	175	5.2
	108-0797	SK2-260	Pole clamp	ø 114-133	210	5.6

* Pole diameter (structural limitations of pole must be considered)



Pole clamp SK1

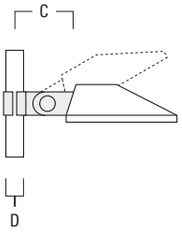


Pole clamp SK2

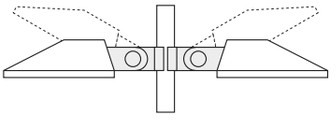
Pole clamps SI Series				D*	C	kg
for PFL230	108-0478	SI1-230	Pole clamp	ø 76-89	210	2.9
	108-0479	SI1-230	Pole clamp	ø 102-114	210	3.1
	108-0480	SI2-230	Pole clamp	ø 76-89	210	4.5
	108-0481	SI2-230	Pole clamp	ø 102-114	210	4.7
Incrementless vertical aiming ± 30°						
for PFL240	108-0482	SI1-240	Pole clamp	ø 76-89	210	3.6
	108-0781	SI1-240	Pole clamp	ø 102-114	210	4.0
	108-0483	SI1-240	Pole clamp	ø 114-133	210	4.4
	108-0484	SI2-240	Pole clamp	ø 76-89	210	5.2
	108-0783	SI2-240	Pole clamp	ø 102-114	210	5.7
	108-0485	SI2-240	Pole clamp	ø 114-133	210	6.2
Incrementless vertical aiming ± 30°						
for PFL260	108-0482	SI1-260	Pole clamp	ø 76-89	210	3.6
	108-0781	SI1-260	Pole clamp	ø 102-114	210	4.0
	108-0483	SI1-260	Pole clamp	ø 114-133	210	4.4
	108-0484	SI2-260	Pole clamp	ø 76-89	210	5.2
	108-0783	SI2-260	Pole clamp	ø 102-114	210	5.7
	108-0485	SI2-260	Pole clamp	ø 114-133	210	6.2

Incrementless vertical aiming ± 30°

* Pole diameter (structural limitations of pole must be considered)



Pole clamp SI1



Pole clamp SI2

Temple Quay. Bristol (UK). Architect: Landscape Projects.

OPTICAL ACCESSORIES – PFL200 SERIES

A maximum of one internal optical accessory.

Rearward cut-off shield IL

for [S] version, with side throw distribution

for PFL230	108-0427
for PFL240	108-0469
for PFL260	108-0040

Rearward cut-off shield IL

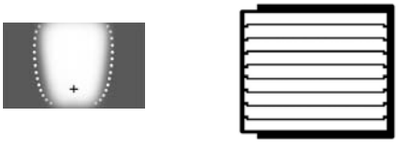
for [A] version, with forward throw distribution

for PFL230	147-0655
for PFL240	147-0656
for PFL260	147-0410

Sidewards cut-off shield IL

for [A] version, with forward throw distribution

for PFL230	108-0428
for PFL240	108-0470
for PFL260	108-0041



EFL500 SERIES

Post mounted luminaire, side or forward throw distribution, asymmetric.

IP66. Class I. IK08. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone CCG® Controlled Compression Gasket. Safety glass lens.

Integral EC electronic converter.

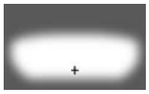
Factory installed LED circuit board. LED boards can be easily removed for upgrading. PMMA OLC® LED lenses for superior illumination and glare control.

Recommended mounting height 4.5–6.0 m, depending on wattage selected. Combination post and side entry. Mounting brackets to be ordered separately.

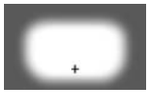
Light source
LED 36-54 W, 4000 K,
for 3000 K refer to www.we-ef.com

Light distributions
[S65] [R65]

Accessories
- **Mounting, page 244**
- **Eco Step Dim®, page 264**
- **Surge protection, page 374**



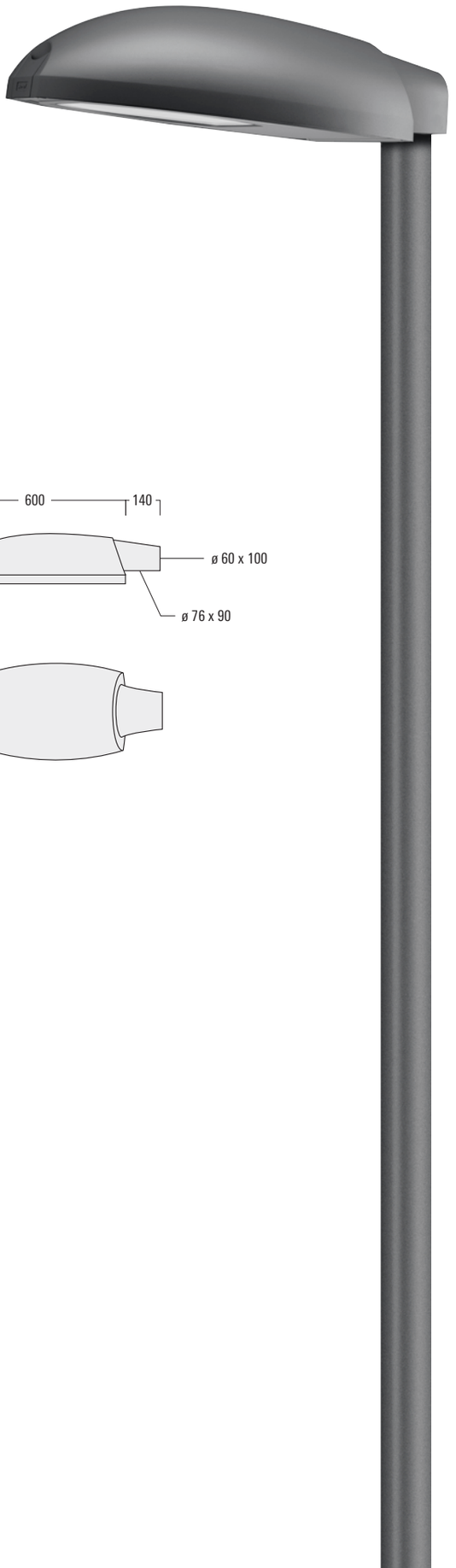
[S65]



[R65]

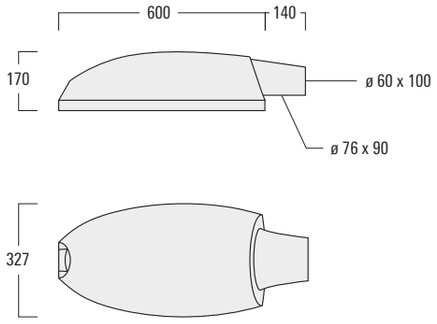
[S65] Streetlighting distribution

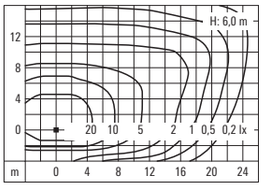
[R65] Rectangular forward throw distribution



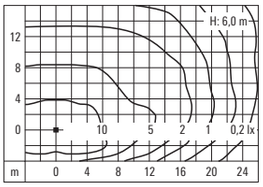
[S65]	Part ID	Light source	K	lm*	Factor**	kg
EFL540	107-0080	18 LED 36W / 700 mA	4000	4427	1.00	9.9
	107-0085	18 LED 54W / 1050 mA	4000	8100	1.83	9.9

[R65]	Part ID	Light source	K	lm*	Factor**	kg
EFL540	107-0082	18 LED 36W / 700 mA	4000	4427	1.00	9.9
	107-0087	18 LED 54W / 1050 mA	4000	8100	1.83	9.9





[S65]



[R65]

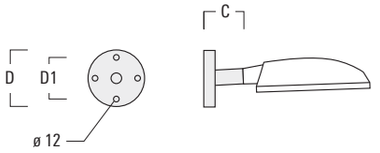
* Nominal lumen output based on LED manufacturers data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

** Multiplier for Isolux value

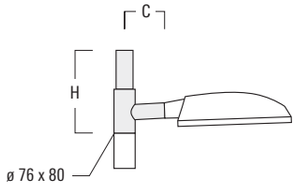
MOUNTING ACCESSORIES – EFL500 SERIES

Marine-grade aluminium construction. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016.

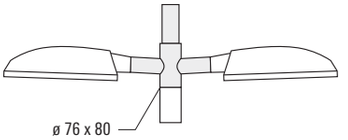
Wall / Pole brackets RE Series				D / D1	H	C	kg
for EFL540	111-0084	RE0-540	Wall bracket	230 / 195		180	3.2
	111-0042	RE1-540	Pole bracket		550	200	4.6
	111-0043	RE2-540	Pole bracket		550	200	5.3



Wall bracket RE0

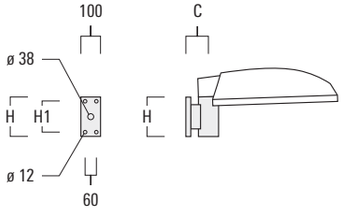


Pole bracket RE1

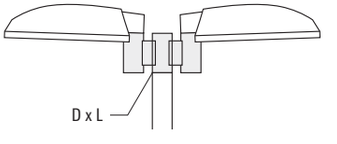


Pole bracket RE2

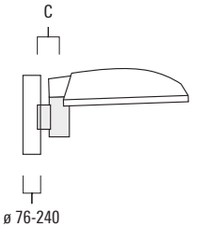
Wall / Pole brackets RV Series				D x L	H / H1	C	kg
for EFL540	108-0979	RV0	Wall bracket		200 / 160	108	2.0
	108-0981	RV2-60	Pole bracket	ø 60 x 100		147	4.8
	108-0980	RV2-76	Pole bracket	ø 76 x 100		147	4.8
	108-0982	RV5	Pole bracket			106	1.6



Wall bracket RV0



Pole bracket RV2



Pole bracket RV5

AL500 SERIES

Post mounted luminaire, controlled distribution, symmetric.

IP55, Class I. IK10. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gaskets. Polycarbonate main lens.

Integral EC electronic converter.

Factory installed LED circuit board. LED boards can be easily removed for upgrading. PMMA double lens.

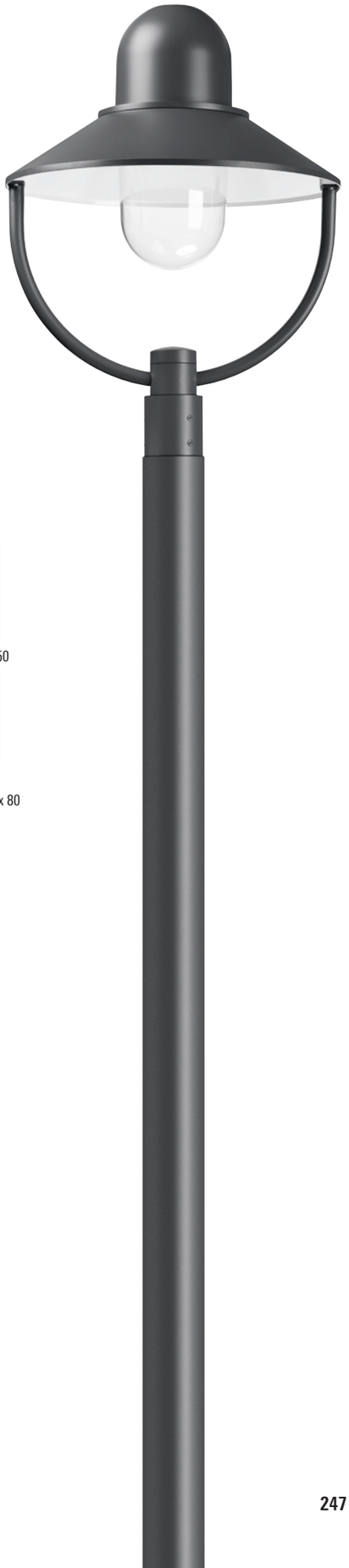
Recommended mounting height 3.0–4.5 m, depending on wattage selected.

Light source
LED 17-24 W, 4000 K,
for 3000 K refer to www.we-ef.com

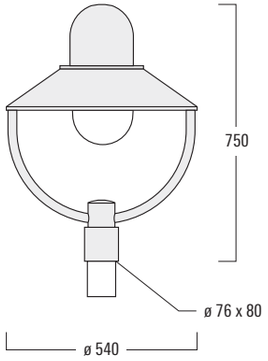
Light distribution
[C60]

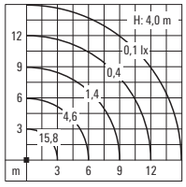
Accessories
- **Eco Step Dim®, page 264**
- **Surge protection, page 374**

[C60] Controlled distribution, symmetric



[C60]	Part ID	Light source	K	lm*	Factor**	kg
AL534	127-1257	LED-FT 17W	4000	2915	1.00	6.1
	127-1259	LED-FT 24W	4000	2940	1.35	6.1





[C60]

* Nominal lumen output based on LED manufacturers data at 25°C T_c. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

** Multiplier for Isolux value

ALP500 SERIES

Pendant luminaire, controlled distribution, symmetric.

IP55, Class I. IK10. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gaskets. Polycarbonate main lens.

Integral EC electronic converter.

Factory installed LED circuit board. LED boards can be easily removed for upgrading. PMMA double lens.

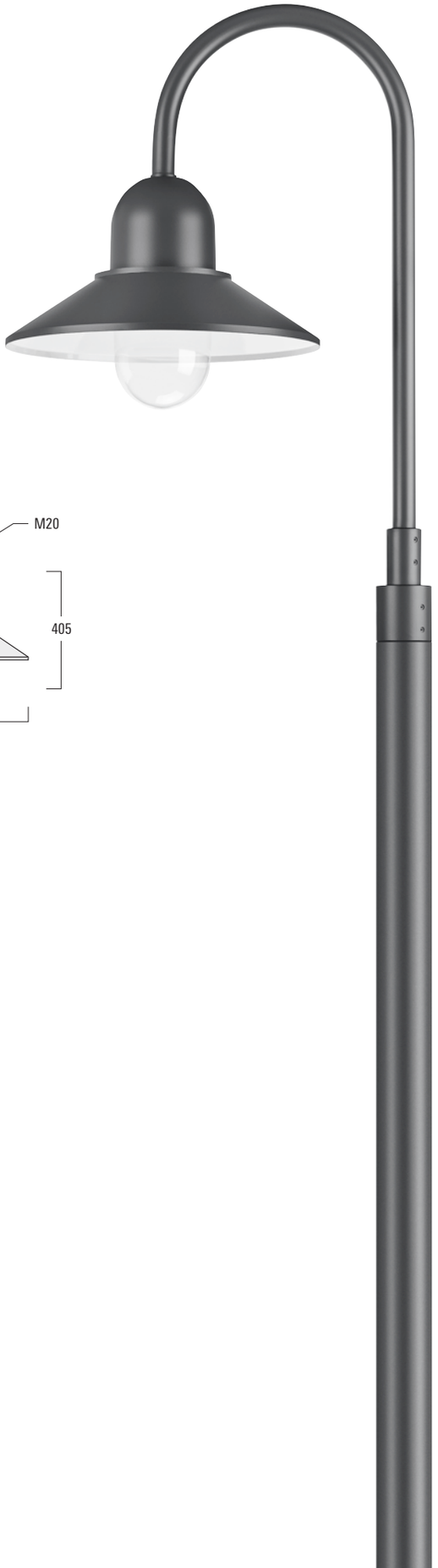
Recommended mounting height 3.0–4.5 m, depending on wattage selected.
Brackets to be ordered separately.

Light source
LED 17-24 W, 4000 K,
for 3000 K refer to www.we-ef.com

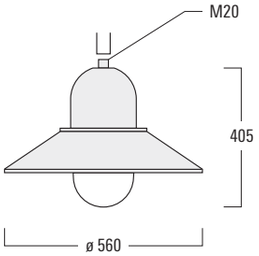
Light distribution
[C60]

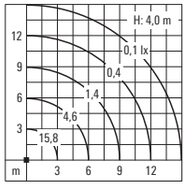
Accessories
- **Mounting, page 256**
- **Eco Step Dim®, page 264**
- **Surge protection, page 374**

[C60] Controlled distribution, symmetric



[C60]	Part ID	Light source	K	lm*	Factor**	kg
ALP534	127-1218	LED-FT 17W	4000	2915	1.00	6.1
	127-1220	LED-FT 24W	4000	3940	1.35	6.1





[C60]

* Nominal lumen output based on LED manufacturers data at 25°C T_c. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

** Multiplier for Isolux value

AOP500 SERIES

Pendant luminaire, controlled distribution, symmetric, canopy highlight feature.

IP55, Class I. IK10. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gaskets. Polycarbonate main lens.

Integral EC electronic converter.

Factory installed LED circuit board. LED boards can be easily removed for upgrading. PMMA double lens.

Recommended mounting height 3.0–4.5 m, depending on wattage selected. Brackets to be ordered separately.

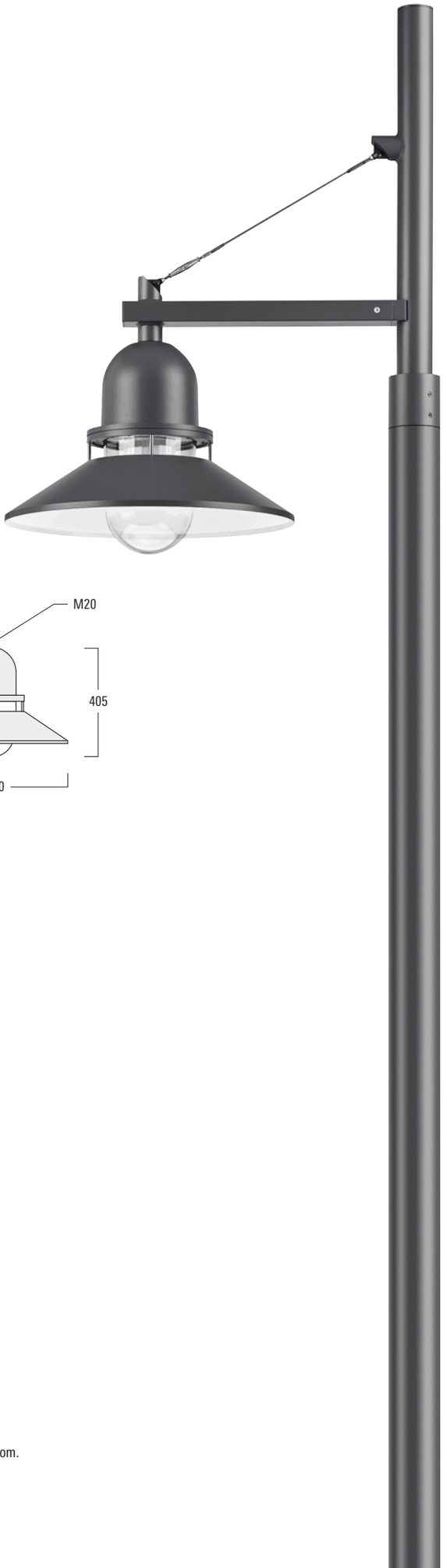
Light source
LED 17-24 W, 4000 K,
for 3000 K refer to www.we-ef.com

Light distribution
[C60]

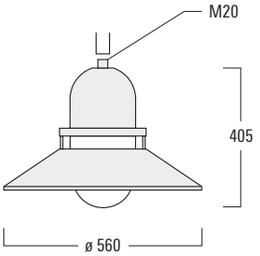
Accessories
- **Mounting, page 256**
- **Eco Step Dim®, page 264**
- **Surge protection, page 374**

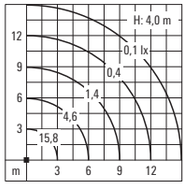
Photo: Double lens [C60]

[C60] Controlled distribution, symmetric



[C60]	Part ID	Light source	K	lm*	Factor**	kg
AOP534	127-1261	LED-FT 17W	4000	2915	1.00	7.6
	127-1263	LED-FT 24W	4000	3940	1.35	7.6





[C60]

* Nominal lumen output based on LED manufacturers data at 25°C T_c. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

** Multiplier for Isolux value

ASP500 SERIES

Pendant luminaire, side or forward throw distribution, asymmetric.

IP55, Class I. IK10. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gaskets. Polycarbonate main lens.

Integral EC electronic converter.

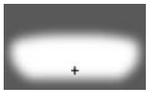
Factory installed LED circuit board. LED boards can be easily removed for upgrading. PMMA OLC® LED lenses for superior illumination and glare control.

Recommended mounting height 3.0–6.0 m, depending on wattage selected.
Brackets to be ordered separately.

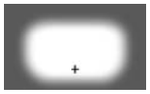
Light source
LED 24-72 W, 4000 K,
for 3000 K refer to www.we-ef.com

Light distributions
[S65] [R65]

Accessories
- **Mounting, page 256**
- **Eco Step Dim®, page 264**
- **Surge protection, page 374**



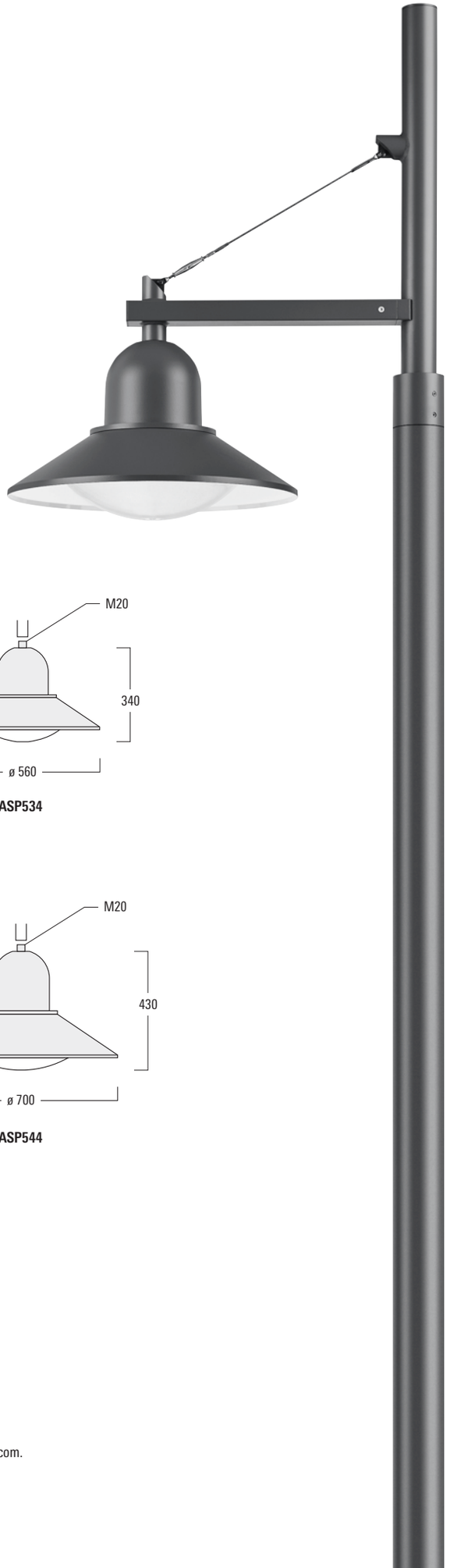
[S65]



[R65]

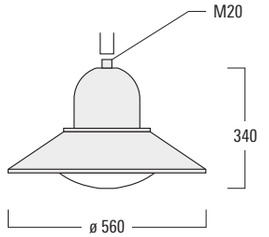
[S65] Streetlighting distribution

[R65] Rectangular forward throw distribution

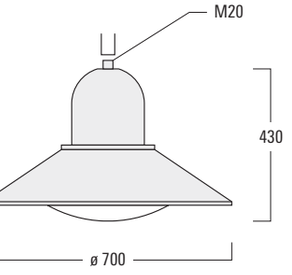


[S65]	Part ID	Light source	K	Im*	Factor**	kg
ASP534	127-1235	12 LED 24W / 700 mA	4000	2951	1.00	8.3
	127-1231	24 LED 48W / 700 mA	4000	5903	2.00	8.3
ASP544	127-1287	24 LED 48W / 700 mA	4000	5903	2.00	13.3
	127-1289	36 LED 72W / 700 mA	4000	8854	3.00	13.3

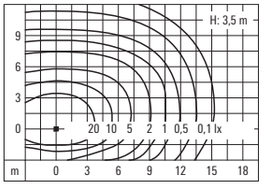
[R65]	Part ID	Light source	K	Im	Factor*	kg
ASP534	127-1237	12 LED 24W / 700 mA	4000	2951	1.00	8.3
	127-1233	24 LED 48W / 700 mA	4000	5903	2.00	8.3
ASP544	127-1291	24 LED 48W / 700 mA	4000	5903	2.00	13.3
	127-1293	36 LED 72W / 700 mA	4000	8854	3.00	13.3



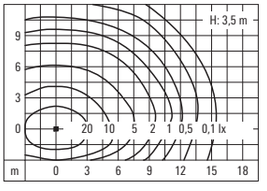
ASP534



ASP544



[S65]



[R65]

* Nominal lumen output based on LED manufacturers data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

** Multiplier for Isolux value

BSP500 SERIES

Pendant luminaire, side or forward throw distribution, asymmetric.

IP55, Class I. IK10. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gaskets. Polycarbonate main lens.

Integral EC electronic converter.

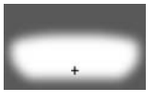
Factory installed LED circuit board. LED boards can be easily removed for upgrading. PMMA OLC® LED lenses for superior illumination and glare control.

Recommended mounting height 3.0–6.0 m, depending on wattage selected.
Brackets to be ordered separately.

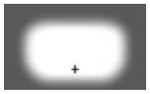
Light source
LED 24-72 W, 4000 K,
for 3000 K refer to www.we-ef.com

Light distribution
[S65] [R65]

Accessories
- **Mounting, page 256**
- **Eco Step Dim®, page 264**
- **Surge protection, page 374**



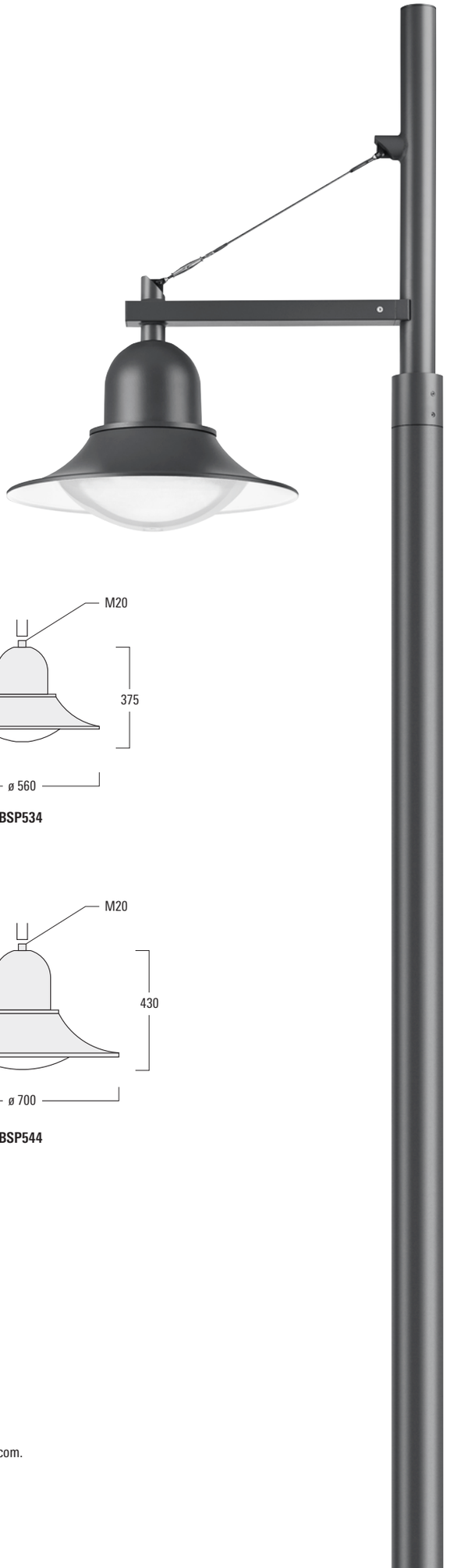
[S65]



[R65]

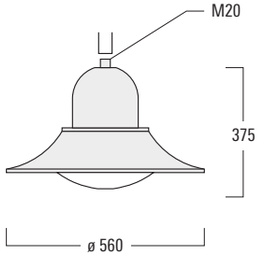
[S65] Streetlighting distribution

[R65] Rectangular forward throw distribution

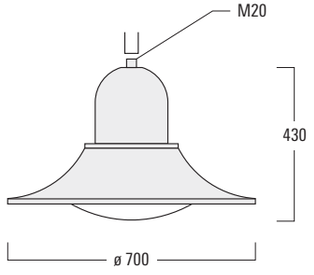


[S65]	Part ID	Light source	K	lm*	Factor**	kg
BSP534	127-1269	12 LED 24W / 700 mA	4000	2951	1.00	5.9
	127-1271	24 LED 48W / 700 mA	4000	5903	2.00	5.9
BSP544	127-1303	24 LED 48W / 700 mA	4000	5903	2.00	13.1
	127-1305	36 LED 72W / 700 mA	4000	8854	3.00	13.1

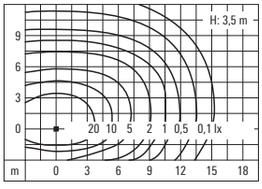
[R65]	Part ID	Light source	K	lm*	Factor**	kg
BSP534	127-1273	12 LED 24W / 700 mA	4000	2951	1.00	5.9
	127-1275	24 LED 48W / 700 mA	4000	5903	2.00	5.9
BSP544	127-1307	24 LED 48W / 700 mA	4000	5903	2.00	13.1
	127-1309	36 LED 72W / 700 mA	4000	8854	3.00	13.1



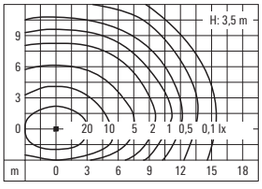
BSP534



BSP544



[S65]



[R65]

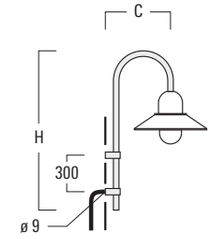
* Nominal lumen output based on LED manufacturers data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

** Multiplier for Isolux value

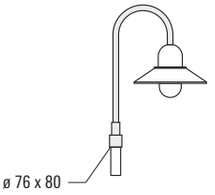
MOUNTING ACCESSORIES – ALP/AOP/ASP/BSP500 SERIES

Marine-grade aluminium construction. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016.

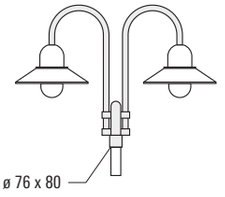
Wall / Pole brackets BA Series					H	C	kg
for ... 534	300-0152	BA0-420	Wall bracket		1000	460	2.0
	300-0099	BA1-420	Pole bracket		1000	420	4.0
	300-0104	BA2-420	Pole bracket		1000	500	8.0
	300-0109	BA3-420	Pole bracket		1000	500	10.0
for ... 544	300-0149	BA0-580	Wall bracket		1000	635	2.5
	300-0089	BA1-580	Pole bracket		1000	580	4.5
	300-0090	BA2-580	Pole bracket		1000	675	8.5
	300-0093	BA3-580	Pole bracket		1000	675	10.5



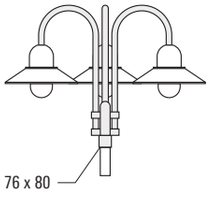
Wall bracket BA0



Pole bracket BA1

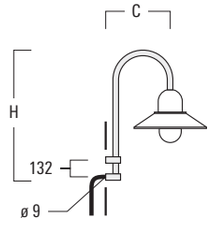


Pole bracket BA2

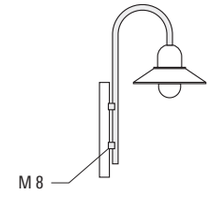


Pole bracket BA3

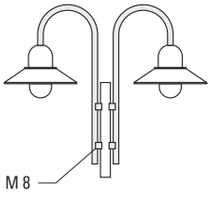
Wall / Pole brackets BC Series					H	C	kg
for ... 534	300-0808	BC0-420	Wall bracket		1230	460	2.3
	300-0768	BC1-420	Pole bracket	(M8 x 300)	1230	500	2.3
	300-0767	BC2-420	Pole bracket	(M8 x 300)	1230	500	4.6
for ... 544	300-0771	BC0-580	Wall bracket		1325	635	2.8
	300-0770	BC1-580	Pole bracket	(M8 x 300)	1325	675	2.8
	300-0769	BC2-580	Pole bracket	(M8 x 300)	1325	675	5.6



Wall bracket BC0

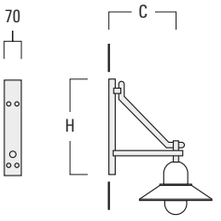


Pole bracket BC1

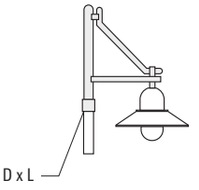


Pole bracket BC2

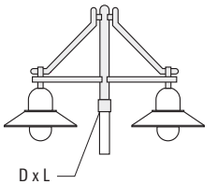
Wall / Pole brackets DA Series				D x L	H	C	kg
for ... 534	300-0146	DA0-500	Wall bracket		650	510	5.7
	300-0138	DA1-500	Pole bracket	ø 76 x 80	700	510	5.7
	300-0141	DA2-500	Pole bracket	ø 76 x 80	700	510	8.3
	300-0144	DA3-500	Pole bracket	ø 76 x 80	700	510	10.9
for ... 544	300-0086	DA0-750	Wall bracket		950	720	7.3
	300-0083	DA1-750	Pole bracket	ø 76 x 130	950	720	7.3
	300-0084	DA2-750	Pole bracket	ø 76 x 130	950	720	10.6
	300-0085	DA3-750	Pole bracket	ø 76 x 130	950	720	13.9



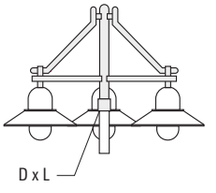
Wall bracket DA0



Pole bracket DA1



Pole bracket DA2

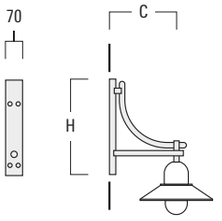


Pole bracket DA3

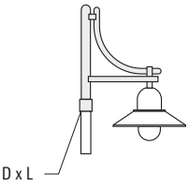
MOUNTING ACCESSORIES – ALP/AOP/ASP/BSP500 SERIES

Marine-grade aluminium construction. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016.

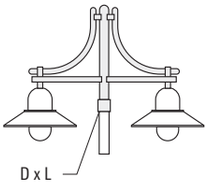
Wall / Pole brackets DB Series				D x L	H	C	kg
for ... 534	300-0169	DB0-500	Wall bracket		650	510	5.5
	300-0190	DB1-500	Pole bracket	ø 76 x 80	700	510	5.5
	300-0191	DB2-500	Pole bracket	ø 76 x 80	700	510	7.9
	300-0192	DB3-500	Pole bracket	ø 76 x 80	700	510	10.3
for ... 544	300-0172	DB0-750	Wall bracket		950	720	7.1
	300-0165	DB1-750	Pole bracket	ø 76 x 130	950	720	7.1
	300-0168	DB2-750	Pole bracket	ø 76 x 130	950	720	10.2
	300-0170	DB3-750	Pole bracket	ø 76 x 130	950	720	13.3



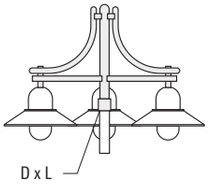
Wall bracket DB0



Pole bracket DB1

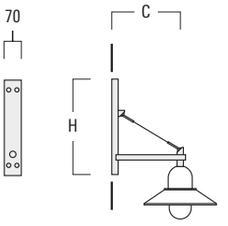


Pole bracket DB2

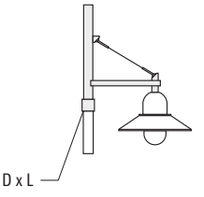


Pole bracket DB3

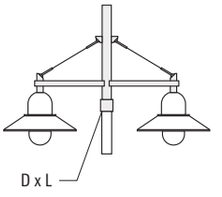
Wall / Pole brackets DS Series				D x L	H	C	kg
for ... 534	300-0064	DS0-500	Wall bracket		650	510	2.5
	300-0063	DS1-500	Pole bracket	ø 76 x 80	725	510	3.9
	300-0066	DS2-500	Pole bracket	ø 76 x 80	725	510	5.3
	300-0069	DS3-500	Pole bracket	ø 76 x 80	725	510	6.7
for ... 544	300-0070	DS0-750	Wall bracket		700	750	2.6
	300-0477	DS1-750	Pole bracket	ø 76 x 130	850	750	5.5
	300-0765	DS2-750	Pole bracket	ø 76 x 130	850	750	7.2
	300-0766	DS3-750	Pole bracket	ø 76 x 130	850	750	8.9



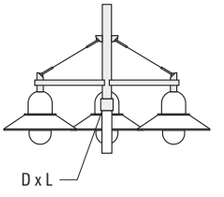
Wall bracket DS0



Pole bracket DS1



Pole bracket DS2



Pole bracket DS3

Eco Step Dim

ECO STEP DIM

THE INTELLIGENCE OF LIGHT®

In contrast to conventional lamps, LEDs provide instant light output and enable smooth dimming through efficient and intelligent lighting control technology, such as WE-EF's Eco Step Dim® light management system. Such systems can be programmed for changes in traffic patterns, ambient light or weather. For example, a time-linked dimming program helps to increase the cost-effectiveness of LED lighting solutions in a sustainable way – dimming reduces energy consumption while significantly increasing service life and reducing the decline in the luminous flux of the LEDs. In addition, LED luminaires can be controlled (switched on or off) and programmed either from a central location or on-site.

The WE-EF Eco Step Dim® light management system is available in two variants: Basic and Advanced. WE-EF provides all the necessary components required for implementing a range of control options, including solutions for luminaires in stand-alone operation as well as for extended controls.

	Eco Step Dim® Basic	**Eco Step Dim® Advanced**
Part ID	**430-0001**	**430-0002**
Stand Alone		■
Phase Control	■	
Phase Lines	**2**	**1**
Expandable (Future-Proof)	■	■
Class I	■	■
Class II	■	■
Factory programming or on-site	■	■
Applications	One Step Dimming Streets and Public Spaces	Five Step Dimming Increased Flexibility

COMPONENTS

Electronic Controller

Designed for use with outdoor lighting and lighting in the vicinity of buildings, the WE-EF electronic controller enables control of electronic converters fitted with a 1–10 V or DALI interface. The controller can be individually programmed and updated; when in use, it provides all the functions of a light management system, but it does this in stand-alone operation without requiring major commissioning work.

Hand Held Programmer (Optional)

A simple hand-held device. With this device the WE-EF electronic controller can be updated with modified parameters even if installed in a luminaire, without any additional power supply of the controller i.e., on-site. Kit includes adaptor, software and USB cable.

405-0122	Hand Held Programmer

ECO STEP DIM® BASIC

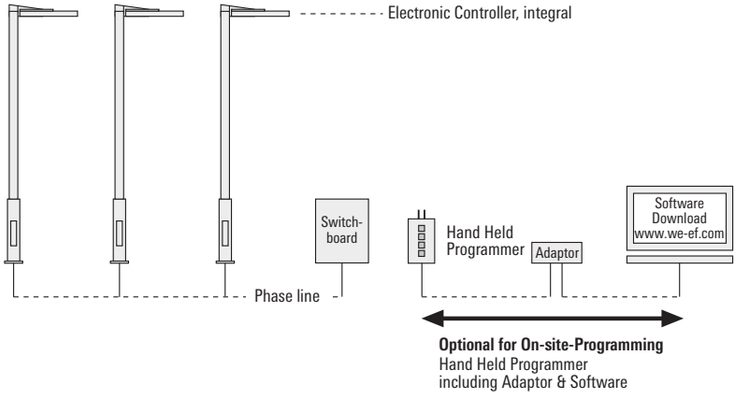
An electronic controller is fitted in the luminaire to reduce luminous flux and power to a preset value. As standard, input is reduced to 50 per cent and luminous flux is reduced to 55 per cent. Control phases (L') such as those that are, for example, used in networks using luminaires with two conventional lamps is required to activate the switch.

430-0001	Eco Step Dim® Basic

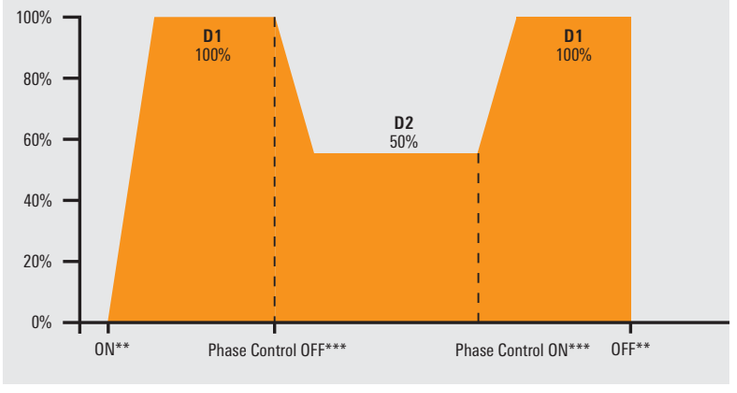
Features

- An electronic controller, single-step switch, integrated in the luminaire, which reduces luminous flux and power to a pre-set value (i.e., 100% to 50%). Only one level can be activated.
- As standard, luminous flux is reduced to 55 per cent and input is reduced to 50 per cent. Intermediate values (e.g., 25 per cent may be also optionally realised by agreement).
- The system can be activated (on/off) via a timer or photocell.
- The signal for dimming originates in the switch board and can be reset onsite depending on the circumstances.
- Gradual dimming can be programmed for the individual steps.

Eco Step Dim Basic – Schematic



Eco Step Dim Basic – Standard Programming*



* For customised programming at the factory, please contact WE-EF directly
** ON / OFF defined by user, using a dimmer switch (photocell) / timer
*** Cycle times for the phase are defined by the user

ECO STEP DIM® ADVANCED

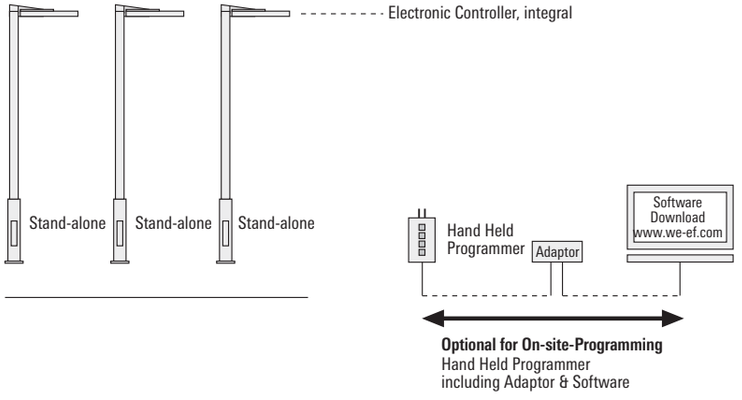
A factory-programmed multi-step electronic controller is fitted in the luminaire for reducing the luminous flux and input. The luminaire is operated in stand-alone mode, no additional control phase is required.

430-0002	Eco Step Dim® Advanced

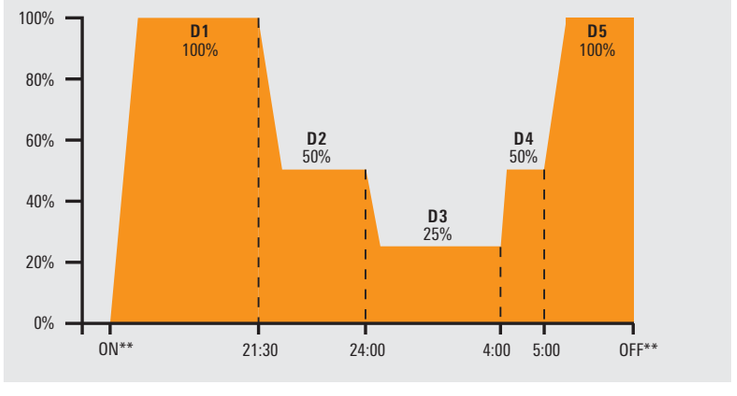
Features

- No separate power source required for dimming control.
- Easy installation with no additional cable required i.e., no control lead (L') required.
- Autonomous system, stand-alone, flexible product that provides maximum savings.
- Applicable in all applications where light level adjustment is needed: Highways, parking lots, urban environments, residential areas etc.
- The dimming schedule can be adapted to 5 dimming levels and various time periods. Can be factory set on request. Can always be adjusted when needed. Reprogramming on site is also possible.
- The standard setting for reduced operation has been programmed for 5 steps.
- Maximum savings can be accomplished by using the optimal schedule for the specific application.
- Mid-point calculation is calibrated so all luminaires exhibit the same dimming characteristics.
- Electronic converter with 1-10 V or DALI interface required.
- The system can be activated (on/off) via a timer or photocell.
- Automatic adjustment for daylight savings.
- Program can be temporally overwritten.

Eco Step Dim® Advanced – Schematic



Eco Step Dim® Advanced – Standard Programming*



* For customised programming at the factory, please contact WE-EF directly
** ON / OFF defined by user, using a dimmer switch (photocell) / timer

IOS® Beam distributions for RAIL66 system

[B] **wide beam, symmetric**
[M] **medium beam, symmetric**
[EE] **very narrow beam, symmetric**
[EES] **very narrow beam, symmetric, 'sharp cut-off'**

[B] **wide beam, bi-symmetric**
[M] **medium beam, bi-symmetric**
[E] **narrow beam, bi-symmetric**
[E10] **narrow beam, 10° asymmetric**
[A45] **wide beam, 45° asymmetric**

RAIL66 system

FLC100 LED 268

FLC100 270

FLD100 LED 272

FLB100 274

ACCESSORIES

- Mounting 278
- Optical 280

FLC100 SERIES

RAIL66 projector, wide, medium, very narrow or very narrow beam distribution 'sharp cut-off', symmetric.

IP66, Class I. IK07. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gasket. Safety glass.

EC electronic converter in thermally separated compartment.

Factory installed LED circuit board. LED boards can be easily removed for upgrading. PMMA LED lens array.

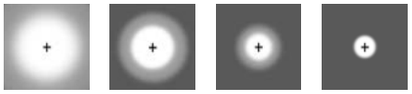
Including 0.4 m of flexible cable enclosed in stainless conduit, in-line connector and mounting clamp for installation to RAIL66 mounting system.

Light source
LED 12-48 W, 3000 K,
for 4000 K refer to www.we-ef.com

Light distributions
[B] [M] [EE] [EES]

Accessories
- **RAIL66 mounting systems, page 282**
- **Optical, page 284**

Hard Rock Café. Berlin (D). Lighting design: Into Lighting Design, London.



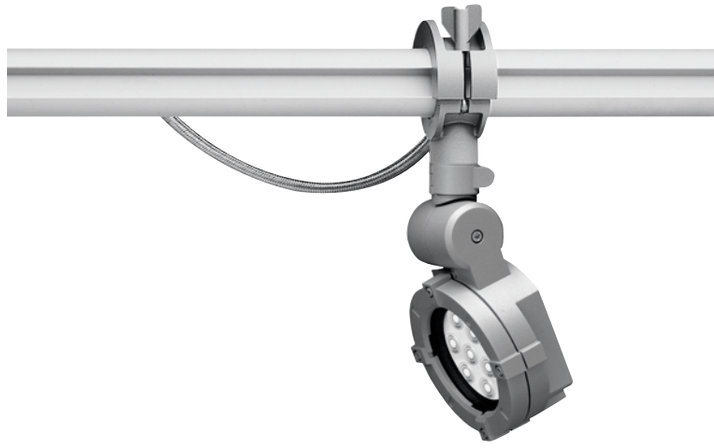
[B] [M] [EE] [EES]

[B] Wide beam distribution, symmetric

[M] Medium beam distribution, symmetric

[EE] Very narrow beam distribution, symmetric

[EES] Very narrow beam distribution, symmetric, 'sharp cut-off'

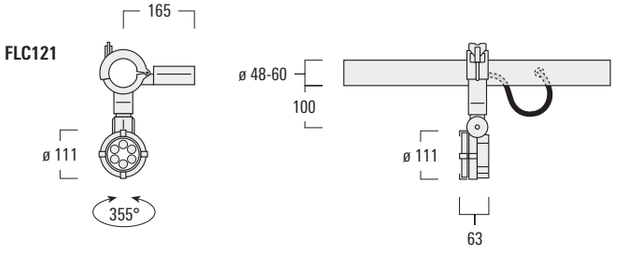


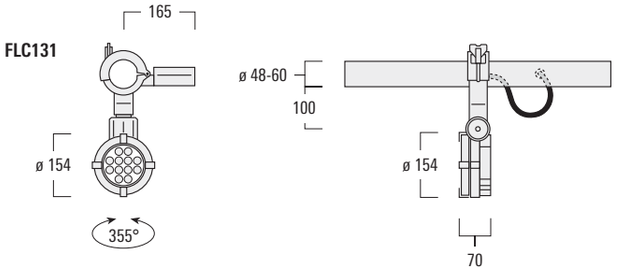
[B]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}	kg
FLC121	145-0088	6 LED 12W / 700 mA	3000	1476	934	25°/25°	2.5
FLC131	146-0530	12 LED 24W / 700 mA	3000	2951	920	25°/25°	3.1
FLC141	146-7070	24 LED 48W / 700 mA	3000	5903	934	25°/25°	4.7

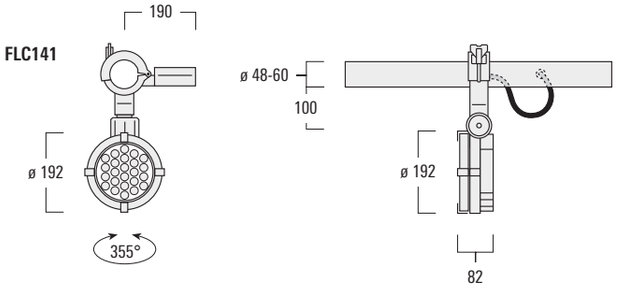
[M]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}	kg
FLC121	145-0043	6 LED 12W / 700 mA	3000	1476	2196	16°/16°	2.5
FLC131	146-0411	12 LED 24W / 700 mA	3000	2951	2196	16°/16°	3.1
FLC141	146-7058	24 LED 48W / 700 mA	3000	5903	2196	16°/16°	4.7

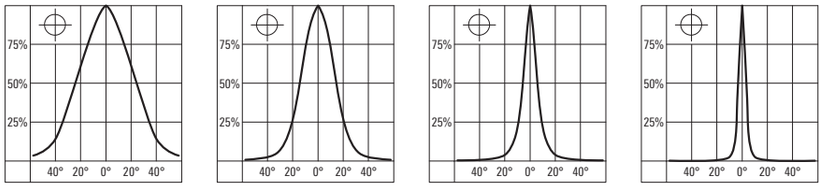
[EE]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}	kg
FLC121	145-0091	6 LED 12W / 700 mA	3000	1476	7207	7°/7°	2.5
FLC131	146-0533	12 LED 24W / 700 mA	3000	2951	7191	7°/7°	3.1
FLC141	146-7072	24 LED 48W / 700 mA	3000	5903	7207	7°/7°	4.7

[EES]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}	kg
FLC121	145-0046	6 LED 12W / 700 mA	3000	1476	22108	5°/5°	2.5
FLC131	146-0414	12 LED 24W / 700 mA	3000	2951	20389	5°/5°	3.1
FLC141	146-7060	24 LED 48W / 700 mA	3000	5903	22108	5°/5°	4.7









[B] [M] [EE] [EES]

* Nominal lumen output based on LED manufacturers data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

FLC100 SERIES

RAIL66 projector, wide, medium or very narrow beam distribution, symmetric.

IP66, Class I. IK07. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gaskets. Safety glass lens. Anodised aluminium reflector.

Electronic transformer for low voltage lamps, or ECG control gear for discharge lamps, in thermally separated compartment.

Including 0.4 m of flexible cable enclosed in stainless conduit, in-line connector and mounting clamp for installation to RAIL66 mounting system.

Light source
QT 65 W
TC 18-32 W
HIT 20-150 W

Light distributions
[B] [M] [EE]

Accessories
- **RAIL66 mounting systems, page 282**
- **Optical, page 284**

Cabot Circus. Bristol (UK). Architect: Chapman Taylor, Stanton Williams, Alex French. Lighting design: Pinniger and Partners.

[B] [M] [EE]

[B] Wide beam distribution, symmetric

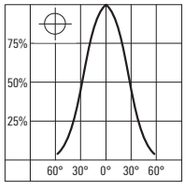
[M] Medium beam distribution, symmetric

[EE] Very narrow beam distribution, symmetric

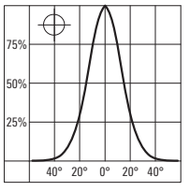
[B]	Part ID	Light source	lm	cd/klm	C_0C_{180}	kg
FLC121	145-9211 [ECG]	HIT-TC-CE 20W PGJ5	1650	504	30°/30°	2.5
	145-9215 [ECG]	HIT-TC-CE 35W PGJ5	3000	478	30°/30°	2.5
FLC131	146-9622 [ECG]	TC-TEL 18W GX24q-2	1200	160	45°/45°	3.6
FLC141	146-9672 [ECG]	TC-TELI 32W GX24q-3	2400	177	44°/44°	4.8

[M]	Part ID	Light source	lm	cd/klm	C_0C_{180}	kg
FLC121	145-9032 [ET]	QT 12 (-LP) ax 65W/c GY6.35/12V	1700	1156	14°/14°	2.3
	145-9036 [ECG]	HIT-TC-CE 20W PGJ5	1650	1810	15°/15°	2.5
	145-9040 [ECG]	HIT-TC-CE 35W PGJ5	3000	1771	15°/15°	2.5
FLC131	146-9630 [ECG]	HIT-CE 70W G12	7300	1296	17°/17°	3.6
FLC141	146-9676 [ECG]	HIT-CE 150W G12	15000	1361	18°/18°	4.8

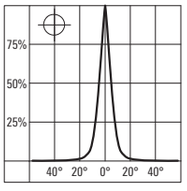
[EE]	Part ID	Light source	lm	cd/klm	C_0C_{180}	kg
FLC121	145-9062 [ET]	QT 12 (-LP) ax 65W/c GY6.35/12V	1700	5517	5°/5°	2.3
	145-9066 [ECG]	HIT-TC-CE 20W PGJ5	1650	10995	5°/5°	2.5
	145-9070 [ECG]	HIT-TC-CE 35W PGJ5	3000	8581	5°/5°	2.5
FLC131	146-9650 [ECG]	HIT-CE 70W G12	7300	7479	4°/4°	3.6
FLC141	146-9682 [ECG]	HIT-CE 150W G12	15000	7146	4°/4°	4.8



[B]

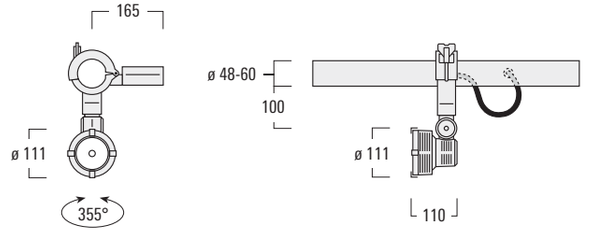


[M]

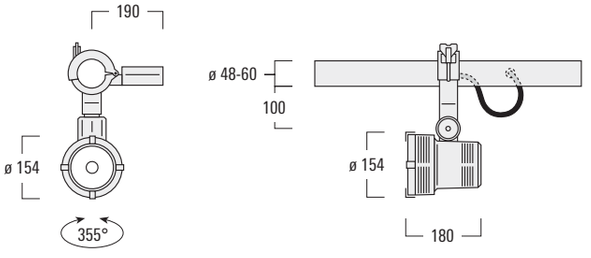


[EE]

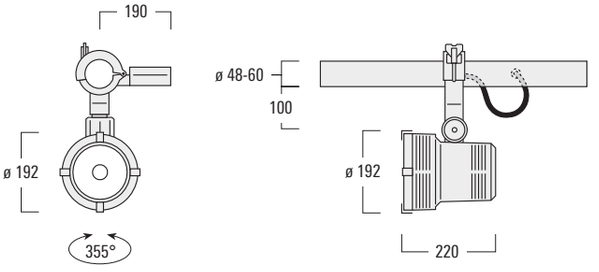
FLC121



FLC131



FLC141



FLD100 SERIES

RAIL66 projector, wide, medium, very narrow or very narrow beam distribution 'sharp cut-off', symmetric.

IP66, Class I. IK07. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gasket. Safety glass.

EC electronic converter in thermally separated compartment.

Factory installed LED circuit board. LED boards can be easily removed for upgrading. PMMA LED lens array.

Including 0.4 m of flexible cable enclosed in stainless conduit, in-line connector and mounting clamp for installation to RAIL66 mounting system.

Light source
LED 6-24 W, 3000 K,
for 4000 K refer to www.we-ef.com

Light distributions
[B] [M] [EE] [EES]

Accessories
- **RAIL66 mounting systems, page 282**
- **Optical, page 286**


[B]


[M]


[EE]

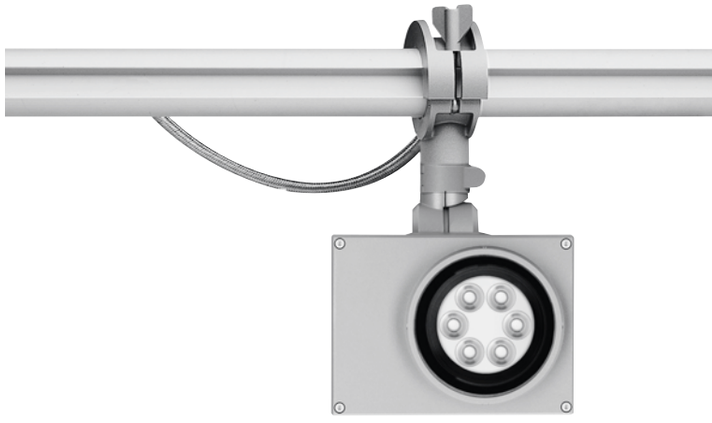

[EES]

[B] Wide beam distribution, symmetric

[M] Medium beam distribution, symmetric

[EE] Very narrow beam distribution, symmetric

[EES] Very narrow beam distribution, symmetric, 'sharp cut-off'



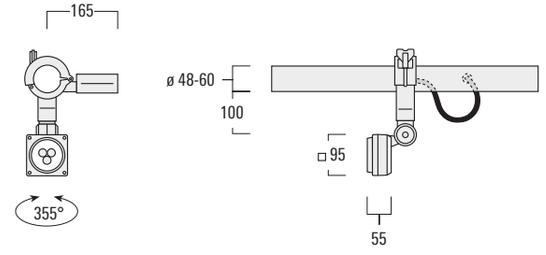
[B]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}	kg
FLD121	145-9511	6 LED 12W / 700 mA	3000	1476	986	23°/23°	2.6
FLD131	145-9608	12 LED 24W / 700 mA	3000	2951	986	23°/23°	3.0

[M]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}	kg
FLD111	145-9809	3 LED 6W / 700 mA	3000	738	1633	21°/21°	2.4
FLD121	145-9509	6 LED 12W / 700 mA	3000	1476	2261	17°/17°	2.6
FLD131	145-9556	12 LED 24W / 700 mA	3000	2951	2261	17°/17°	3.0

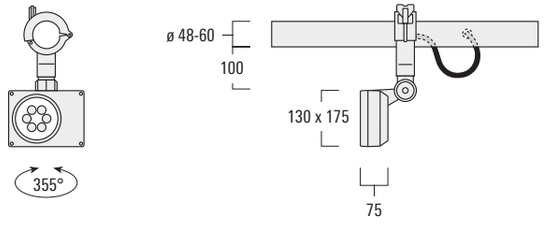
[EE]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}	kg
FLD111	145-9810	3 LED 6W / 700 mA	3000	738	7530	7°/7°	2.4
FLD121	145-9513	6 LED 12W / 700 mA	3000	1476	7524	7°/7°	2.6
FLD131	145-9557	12 LED 24W / 700 mA	3000	2951	7524	7°/7°	3.0

[EES]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}	kg
FLD111	145-9811	3 LED 6W / 700 mA	3000	738	16462	5°/5°	2.4
FLD121	145-9515	6 LED 12W / 700 mA	3000	1476	19392	5°/5°	2.6
FLD131	145-9609	12 LED 24W / 700 mA	3000	2951	19392	5°/5°	3.0

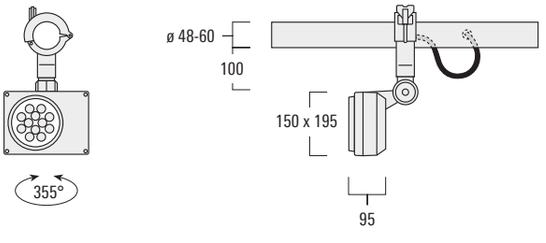
FLD111

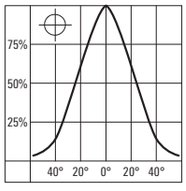


FLD121

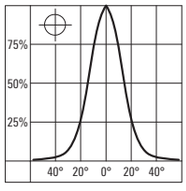


FLD131

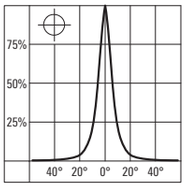




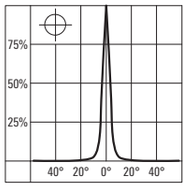
[B]



[M]



[EE]



[EES]

* Nominal lumen output based on LED manufacturers data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

FLB100 SERIES

RAIL66 floodlight, wide, medium or narrow beam distribution, bi-symmetric.

IP66, Class I. IK08. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gaskets. Safety glass lens. Anodised aluminium reflector.

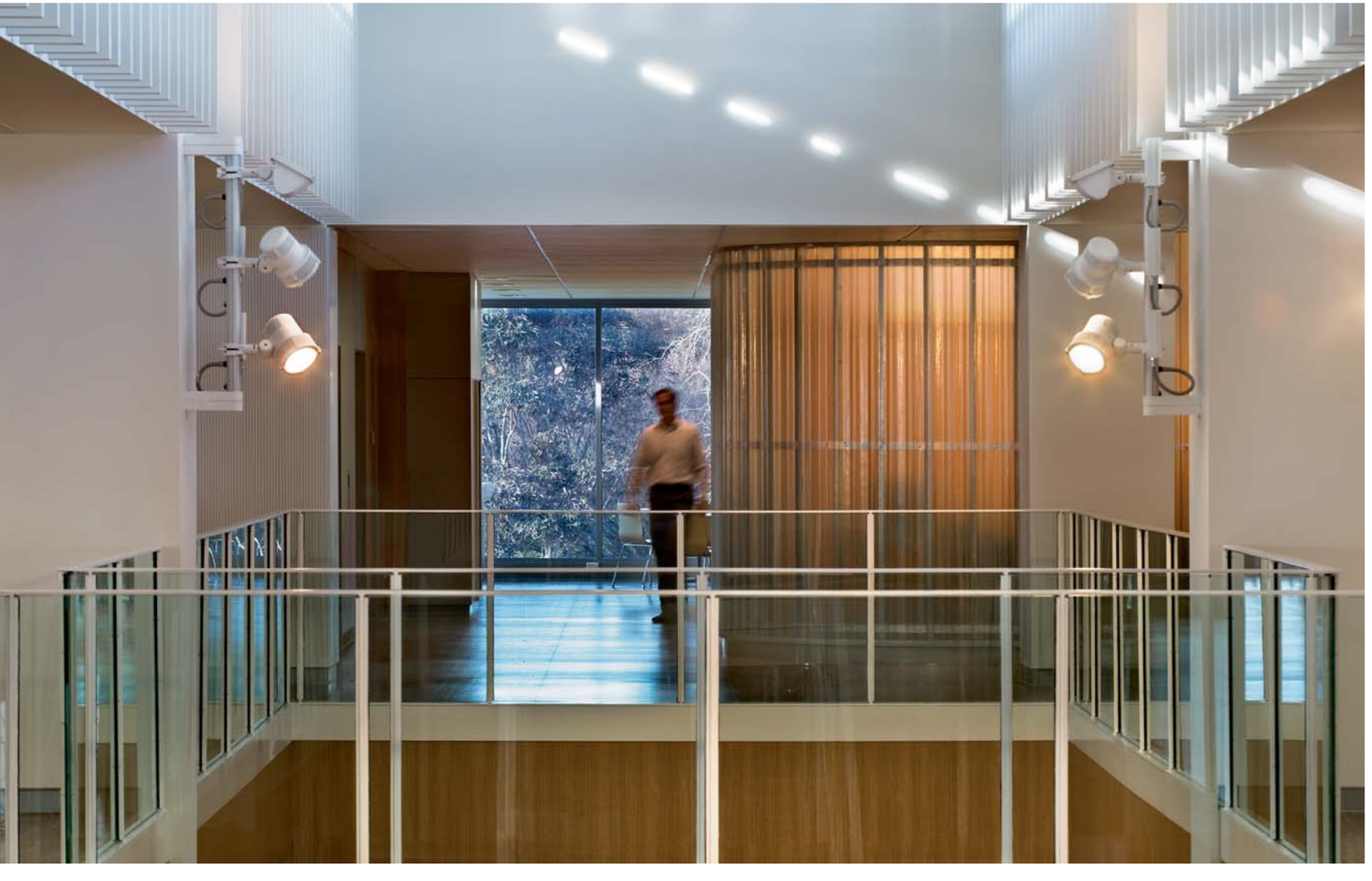
ECG control gear for discharge lamps, in thermally separated compartment.

Including 0.4 m of flexible cable enclosed in stainless conduit, in-line connector and mounting clamp for installation to RAIL66 mounting system.

Light source
QT 300 W
HIT 70-150 W

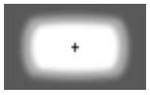
Light distributions
[B] [M] [E]

Accessories
- **RAIL66 mounting systems, page 282**
- **Optical, page 288**

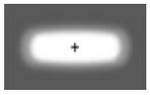


ASB Fitout. Auckland (NZ). Lighting design: Richard Bracebridge, Lightworks.

[B]



[M]

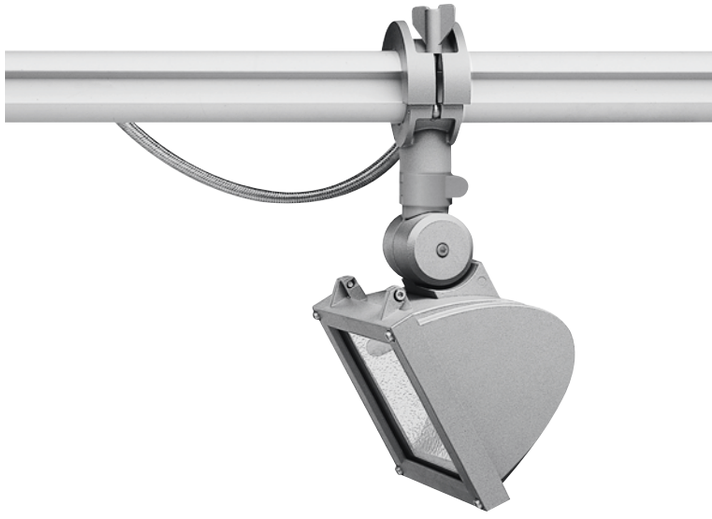


[E]

[B] Wide beam distribution, bi-symmetric

[M] Medium beam distribution, bi-symmetric

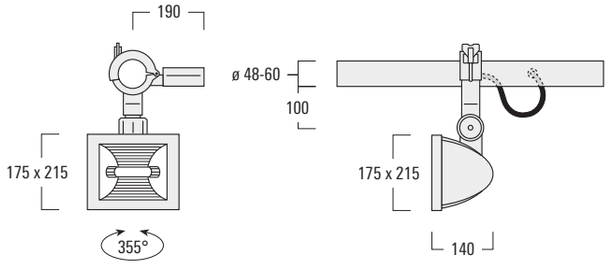
[E] Narrow beam distribution, bi-symmetric

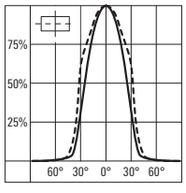


[B]	Part ID	Light source	lm	cd/klm	C_0C_{180}	$C_{90}C_{270}$	kg
FLB141	161-7300	QT-DE 300W RX7s	5300	675	25°/25°	31°/31°	3.8
	161-7304 [ECG]	HIT-DE-CE 70W RX7s	6800	638	25°/25°	32°/32°	4.7
	161-7308 [ECG]	HIT-DE-CE 150W RX7s	14500	665	25°/25°	32°/32°	4.8

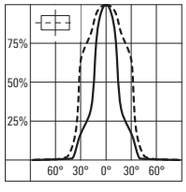
[M]	Part ID	Light source	lm	cd/klm	C_0C_{180}	$C_{90}C_{270}$	kg
FLB141	161-7332 [ECG]	HIT-DE-CE 70W RX7s	6800	1011	15°/15°	32°/32°	4.7
	161-7336 [ECG]	HIT-DE-CE 150W RX7s	14500	926	16°/16°	32°/32°	4.8

[E]	Part ID	Light source	lm	cd/klm	C_0C_{180}	$C_{90}C_{270}$	kg
FLB141	161-7360 [ECG]	HIT-DE-CE 70W RX7s	6800	1716	7°/7°	33°/33°	4.7
	161-7364 [ECG]	HIT-DE-CE 150W RX7s	14500	1426	9°/9°	33°/33°	4.8

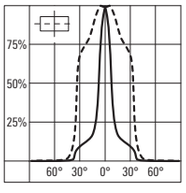




[B]



[M]



[E]

FLB100 SERIES

RAIL66 floodlight, narrow or wide beam distribution, asymmetric.

IP66, Class I. IK08. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gaskets. Safety glass lens. Anodised aluminium reflector.

ECG control gear for discharge lamps, in thermally separated compartment.

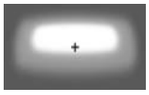
Including 0.4 m of flexible cable enclosed in stainless conduit, in-line connector and mounting clamp for installation to RAIL66 mounting system.

Light source
QT 300 W
HIT 70-150 W

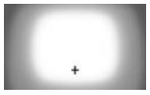
Light distribution
[E10] [A45]

Accessories
- **RAIL66 mounting systems, page 282**
- **Optical, page 288**

ASB Fitout. Auckland (NZ). Lighting design: Richard Bracebridge, Lightworks.

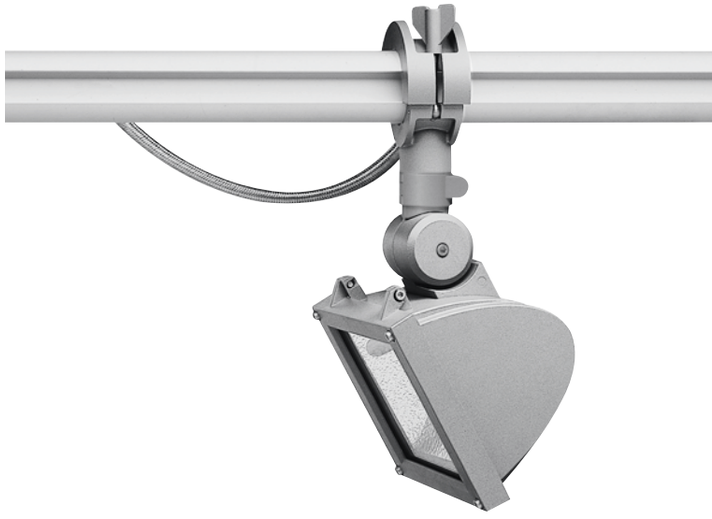


[E10]



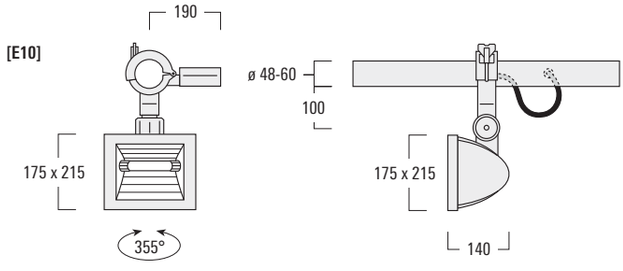
[A45]

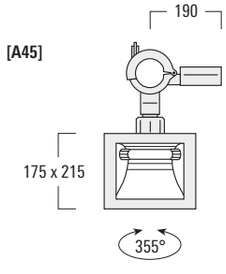
[E10] Narrow beam distribution, 10° asymmetric
[A45] Wide beam distribution, 45° asymmetric

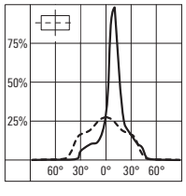


[E10]	Part ID	Light source	lm	cd/klm	C_0C_{180}	$C_{90}C_{270}$	kg
FLB141	161-7388 [ECG]	HIT-DE-CE 70W RX7s	6800	1645	5°/9°	34°/34°	4.7
	161-7392 [ECG]	HIT-DE-CE 150W RX7s	14500	1128	8°/12°	34°/34°	4.8

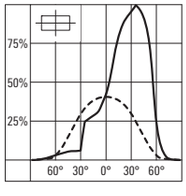
[A45]	Part ID	Light source	lm	cd/klm	C_0C_{180}	$C_{90}C_{270}$	kg
FLB141	161-7406	QT-DE 300W R7s	5300	408	31°/21°	38°/38°	3.9
	161-7410 [ECG]	HIT-DE-CE 70W RX7s	6800	478	30°/21°	38°/38°	4.9
	161-7414 [ECG]	HIT-DE-CE 150W RX7s	14500	442	25°/26°	40°/40°	5.0







[E10]



[A45]

RAIL66 UNIVERSAL

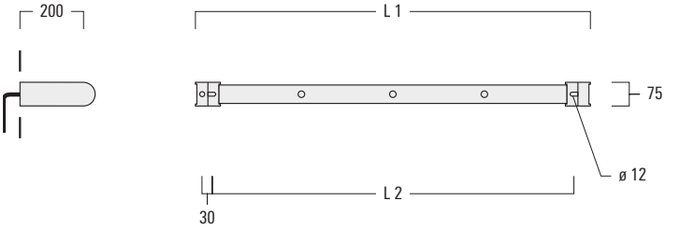
For RAIL66 projectors and floodlights.

IP66. Marine-grade all aluminium construction. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Anodised rail extrusion, featuring countersunk, IP rated compact mains outlets and internal wiring.

RAIL66 Universal

Suitable for installation in any desired orientation to walls, under roof and ceiling structures.

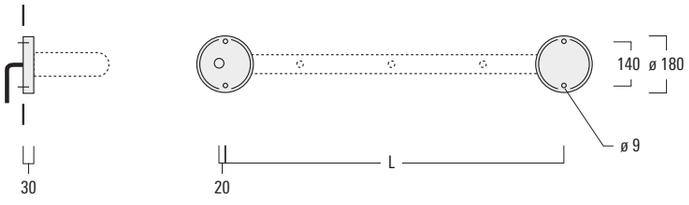
		L1	L2	kg
310-9200	for 2 projectors or floodlights	1150	1045	5.9
310-9202	for 3 projectors or floodlights	1150	1045	5.9
310-9210	for 3 projectors or floodlights	1650	1545	7.2
310-9212	for 4 projectors or floodlights	1650	1545	7.2
310-9220	for 4 projectors or floodlights	2150	2045	8.5
310-9222	for 6 projectors or floodlights	2150	2045	8.5



RAIL66 Surface Fitters (Pair)

The optional Flat Surface Fitters (pair) provide enhanced mounting surface coverage and facitilate concealing of a recessed junction box.

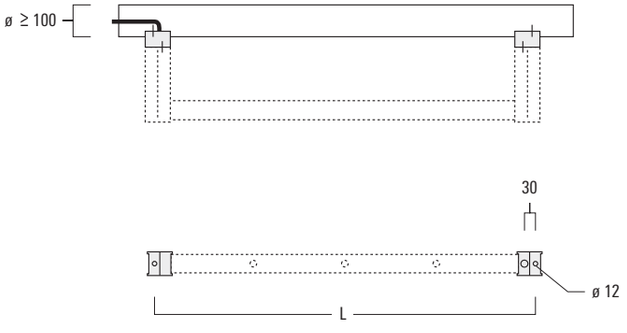
	L	kg
310-9290	1070 / 1570 / 2070	1.7



RAIL66 Column Fitters (Pair)

The optional Column Fitters (pair) allow installation to pipe structures and columns of min. 100 mm diameter.

	L	kg
310-9294	1115 / 1615 / 2115	0.9



RAIL66 CANTILEVER & RAIL66 MOBILE

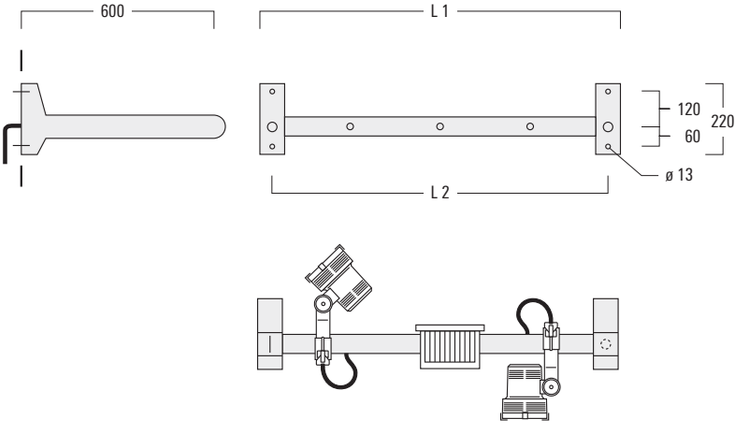
For RAIL66 projectors and floodlights.

IP66. Marine-grade all aluminium construction. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016 or Classic Silver. Anodised rail extrusion, featuring countersunk, IP rated compact mains outlets and internal wiring.

RAIL66 Cantilever

featuring a concealed termination chamber, has been designed for horizontal wall mounting. Particularly suitable for facade lighting applications.

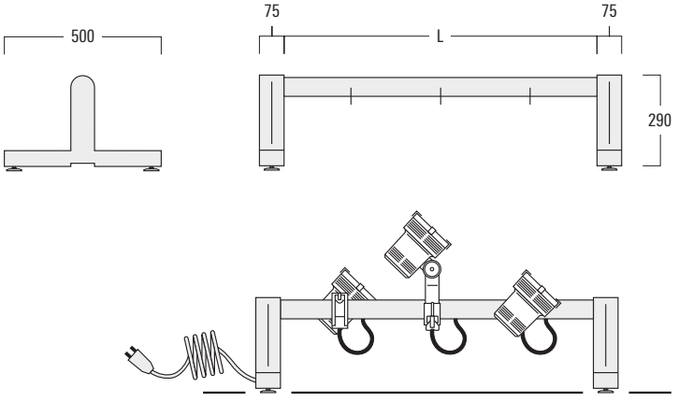
		L1	L2	kg
310-9230	for 2 projectors or floodlights	1150	1070	12.0
310-9232	for 3 projectors or floodlights	1150	1070	12.0
310-9240	for 3 projectors or floodlights	1650	1570	13.3
310-9242	for 4 projectors or floodlights	1650	1570	13.3
310-9250	for 4 projectors or floodlights	2150	2070	14.6
310-9252	for 6 projectors or floodlights	2150	2070	14.6



RAIL66 Mobile

includes 3 m of flexible cable and plug, and is particularly suitable for mobile installations at showrooms, exhibitions, outdoor events, etc.

		L	kg
310-9260	for 2 projectors or floodlights	1150	9.3
310-9264	for 3 projectors or floodlights	1150	9.3
310-9270	for 3 projectors or floodlights	1650	10.6
310-9274	for 4 projectors or floodlights	1650	10.6
310-9280	for 4 projectors or floodlights	2150	11.9
310-9284	for 6 projectors or floodlights	2150	11.9



OPTICAL ACCESSORIES – FLC100 SERIES

Internal Accessories

A maximum of one internal optical accessory.

Flood lens IO-360

for FLC121	145-0142
for FLC131	146-0623
for FLC141	146-0624

Linear spread lens IO-180

for FLC121	145-0050
for FLC131	146-0418
for FLC141	146-0439

Wallwash lens IO-20*

for FLC121 [M]	145-0145
for FLC131 [M]	146-0645
for FLC141 [M]	146-0646

Honeycomb louvre IW**

for FLC121	145-0143
for FLC131	146-0625
for FLC141	146-0626

* ideal for uniform wall washing applications

** not for [B] version

External Accessories

A maximum of one external optical accessory.

Wire guard EG

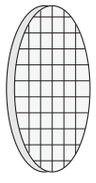
for FLC121	145-9190
for FLC131	146-0158
for FLC141	146-0231

Glare shield ES

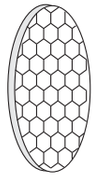
for FLC121	145-9192
for FLC131	146-0156
for FLC141	146-0229

Snoot ET

for FLC121	145-0030
for FLC131	146-0397
for FLC141	146-0398



IO



IW

Frame

EG

ES

ET

OPTICAL ACCESSORIES – FLC100 SERIES

Internal Accessories

A maximum of two internal optical accessories.

External Accessories

A maximum of one external optical accessory.

Flood lens IO-360	
for FLC121	145-9174
for FLC131	146-0258
for FLC141	146-0122

Linear spread lens IO-180	
for FLC121	145-9172
for FLC131	146-0257
for FLC141	146-0123

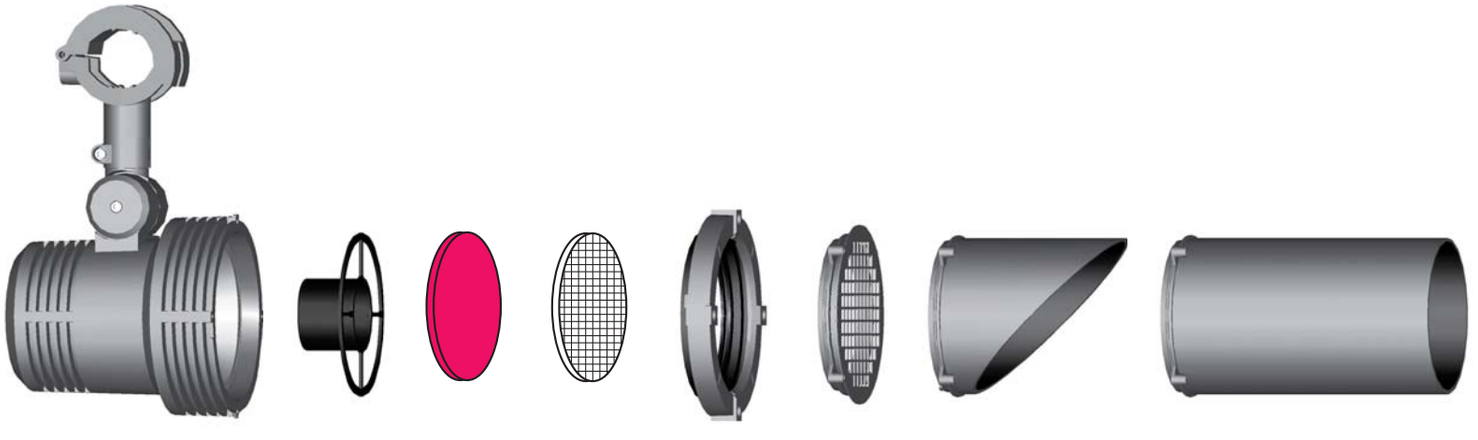
Colour filter IF	red	green	blue	yellow
for FLC121	145-9176	145-9178	145-9180	145-9182
for FLC131	146-0262	146-0260	146-0259	146-0261
for FLC141	146-0141	146-0135	146-0119	146-0138

Source shield IQ	
for FLC121 [EE]	145-9170
for FLC131 [EE]	146-0263
for FLC141 [EE]	146-0264

Wire guard EG	
for FLC121	145-9190
for FLC131	146-0158
for FLC141	146-0231

Glare shield ES	
for FLC121	145-9192
for FLC131	146-0156
for FLC141	146-0229

Snoot ET	
for FLC121	145-9194
for FLC131	146-0157
for FLC141	146-0230



IQ IF IO Frame EG ES ET

OPTICAL ACCESSORIES – FLD100 SERIES

Internal Accessories

Wallwash lens IO-20*

for FLD111 [M]	145-9846
for FLD121 [M]	145-9479
for FLD131 [M]	145-9577

* ideal for uniform wall washing applications, factory fitted only.

External Accessories

A maximum of two external optical accessories, such as glare shield or snoot, plus flood or spread lens. If a flood or spread lens is used as a 'stand alone' accessory, an optical adaptor is required – to be ordered separately.

Optical adaptor

for FLD111	145-9830
for FLD121	145-9530
for FLD131	145-9570

Flood lens EO-360

for FLD111	145-9834
for FLD121	145-9534
for FLD131	145-9574

Linear spread lens EO-180

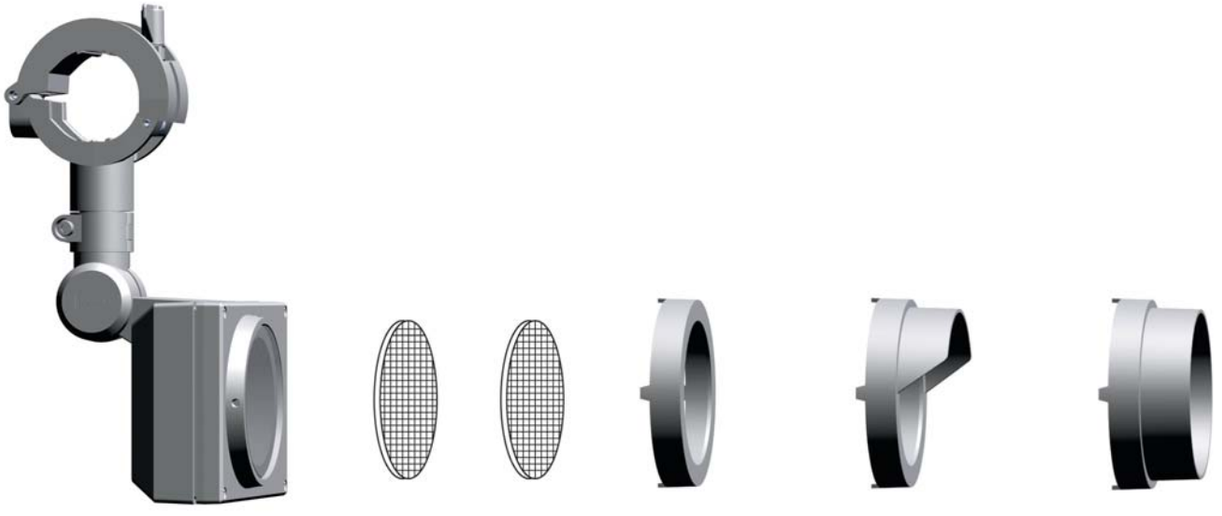
for FLD111	145-9833
for FLD121	145-9533
for FLD131	145-9573

Glare shield ES

for FLD111	145-9831
for FLD121	145-9531
for FLD131	145-9571

Snoot ET

for FLD111	145-9832
for FLD121	145-9532
for FLD131	145-9572



IO EO EA ES ET

Robina Town Centre. Gold Coast, Queensland (AUS).

OPTICAL ACCESSORIES – FLB100 SERIES

Internal

A maximum of two internal optical accessories. The optical adaptor IA has to be ordered separately. Refer to listing below to determine need for optical adaptor.

External

A maximum of one external optical accessory.

Flood lens IO-360*	
for FLB141 [M] [E] [E10]	161-9127

Wallwash lens IO-180*	
for FLB141 [M] [E] [E10]	161-9126

Colour filter IF*/**	**red**	**green**	**blue**	**yellow**
for FLB141	161-9131	161-9129	161-9128	161-9130

Horizontal louvre IL*	
for FLB141 [B] [M]	161-9116
for FLB141 [E]	161-9113

Linear source shield IQ*	
for FLB141 [E]	161-9117

Optical adaptor IA	
for FLB141	161-9115

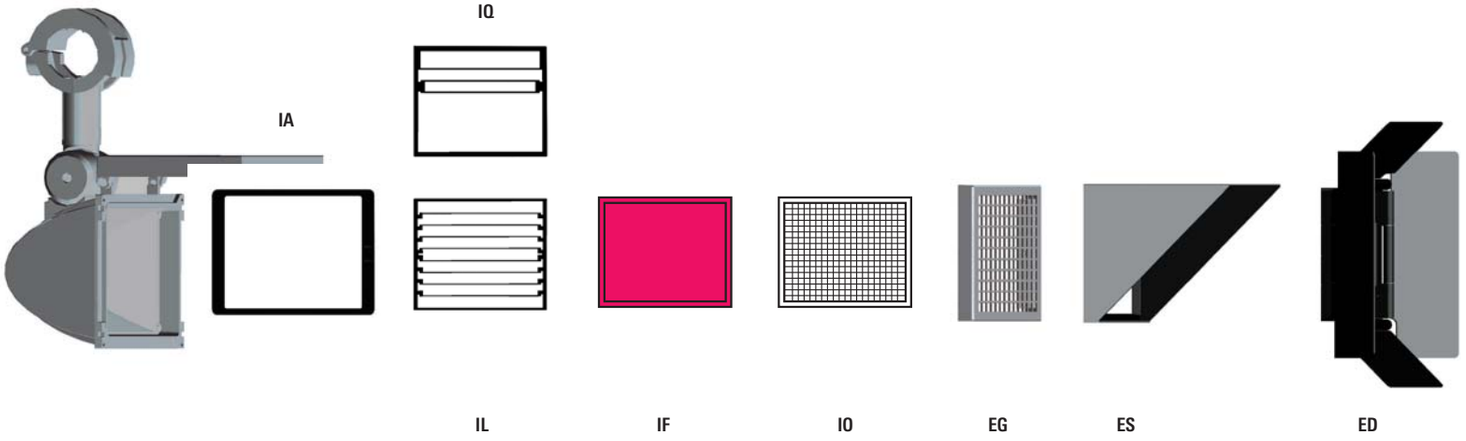
Wire guard EG	
for FLB141	161-9118

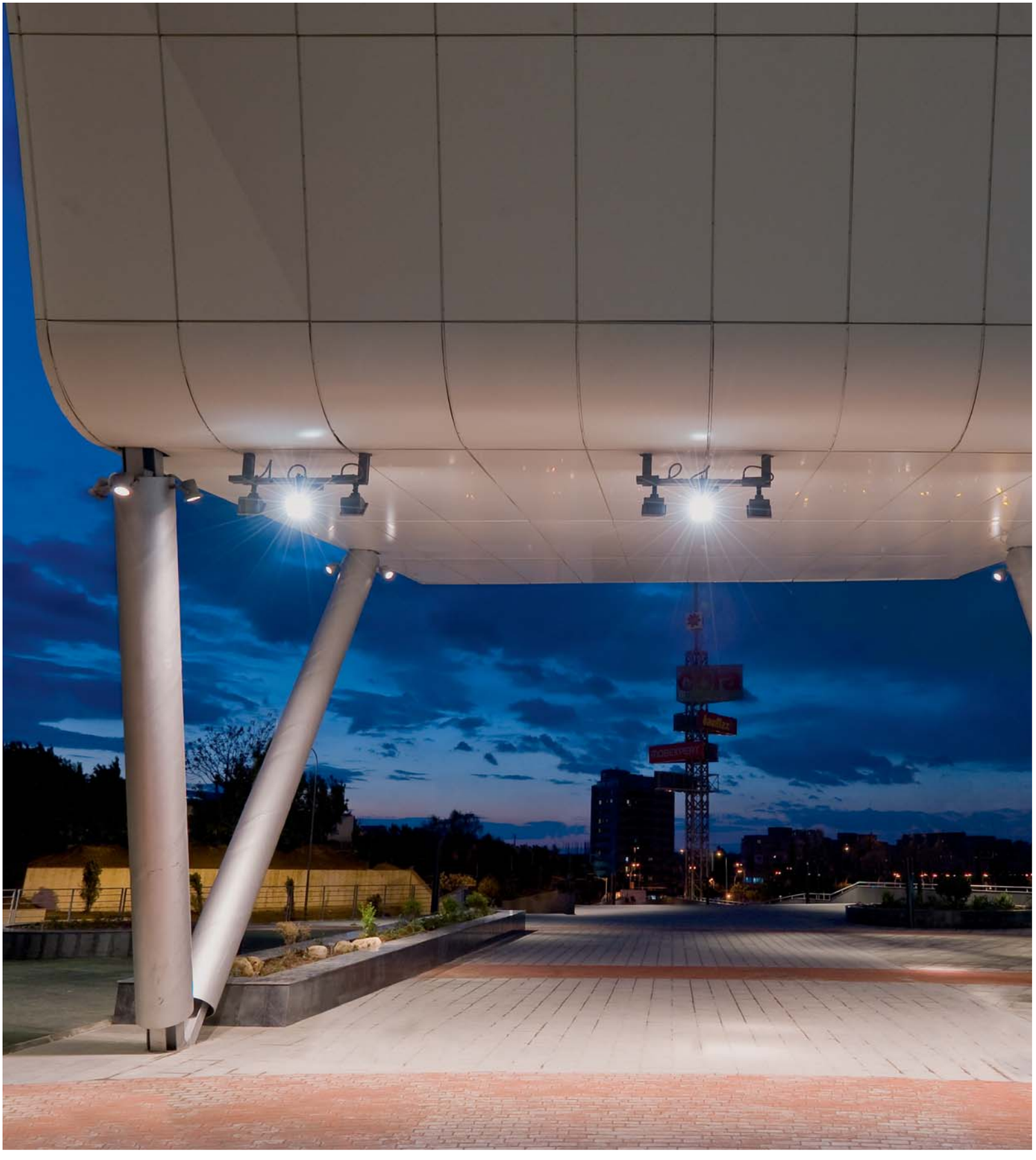
Glare shield ES	
for FLB141 [B] [M] [E]	161-9121

Barn doors ED	
for FLB141	161-9119

* Requires optical adaptor IA which has to be ordered separately.

** Dichroic colour filters, in combination with bi-symmetric or asymmetric reflectors, exhibit a pronounced 'rainbow effect'.
If this is not suitable, contact your local WE-EF representative for optional absorption colour filters.





Sun Plaza Shopping Mall. Bucarest (RO). Architects: Chapman Taylor, London. Lighting design: Scott Beleuchtung, Berlin.

IOS® Beam distributions for projectors

[B] wide beam, symmetric
[M] medium beam, symmetric
[E] narrow beam, symmetric
[EE] very narrow beam, symmetric
[EES] very narrow beam, symmetric, 'sharp cut-off'

[BL] profile projector for zoom, gobo or framing applications

Projectors

FLC100 SERIES

Projector, wide, medium, very narrow beam or very narrow beam distribution 'sharp cut-off', symmetric.

IP55, Class I. IK07. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gasket. Safety glass.

EC electronic converter in thermally separated compartment.

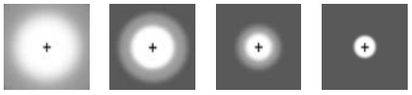
Factory installed LED circuit board. LED boards can be easily removed for upgrading. PMMA LED lens array.

Knuckle permits 350° horizontal and 90° vertical aiming of optics.

Light source
LED 12-48 W, 3000 K,
for 4000 K refer to www.we-ef.com

Light distributions
[B] [M] [EE] [EES]

Accessories
■ **Optical, page 296**



[B] [M] [EE] [EES]

[B] Wide beam distribution, symmetric

[M] Medium beam distribution, symmetric

[EE] Very narrow beam distribution, symmetric

[EES] Very narrow beam distribution, symmetric, 'sharp cut-off'

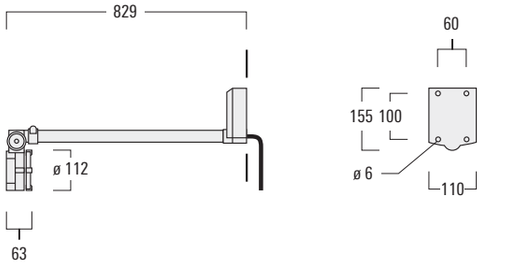
[B]	Part ID	Light source	K	lm*	Factor**	kg
FLC121	145-0070	6 LED 12W / 700 mA	3000	1476	0.50	2.9
FLC131	146-0512	12 LED 24W / 700 mA	3000	2951	1.00	4.5
FLC141	146-7066	24 LED 48W / 700 mA	3000	5903	1.50	6.3

[M]	Part ID	Light source	K	lm*	Factor**	kg
FLC121	145-0037	6 LED 12W / 700 mA	3000	1476	0.50	2.9
FLC131	146-0405	12 LED 24W / 700 mA	3000	2951	1.00	4.5
FLC141	146-7054	24 LED 48W / 700 mA	3000	5903	1.50	6.3

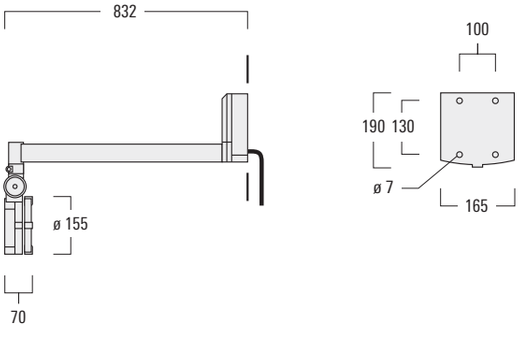
[EE]	Part ID	Light source	K	lm*	Factor**	kg
FLC121	145-0073	6 LED 12W / 700 mA	3000	1476	0.50	2.9
FLC131	146-0515	12 LED 24W / 700 mA	3000	2951	1.00	4.5
FLC141	146-7068	24 LED 48W / 700 mA	3000	5903	1.50	6.3

[EES]	Part ID	Light source	K	lm*	Factor**	kg
FLC121	145-0040	6 LED 12W / 700 mA	3000	1476	0.50	2.9
FLC131	146-0408	12 LED 24W / 700 mA	3000	2951	1.00	4.5
FLC141	146-7056	24 LED 48W / 700 mA	3000	5903	1.50	6.3

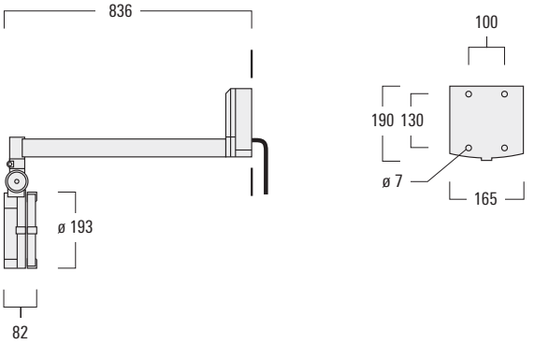
FLC121

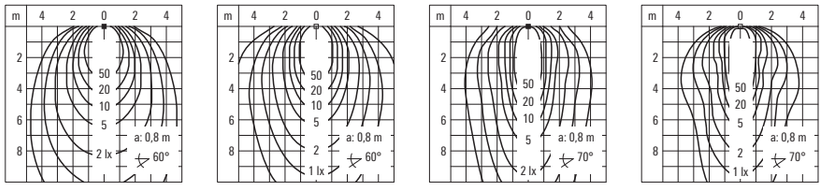


FLC131



FLC141





[B] [M] [EE] [EES]

* Nominal lumen output based on LED manufacturers data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

** Multiplier for Isolux value

FLC100 SERIES

Projector, wide, medium, very narrow beam or very narrow beam distribution 'sharp cut-off', symmetric.

IP66, Class I. IK07. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gasket. Safety glass.

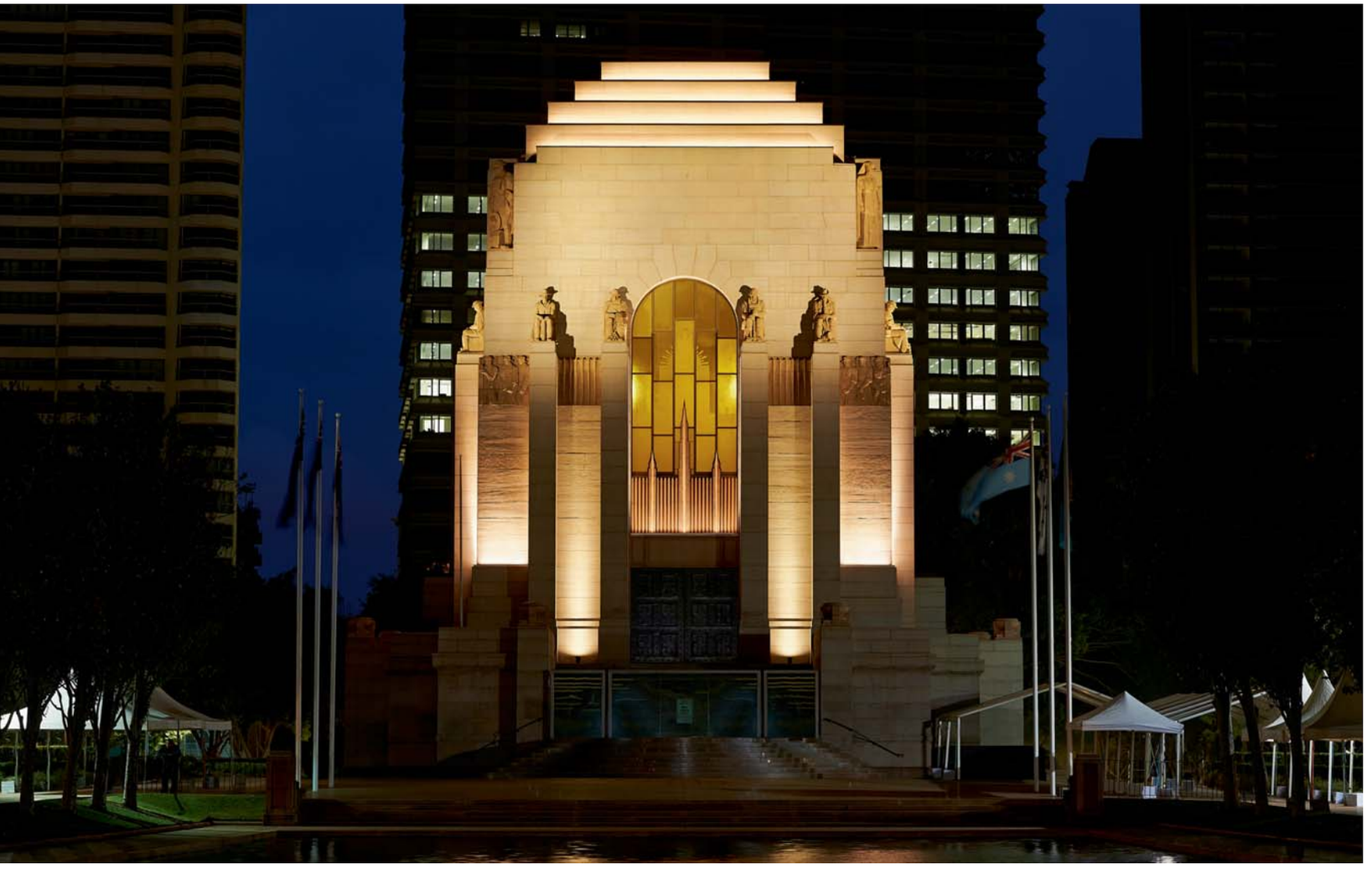
Integral EC electronic converter in thermally separated compartment.

Factory installed LED circuit board. LED boards can be easily removed for upgrading. PMMA LED lens array.

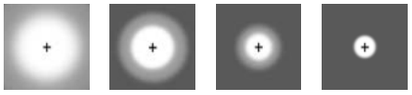
Light source
LED 12-48 W, 3000 K,
for 4000 K refer to www.we-ef.com

Light distributions
[B] [M] [EE] [EES]

Accessories
- **Mounting, page 294**
- **Optical, page 296**



ANZAC War Memorial. Sydney (AUS). Lighting Design: Point of View.



[B] [M] [EE] [EES]

[B] Wide beam distribution, symmetric
[M] Medium beam distribution, symmetric
[EE] Very narrow beam distribution, symmetric
[EES] Very narrow beam distribution, symmetric, 'sharp cut-off'

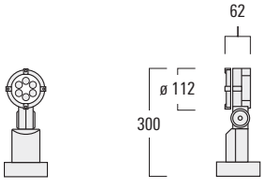
[B]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}	kg
FLC121	145-0052	6 LED 12W / 700 mA	3000	1476	934	25°/25°	1.7
FLC131	146-0494	12 LED 24W / 700 mA	3000	2951	920	25°/25°	2.5
FLC141	146-7062	24 LED 48W / 700 mA	3000	5903	934	25°/25°	4.4

[M]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}	kg
FLC121	145-0031	6 LED 12W / 700 mA	3000	1476	2196	16°/16°	1.7
FLC131	146-0399	12 LED 24W / 700 mA	3000	2951	2196	16°/16°	2.5
FLC141	146-7050	24 LED 48W / 700 mA	3000	5903	2196	16°/16°	4.4

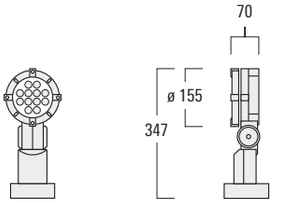
[EE]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}	kg
FLC121	145-0055	6 LED 12W / 700 mA	3000	1476	7207	7°/7°	1.7
FLC131	146-0497	12 LED 24W / 700 mA	3000	2951	7191	7°/7°	2.5
FLC141	146-7064	24 LED 48W / 700 mA	3000	5903	7207	7°/7°	4.4

[EES]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}	kg
FLC121	145-0034	6 LED 12W / 700 mA	3000	1476	22108	5°/5°	1.7
FLC131	146-0402	12 LED 24W / 700 mA	3000	2951	20389	5°/5°	2.5
FLC141	146-7052	24 LED 48W / 700 mA	3000	5903	22108	5°/5°	4.4

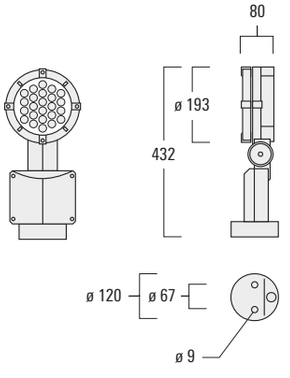
FLC121

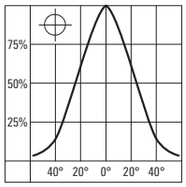


FLC131

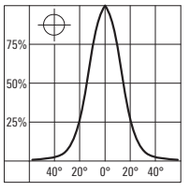


FLC141

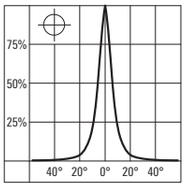




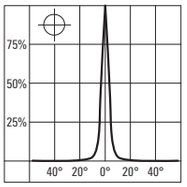
[B]



[M]



[EE]



[EES]

* Nominal lumen output based on LED manufacturers data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

FLC100 SERIES

Projector, wide, medium or very narrow beam distribution, symmetric.

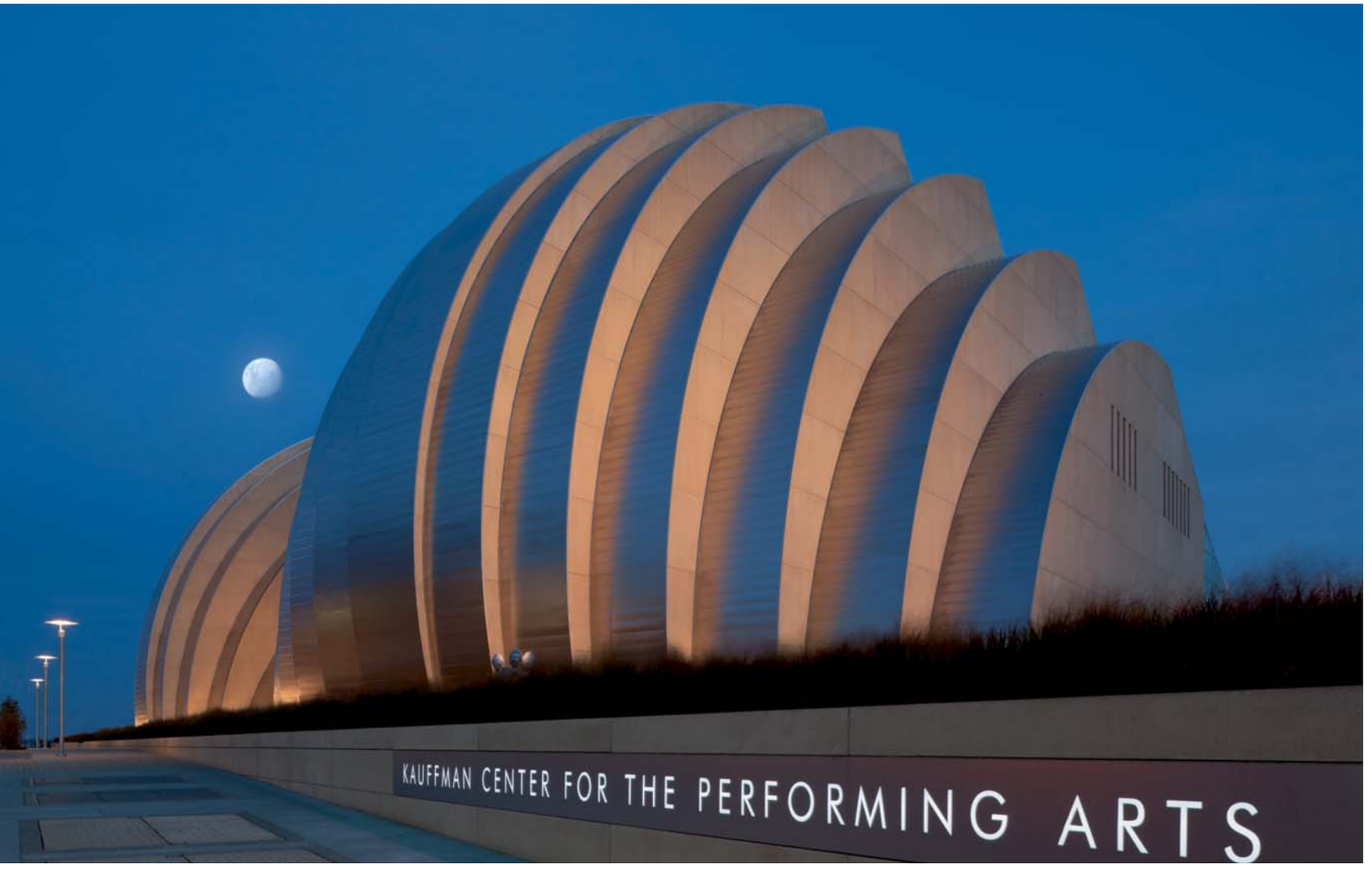
IP66, Class I. IK07. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gasket. Safety glass lens. Anodised aluminium reflector.

Integral electronic transformer for low voltage lamps, or ECG control gear for discharge lamps, in thermally separated compartment.

Light source
QT 65 W
HIT 20-150 W

Light distributions
[B] [M] [EE]

Accessories
- **Mounting, page 294**
- **Optical, page 296**



Kauffman Center for the Performing Arts. Kansas City (USA). Architect: Safdie Architects with BNIM. Lighting Designer: Lam Partners and Derek Porter Studio.

[B] [M] [EE]

[B] Wide beam distribution, symmetric

[M] Medium beam distribution, symmetric

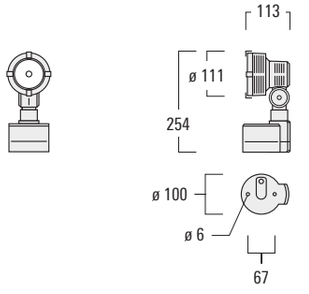
[EE] Very narrow beam distribution, symmetric

[B]	Part ID	Light source	lm	cd/klm	C_0C_{180}	kg
FLC121	145-9073 [ET]	QT 12 (-LP) ax 65W/c GY6.35/12V	1700	259	32°/32°	1.8
	145-9075 [ECG]	HIT-TC-CE 20W PGJ5	1650	504	30°/30°	1.8
	145-9077 [ECG]	HIT-TC-CE 35W PGJ5	3000	478	30°/30°	1.8

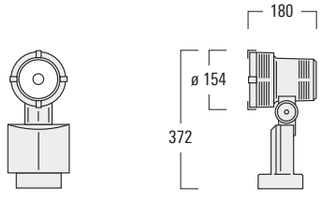
[M]	Part ID	Light source	lm	cd/klm	C_0C_{180}	kg
FLC121	145-9002 [ET]	QT 12 (-LP) ax 65W/c GY6.35/12V	1700	1156	14°/14°	1.8
	145-9004 [ECG]	HIT-TC-CE 20W PGJ5	1650	1810	15°/15°	1.8
	145-9006 [ECG]	HIT-TC-CE 35W PGJ5	3000	1771	15°/15°	1.8
FLC131	146-0113 [ECG]	HIT-CE 35W G12	3600	1392	17°/17°	3.6
	146-0117 [ECG]	HIT-CE 70W G12	7300	1296	17°/17°	3.6
FLC141	146-0184 [ECG]	HIT-CE 150W G12	15000	1361	18°/18°	5.7

[EE]	Part ID	Light source	lm	cd/klm	C_0C_{180}	kg
FLC121	145-9012 [ET]	QT 12 (-LP) ax 65W/c GY6.35/12V	1700	5517	5°/5°	1.8
	145-9014 [ECG]	HIT-TC-CE 20W PGJ5	1650	10995	5°/5°	1.8
	145-9016 [ECG]	HIT-TC-CE 35W PGJ5	3000	8581	5°/5°	1.8
FLC131	146-0129 [ECG]	HIT-CE 35WG12	3600	12741	4°/4°	3.6
	146-0133 [ECG]	HIT-CE 70WG12	7300	7479	4°/4°	3.6
FLC141	146-0200 [ECG]	HIT-CE 150WG12	15000	7146	4°/4°	5.7

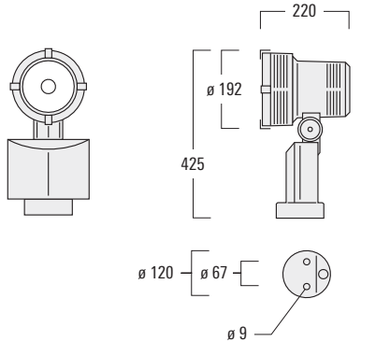
FLC121

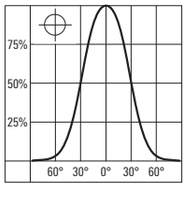


FLC131

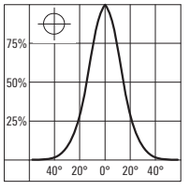


FLC141

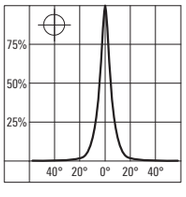




[B]



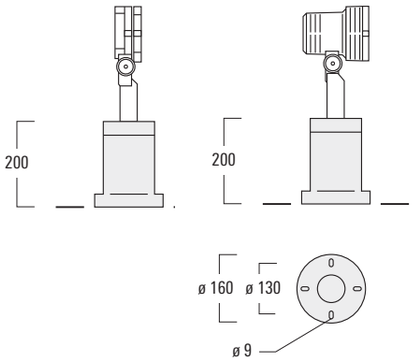
[M]



[EE]

MOUNTING ACCESSORIES – FLC100 SERIES

Marine-grade aluminium construction. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016.



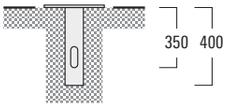
Short post EM1

Short post				kg
for FLC121	145-9200	EM1-2/M5	Short post	1.1
for FLC131 / 141	146-0253	EM1-2/M8	Short post	1.1

Matching planted root to be ordered separately:

Planted root for short post				kg
for FLC100 Series	300-0461	ESV4	Planted root	4.4

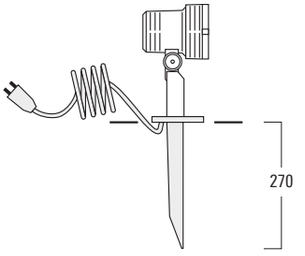
Galvanised steel



Planted root ESV4

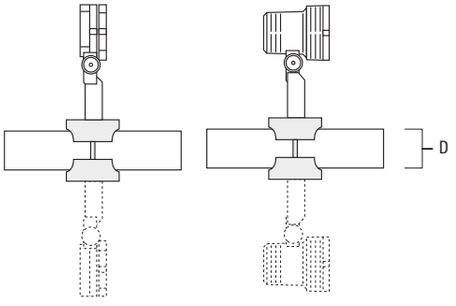
Ground spike				kg
for FLC121	145-9196	EF1-2/M5	Ground spike	0.4
for FLC131 / 141	146-0251	EF1-2/M8	Ground spike	0.4

Stainless steel, including 5 m of flexible cable and plug



Ground spike EF1

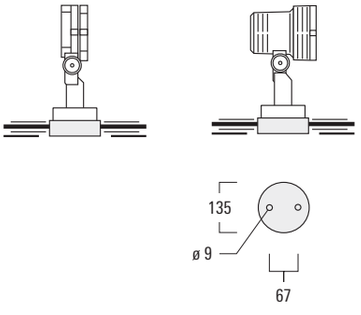
Pipe clamps				D	kg
for FLC100 Series	146-0245	SP1-2/M8	Pipe clamp	38-60	1.0
	146-0246	SP1-2/M8	Pipe clamp	76-89	1.2
	146-0247	SP2-2/M8	Pipe clamp	38-60	1.0
	146-0248	SP2-2/M8	Pipe clamp	76-89	1.2



Pipe clamps SP1/SP2

Wall mounted junction box				kg
for FLC131 / 141	310-9000	JB1-2/M8	Wall mounted junction box	1.6

For surface mounted cable



Junction box JB1

Serpentine Pavilion 2010. London (UK). Architect: Jean Nouvel, Paris. Lighting design: Arup Lighting, London.

OPTICAL ACCESSORIES – FLC100 SERIES

Internal Accessories

A maximum of one internal optical accessory.

External Accessories

A maximum of one external optical accessory.

Flood lens IO-360	
for FLC121	145-0142
for FLC131	146-0623
for FLC141	146-0624

Linear spread lens IO-180	
for FLC121	145-0050
for FLC131	146-0418
for FLC141	146-0439

Wallwash lens IO-20*	
for FLC121 [M]	145-0145
for FLC131 [M]	146-0645
for FLC141 [M]	146-0646

Honeycomb louvre IW**	
for FLC121	145-0143
for FLC131	146-0625
for FLC141	146-0626

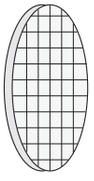
* ideal for uniform wall washing applications

** not for [B] version

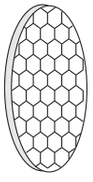
Wire guard EG	
for FLC121	145-9190
for FLC131	146-0158
for FLC141	146-0231

Glare shield ES	
for FLC121	145-9192
for FLC131	146-0156
for FLC141	146-0229

Snoot ET	
for FLC121	145-0030
for FLC131	146-0397
for FLC141	146-0398



IO



IW

Frame

EG

ES

ET

OPTICAL ACCESSORIES – FLC100 SERIES

Internal Accessories

A maximum of two internal optical accessories.

External Accessories

A maximum of one external optical accessory.

Flood lens IO-360	
for FLC121	145-9174
for FLC131	146-0258
for FLC141	146-0122

Linear spread lens IO-180	
for FLC121	145-9172
for FLC131	146-0257
for FLC141	146-0123

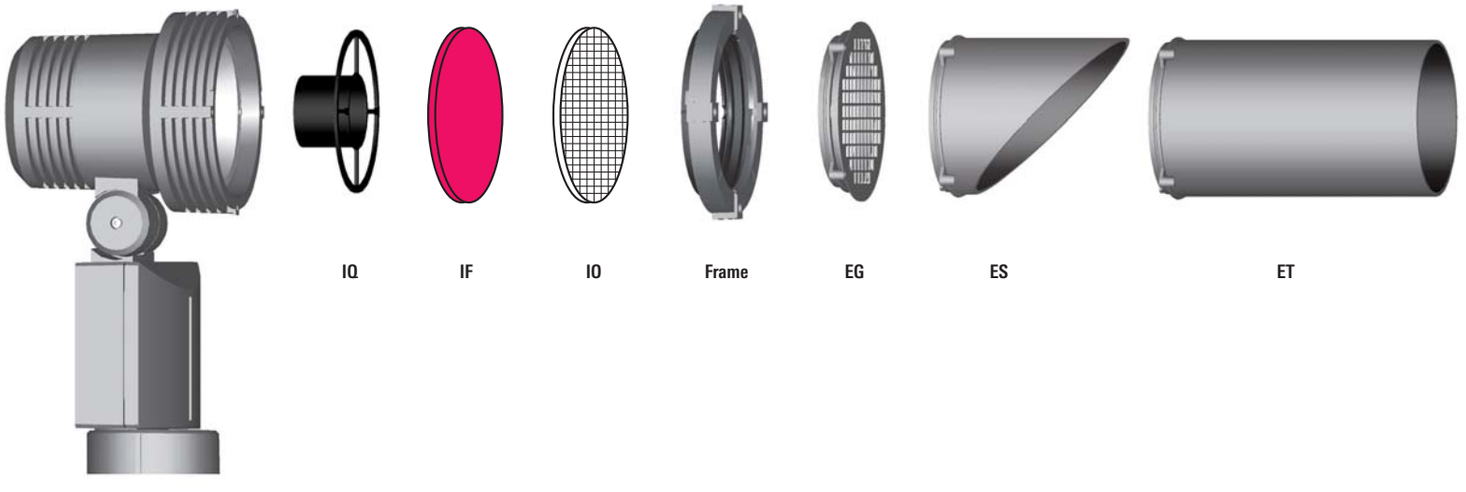
Colour filter IF	red	green	blue	yellow
for FLC121	145-9176	145-9178	145-9180	145-9182
for FLC131	146-0262	146-0260	146-0259	146-0261
for FLC141	146-0141	146-0135	146-0119	146-0138

Source shield IQ	
for FLC121 [EE]	145-9170
for FLC131 [EE]	146-0263
for FLC141 [EE]	146-0264

Wire guard EG	
for FLC121	145-9190
for FLC131	146-0158
for FLC141	146-0231

Glare shield ES	
for FLC121	145-9192
for FLC131	146-0156
for FLC141	146-0229

Snoot ET	
for FLC121	145-9194
for FLC131	146-0157
for FLC141	146-0230



FLD100 SERIES

Projector, wide, medium, very narrow beam or very narrow beam distribution 'sharp cut-off', symmetric.

IP66, Class I. IK07. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gasket. Safety glass.

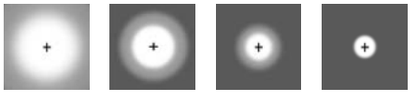
Integral EC electronic converter.

Factory installed LED circuit board. LED boards can be easily removed for upgrading. PMMA LED lens array.

Light source
LED 6-24 W, 3000 K,
for 4000 K refer to www.we-ef.com

Light distributions
[B] [M] [EE] [EES]

Accessories
- **Mounting, page 300**
- **Optical, page 301**



[B] [M] [EE] [EES]

[B] Wide beam distribution, symmetric

[M] Medium beam distribution, symmetric

[EE] Very narrow beam distribution, symmetric

[EES] Very narrow beam distribution, symmetric, 'sharp cut-off'

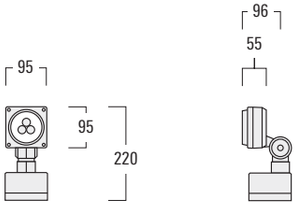
[B]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}	kg
FLD121	145-9502	6 LED 12W / 700 mA	3000	1476	986	23°/23°	2.6
FLD131	145-9604	12 LED 24W / 700 mA	3000	2951	986	23°/23°	3.0

[M]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}	kg
FLD111	145-9791	3 LED 6W / 700 mA	3000	738	1633	21°/21°	2.4
FLD121	145-9500	6 LED 12W / 700 mA	3000	1476	2261	17°/17°	2.6
FLD131	145-9549	12 LED 24W / 700 mA	3000	2951	2261	17°/17°	3.0

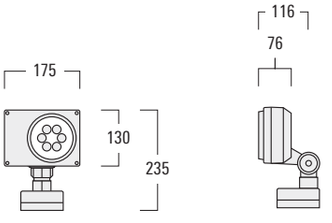
[EE]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}	kg
FLD111	145-9792	3 LED 6W / 700 mA	3000	738	7530	7°/7°	2.4
FLD121	145-9504	6 LED 12W / 700 mA	3000	1476	7524	7°/7°	2.6
FLD131	145-9550	12 LED 24W / 700 mA	3000	2951	7524	7°/7°	3.0

[EES]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}	kg
FLD111	145-9793	3 LED 6W / 700 mA	3000	738	16462	5°/5°	2.4
FLD121	145-9506	6 LED 12W / 700 mA	3000	1476	19392	5°/5°	2.6
FLD131	145-9605	12 LED 24W / 700 mA	3000	2951	19392	5°/5°	3.0

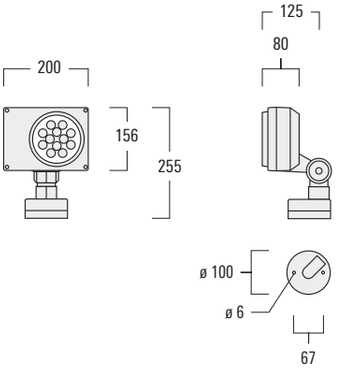
FLD111

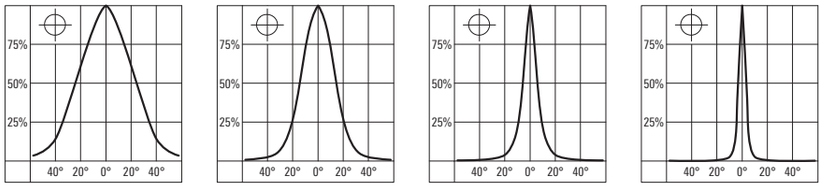


FLD121



FLD131





[B] [M] [EE] [EES]

* Nominal lumen output based on LED manufacturers data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

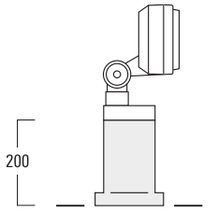
MOUNTING ACCESSORIES – FLD100 SERIES

Marine-grade aluminium construction. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016.

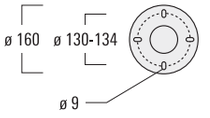
Short post				kg
for FLD100 Series	145-9200	EM1-2/M5	Short post	1.1
Matching planted root to be ordered separately:				

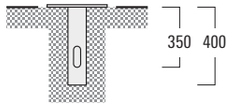
Planted root for short post				kg
for FLD100 Series	300-0461	ESV4	Planted root	4.4
galvanised steel				

Ground spike				kg
for FLD100 Series	145-9196	EF1-2/M5	Ground spike	0.4
Stainless steel, including 5 m of flexible cable and plug				

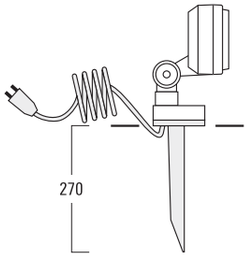


Short Post EM1





Planted root ESV4



Ground Spike EF1

OPTICAL ACCESSORIES – FLD100 SERIES

Internal Accessories

Wallwash lens IO-20*

for FLD111 [M]	145-9846
for FLD121 [M]	145-9479
for FLD131 [M]	145-9577

* ideal for uniform wall washing applications, factory fitted only.

External Accessories

A maximum of two external optical accessories. If a flood or spread lens is used as a 'stand alone' accessory, an optical adaptor is required – to be ordered separately.

Optical adaptor

for FLD111	145-9830
for FLD121	145-9530
for FLD131	145-9570

Flood lens EO-360

for FLD111	145-9834
for FLD121	145-9534
for FLD131	145-9574

Linear spread lens EO-180

for FLD111	145-9833
for FLD121	145-9533
for FLD131	145-9573

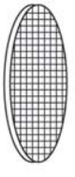
Glare shield ES

for FLD111	145-9831
for FLD121	145-9531
for FLD131	145-9571

Snoot ET

for FLD111	145-9832
for FLD121	145-9532
for FLD131	145-9572

IO



EO

EA

ES

ET

FLC200 SERIES

Projector, medium, very narrow beam or very narrow beam distribution 'sharp cut-off', symmetric.

IP66, Class III. Without electronic converter.
IP66, Class I. With electronic converter.
IK09. Marine-grade die-cast aluminium. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gasket. Safety glass lens.

Factory installed LED circuit board. LED boards can be easily removed for upgrading. PMMA LED lens array.

Electronic converter required. To be ordered separately (for version without electronic converter).

Option available: ground spike made from stainless steel with 5m flexible cable and plug.

Light source
LED 2-3 W, 3000 K,
for 4000 K refer to www.we-ef.com

Light distributions
[M] [EE] [EES]

Accessories
- **Mounting, page 322**
- **Optical, page 324**

[M] [EE] [EES]

[M] Medium beam distribution, symmetric

[EE] Very narrow beam distribution, symmetric

[EES] Very narrow beam distribution, symmetric, 'sharp cut-off'

without electronic converter

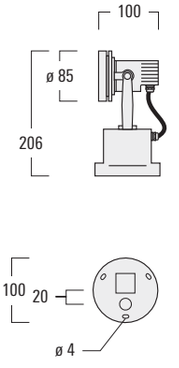
with electronic converter

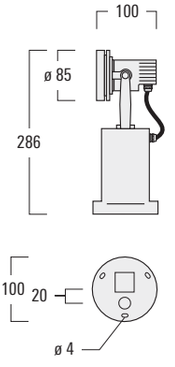
[M]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}	kg
FLC210	139-1641	3 LED 3W / 24V AC/DC	3000	404	1552	21°/21°	0.9
	139-1565	1 LED 2W / 24V AC/DC	3000	200	2119	16°/16°	0.9
FLC210**	139-1650	3 LED 3W / 230V	3000	404	1552	21°/21°	1.1
	139-1450	1 LED 2W / 230V	3000	200	2119	16°/16°	1.1

[EE]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}	kg
FLC210	139-1642	3 LED 3W / 24V AC/DC	3000	404	7076	7°/7°	0.9
FLC210**	139-1652	3 LED 3W / 230V	3000	404	7076	7°/7°	1.1

[EES]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}	kg
FLC210	139-1643	3 LED 3W / 24V AC/DC	3000	404	11915	6°/6°	0.9
	139-1671	1 LED 2W / 24V AC/DC	3000	200	29000	4°/4°	0.9
FLC210**	139-1654	3 LED 3W / 230V	3000	404	11915	6°/6°	1.1
	139-1673	1 LED 2W / 230V	3000	200	29000	4°/4°	1.1

** with electronic converter



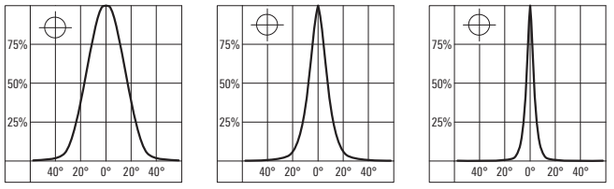


Mains converter (230V / 24V DC)

IP20, Class I. Mounting to 35 mm rail.			A	B	C
for FLC210	400-0310	TVE-DC 24 V/12 W	90	18	61
	400-0311	TVE-DC 24 V/60 W	89	72	59

Magnetic transformer (230V / 24V AC)

IP65, Class II.			A	B	C
for FLC210	185-2884	TVM-AC 24 V/20 W	40	65	90
	185-2885	TVM-AC 24 V/50 W	140	65	90



[M] [EE] [EES]

* Nominal lumen output based on LED manufacturers data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

FLC200 SERIES

Projector, medium, very narrow beam or very narrow beam distribution 'sharp cut-off', symmetric.

IP66, Class I. IK07. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gasket. Safety glass lens, hinged. One cable gland. Second gland for through wiring on request.

EC electronic converter.

Factory installed LED circuit board. LED boards can be easily removed for upgrading. PMMA LED lenses.

Optional 1-10V or DALI interface on request.

Light source
LED 24-155 W, 3000 K,
for 4000 K refer to www.we-ef.com

Light distributions
[M] [EE] [EES]

Accessories
- **Mounting, page 322**
- **Optical, page 324**

The Goods Line at Ultimo. Sydney (AUS) Lighting Design: Lighting, Art + Science. Landscape Architects: Aspect Studios / CHROFI


[M]


[EE]


[EES]

[M] Medium beam distribution, symmetric

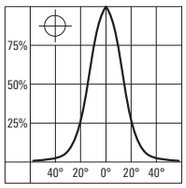
[EE] Very narrow beam distribution, symmetric

[EES] Very narrow beam distribution, symmetric, 'sharp cut-off'

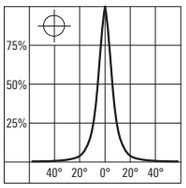
[M]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}	kg
FLC220	139-1830	12 LED 24W / 700 mA	3000	3257	2829	15°/15°	9.1
	139-1836	12 LED 36W / 1050 mA	3000	4680	2829	15°/15°	9.1
	139-1842	12 LED 52W / 1400 mA	3000	5986	2829	15°/15°	9.1
FLC240	139-1812	24 LED 48W / 700 mA	3000	6515	2829	15°/15°	14.7
	139-1818	24 LED 72W / 1050 mA	3000	9360	2829	15°/15°	14.7
	139-1824	24 LED 104W / 1400 mA	3000	11971	2829	15°/15°	14.7
FLC260	139-1806	36 LED 72W / 700 mA	3000	9772	2829	15°/15°	18.8
	139-1791	36 LED 108W / 1050 mA	3000	14040	2829	15°/15°	18.8
	139-1797	36 LED 155W / 1400 mA	3000	17957	2829	15°/15°	18.8

[EE]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}	kg
FLC220	139-1832	12 LED 24W / 700 mA	3000	3257	10951	7°/7°	9.1
	139-1838	12 LED 36W / 1050 mA	3000	4680	10951	7°/7°	9.1
	139-1844	12 LED 52W / 1400 mA	3000	5986	10951	7°/7°	9.1
FLC240	139-1814	24 LED 48W / 700 mA	3000	6515	10951	7°/7°	14.7
	139-1820	24 LED 72W / 1050 mA	3000	9360	10951	7°/7°	14.7
	139-1826	24 LED 104W / 1400 mA	3000	11971	10951	7°/7°	14.7
FLC260	139-1808	36 LED 72W / 700 mA	3000	9772	10951	7°/7°	18.8
	139-1793	36 LED 108W / 1050 mA	3000	14040	10951	7°/7°	18.8
	139-1799	36 LED 155W / 1400 mA	3000	17957	10951	7°/7°	18.8

[EES]	Part ID	Light source	K	lm*	cd/klm	C_0C_{180}	kg
FLC220	139-1834	12 LED 24W / 700 mA	3000	3257	27474	4°/4°	9.1
	139-1840	12 LED 36W / 1050 mA	3000	4680	27474	4°/4°	9.1
	139-1846	12 LED 52W / 1400 mA	3000	5986	27474	4°/4°	9.1
FLC240	139-1816	24 LED 48W / 700 mA	3000	6515	27474	4°/4°	14.7
	139-1822	24 LED 72W / 1050 mA	3000	9360	27474	4°/4°	14.7
	139-1828	24 LED 104W / 1400 mA	3000	11971	27474	4°/4°	14.7
FLC260	139-1810	36 LED 72W / 700 mA	3000	9772	27474	4°/4°	18.8
	139-1795	36 LED 108W / 1050 mA	3000	14040	27474	4°/4°	18.8
	139-1801	36 LED 155W / 1400 mA	3000	17957	27474	4°/4°	18.8



[M]



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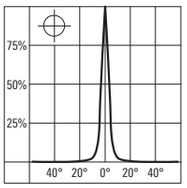
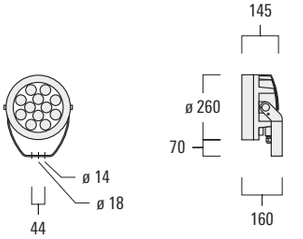
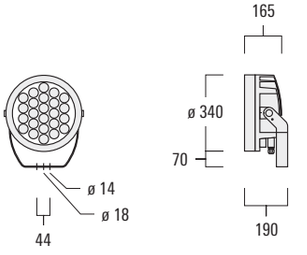


[EES]

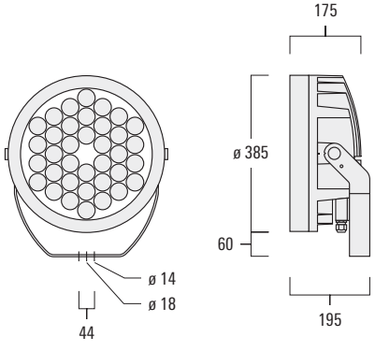
FLC220



FLC240



FLC260



* Nominal lumen output based on LED manufacturers data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

FLC200 COLOUR CHANGER SERIES

RGBW Colour changer, medium or very narrow beam distribution, symmetric.

IP66, Class I. IK07. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gasket. Safety glass lens, hinged. One cable gland. Second gland for through wiring on request.

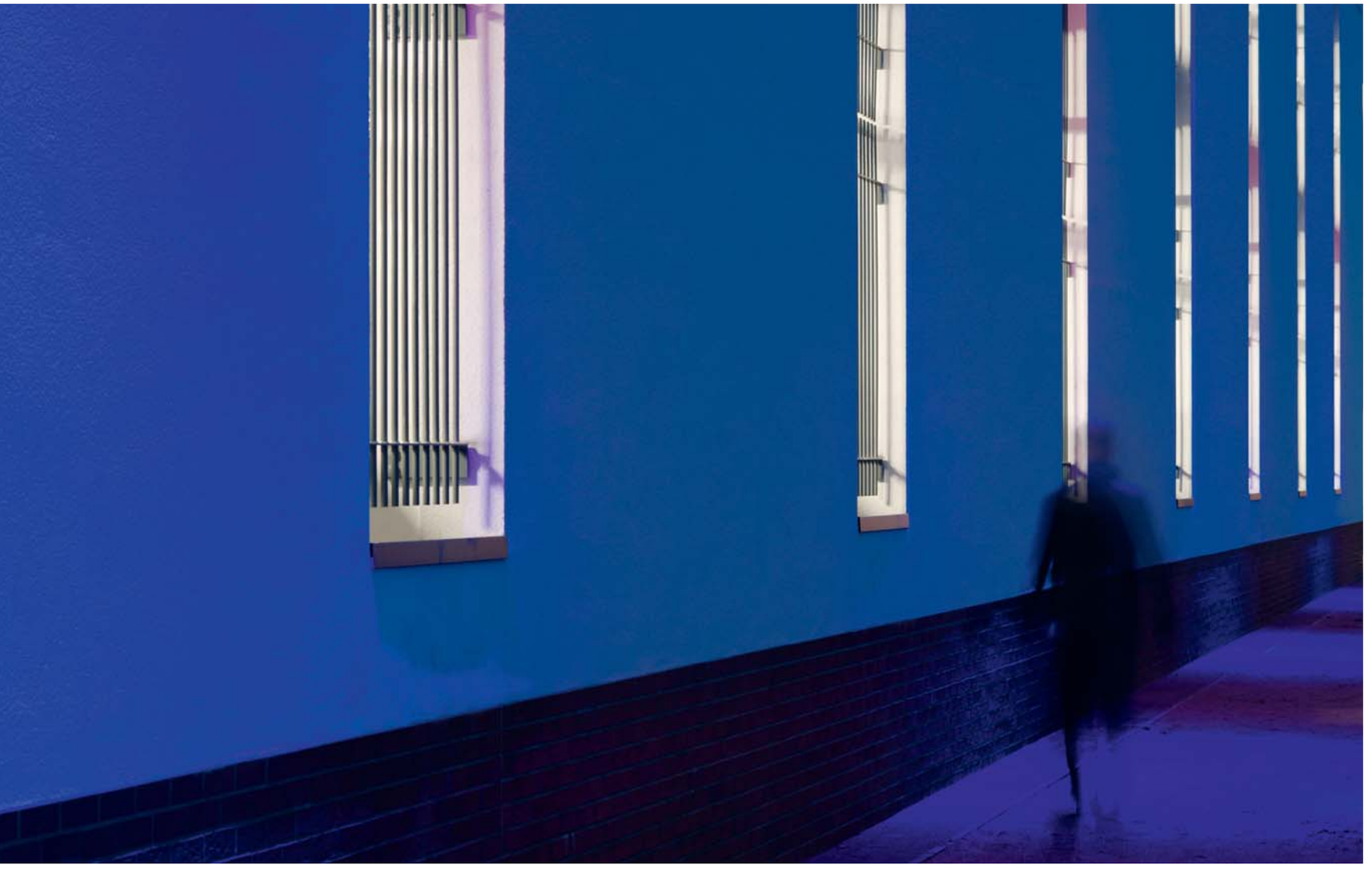
EC electronic converter with DMX interface. Optional DALI interface on request.

Factory installed LED circuit board. LED boards can be easily removed for upgrading. PMMA LED lenses.

Light source
LED 74 W, 3000 K,
for 4000 K refer to www.we-ef.com

Light distributions
[M] [EE]

Accessories
- **Mounting, page 322**
- **Optical, page 324**



[M]

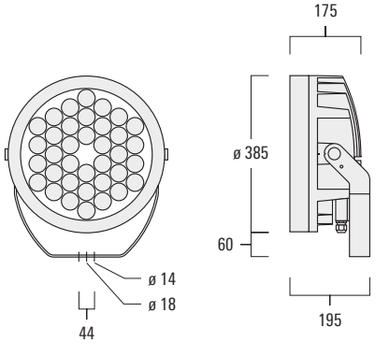
[EE]

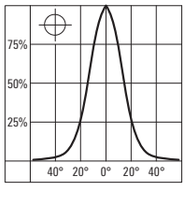
[M] Medium beam distribution, symmetric

[EE] Very narrow beam distribution, symmetric

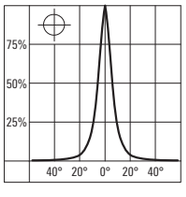
[M]	Part ID	Light source		lm*	cd/klm	C_0C_{180}	kg
FLC260-CC [DMX]	139-1803	18 LED 74W / 350 mA	RGBW	4295	2761	16°/16°	18.8

[EE]	Part ID	Light source		lm*	cd/klm	C_0C_{180}	kg
FLC260-CC [DMX]	139-1804	18 LED 74W / 350 mA	RGBW	4295	7804	8°/8°	18.8





[M]



[EE]

* All channels maximum performance

FLC200 SERIES

Projector, medium or very narrow beam distribution, symmetric.

IP66, Class III. Without electronic converter.
IP66, Class I. With electronic converter or ECG control gear.
IK09. Marine-grade die-cast aluminium. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gasket. Anodised aluminium reflector. Safety glass lens.

Electronic converter required. To be ordered separately (for version without electronic converter).

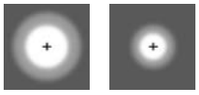
Option available: ground spike made from stainless steel with 5m flexible cable and plug.

Light source
QT 35 W
HIT 20-35 W

Light distributions
[M] [EE]

Accessories
- **Mounting, page 322**
- **Optical, page 34**

Freie Kammerspiele. Magdeburg (D). Architect: Kirchner + Przyborowsi, Magdeburg. Lighting design: IPK Magdeburg GmbH, Magdeburg.



[M] [EE]

[M] Medium beam distribution, symmetric

[EE] Very narrow beam distribution, symmetric

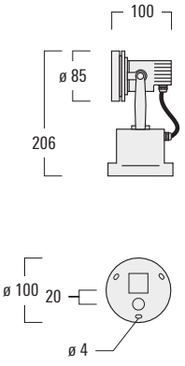
without electronic converter

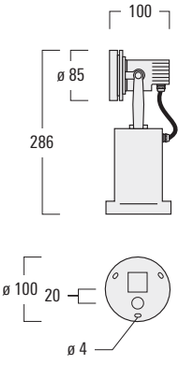
with electronic converter

[M]	Part ID	Light source	lm	cd/klm	C_0C_{180}	kg
FLC210	139-1184	QT 12 (-LP) ax 35W/c GY6.35/12V	900	1239	13°/13°	0.9
FLC210*	139-1447 [ET]	QT 12 (-LP) ax 35W/c GY6.35/12V	900	1239	13°/13°	1.2
	139-1443 [ECG]	HIT-TC-CE 20W PGJ5	1650	806	22°/22°	1.5
	139-1445 [ECG]	HIT-TC-CE 35W PGJ5	3000	708	24°/24°	1.5

[EE]	Part ID	Light source	lm	cd/klm	C_0C_{180}	kg
FLC210	139-1185	QT 12 (-LP) ax 35W/c GY6.35/12V	900	5328	4°/4°	0.9
FLC210*	139-1448 [ET]	QT 12 (-LP) ax 35W/c GY6.35/12V	900	5328	4°/4°	1.2
	139-1444 [ECG]	HIT-TC-CE 20W PGJ5	1650	4531	6°/6°	1.5
	139-1446 [ECG]	HIT-TC-CE 35W PGJ5	3000	3056	7°/7°	1.5

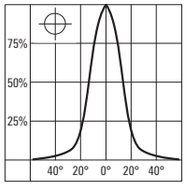
* with electronic converter



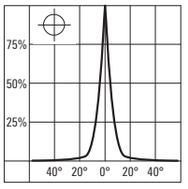


Magnetic transformer (230V / 24V)

IP65, Class II.			A	B	C
for FLC210	185-1548	TVM-AC 12 V/50W	150	65	90



[M]



[EE]

FLC200 SERIES

Projector, medium or very narrow beam distribution, symmetric.

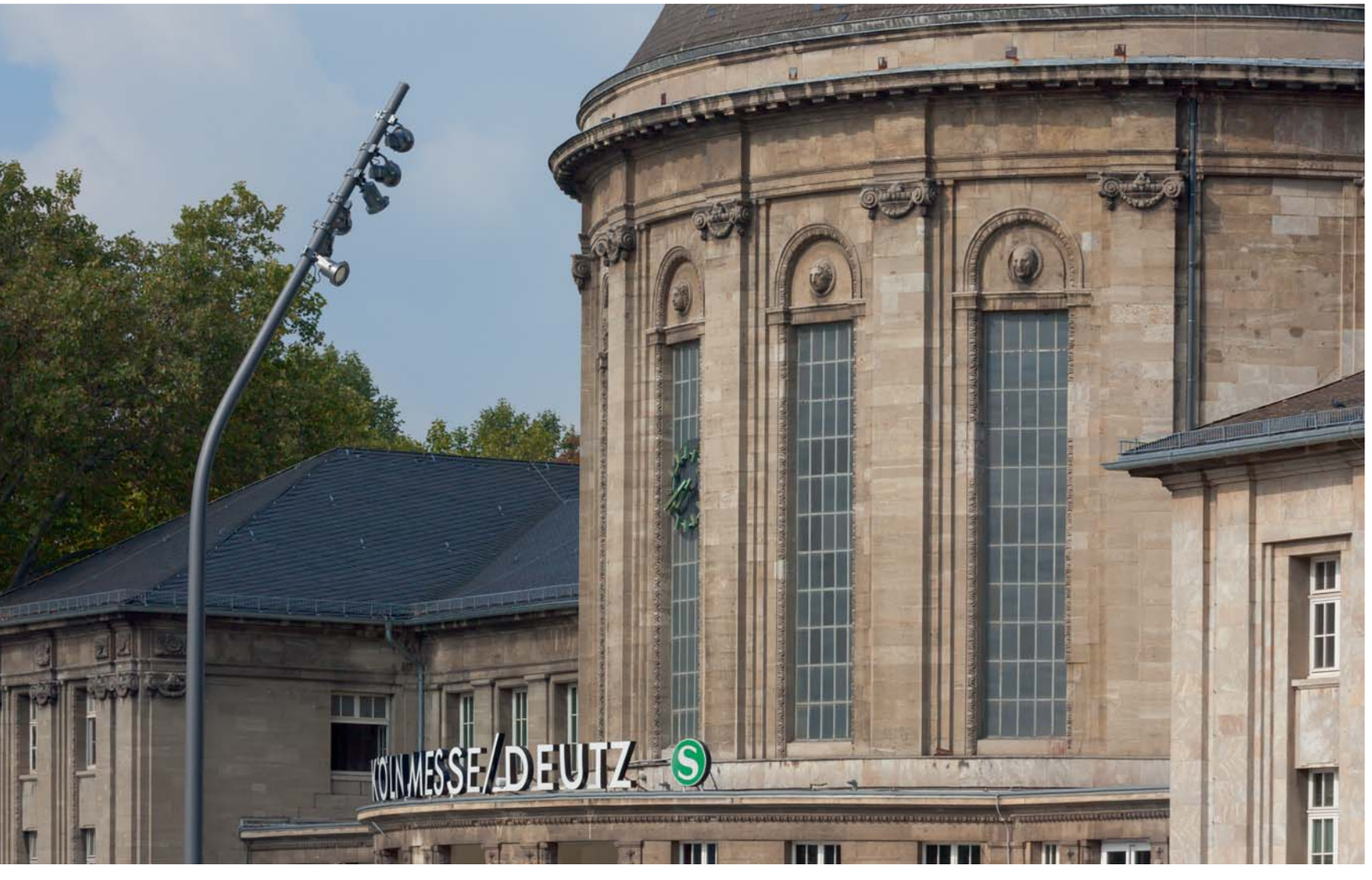
IP66, Class I. IK07. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gasket. Safety glass lens, hinged. Anodised aluminium reflector. One cable gland. Second gland for through wiring on request.

HPF or ECG control gear, thermally separated.

Light source
HIT 20-150 W

Light distributions
[M] [EE]

Accessories
- **Mounting, page 322**
- **Optical, page 324**



Otto place. Train Station Messe Köln-Deutz (D). Planning: BBZL Boehm Benfer Zahiri, Berlin. Facade lighting: Gerhard Kleiker, RheinEnergie AG, Köln.

[M]

[EE]

[M] Medium beam distribution, symmetric

[EE] Very narrow beam distribution, symmetric

20-70W [ECG] with ECG control gear
70-150W [HPF] with HPF control gear

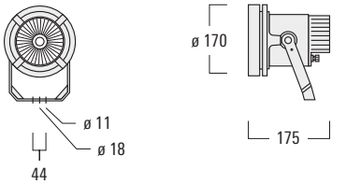
150W [ECG] with remote ECG control gear

[M]	Part ID	Light source	lm	cd/klm	C_0C_{180}	kg
FLC230	139-1196 [ECG]	HIT-TC-CE 20W PGJ5	1650	1685	16°/16°	2.7
	139-1198 [ECG]	HIT-TC-CE 35W PGJ5	3000	1496	17°/17°	2.7
FLC240	139-0659 [HPF]	HIT-CE 70W G12	7300	1648	20°/20°	9.0
	139-1200 [ECG]	HIT-CE 70W G12	7300	1643	20°/20°	7.9
	139-0662 [HPF]	HIT-CE 150W G12	15000	1280	23°/23°	9.5
FLC240*	139-0793 [ECG]	HIT-CE 150W G12	15000	1280	23°/23°	8.4

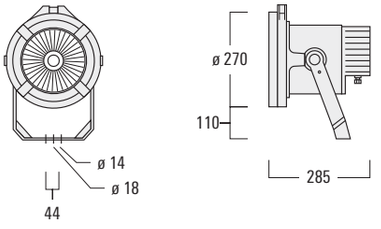
[EE]	Part ID	Light source	lm	cd/klm	C_0C_{180}	kg
FLC230	139-1197 [ECG]	HIT-TC-CE 20W PGJ5	1650	29856	3°/3°	2.7
	139-1199 [ECG]	HIT-TC-CE 35W PGJ5	3000	18240	4°/4°	2.7
FLC240	139-0671 [HPF]	HIT-CE 70W G12	7300	1648	3°/3°	9.0
	139-1201 [ECG]	HIT-CE 70W G12	7300	29929	3°/3°	7.9
	139-0674 [HPF]	HIT-CE 150W G12	15000	18752	4°/4°	9.5
FLC240*	139-0812 [ECG]	HIT-CE 150W G12	15000	18752	4°/4°	8.4

* Thermally separated control gear

FLC230

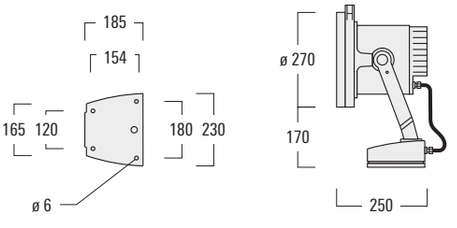


FLC240

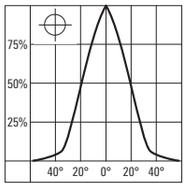


20-70W [ECG] with ECG control gear
70-150W [HPF] with HPF control gear

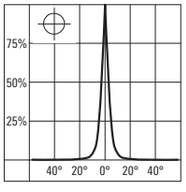
FLC240



150W [ECG] with remote ECG control gear



[M]



[EE]

FLC200 SERIES

Projector, medium or very narrow beam distribution, symmetric.

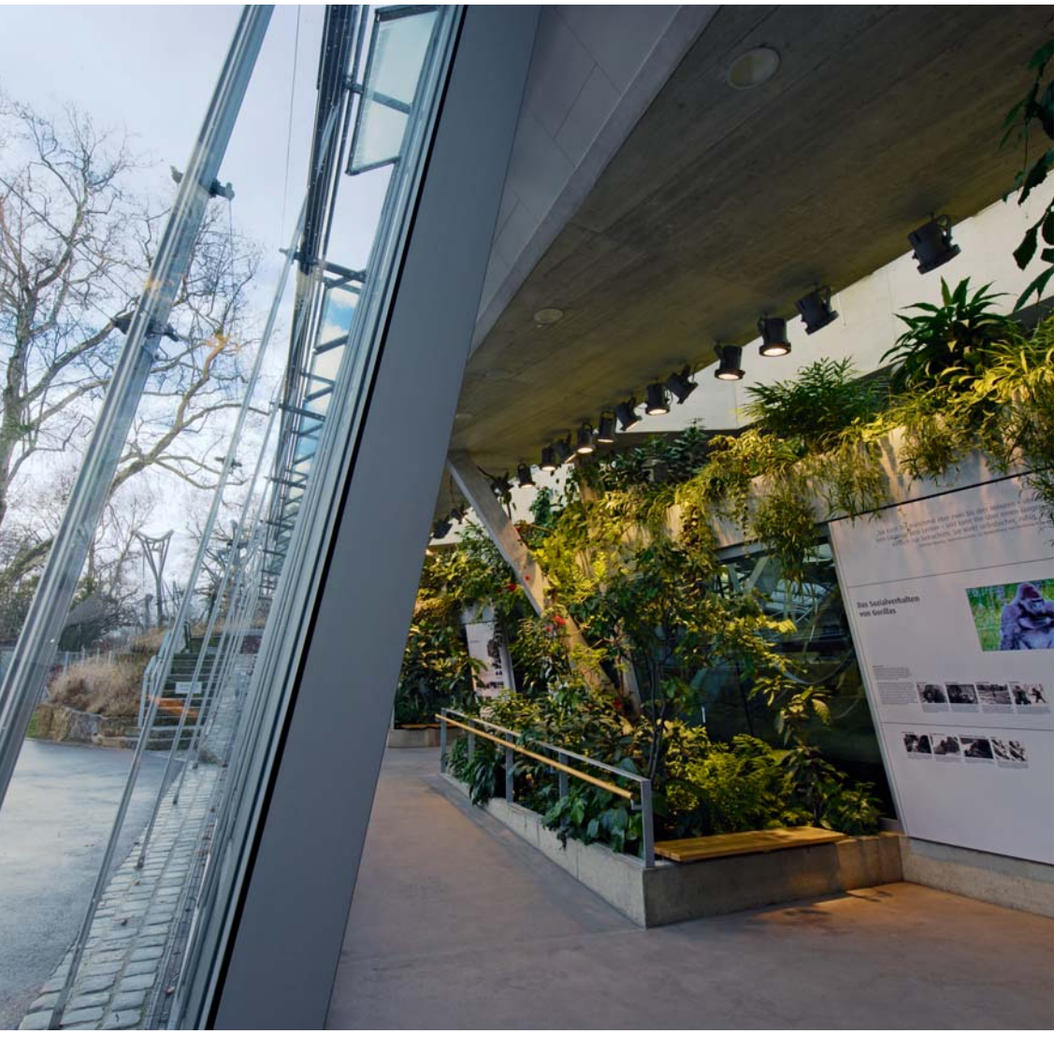
IP66, Class I. IK07. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gasket. Safety glass lens, hinged. Anodised aluminium reflector. One cable gland. Second gland for through wiring on request.

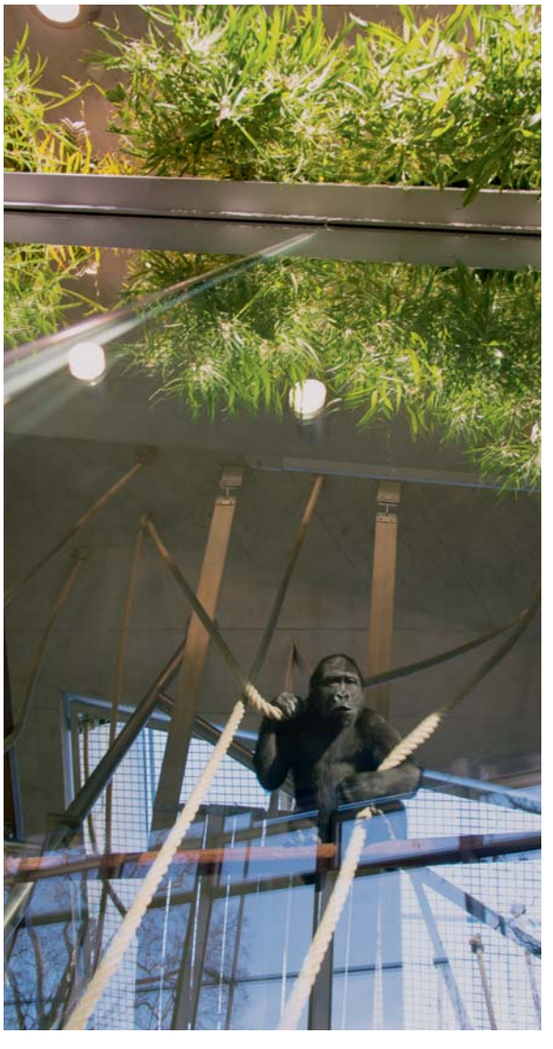
HPF control gear, thermally separated.

Light source
HIT 250-400 W

Light distributions
[M] [EE]

Accessories
- **Mounting, page 322**
- **Electrical, page 323**
- **Optical, page 324**





Gorilla House, Wilhelma Zoo. Stuttgart (D). Architect: Hascher Jehle Architektur, Berlin.

[M]

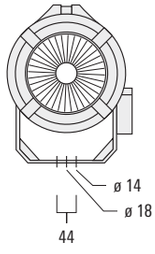
[EE]

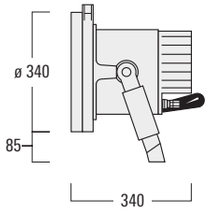
[M] Medium beam distribution, symmetric

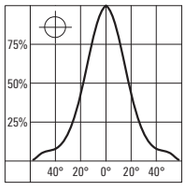
[EE] Very narrow beam distribution, symmetric

[M]	Part ID	Light source	lm	cd/klm	C_0C_{180}	$C_{90}C_{270}$	kg
FLC250	139-0680 [HPF]	HIT-DE 250W Fc2	20000	1757	17°/17°	13°/13°	13,4
	139-0682 [HPF]	HIT-DE 400W Fc2	36000	1444	20°/20°	17°/17°	15,6

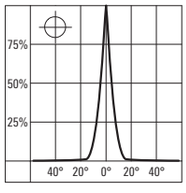
[EE]	Part ID	Light source	lm	cd/klm	C_0C_{180}	$C_{90}C_{270}$	kg
FLC250	139-0690 [HPF]	HIT-DE 250W Fc2	20000	17463	3°/3°	4°/4°	13,4
	139-0692 [HPF]	HIT-DE 400W Fc2	36000	12843	3°/3°	4°/4°	15,6







[M]



[EE]

FLC200 SERIES

Projector, medium or very narrow beam distribution, symmetric.

IP66, Class I. IK07. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gasket. High temperature ceramic glass with wire mesh. Anodised aluminium reflector, hinged, with circuit breaker.

One cable gland. Second gland for through wiring on request.

Remote HPF gear box made from marine-grade die-cast aluminium alloy or in pole HPF gear tray, to be ordered separately.

Light source
HIT 1000-2000 W

Light distributions
[M] [EE]

Accessories
- **Mounting, page 322**
- **Electrical, page 323**
- **Optical, page 324**

The Auckland Sky Tower. Auckland (NZ). Architect: Gordon Moeller. Lighting design: Modus Lighting, Auckland.

[M]

[EE]

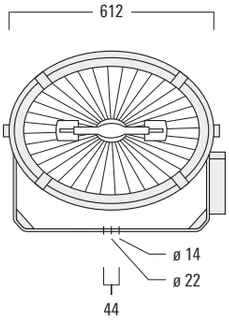
[M] Medium beam distribution, symmetric

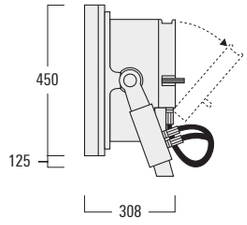
[EE] Very narrow beam distribution, symmetric

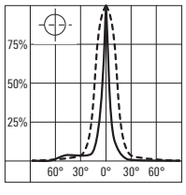
[M]	Part ID	Light source	lm	cd/klm	C_0C_{180}	$C_{90}C_{270}$	kg
FLC280*	139-1204 [IGN]	HIT-SA-DE 1000W K12s-36/Cable	90000	4653	4°/4°	13°/13°	17.2
	139-1205 [IGN]	HIT-SA-DE 2000W K12s-36/Cable	200000	4163	5°/5°	11°/11°	17.2

[EE]	Part ID	Light source	lm	cd/klm	C_0C_{180}	$C_{90}C_{270}$	kg
FLC280*	139-1206 [IGN]	HIT-SA-DE 1000W K12s-36/Cable	90000	10782	4°/4°	6°/6°	17.2
	139-1207 [IGN]	HIT-SA-DE 2000W K12s-36/Cable	200000	9696	4°/4°	5°/5°	17.2

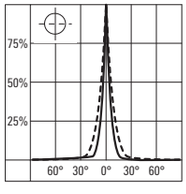
* Ignitor version. Remote HPF gear box made from marine-grade die-cast aluminium alloy or in pole HPF gear tray, to be ordered separately.







[M]



[EE]

FLC200 COLOUR CHANGER SERIES

CMY Colour changer, wide, medium or narrow beam distribution, symmetric.

IP66, Class I. IK07. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016.Silicone rubber gasket. Safety glass lens, hinged. Anodised aluminium reflector. Integral ECG control gear.

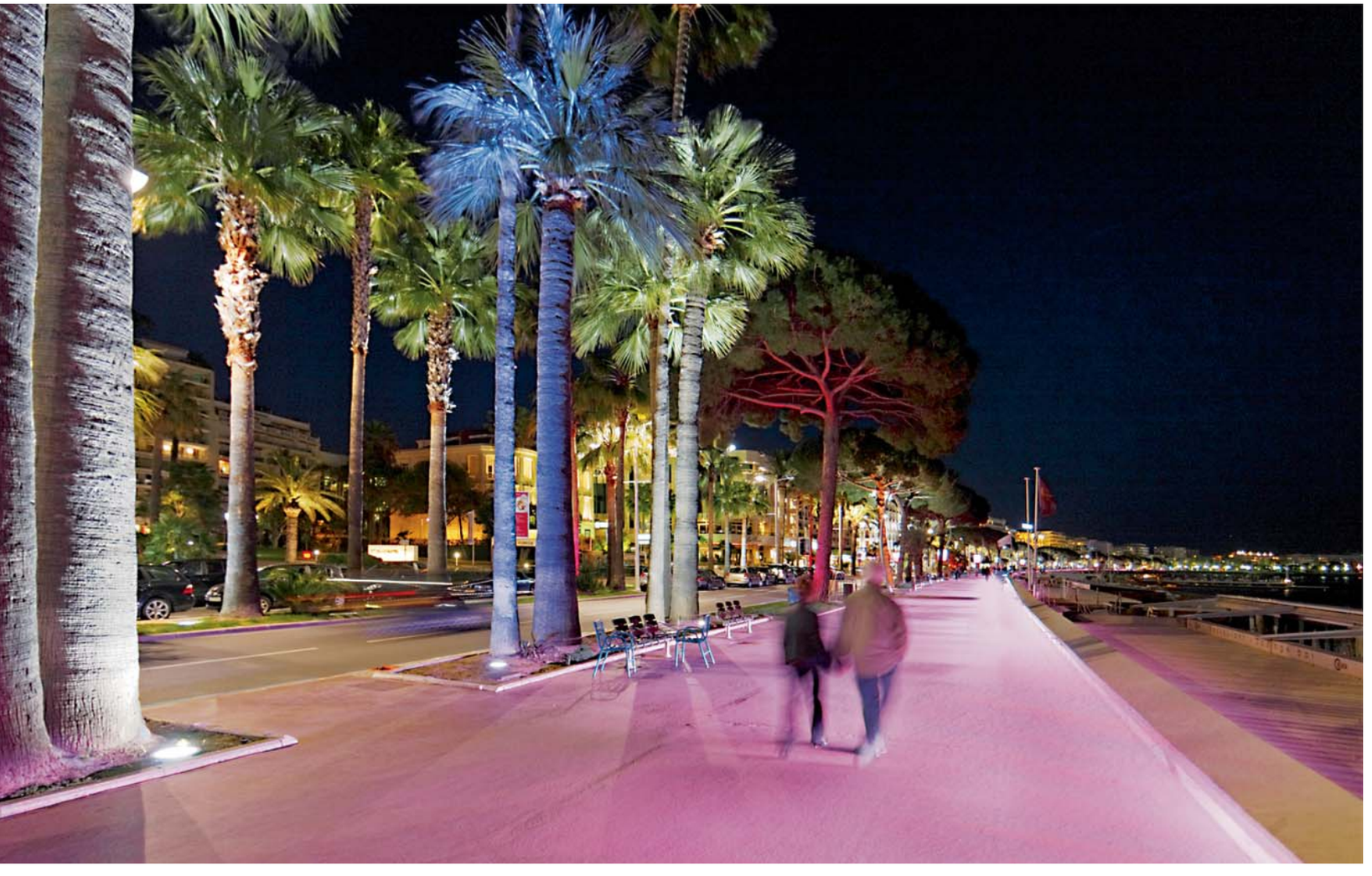
- CMY dichroic colour filters for substractive colour mixing
- Reset function and test program
- Storage of up to 99 scenes and 99 sequences, storage of up to 7 daily programs or 1 weekly program
- Stand alone function and master slave function
- 4 cross fading sequences
- Integrated calendar with timer function and integrated operation hour counter
- DMX in- and output and RJ45 interface
- WE-EF CONTROL® CMY-DMX PC based software supplied

Light source
HIT 150 W

Light distributions
[B] [M] [E]

Accessories

- **Mounting, page 322**
- **Electrical, page 323**
- **Optical, page 324**



La Croisette. Cannes (F). Lighting design: Citelum - ALC-Sogreah.

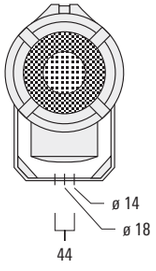
[B] [M] [E]

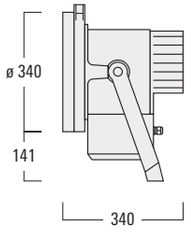
[B] Wide beam distribution, symmetric
[M] Medium beam distribution, symmetric
[E] Narrow beam distribution, symmetric

[B]	Part ID	Light source	lm	cd/klm	C_0C_{180}	kg
FLC254-CC	139-1246 [ECG.DMX]	HIT-CE 150W G12	15000	527	29°/29°	20.5

[M]	Part ID	Light source	lm	cd/klm	C_0C_{180}	kg
FLC254-CC	139-1181 [ECG.DMX]	HIT-CE 150W G12	15000	858	19°/19°	20.5

[E]	Part ID	Light source	lm	cd/klm	C_0C_{180}	kg
FLC254-CC	139-1202 [ECG.DMX]	HIT-CE 150W G12	15000	2241	10°/10°	20.5

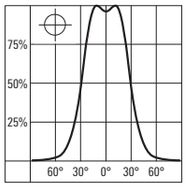




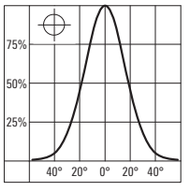
Individual programming via PC or the optional available WE-EF HH1 handheld programmer:

	139-1218 [DMX]	HH1 handheld programmer including RS232 serial cable

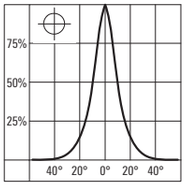
- RS232 serial cable supplied with HH1 handheld
- Storage of up to 999 scenes and 999 sequences
- Storage of up to 99 daily, weekly, monthly or special day programs
- DMX interface



[B]

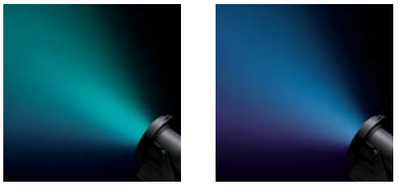


[M]

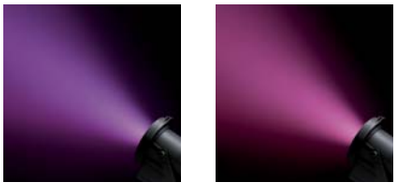


[E]

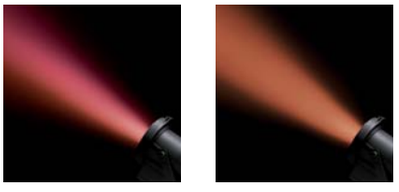
[B]



[M]



[E]



FLC200 GOBO SERIES

Projector, twin aspheric convex lens system including Profile Projector.

IP66, Class I. IK09. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gasket. Safety glass lens, hinged. Anodised aluminium reflector. Twin aspheric, convex lens system for spot distribution.

One cable gland. Second gland for through wiring on request.

Integral HPF control gear.

Light source
HIT 150 W

Light distribution
[BL]

Accessories
■ **Mounting, page 322**

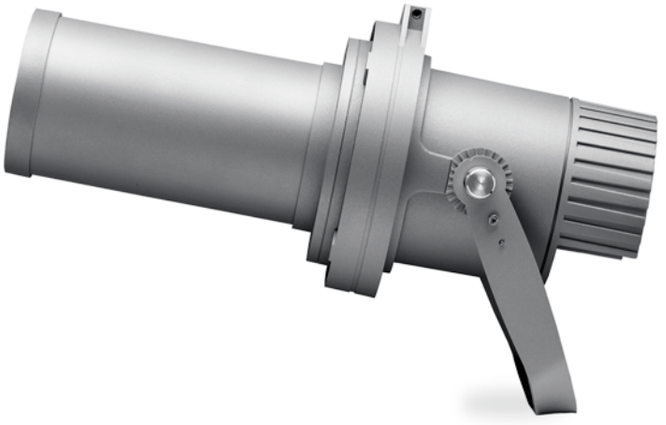
Harpa Concert- and Congress hall, Reykjavik (IS). Architect: Henning Larsen Architects HLA, Kopenhagen (DK) & Batteriid Architects, Hafnarfjordur (IS). Lighting design: Hnit Verkis Consulting Engineers, Reykjavik (IS)

[BL] – ZP

[BL] – GP

[BL] – FP

Profile Projector for Zoom, Gobo or Framing applications



[BL] – ZP	Part ID	Light source	lm	kg
FLC240	139-1412 [HPF]	HIT-CE 150W G12	15000	13.4

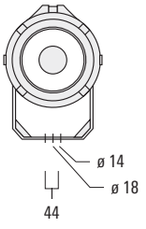
Profile Projector for zoom spot

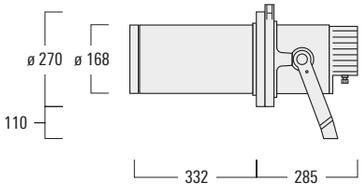
[BL] – GP	Part ID	Light source	lm	kg
FLC240	139-1414 [HPF]	HIT-CE 150W G12	15000	13.4

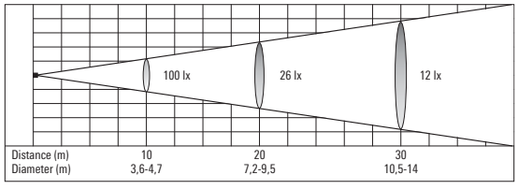
Profile Projector for projection of Gobos on to a surface, Gobo (D = 86 mm) steel or glass on request

[BL] – FP	Part ID	Light source	lm	kg
FLC240	139-1416 [HPF]	HIT-CE 150W G12	15000	13.4

Profile Projector for framing applications, polygon shape







FLC200 COLOUR CHANGER + GOBO SERIES

CMY Colour Changer with Profile Projector.

IP66, Class I. IK09. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gasket. Safety glass lens, hinged. Anodised aluminium reflector. Integral ECG control gear.

- CMY dichroic colour filters for substractive colour mixing
- Reset function and test program
- Storage of up to 99 scenes and 99 sequences, storage of up to 7 daily programs or 1 weekly program
- Stand alone function and master slave function
- 4 cross fading sequences
- Integrated calendar with timer function and integrated operation hour counter
- DMX in- and output and RJ45 interface
- WE-EF CONTROL® CMY-DMX PC based software supplied

Light source
HIT 150 W

Light distribution
[E]

Accessories
- **Mounting, page 322**

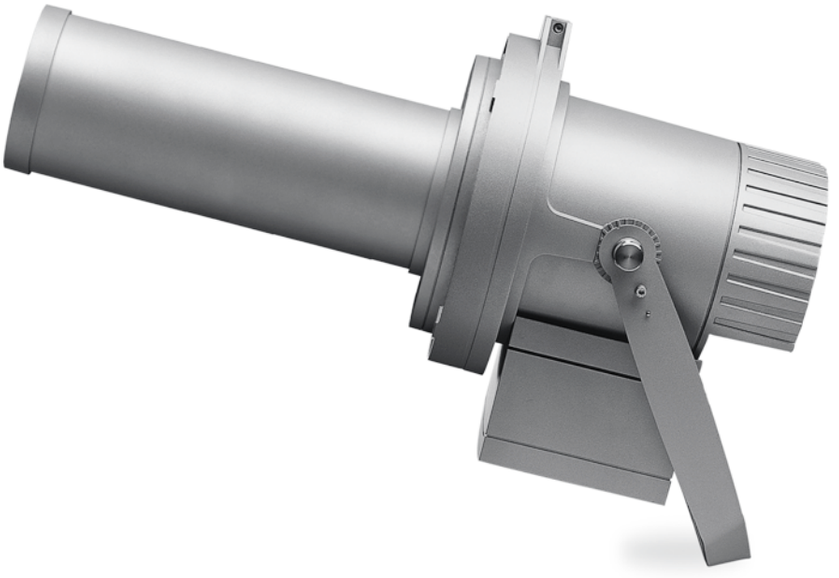
[E] – ZP

[E] – GP

[E] – FP

[E] Narrow beam distribution, symmetric

Profile Projector for Zoom, Gobo or Framing applications



[E] – ZP	Part ID	Light source	lm	kg
FLC254-CC	139-1463 [ECG.DMX]	HIT-CE 150W G12	15000	24.9

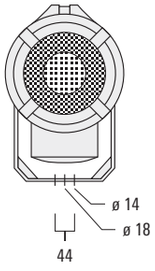
Profile Projector for zoom spot

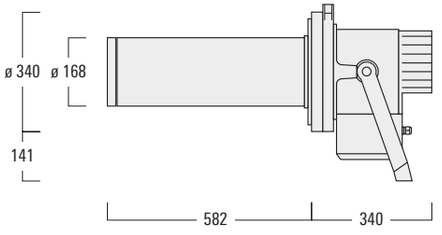
[E] – GP	Part ID	Light source	lm	kg
FLC254-CC [E]–GP	139-1464 [ECG.DMX]	HIT-CE 150W G12	15000	24.9

Profile Projector for projection of Gobos on to a surface, Gobo (D = 86 mm) steel or glass on request

[E] – FP	Part ID	Light source	lm	kg
FLC254-CC [E]–FP	139-1465 [ECG.DMX]	HIT-CE 150W G12	15000	24.9

Profile Projector for framing applications, polygon shape

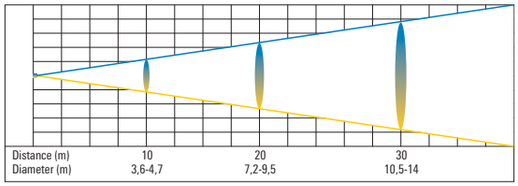




Individual programming via PC or the optional available WE-EF HH1 handheld programmer:

	Part ID	
	139-1218 [DMX]	HH1 handheld programmer including RS232 serial cable

- RS232 serial cable supplied with HH1 handheld
- Storage of up to 999 scenes and 999 sequences
- Storage of up to 99 daily, weekly, monthly or special day programs
- DMX interface



MOUNTING ACCESSORIES – FLC200 SERIES

Marine-grade aluminium construction. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016.

Short post				kg
for FLC220 – FLC260	270-9038	EM1-M16	Short post	2.2
for FLC280	270-9039	EM1-M20	Short post	2.2

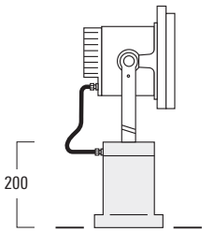
Matching planted root to be ordered separately:

Planted root for short post				kg
for FLC200 Series	300-0461	ESV4	Planted root	4.4

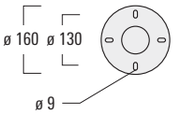
Galvanised steel

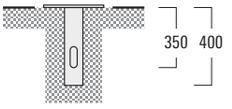
Ground spike				kg
for FLC210	139-1603	EF1	Ground spike	0.2

Stainless steel, including 5 m of flexible cable and plug

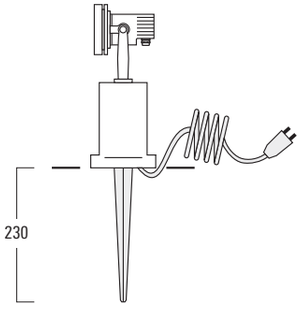


Short post EM1



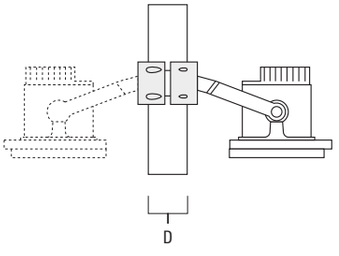


Planted root ESV4



Ground spike EF1

Pole clamps TS Series				D	kg
for FLC230	147-0371	TS1-2/M10	Pole clamp	ø 76-89	1.4
	147-0372	TS1-2/M10	Pole clamp	ø 102-114	1.5
	147-0373	TS2-2/M10	Pole clamp	ø 76-89	1.4
	147-0374	TS2-2/M10	Pole clamp	ø 102-114	1.6
for FLC220, FLC240–FLC260	147-0543	TS1-2/M12	Pole clamp	ø 76-89	1.4
	147-0526	TS1-2/M12	Pole clamp	ø 102-114	1.5
	147-0544	TS1-2/M12	Pole clamp	ø 114-133	1.7
	147-0545	TS2-2/M12	Pole clamp	ø 76-89	1.4
	147-0527	TS2-2/M12	Pole clamp	ø 102-114	1.5
	147-0546	TS2-2/M12	Pole clamp	ø 114-133	1.6
for FLC280	147-0547	TS1-2/M12	Pole clamp	ø 76-89	1.5
	147-0551	TS1-2/M12	Pole clamp	ø 102-114	1.6
	147-0548	TS1-2/M12	Pole clamp	ø 114-133	1.8
	147-0549	TS2-2/M12	Pole clamp	ø 76-89	1.5
	147-0552	TS2-2/M12	Pole clamp	ø 102-114	1.6
	147-0550	TS2-2/M12	Pole clamp	ø 114-133	1.7



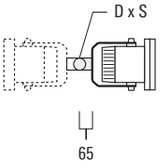
Pole clamps TS1/TS2

Hot dipped galvanised steel. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016.

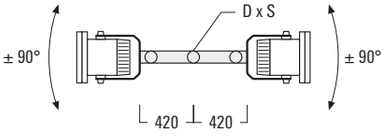
Mounting brackets TA Series				D x S	kg
for FLC220 – 280	147-0023	TA1*	Mounting bracket	ø 76 x 200	1.9
	147-0024	TA2*	Mounting bracket	ø 76 x 200	1.9
	147-0105	TA2-L	Mounting bracket	ø 76 x 200	16.1
	147-0025	TA3	Mounting bracket	ø 89 x 200	20.8
	147-0099	TA4	Mounting bracket	ø 89 x 200	20.8

*Mounting brackets TA1 und TA2 made from marine-grade aluminium.

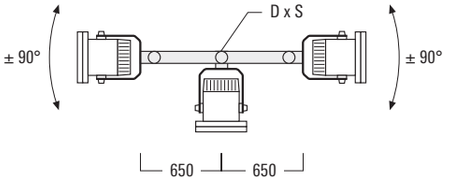
for FLC220 – 280	147-0096	TA1	Mounting bracket	ø 108 x 200	7.5
	147-0097	TA2	Mounting bracket	ø 108 x 200	7.5
	147-0148	TA2-L	Mounting bracket	ø 108 x 200	20.2
	147-0098	TA3	Mounting bracket	ø 108 x 200	24.2
	147-0100	TA4	Mounting bracket	ø 108 x 200	24.2



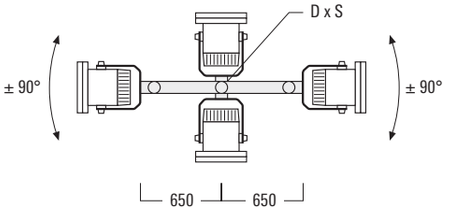
Mounting bracket TA1/TA2



Mounting bracket TA2-L



Mounting bracket TA3

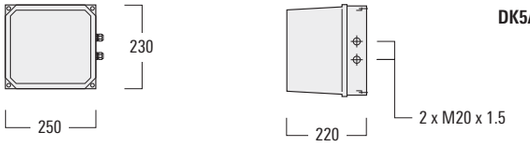


Mounting bracket TA4

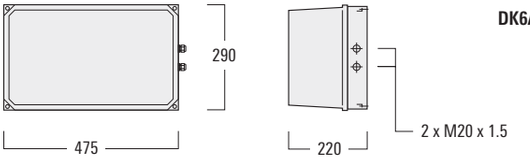
ELECTRICAL ACCESSORIES – FLC200 SERIES

Gear boxes				kg
for HI 1000W	400-0121 [HPF]	DK5A	~ 230V / 9.30-9.60A	13.0
for HI 2000W	400-0271 [HPF]	DK6A	~ 400V / 9.60-11.30A	18.4

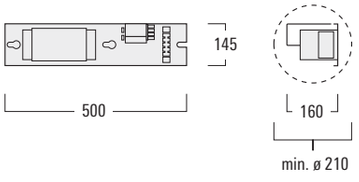
In pole gear trays				kg
for HI 1000W	400-0301 [HPF]	PT110 with 1 fuse E14	~ 230V / 9.30-9.60A	16.6
for HI 2000W	400-0180 [HPF]	PT110 with 2 fuses E14	~ 400V / 9.60-11.30A	16.6



DK5A



DK6A



PT110

OPTICAL ACCESSORIES – FLC200 SERIES

Internal Accessories

A maximum of one internal optical accessory.

Flood lens IO-360

for FLC220	139-1850
for FLC240	139-1856
for FLC260	139-1862

Linear spread lens IO-180

for FLC220	139-1849
for FLC240	139-1855
for FLC260	139-1861

Wallwash lens IO-20*

for FLC220	139-1848
for FLC240	139-1854
for FLC260	139-1860

Honeycomb louvre IW

for FLC220	139-1851
for FLC240	139-1857
for FLC260	139-1863

* ideal for uniform wall washing applications

External Accessories

A maximum of one external optical accessory.

Glare shield ES

for FLC220	139-1852
for FLC240	139-1858
for FLC260	139-1864

Snoot ET

for FLC220	139-1853
for FLC240	139-1859
for FLC260	139-1865

OPTICAL ACCESSORIES – FLC200 SERIES

Internal Accessories

FLC210: A maximum of one internal optical accessory..

FLC230: A maximum of two internal optical accessories.

FLC240/250: A maximum of two internal optical accessories.

FLC280: A maximum of one internal optical accessory.

External Accessories

FLC210/230/240/250/254-CC: A maximum of one external optical accessory.

FLC280: A maximum of one optical accessory such as colour filter, flood or spread lens, wire guard, glare shield or snoot (combinations available on request).

Optical adapter to be ordered separately.

Flood lens IO-360	
for FLC210	139-0837
for FLC230	139-1115
for FLC240	139-0861
for FLC250	139-0862

Linear spread lens IO-180	
for FLC210	139-0836
for FLC230	139-1114
for FLC240	139-0863
for FLC250	139-0864

Colour filter IF	**red**	**green**	**blue**	**yellow**
for FLC210	139-0832	139-0833	139-0834	139-0835
for FLC230	139-1116	139-1117	139-1118	139-1119
for FLC240	139-0865	139-0866	139-0867	139-0868
for FLC250	139-0869	139-0870	139-0871	139-0872

Circular louvre IR	
for FLC240	139-0726
for FLC250	139-0715
for FLC280	139-1228

Source shield IQ – only for versions with single-ended HID lamps	
for FLC230 [EE]	139-1219
for FLC240 [EE]	139-0714
for FLC250 [EE]	139-1242

Flood lens EO-360*	
for FLC280	139-1227

Linear spread lens EO-180*	
for FLC280	139-1226

Colour filter EF*	**red**	**green**	**blue**	**yellow**
for FLC280	139-1238	139-1239	139-1240	139-1241

External optical Adaptor EA	
for FLC280	139-1233

Wire guard EG	
for FLC230	139-1222
for FLC240	139-0707
for FLC250 / FLC254-CC	139-0708
for FLC280	139-1229

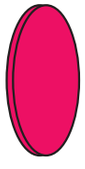
Glare shield ES	
for FLC210	139-1008
for FLC230	139-1221
for FLC240	139-0709
for FLC250 / FLC254-CC	139-0710
for FLC280	139-1230

Snoot ET	
for FLC230	139-1223
for FLC240	139-0711
for FLC250 / FLC254-CC	139-0712
for FLC280	139-1231

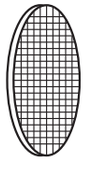
* external optical adaptor EA required, to be ordered separately

IQ

IR



IF



IO

Frame

EG

ES

ET

IOS® Beam distributions for floodlights

[B] wide beam, bi-symmetric
[M] medium beam, bi-symmetric
[E] narrow beam, bi-symmetric
[E10] narrow beam, 10° asymmetric
[A45] wide beam, 45° asymmetric

Floodlights

FLB100 SERIES

Bracket mounted floodlight, narrow or wide beam distribution, asymmetric.

IP55, Class I. IK08. Marine-grade die-cast aluminium alloy except outreach arm which is extruded. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gaskets. Safety glass lens, hinged. Anodised aluminium reflector. Two cable entries.

ECG control gear, thermally separated.

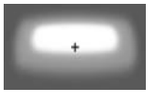
Knuckle permits 350° horizontal and 90° vertical aiming of optics.

Light source
HIT 70-150 W

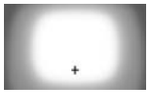
Light distributions
[E10] [A45]

Accessories
■ **Optical, page 338**

East Falls Bridge. Philadelphia, PA (USA). Lighting design: Grenald Waldraon Associates, Narberth, PA.



[E10]

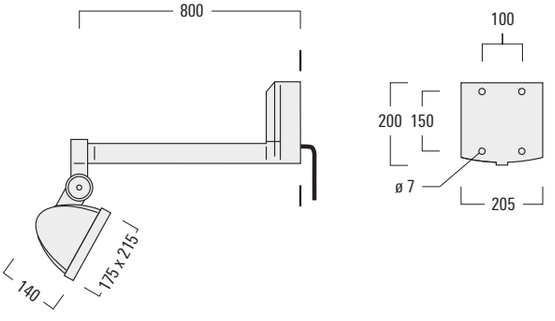


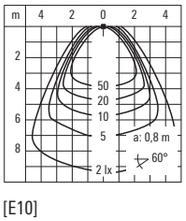
[A45]

[E10] Narrow beam distribution, 10° asymmetric
[A45] Wide beam distribution, 45° asymmetric

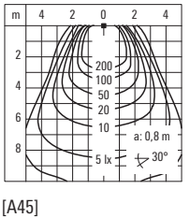
[E10]	Part ID	Light source	lm	Factor*	kg
FLB141	161-9162 [ECG]	HIT-DE-CE 70W RX7s	6800	1.00	7.7
	161-9166 [ECG]	HIT-DE-CE 150W RX7s	14500	2.13	7.9

[A45]	Part ID	Light source	lm	Factor*	kg
FLB141	161-9284 [ECG]	HIT-DE-CE 70W RX7s	6800	1.00	7.7
	161-9288 [ECG]	HIT-DE-CE 150W RX7s	14500	2.13	7.9





[E10]



[A45]

* Multiplier for Isolux value

FLB400 SERIES

Floodlight, wide, medium, narrow beam distribution, bi-symmetric or narrow, wide beam distribution, asymmetric.

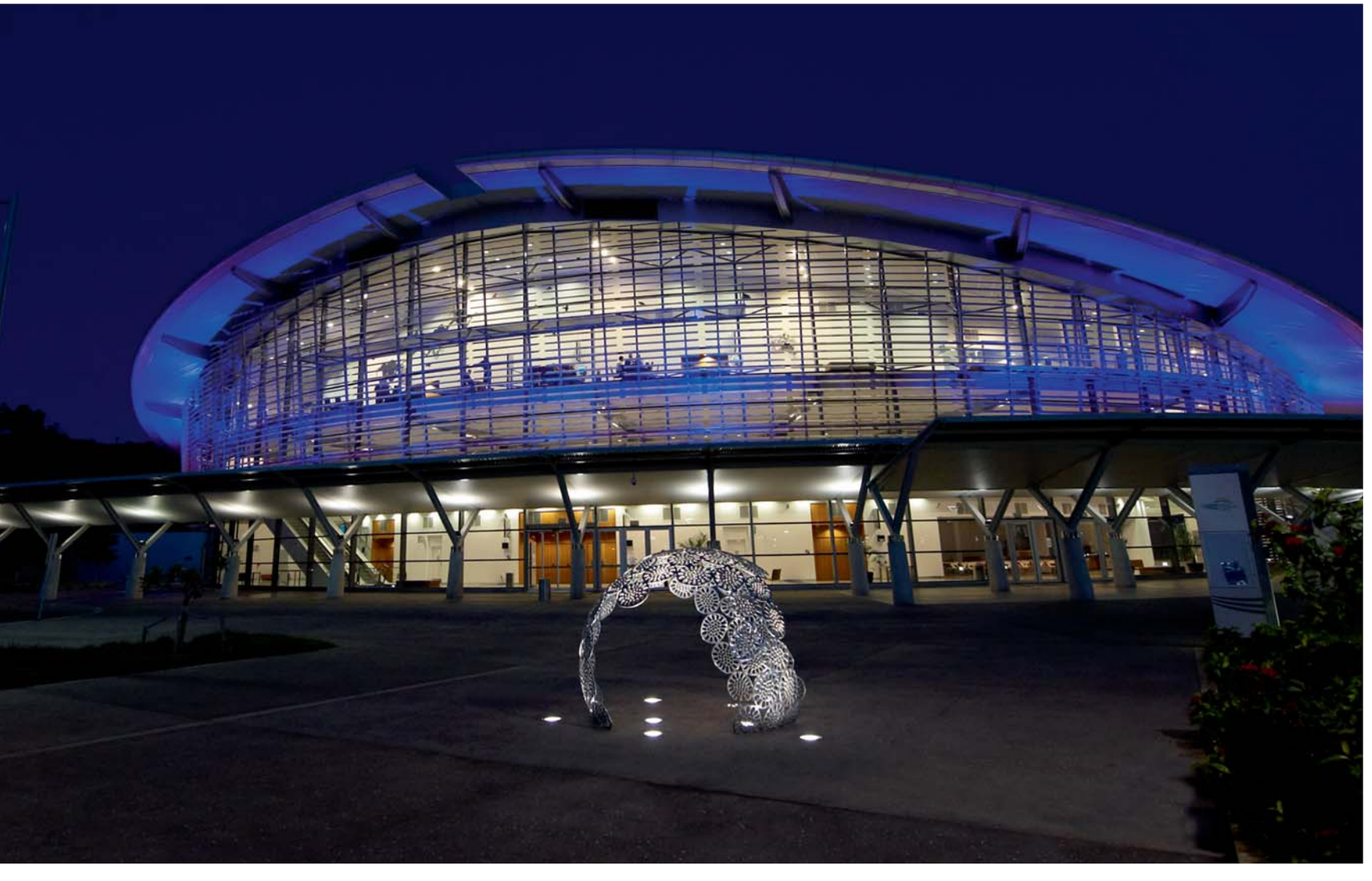
IP66, Class I. IK08. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gaskets. Safety glass lens, hinged. Anodised aluminium reflector.

HPF or ECG control gear (70-400 W), thermally separated up to 1000 W.
For 2000 W, remote HPF gear box made from marine-grade die-cast aluminium alloy or in pole HPF gear tray, to be ordered separately.

Light source
HIT 70-2000 W
HST 70-1000 W

Light distributions
[B] [M] [E] [E10] [A45]

Accessories
- **Mounting, page 336**
- **Electrical, page 337**
- **Optical, page 338**

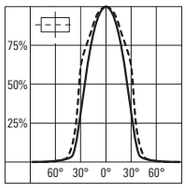


Darwin Convention Centre. Darwin (AUS)

[B] Wide beam distribution, bi-symmetric

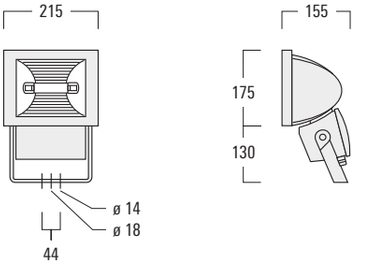
[B]	Part ID	Light source	lm	cd/klm	C_0C_{180}	$C_{90}C_{270}$	kg
FLB440	161-9252 [HPF]	HIT-DE-CE 70W RX7s	6800	638	26°/26°	32°/32°	6.1
	161-9748 [ECG]	HIT-DE-CE 70W RX7s	6800	638	26°/26°	32°/32°	5.0
	161-9255 [HPF]	HIT-DE-CE 150W RX7s	14500	665	25°/25°	32°/32°	6.6
	161-9258 [HPF]	HST-DE-X4 70W RX7s	6800	675	26°/26°	31°/31°	6.2
	161-9261 [HPF]	HST-DE-X4 150W RX7s	15000	622	25°/25°	31°/31°	6.1
FLB460	161-9832 [HPF]	HIT-CE 250W E40	26000	642	22°/35°	37°/37°	14.1
	161-9835 [HPF]	HIT 400W E40	35000	566	24°/39°	36°/36°	16.3
	161-9861 [HPF]	HST-X4 250W E40	33200	533	29°/34°	39°/39°	14.1
	161-9864 [HPF]	HST-X4 400W E40	56500	562	28°/33°	36°/36°	16.3
FLB480	148-9018 [IGN]*	HIT-LA-DE 1000W K12s-36/Cable	100000	693	20°/18°	41°/41°	16.4
	148-9020 [IGN]*	HIT-LA-DE 2000W K12s-36/Cable	220000	628	23°/25°	42°/42°	16.4
	148-9022 [IGN]*	HST 1000W E40	130000	648	21°/19°	39°/39°	14.9

* Remote HPF gear box made from marine-grade die-cast aluminium alloy or in pole HPF gear tray, to be ordered separately.

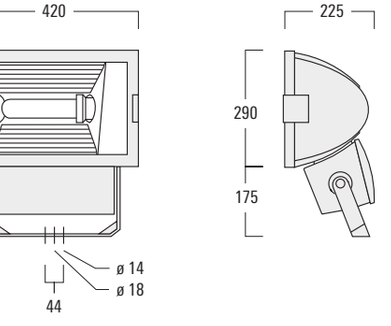


[B]

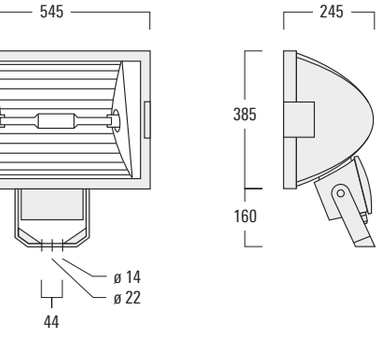
FLB440 [B]



FLB460 [B]



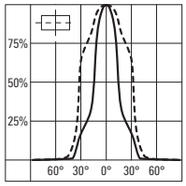
FLB480 [B]



[M] Medium beam distribution, bi-symmetric

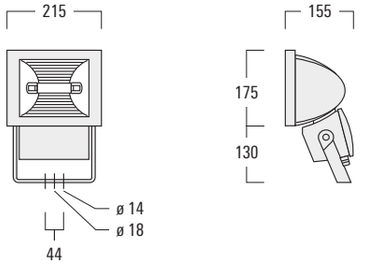
[M]	Part ID	Light source	lm	cd/klm	C_0C_{180}	$C_{90}C_{270}$	kg
FLB440	161-9183 [HPF]	HIT-DE-CE 70W RX7s	6800	1011	15°/15°	32°/32°	6.1
	161-9239 [ECG]	HIT-DE-CE 70W RX7s	6800	1011	15°/15°	32°/32°	5.0
	161-9186 [HPF]	HIT-DE-CE 150W RX7s	14500	926	16°/16°	32°/32°	6.6
	161-9192 [HPF]	HST-DE-X4 70W RX7s	6800	971	14°/14°	31°/31°	6.1
	161-9195 [HPF]	HST-DE-X4 150W RX7s	15000	897	15°/15°	31°/31°	6.6
FLB460	161-9323 [HPF]	HIT-CE 250W E40	26000	786	27°/10°	37°/37°	14.1
	161-9326 [HPF]	HIT 400W E40	35000	781	15°/23°	37°/37°	16.3
	161-9350 [HPF]	HST-X4 250W E40	33200	829	13°/21°	36°/36°	14.1
	161-9353 [HPF]	HST-X4 400W E40	56500	854	14°/18°	36°/36°	16.3
FLB480	148-9048 [IGN]*	HIT-LA-DE 1000W K12s-36/Cable	100000	842	16°/15°	40°/40°	16.4
	148-9050 [IGN]*	HIT-LA-DE 2000W K12s-36/Cable	220000	791	18°/15°	41°/41°	16.4
	148-9052 [IGN]*	HST 1000W E40	130000	828	15°/13°	38°/38°	16.4

* Remote HPF gear box made from marine-grade die-cast aluminium alloy or in pole HPF gear tray, to be ordered separately.

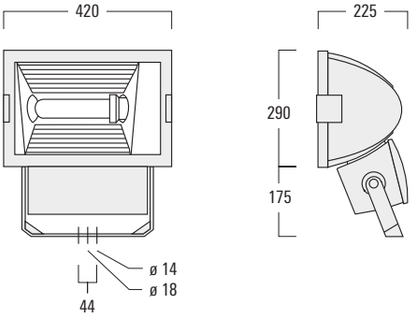


[M]

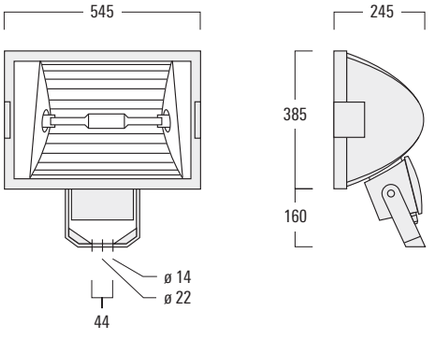
FLB440 [M]

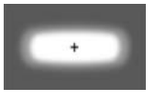


FLB460 [M]



FLB480 [M]

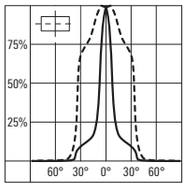




[E] Narrow beam distribution, bi-symmetric

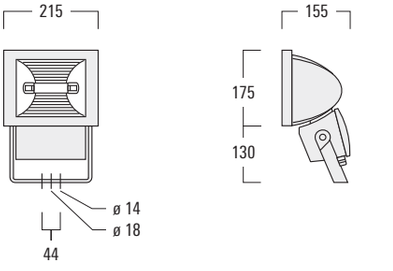
[E]	Part ID	Light source	lm	cd/klm	C_0C_{180}	$C_{90}C_{270}$	kg
FLB440	161-9201 [HPF]	HIT-DE-CE 70W RX7s	6800	1716	7°/7°	33°/33°	6.1
	161-9243 [ECG]	HIT-DE-CE 70W RX7s	6800	1716	7°/7°	33°/33°	5.0
	161-9204 [HPF]	HIT-DE-CE 150W RX7s	14500	1426	9°/9°	33°/33°	6.6
	161-9210 [HPF]	HST-DE-X4 70W RX7s	6800	1770	6°/6°	32°/32°	6.1
	161-9213 [HPF]	HST-DE-X4 150W RX7s	15000	1564	7°/7°	32°/32°	6.6
FLB460	161-9392 [HPF]	HIT-CE 250W E40	26000	1168	7°/5°	38°/38°	14.1
	161-9395 [HPF]	HIT 400W E40	35000	1132	6°/7°	36°/36°	16.3
	161-9419 [HPF]	HST-X4 250W E40	33200	1272	6°/6°	40°/40°	14.1
	161-9422 [HPF]	HST-X4 400W E40	56500	1028	9°/6°	34°/34°	16.3
FLB480	148-9078 [IGN]*	HIT-LA-DE 1000W K12s-36/Cable	100000	1360	6°/6°	41°/41°	16.4
	148-9080 [IGN]*	HIT-LA-DE 2000W K12s-36/Cable	220000	1820	5°/4°	41°/41°	16.4
	148-9082 [IGN]*	HST 1000W E40	130000	1905	4°/4°	38°/38°	14.9

* Remote HPF gear box made from marine-grade die-cast aluminium alloy or in pole HPF gear tray, to be ordered separately.

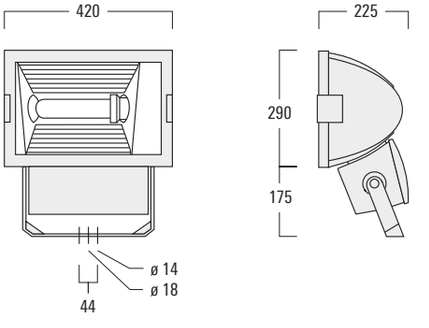


[E]

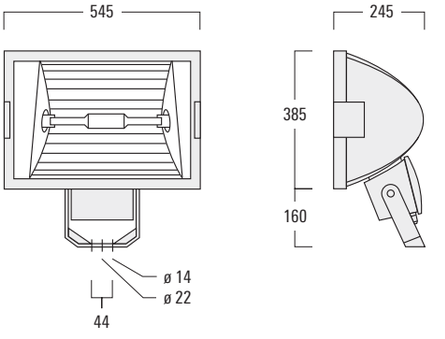
FLB440 [E]

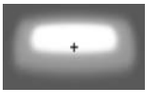


FLB460 [E]



FLB480 [E]

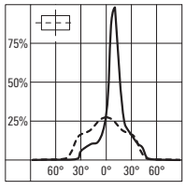




[E10] Narrow beam distribution, 10° asymmetric

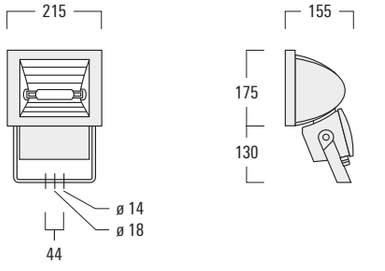
[E10]	Part ID	Light source	lm	cd/klm	C_0C_{180}	$C_{90}C_{270}$	kg
FLB440	161-9219 [HPF]	HIT-DE-CE 70W RX7s	6800	1645	5°/9°	34°/34°	6.1
	161-9726 [ECG]	HIT-DE-CE 70W RX7s	6800	1645	5°/9°	34°/34°	5.0
	161-9222 [HPF]	HIT-DE-CE 150W RX7s	14500	1128	8°/12°	34°/34°	6.6
	161-9228 [HPF]	HST-DE-X4 70W RX7s	6800	1492	4°/9°	32°/32°	6.1
	161-9231 [HPF]	HST-DE-X4 150W RX7s	15000	1392	6°/10°	33°/33°	6.6
FLB460	161-9440 [HPF]	HIT-DE 250W Fc2	20000	1801	7°/6°	44°/44°	14.1
	161-9443 [HPF]	HIT-DE 400W Fc2	36000	1591	7°/7°	44°/44°	16.3
	161-9452 [HPF]	HST-DE 250W Fc2	25500	1583	6°/6°	45°/45°	14.1
	161-9455 [HPF]	HST-DE 400W Fc2	48000	1683	6°/6°	45°/45°	16.3
FLB480	148-9096 [IGN]*	HIT-LA-DE 1000W K12s-36/Cable	100000	1801	7°/6°	44°/44°	16.4
	148-9098 [IGN]*	HIT-LA-DE 2000W K12s-36/Cable	220000	1591	7°/7°	44°/44°	16.4

* Remote HPF gear box made from marine-grade die-cast aluminium alloy or in pole HPF gear tray, to be ordered separately.

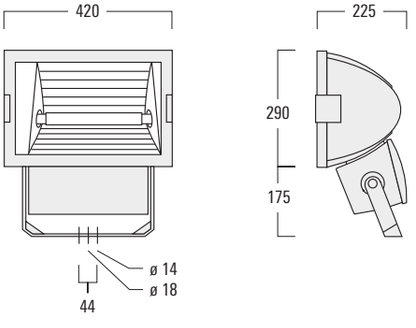


[E10]

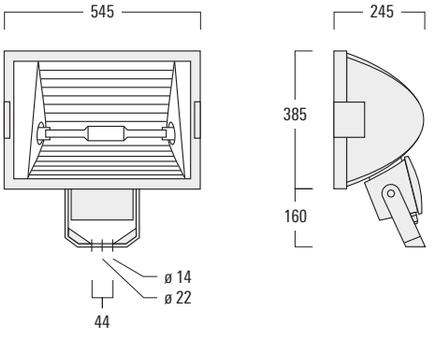
FLB440 [E10]

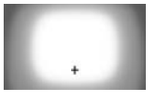


FLB460 [E10]



FLB480 [E10]

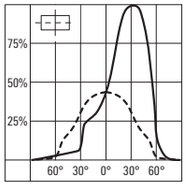




[A45] Wide beam distribution, 45° asymmetric

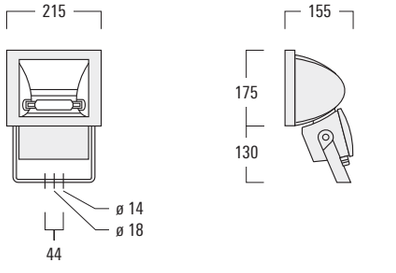
[A45]	Part ID	Light source	lm	cd/klm	C_0C_{180}	$C_{90}C_{270}$	kg
FLB440	161-9732 [HPF]	HIT-DE-CE 70W RX7s	6800	478	30°/22°	38°/38°	6.1
	161-9745 [ECG]	HIT-DE-CE 70W RX7s	6800	478	30°/22°	38°/38°	5.0
	161-9735 [HPF]	HIT-DE-CE 150W RX7s	14500	442	25°/26°	40°/40°	6.6
	161-9738 [HPF]	HST-DE-X4 70W RX7s	6800	518	27°/25°	40°/40°	6.1
	161-9741 [HPF]	HST-DE-X4 150W RX7s	15000	501	28°/22°	38°/38°	6.6
FLB460	161-9461 [HPF]	HIT-DE 250W Fc2	20000	381	37°/31°	53°/53°	14.1
	161-9464 [HPF]	HIT-DE 400W Fc2	36000	392	35°/33°	48°/48°	16.3
	161-9470 [HPF]	HST-DE 250W Fc2	25500	407	42°/27°	46°/46°	14.1
	161-9473 [HPF]	HST-DE 400W Fc2	48000	408	47°/22°	46°/46°	16.3
FLB480	148-9106 [IGN]*	HIT-LA-DE 1000W K12s-36/Cable	100000	381	27°/31°	53°/53°	16.4
	148-9108 [IGN]*	HIT-LA-DE 2000W K12s-36/Cable	220000	392	35°/33°	48°/48°	16.4

* Remote HPF gear box made from marine-grade die-cast aluminium alloy or in pole HPF gear tray, to be ordered separately.

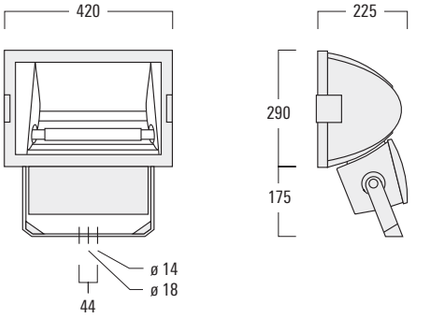


[A45]

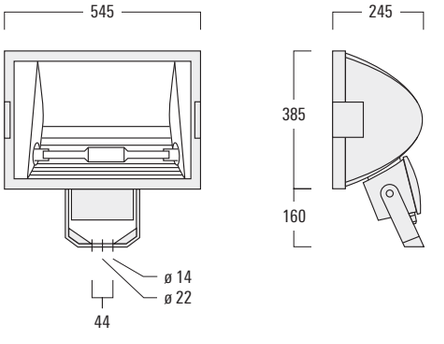
FLB440 [A45]



FLB460 [A45]



FLB480 [A45]



MOUNTING ACCESSORIES – FLB400 SERIES

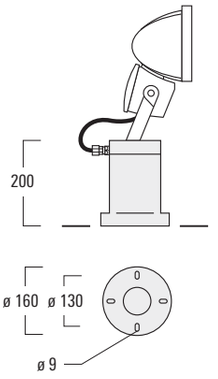
Marine-grade aluminium construction. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016.

Short post					kg
for FLB440 / 460	270-9038	EM1-M16	Short post		2.0
for FLB480	270-9039	EM1-M20	Short post		2.0

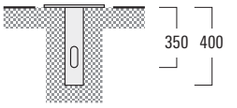
Matching planted root to be ordered separately:

Planted root for short post					kg
for FLB400 Series	300-0461	ESV4	Planted root		4.4

Galvanised steel

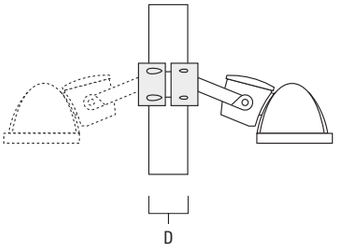


Short post EM1



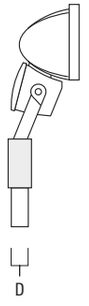
Planted root ESV4

Pole clamps				D	kg
for FLB440 / 460	147-0543	TS1-2/M12	Pole clamp	76-89	1.4
	147-0526	TS1-2/M12	Pole clamp	102-114	1.5
	147-0544	TS1-2/M12	Pole clamp	114-133	1.7
	147-0545	TS2-2/M12	Pole clamp	76-89	1.4
	147-0527	TS2-2/M1	Pole clamp	102-114	1.5
	147-0546	TS2-2/M12	Pole clamp	114-133	1.6
for FLB480	147-0547	TS1-2/M12	Pole clamp	76-89	1.5
	147-0551	TS1-2/M12	Pole clamp	102-114	1.6
	147-0548	TS1-2/M12	Pole clamp	114-133	1.8
	147-0549	TS2-2/M12	Pole clamp	76-89	1.5
	147-0552	TS2-2/M12	Pole clamp	102-114	1.6
	147-0550	TS2-2/M12	Pole clamp	114-133	1.7



Pole clamp TS1/TS2

Spigot caps				D	kg
for FLB440 / 460	300-0198	KF1-M16	Spigot cap	60	0.5
	300-0201	KF1-M16	Spigot cap	76	0.5
	300-0203	KF1-M16	Spigot cap	89	0.5
	300-0207	KF1-M16	Spigot cap	108	0.5

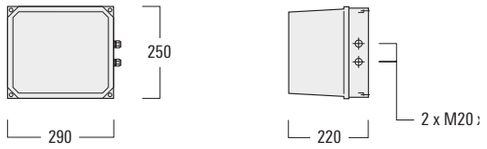


Spigot cap KF1

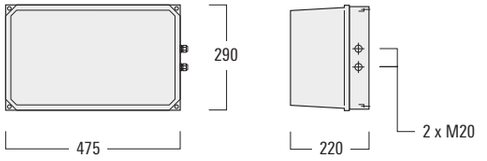
ELECTRICAL ACCESSORIES – FLB400 SERIES

Gear boxes				kg
for HI 1000W	400-0121 [HPF]	DK5A	~ 230V / 9.30-9.60A	13.0
for HS 1000W	400-0126 [HPF]	DK5A	~ 230V / 10.30A	13.0
for HI 2000W	400-0271 [HPF]	DK6A	~ 400V / 9.60-11.30A	18.4

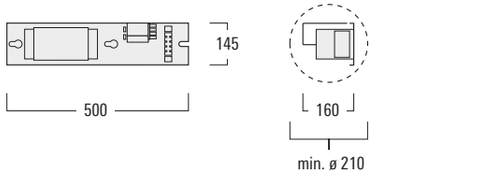
In pole gear trays				kg
for HI 1000W	400-0301 [HPF]	PT110 with 1 fuse D01	~ 230V / 9.30-9.60A	16.6
for HS 1000W	400-0173 [HPF]	PT110 with 1 fuse D01	~ 230V / 10.30A	16.6
for HI 2000W	400-0180 [HPF]	PT110 with 2 fuses D01	~ 400V / 9.60-11.30A	16.6



DK5A



DK6A



PT110

OPTICAL ACCESSORIES

Internal

FLB141 / FLB440 / FLB460: A maximum of two internal optical accessories.

The optical adaptor IA has to be ordered separately. Refer to accessories as marked* to determine need for optical adaptor.

FLB480: A maximum of one internal optical accessory.

Flood lens IO-360*	
for FLB141 [E10]	161-9127
for FLB440 [M] [E] [E10]	161-9127
for FLB460 [M] [E] [E10]	161-9548

Wallwash lens IO*	
for FLB141 [E10]	161-9126
for FLB440 [M] [E] [E10]	161-9126
for FLB460 [M] [E] [E10]	161-9547

Colour filter IF*/**	**red**	**green**	**blue**	**yellow**
for FLB141	161-9131	161-9129	161-9128	161-9130
for FLB440	161-9131	161-9129	161-9128	161-9130
for FLB460	161-9552	161-9550	161-9549	161-9551

Horizontal louvre IL	
for FLB440 [B] [M]	161-9116*
for FLB460 [B] [M]	161-9563
for FLB480 [B] [M]	148-9230
for FLB440 [E]	161-9113*
for FLB460 [E]	161-9544
for FLB480 [E]	148-9231

Linear source shield IQ	
for FLB440 [E]	161-9117*
for FLB460 [E]	161-9555
for FLB480 [E]	148-9226

Internal optical adapter IA	
for FLB141	161-9115
for FLB440	161-9115
for FLB460	161-9546

External

FLB141 / FLB440 / FLB460: A maximum of one external optical accessory.

FLB480: A maximum of three external accessories.

Flood lens EO-360	
for FLB480 [M] [E] [E10]	148-9237

Wallwash lens EO	
for FLB480 [M] [E] [E10]	148-9236

Colour filter EF**	**red**	**green**	**blue**	**yellow**
for FLB480	148-9240	148-9241	148-9242	148-9243

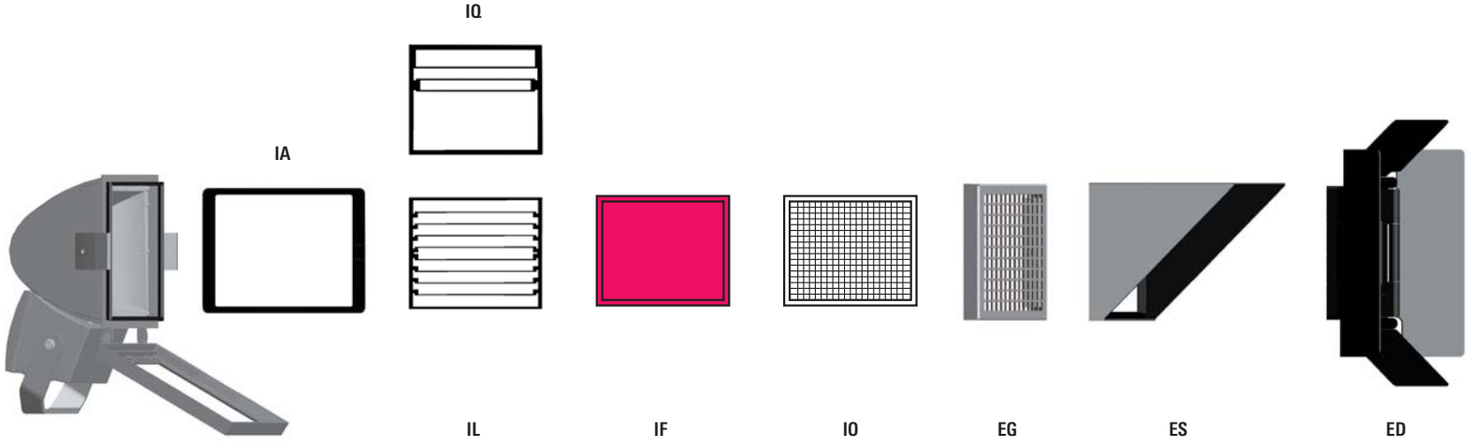
Wire guard EG	
for FLB141	161-9118
for FLB440	161-9118
for FLB460	161-9556
for FLB480	148-9260

Glare shield ES	
for FLB141	161-9121
for FLB440 [B] [M] [E]	161-9121
for FLB460 [B] [M] [E]	161-9558
for FLB480 [B] [M] [E]	148-9262

Barn doors ED	
for FLB141	161-9119
for FLB440	161-9119
for FLB460	161-9557
for FLB480	148-9266

* Requires optical adaptor IA which has to be ordered separately.

** Dichroic colour filters, in combination with bi-symmetric or asymmetric reflectors, exhibit a pronounced 'rainbow effect'.
If this is not suitable, contact your local WE-EF representative for optional absorption colour filters.



Darwin Convention Centre. Darwin (AUS)

IOS® Beam distributions for area floodlights

[S60] streetlighting
[S65] streetlighting
[A60] forward throw, asymmetric
[R65] rectangular forward throw

Area floodlights

FLA700 SERIES

Floodlight, side or forward throw distribution, asymmetric.

IP66, Class I. IK08. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gaskets. Safety glass lens, hinged.

Protractor scale for accurate aiming from 0° to 15° above horizontal.

Integral EC electronic converter.

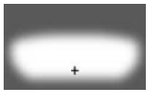
Factory installed LED circuit board. LED boards can be easily removed for upgrading. PMMA OLC® LED lenses for superior illumination and glare control.

Recommended mounting height 2.5-12.0 m, depending on lamp type selected.

Light source
LED 24-72 W, 4000 K,
for 3000 K refer to www.we-ef.com

Light distributions
[S65] [A60] [R65]

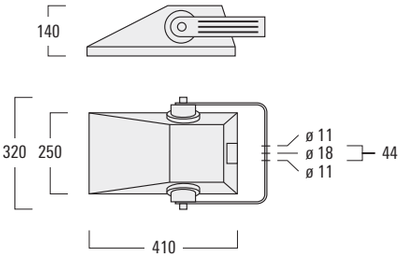
Accessories
■ **Mounting, page 352**



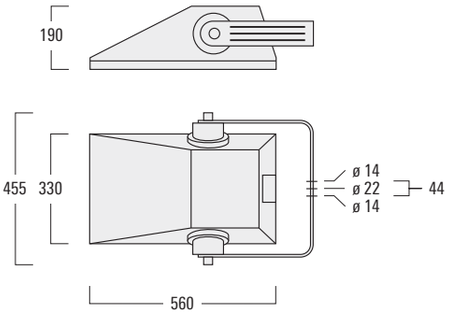
[S65] Streetlighting distribution

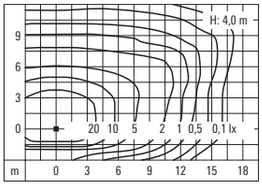
[S65]	Part ID	Light source	K	lm*	Factor**	kg
FLA730	147-0686	12 LED 24W / 700 mA	4000	2951	1.00	7.4
	147-0716	18 LED 36W / 700 mA	4000	4427	1.50	7.4
	147-0704	12 LED 36W / 1050mA	4000	5400	1.83	7.4
	147-0692	18 LED 54W / 1050 mA	4000	8100	2.75	7.4
FLA740	147-0710	18 LED 36W / 700 mA	4000	4427	1.50	9.6
	147-0722	24 LED 48W / 700 mA	4000	5903	2.00	9.6
	147-0698	18 LED 54W / 1050 mA	4000	8100	2.75	9.6
	147-0680	24 LED 72W / 1050 mA	4000	10800	3.66	9.6

FLA730



FLA740

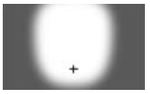




[S65]

* Nominal lumen output based on LED manufacturers data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

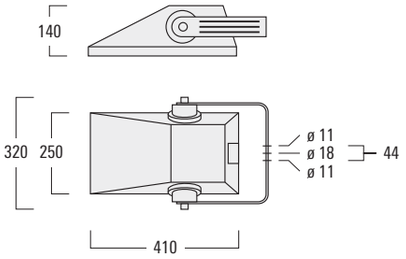
** Multiplier for Isolux value



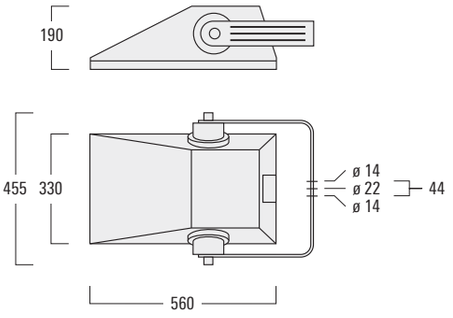
[A60] Forward throw distribution, asymmetric

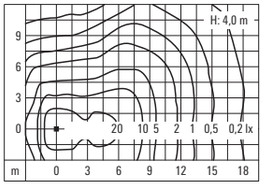
[A60]	Part ID	Light source	K	lm*	Factor**	kg
FLA730	147-0690	12 LED 24W / 700 mA	4000	2951	1.00	7.4
	147-0720	18 LED 36W / 700 mA	4000	4427	1.50	7.4
	147-0708	12 LED 36W / 1050mA	4000	5400	1.83	7.4
	147-0696	18 LED 54W / 1050 mA	4000	8100	2.75	7.4
FLA740	147-0714	18 LED 36W / 700 mA	4000	4427	1.50	9.6
	147-0726	24 LED 48W / 700 mA	4000	5903	2.00	9.6
	147-0702	18 LED 54W / 1050 mA	4000	8100	2.75	9.6
	147-0684	24 LED 72W / 1050 mA	4000	10800	3.66	9.6

FLA730

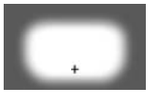


FLA740





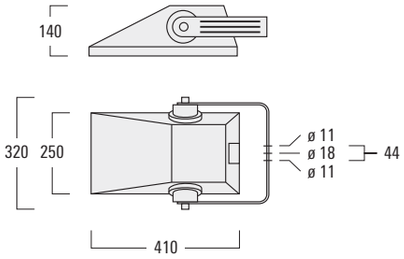
[A60]



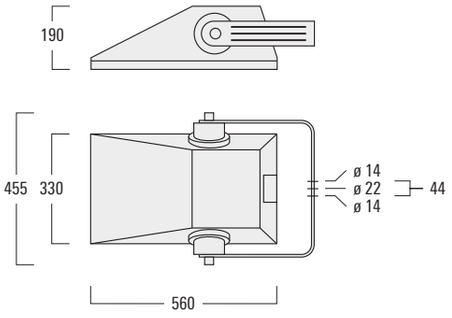
[R65] Rectangular forward throw distribution

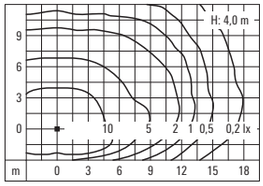
[R65]	Part ID	Light source	K	lm*	Factor**	kg
FLA730	147-0688	12 LED 24W / 700 mA	4000	2951	1.00	7.4
	147-0718	18 LED 36W / 700 mA	4000	4427	1.50	7.4
	147-0706	12 LED 36W / 1050mA	4000	5400	1.83	7.4
	147-0694	18 LED 54W / 1050 mA	4000	8100	2.75	7.4
FLA740	147-0712	18 LED 36W / 700 mA	4000	4427	1.50	9.6
	147-0724	24 LED 48W / 700 mA	4000	5903	2.00	9.6
	147-0700	18 LED 54W / 1050 mA	4000	8100	2.75	9.6
	147-0682	24 LED 72W / 1050 mA	4000	10800	3.66	9.6

FLA730



FLA740





[R65]

* Nominal lumen output based on LED manufacturers data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

** Multiplier for Isolux value

FLA700 SERIES

Floodlight, side or forward throw distribution, asymmetric.

IP66, Class I. IK08. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gaskets. Safety glass lens, hinged. Anodised aluminium reflector.

Protractor scale for accurate aiming from 0° to 15° above horizontal.

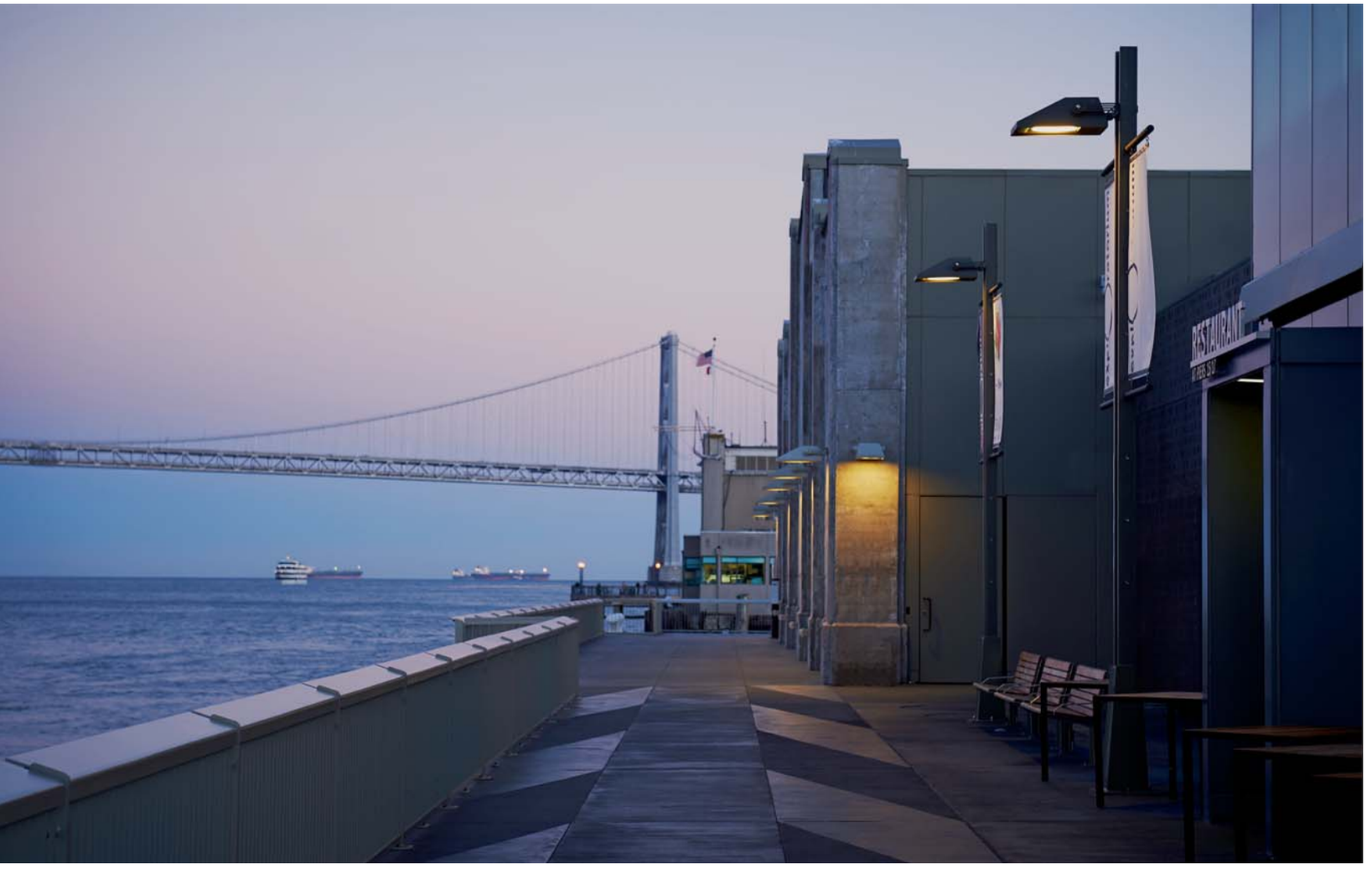
Integral HPF or ECG control gear on hinged and 'no tool' removable gear tray.

Recommended mounting height 2.5-12.0 m, depending on lamp type selected.

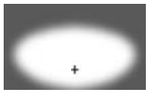
Light source
TC 32-57 W
HIT 45-400 W
HST 70-400 W

Light distribution
[S60] [A60]

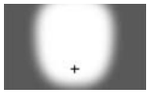
Accessories
- **Mounting, page 352**
- **Electrial, page 352**
- **Optical, page 356**



Exploratorium. San Francisco, California (USA). Architect: EHDD. Lighting design: David Nelsen & Associates.

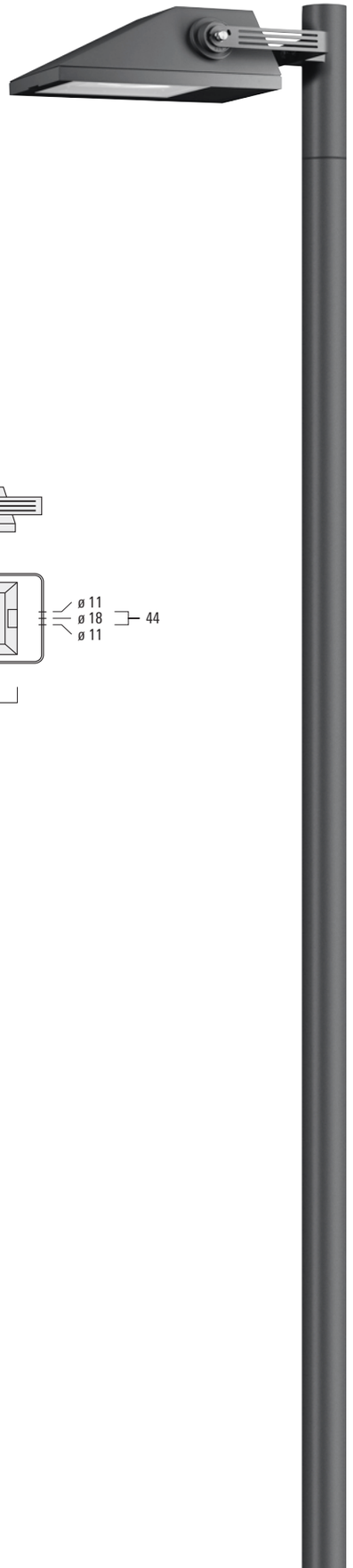


[S60]



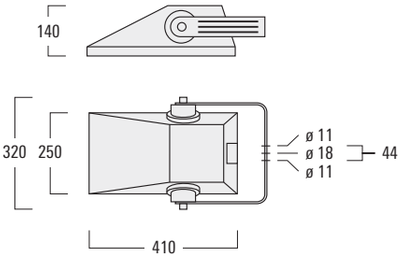
[A60]

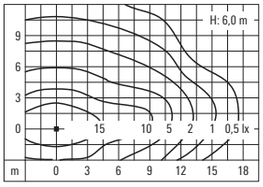
[S60] Side throw distribution, asymmetric
[A60] Forward throw distribution, asymmetric



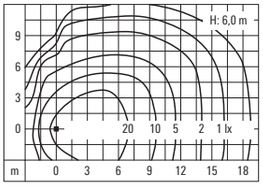
[S60]	Part ID	Light source	lm	Factor*	kg
FLA730	147-0334 [ECG]	TC-TELI 32W GX24q-3	2400	0.56	7.4
	147-0503 [ECG]	HIT-COS 45W PGZ12	4300	1.00	8.0
	147-0472 [ECG]	HIT-COS 60W PGZ12	6850	1.59	8.0
	147-0504 [ECG]	HIT-CE 20W G12	1650	0.38	7.4
	147-0335 [ECG]	HIT-CE 35W G12	3600	0.84	7.4
	147-0336 [ECG]	HIT-CE 70W G12	7300	1.70	7.4

[A60]	Part ID	Light source	lm	Factor*	kg
FLA730	147-0337 [ECG]	TC-TELI 32W GX24q-3	2400	0.56	7.4
	147-0509 [ECG]	HIT-COS 45W PGZ12	4300	1.00	8.0
	147-0512 [ECG]	HIT-COS 60W PGZ12	6850	1.59	8.0
	147-0510 [ECG]	HIT-CE 20W G12	1650	0.38	7.4
	147-0338 [ECG]	HIT-CE 35W G12	3600	0.84	7.4
	147-0339 [ECG]	HIT-CE 70W G12	7300	1.70	7.4



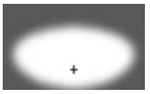


[S60]

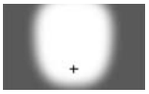


[A60]

* Multiplier for Isolux value



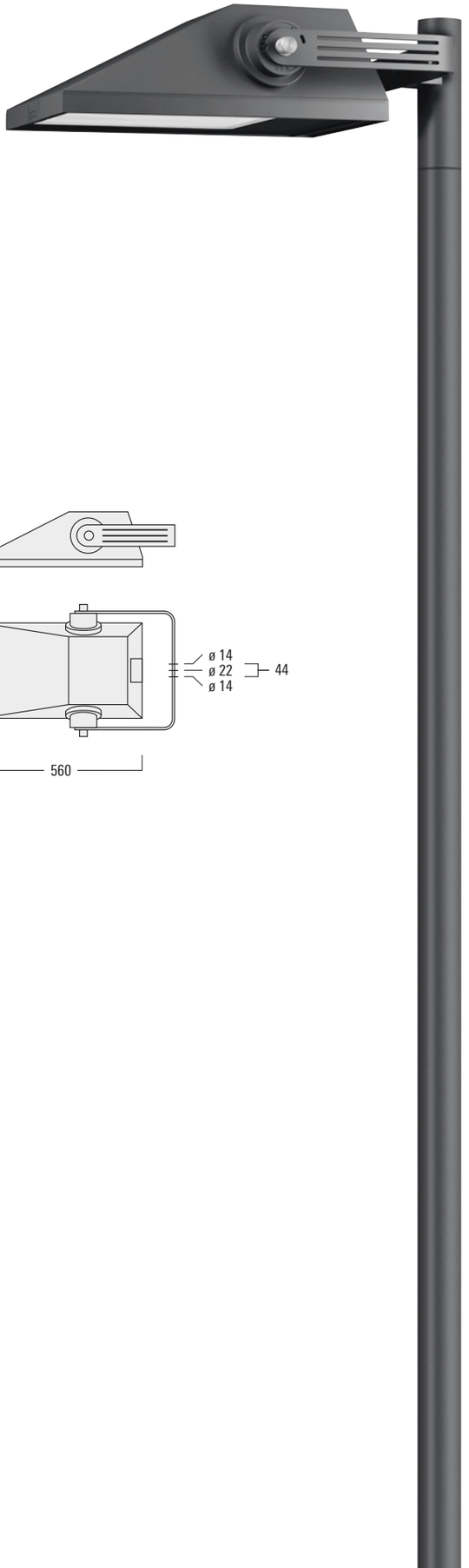
[S60]



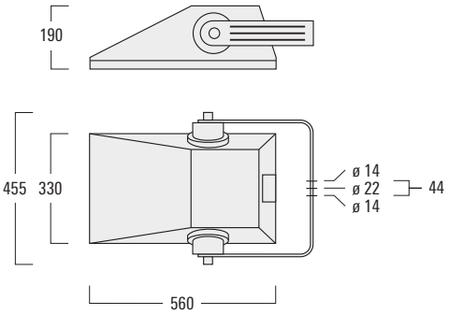
[A60]

[S60] Side throw distribution, asymmetric

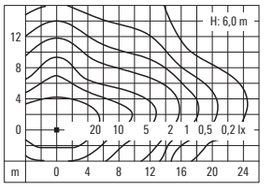
[A60] Forward throw distribution, asymmetric



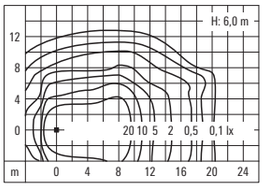
[S60]	Part ID	Light source	lm	Factor*	kg
FLA740	147-0268 [ECG]	TC-TELI 42W GX24q-4	3200	0.46	9.1
	147-0228 [ECG]	TC-TELI 57W GX24q-5	4300	0.61	9.1
	147-0481 [ECG]	HIT-COS 90W PGZ12	10450	1.49	9.6
	147-0511 [ECG]	HIT-COS 140W PGZ12	16500	2.36	9.6
	147-0187 [HPF]	HIT-CE 70W E27	7000	1.00	14.7
	147-0229 [ECG]	HIT-CE 70W E27	7000	1.00	13.6
	147-0164 [HPF]	HIT-CE 150W E40	14500	2.07	15.2
	147-0347 [ECG]	HIT-CE 150W E40	14500	2.07	14.1
	147-0231 [HPF]	HST-X4 70W E27	6600	0.94	14.7
	147-0376 [ECG]	HST-X4 70W E27	6600	0.94	13.6
	147-0233 [HPF]	HST-X4 100W E40	10700	1.53	15.1
	147-0507 [ECG]	HST-X4 100W E40	10700	1.53	14.0
	147-0177 [HPF]	HST-X4 150W E40	17500	2.50	15.2
	147-0508 [ECG]	HST-X4 150W E40	17500	2.50	14.1



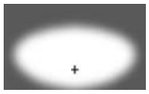
[A60]	Part ID	Light source	lm	Factor*	kg
FLA740	147-0485 [ECG]	HIT-COS 90W PGZ12	10450	1.49	9.6
	147-0513 [ECG]	HIT-COS 140W PGZ12	16500	2.36	9.6
	147-0001 [HPF]	HIT-CE 70W E27	7000	1.00	14.7
	147-0183 [ECG]	HIT-CE 70W E27	7000	1.00	13.6
	147-0002 [HPF]	HIT-CE 150W E40	14500	2.07	15.2
	147-0352 [ECG]	HIT-CE 150W E40	14500	2.07	14.1
	147-0176 [HPF]	HST-X4 70W E27	6600	0.94	14.7
	147-0346 [ECG]	HST-X4 70W E27	6600	0.94	13.6
	147-0004 [HPF]	HST-X4 100W E40	10700	1.53	15.1
	147-0516 [ECG]	HST-X4 100W E40	10700	1.53	14.0
	147-0005 [HPF]	HST-X4 150W E40	17500	2.50	15.2
	147-0517 [ECG]	HST-X4 150W E40	17500	2.50	14.1



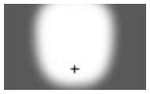
[S60]



[A60]



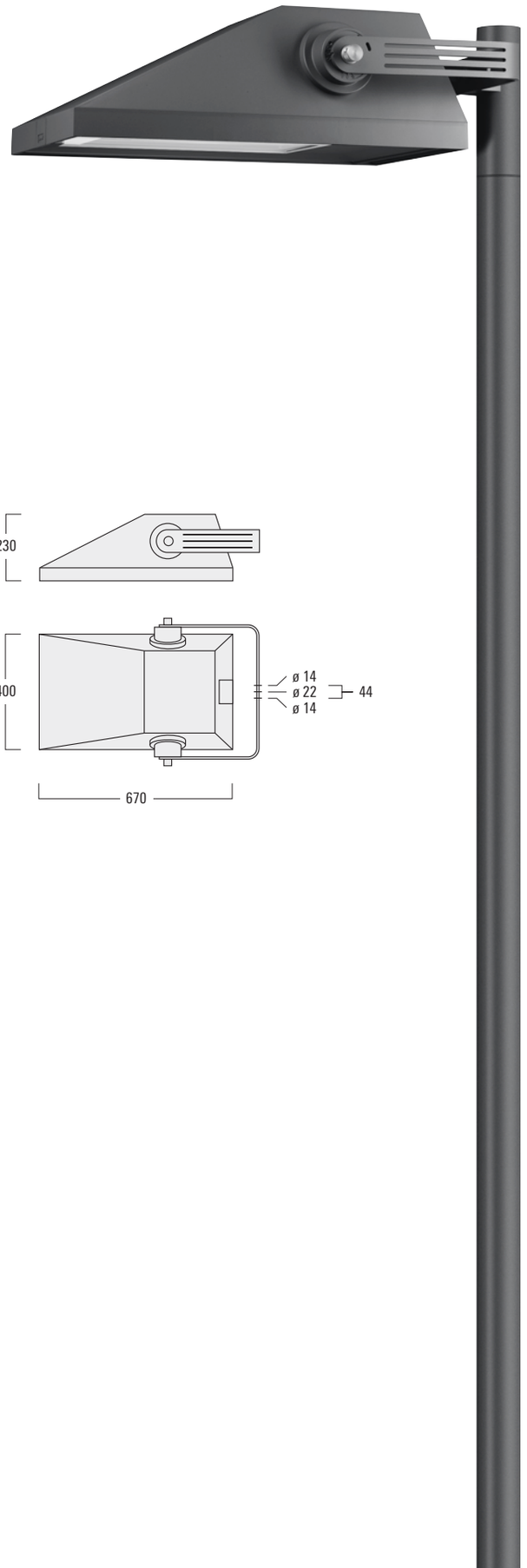
[S60]



[A60]

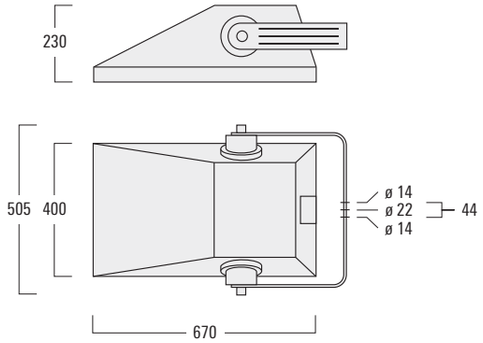
[S60] Side throw distribution, asymmetric

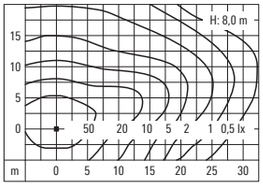
[A60] Forward throw distribution, asymmetric



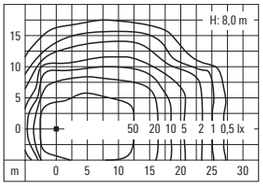
[S60]	Part ID	Light source	lm	Factor*	kg
FLA760	147-0483 [ECG]	HIT-COS 140W PGZ12	16500	0.64	17.7
	147-0173 [HPF]	HIT-CE 250W E40	26000	1.00	20.4
	147-0235 [HPF]	HIT 400W E40	35000	1.35	22.6
	147-0224 [HPF]	HST-X4 250W E40	33200	1.28	20.4
	147-0240 [HPF]	HST-X4 400W E40	56500	2.17	22.6

[A60]	Part ID	Light source	lm	Factor*	kg
FLA760	147-0487 [ECG]	HIT-COS 140W PGZ12	16500	0.64	17.7
	147-0011 [HPF]	HIT-CE 250W E40	26000	1.00	20.4
	147-0013 [HPF]	HIT 400W E40	35000	1.35	22.6
	147-0019 [HPF]	HST-X4 250W E40	33200	1.28	20.4
	147-0022 [HPF]	HST-X4 400W E40	56500	2.17	22.6



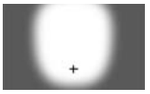


[S60]



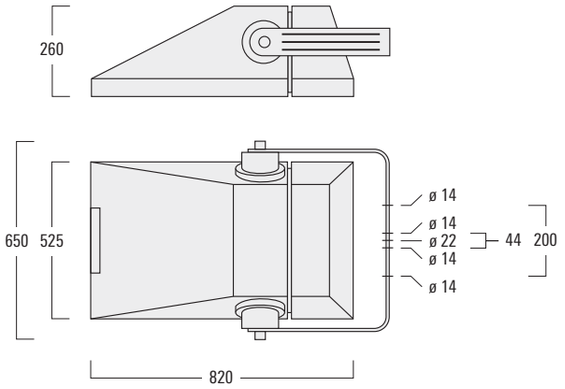
[A60]

* Multiplier for Isolux value

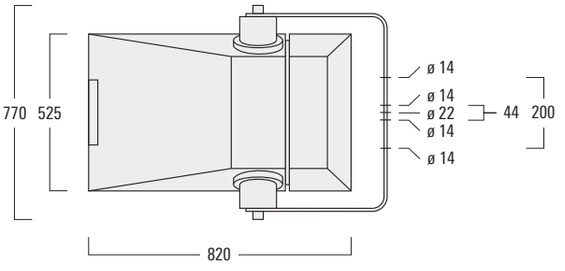


[A60] Forward throw distribution, asymmetric

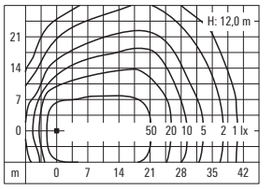
[A60]	Part ID	Light source	lm	Factor*	kg
FLA780	147-0489 [IGN]	2 x HIT 400W E40	2 x 35000	1.00	34.0
	147-0490 [IGN]	2 x HST-X4 400W E40	2 x 56500	1.61	34.0
	147-0365 [HPF]	HST-X4 600W E40	90000	1.28	40.0
	147-0367 [HPF]	HST 1000W E40	130000	1.86	43.0
	147-0360 [HPF]	HIT-LA-DE 1000W Cable	100000	1.43	43.0



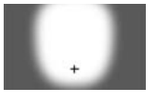
1 lamp



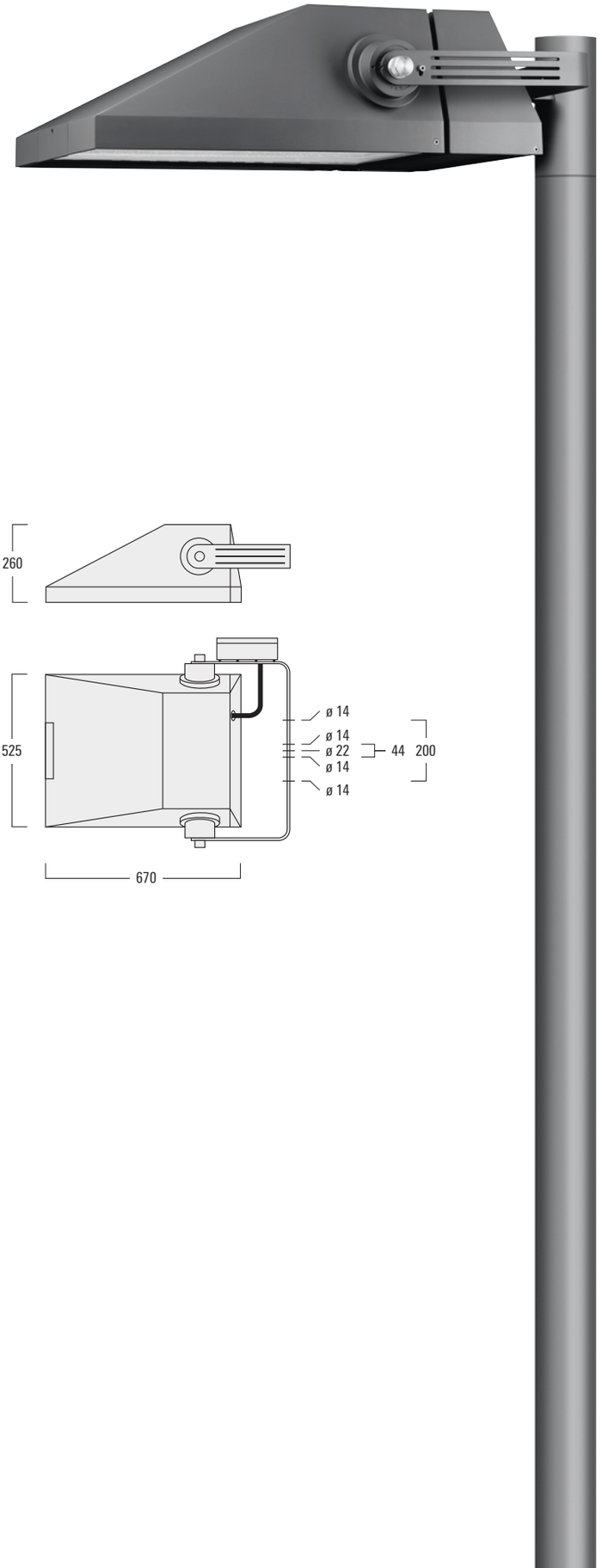
2 lamps



[A60]

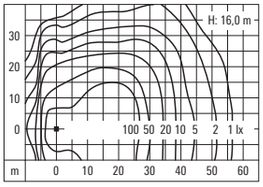


[A60] Forward throw distribution, asymmetric



[A60]	Part ID	Light source	lm	Factor*	kg
FLA780	147-0361 [IGN]**	HIT-LA-DE 2000W Cable	220000	1.00	27.0

** Remote HPF gear box made from marine-grade die-cast aluminium alloy or in pole HPF gear tray, to be ordered separately.



[A60]

* Multiplier for Isolux value

MOUNTING ACCESSORIES – FLA700 SERIES

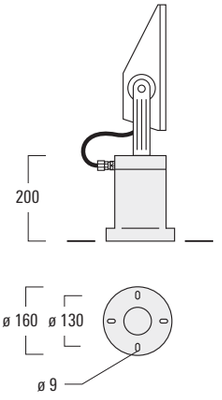
Marine-grade aluminium construction. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016.

Short post				kg
for FLA730	270-9038	EM1-M16	Short post	2.0

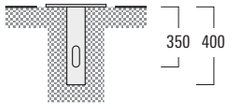
Matching planted root to be ordered separately:

Planted root for short post				kg
for FLA730	300-0461	ESV4	Planted root	4.4

Galvanised steel

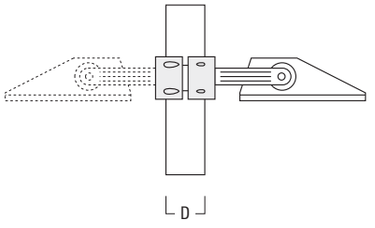


Short post EM1



Planted root ESV4

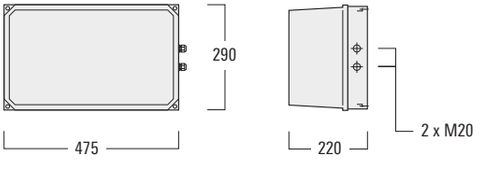
Pole clamps TS Series				D	kg
for FLA730	147-0371	TS1-2/M10	Pole clamp	ø 76-89	1.3
	147-0372	TS1-2/M10	Pole clamp	ø 102-114	1.4
	147-0373	TS2-2/M10	Pole clamp	ø ø 76-89	1.3
	147-0374	TS2-2/M10	Pole clamp	ø 102-114	1.4
for FLA740	147-0543	TS1-2/M12	Pole clamp	ø 76-89	1.4
	147-0526	TS1-2/M12	Pole clamp	ø 102-114	1.5
	147-0544	TS1-2/M12	Pole clamp	ø 114-133	1.7
	147-0545	TS2-2/M12	Pole clamp	ø 76-89	1.4
	147-0527	TS2-2/M12	Pole clamp	ø 102-114	1.5
	147-0546	TS2-2/M12	Pole clamp	ø 114-133	1.7
for FLA760	147-0547	TS1-2/M12	Pole clamp	ø 76-89	1.7
	147-0551	TS1-2/M12	Pole clamp	ø 102-114	1.8
	147-0548	TS1-2/M12	Pole clamp	ø 114-133	1.9
	147-0549	TS2-2/M12	Pole clamp	ø 76-89	1.7
	147-0552	TS2-2/M12	Pole clamp	ø 102-114	1.8
	147-0550	TS2-2/M12	Pole clamp	ø 114-133	1.9



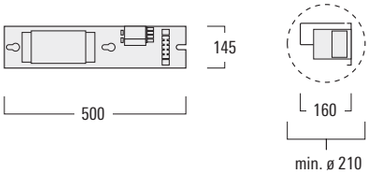
Pole clamp TS1/TS2

ELECTRICAL ACCESSORIES – FLA700 SERIES

				kg
for HI 2000W	400-0271 [HPF]	DK6A	~ 400V / 9.60-11.30A	17.5
for HI 2000W	400-0180 [HPF]	PT110 with 2 fuses E14	~ 400V / 9.60-11.30A	16.6



DK6A



PT110

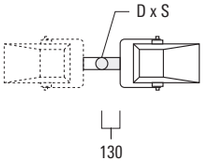
Airport Carpark. Melbourne (AUS)

MOUNTING ACCESSORIES – FLA700 SERIES

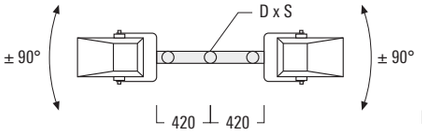
Hot dipped galvanised steel. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016.

Floodlight mounting brackets TA Series				D x S	kg
for FLA730	147-0397	TA1	Mounting bracket	ø 76 x 200	1.7
	147-0398	TA2	Mounting bracket	ø 76 x 200	1.8
	147-0404	TA3	Mounting bracket	ø 76 x 200	17.9
for FLA740 / 760	147-0023	TA1*	Mounting bracket	ø 76 x 200	1.9
	147-0024	TA2*	Mounting bracket	ø 76 x 200	2.0
	147-0105	TA2-L	Mounting bracket	ø 76 x 200	16.1
	147-0557	TA3-L	Mounting bracket	ø 89 x 200	20.8
	147-0465	TA4-L	Mounting bracket	ø 89 x 200	22.6
for FLA760 / 780	147-0096	TA1	Mounting bracket	ø 108 x 200	7.5
	147-0097	TA2	Mounting bracket	ø 108 x 200	7.6
	147-0148	TA2-L	Mounting bracket	ø 108 x 200	20.2
	147-0556	TA3-L	Mounting bracket	ø 108 x 200	24.2
	147-0213	TA4-L	Mounting bracket	ø 108 x 200	26.0

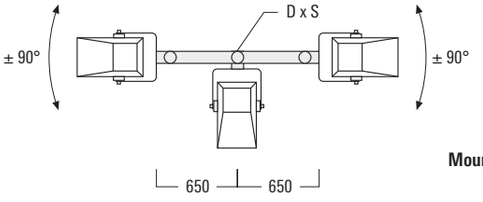
*Mounting brackets TA1 and TA2 made from marine-grade aluminium.



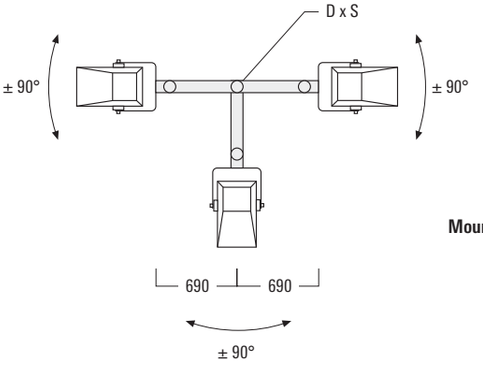
Mounting bracket TA1/TA2



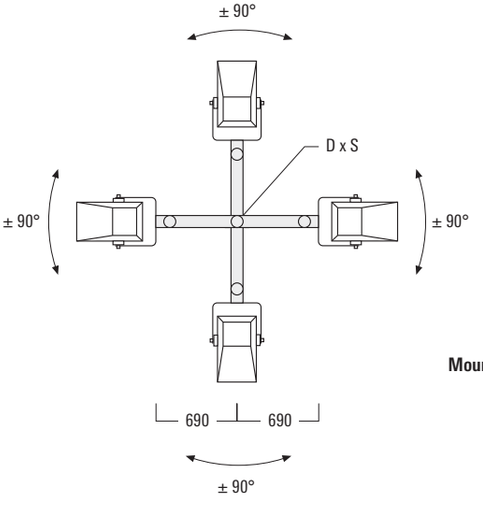
Mounting bracket TA2-L



Mounting bracket TA3



Mounting bracket TA3-L



Mounting bracket TA4-L

OPTICAL ACCESSORIES – FLA700 SERIES

A maximum of one internal optical accessory.

Rearward cut-off shield

for [S] version, with side throw distribution.

for FLA730	108-0427
for FLA740	108-0469
for FLA760	108-0040

Rearward cut-off shield

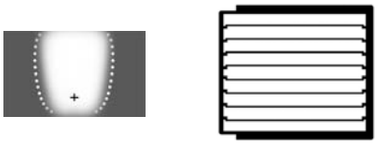
for [A] version, with forward throw distribution.

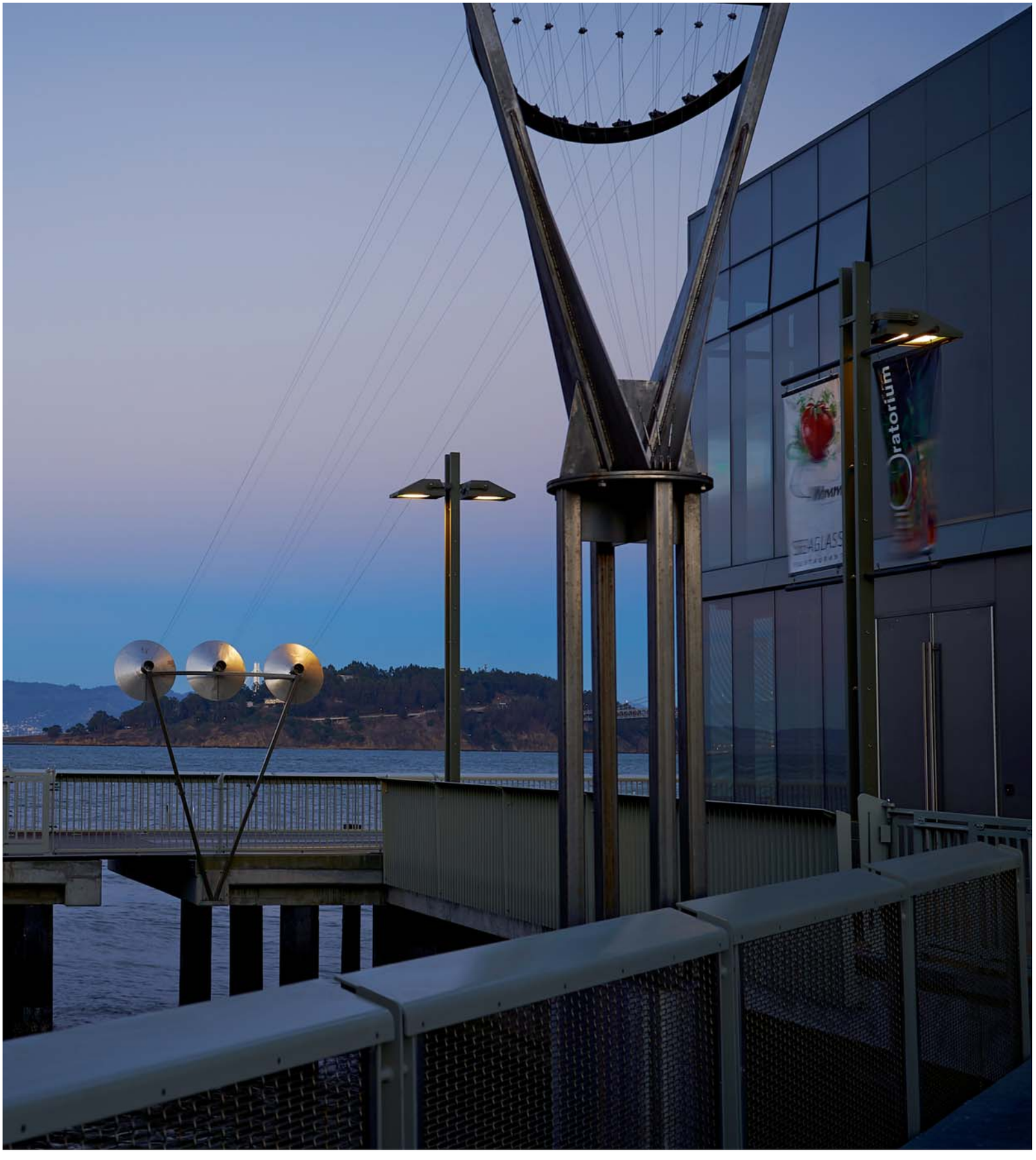
for FLA730	147-0655
for FLA740	147-0656
for FLA760	147-0410
for FLA780	147-0657

Sidewards cut-off shield

for [A] version, with forward throw distribution.

for FLA730	108-0428
for FLA740	108-0470
for FLA760	108-0041





Exploratorium. San Francisco, California (USA). Architect: EHDD. Lighting design: David Nelsen & Associates.

FLA400 SERIES

Floodlight, side or forward throw distribution, asymmetric.

IP66, Class I. IK08. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gaskets. Safety glass lens, hinged.

Protractor scale incorporating locking pin for accurate and permanent aiming.

Integral EC electronic converter on hinged and 'no tool' removable gear tray.

Factory installed LED circuit board. LED boards can be easily removed for upgrading. PMMA OLC® LED lenses for superior illumination and glare control.

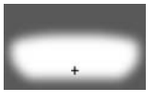
Recommended mounting height 6.0-12.0 m, depending on lamp type selected.

Light source
LED 36-108 W, 4000 K,
for 3000 K refer to www.we-ef.com

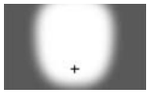
Light distributions
[S65] [A60] [R65]

Accessories
■ **Mounting, page 364**

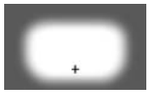
Hossegor (F). Lighting design: Sydec 40.



[S65]

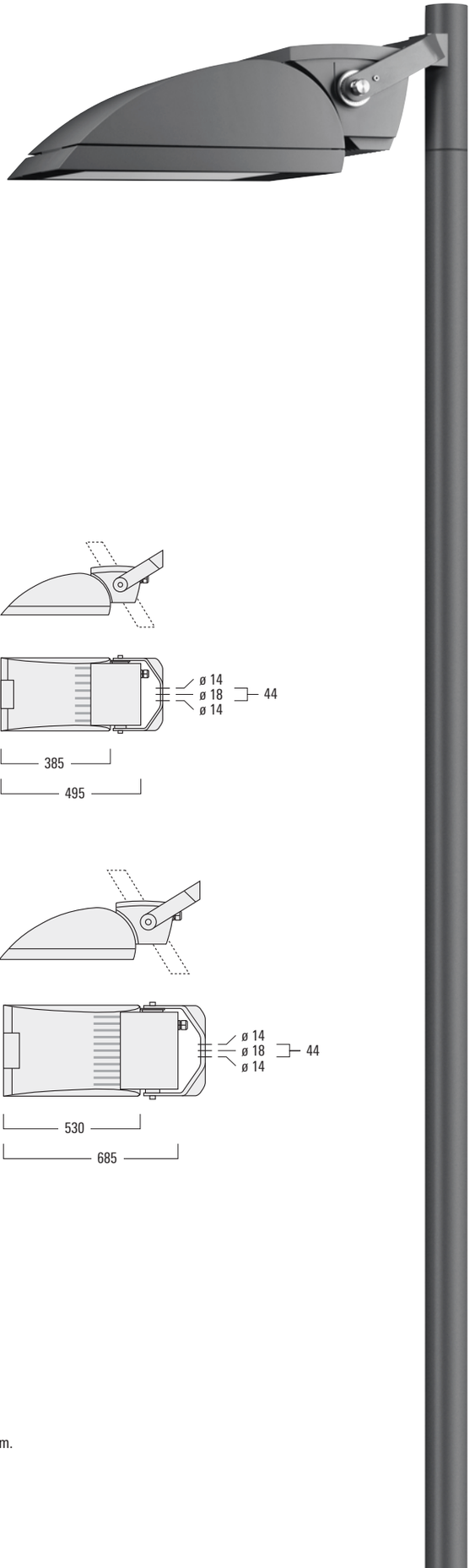


[A60]



[R65]

[S65] Streetlighting distribution
[A60] Forward throw distribution, asymmetric
[R65] Rectangular forward throw distribution

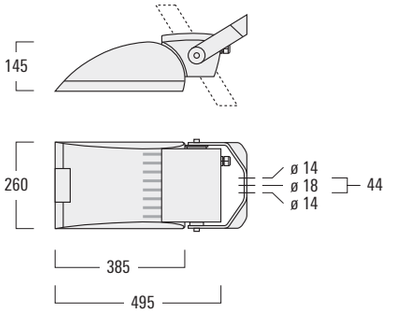


[S65]	Part ID	Light source	K	lm*	Factor**	kg
FLA440	108-7702	18 LED 36W / 700 mA	4000	4427	0.55	9.7
	108-7712	18 LED 54W / 1050 mA	4000	8100	1.00	9.7
FLA460	108-7723	36 LED 72W / 700 mA	4000	8854	1.09	28.3
	108-7333	36 LED 108W / 1050 mA	4000	16200	2.00	28.3

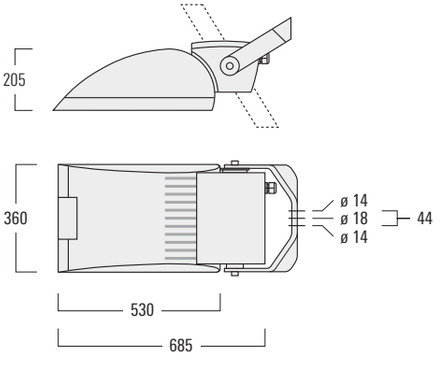
[A60]	Part ID	Light source	K	lm*	Factor**	kg
FLA440	108-7708	18 LED 36W / 700 mA	4000	4427	0.55	9.7
	108-7718	18 LED 54W / 1050 mA	4000	8100	1.00	9.7
FLA460	108-7729	36 LED 72W / 700 mA	4000	8854	1.09	28.3
	108-7339	36 LED 108W / 1050 mA	4000	16200	2.00	28.3

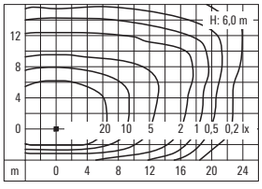
[R65]	Part ID	Light source	K	lm*	Factor**	kg
FLA440	108-7706	18 LED 36W / 700 mA	4000	4427	0.55	9.7
	108-7716	18 LED 54W / 1050 mA	4000	8100	1.00	9.7
FLA460	108-7727	36 LED 72W / 700 mA	4000	8854	1.09	28.3
	108-7337	36 LED 108W / 1050 mA	4000	16200	2.00	28.3

FLA440

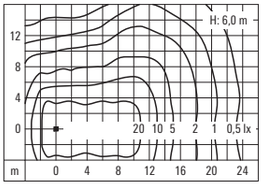


FLA460

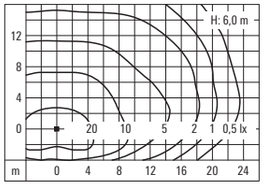




[S65]



[A60]



[R65]

* Nominal lumen output based on LED manufacturers data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.
** Multiplier for Isolux value

FLA400 SERIES

Floodlight, side throw distribution, asymmetric.

IP66, Class I. IK08. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gaskets. Safety glass lens, hinged.

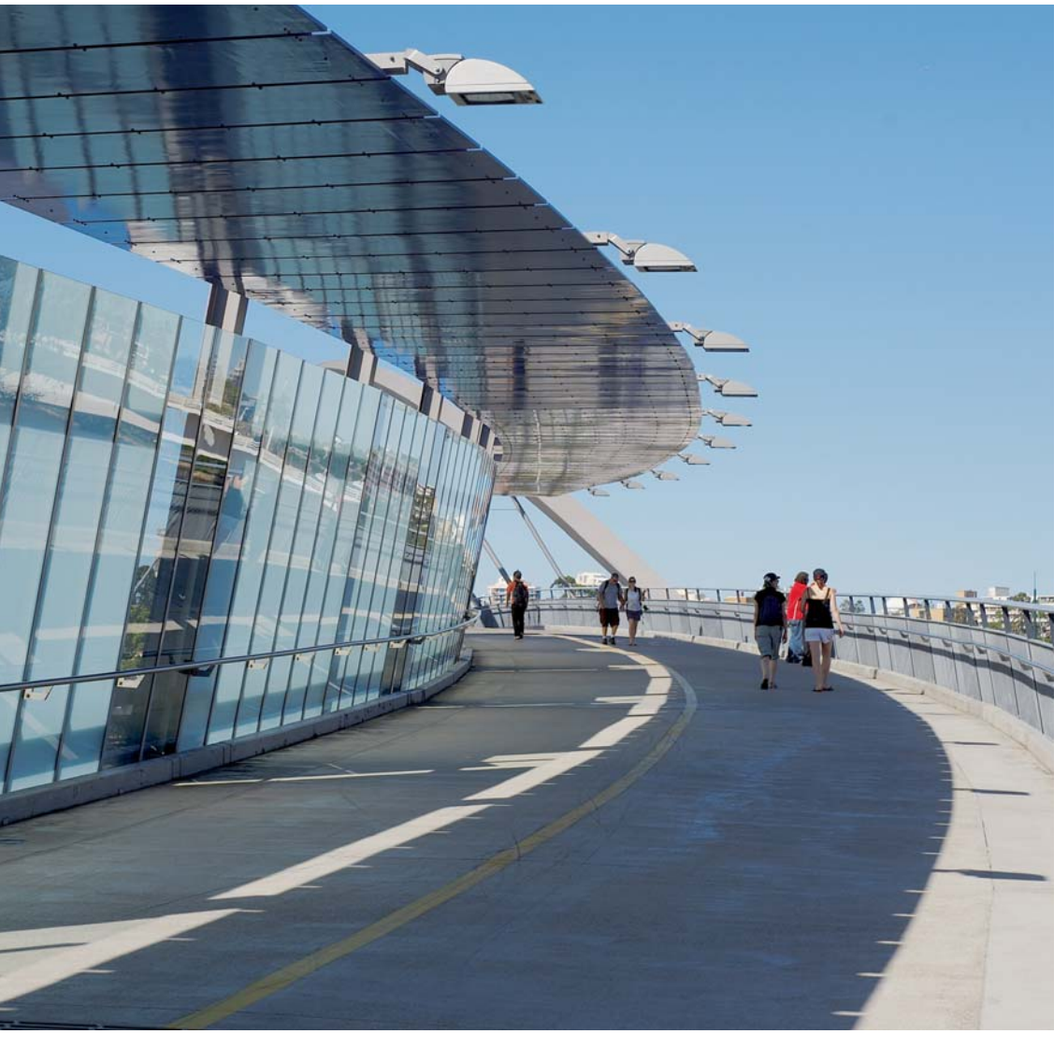
Integral HPF or ECG control gear, thermally separated. Anodised aluminium reflector. 'No tool' lamp replacement.

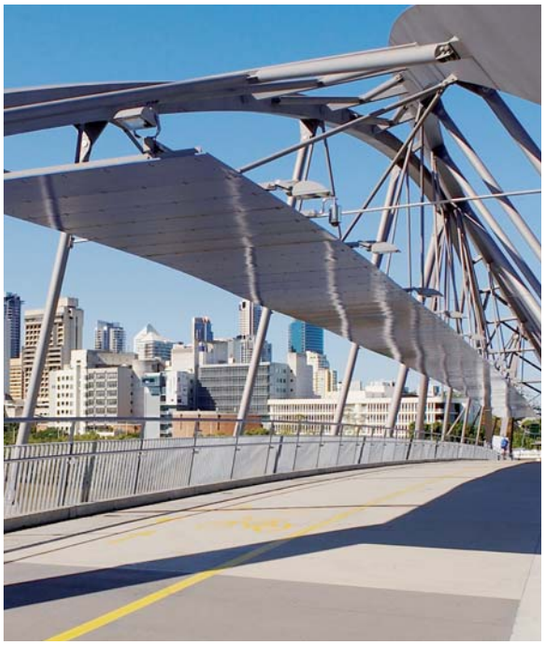
Recommended mounting height 6.0-12.0 m, depending on lamp type selected.

Light source
HIT 90-400 W
HST 250-400 W

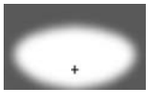
Light distribution
[S60]

Accessories
- **Mounting, page 364**
- **Optical, page 368**





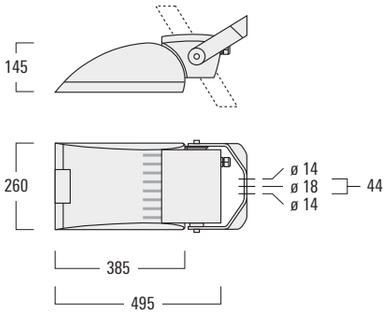
Goodwill Bridge. Brisbane (AUS). Architect: Cox Rayner Architects. Lighting design: Webbs Australia.



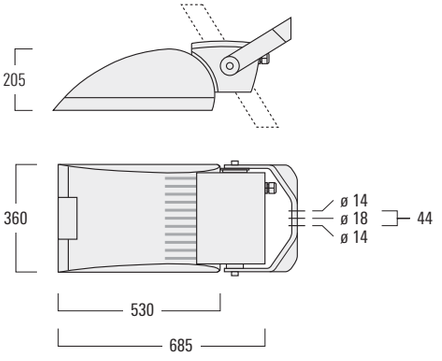
[S60] Side throw distribution, asymmetric

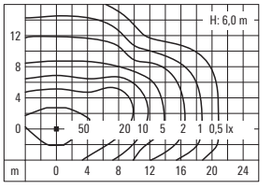
[S60]	Part ID	Light source	lm	Factor*	kg
FLA440	108-9164 [ECG]	HIT-COS 90W PGZ12	10450	0.70	9.7
	108-9168 [ECG]	HIT-COS 140W PGZ12	16500	1.10	9.7
	108-7019 [HPF]	HIT-CE 150W G12	15000	1.00	10.6
	108-7021 [ECG]	HIT-CE 150W G12	15000	1.00	9.5
	108-7024 [HPF]	HIT-CE 250W G12	23000	1.53	11.3
FLA460	108-7107 [HPF]	HIT-CE 250W E40	26000	1.00	28.3
	108-7157 [HPF]	HIT 400W E40	35000	1.35	30.5
	108-7110 [HPF]	HST-X4 250W E40	33200	2.21	28.3
	108-7160 [HPF]	HST-X4 400W E40	56500	3.77	30.5

FLA440



FLA460





[S60]

* Multiplier for Isolux value

FLA400 SERIES

Floodlight, forward throw distribution, asymmetric.

IP66, Class I. IK08. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware.Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Silicone rubber gaskets. Safety glass lens, hinged.

Integral HPF or ECG control gear, thermally seprated. Anodised aluminium reflector. 'No tool' lamp replacement.

Recommended mounting height 6.0-12.0 m, depending on lamp type selected.

Light source
HIT 90-400 W
HST 250-400 W

Light distribution
[A60]

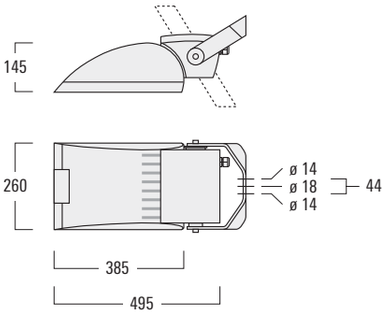
Accessories
- **Mounting, page 364**
- **Optical, page 368**

Goodwill Bridge. Brisbane (AUS). Architect: Cox Rayner Architects. Lighting design: Webbs Australia.

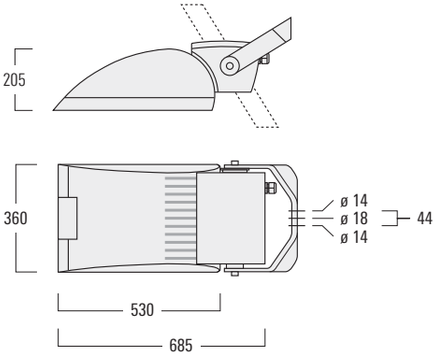
[A60] Forward throw distribution, asymmetric

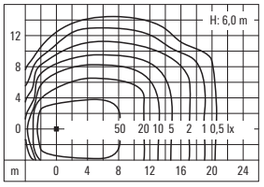
[A60]	Part ID	Light source	lm	Factor*	kg
FLA440	108-7688 [ECG]	HIT-COS 90W PGZ12	10450	0.70	9.2
	108-7690 [ECG]	HIT-COS 140W PGZ12	16500	1.10	9.2
	108-7048 [HPF]	HIT-DE-CE 150W RX7s	14500	1.00	10.6
	108-7050 [ECG]	HIT-DE-CE 150W RX7s	14500	1.00	9.5
	108-7088 [HPF]	HIT-DE 250W Fc2	20000	1.53	11.3
FLA460	108-7118 [HPF]	HIT-DE 250W Fc2	20000	1.00	28.3
	108-7168 [HPF]	HIT-DE 400W Fc2	36000	1.35	30.5
	108-7121 [HPF]	HST-DE 250W Fc2	25500	2.21	28.3
	108-7171 [HPF]	HST-DE 400W Fc2	48000	3.77	30.5

FLA440



FLA460





[A60]

* Multiplier for Isolux value

MOUNTING ACCESSORIES – FLA400 SERIES

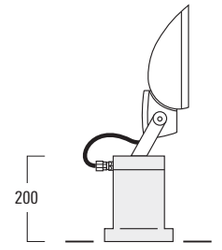
Marine-grade aluminium construction. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016.

Short post				kg
for FLA440 / 460	270-9038	EM1-M16	Short post	2.0

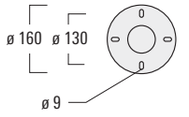
Matching planted root to be ordered separately:

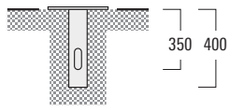
Planted root for short post				kg
for FLA440 / 460	300-0461	ESV4	Planted root	4.4

Galvanised steel



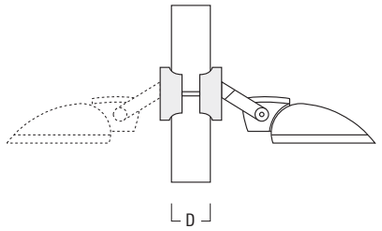
Short post EM1





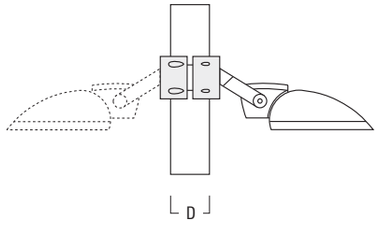
Planted root ESV4

Pipe clamps SP Series				D	kg
for FLA440 / 460	146-0241	SP1-M16	Pipe clamp	ø 38-60	1.3
	146-0242	SP1-M16	Pipe clamp	ø 76-89	1.3
	146-0243	SP2-M16	Pipe clamp	ø 38-60	1.6
	146-0244	SP2-M16	Pipe clamp	ø 76-89	1.6



Pipe clamp SP1/SP2

Pole clamps TS Series				D	kg
for FLA440	147-0543	TS1-2/M12	Pole clamp	ø 76-89	1.4
	147-0526	TS1-2/M12	Pole clamp	ø 102-114	1.5
	147-0544	TS1-2/M12	Pole clamp	ø 114-133	1.7
	147-0545	TS2-2/M12	Pole clamp	ø 76-89	1.4
	147-0527	TS2-2/M12	Pole clamp	ø 102-114	1.5
	147-0546	TS2-2/M12	Pole clamp	ø 114-133	1.7
for FLA460	147-0547	TS1-2/M12	Pole clamp	ø 76-89	1.7
	147-0551	TS1-2/M12	Pole clamp	ø 102-114	1.8
	147-0548	TS1-2/M12	Pole clamp	ø 114-133	1.9
	147-0549	TS2-2/M12	Pole clamp	ø 76-89	1.7
	147-0552	TS2-2/M12	Pole clamp	ø 102-114	1.8
	147-0550	TS2-2/M12	Pole clamp	ø 114-133	1.9



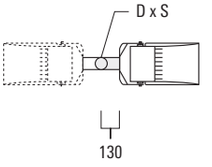
Pole clamp TS1/TS2

Hossegor (F). Lighting design: Sydec 40.

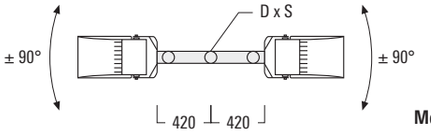
MOUNTING ACCESSORIES – FLA400 SERIES

Hot dipped galvanised steel. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016.

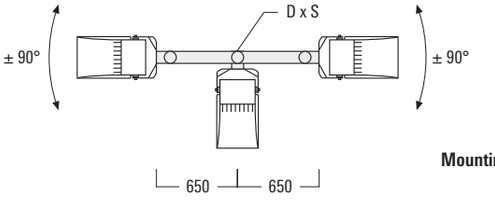
Floodlight mounting brackets TA Series				D x S	kg
for FLA440 / 460	147-0023	TA1*	Mounting bracket	ø 76 x 200	1.9
	147-0024	TA2*	Mounting bracket	ø 76 x 200	2.0
	147-0105	TA2-L	Mounting bracket	ø 76 x 200	16.1
	147-0025	TA3	Mounting bracket	ø 89 x 200	17.9
	147-0557	TA3-L	Mounting bracket	ø 89 x 200	20.8
	147-0465	TA4-L	Mounting bracket	ø 89 x 200	22.6
*Mounting brackets TA1 and TA2 made from marine-grade aluminium.					
for FLA460	147-0096	TA1	Mounting bracket	ø 108 x 200	7.5
	147-0097	TA2	Mounting bracket	ø 108 x 200	7.6
	147-0148	TA2-L	Mounting bracket	ø 108 x 200	20.2
	147-0556	TA3-L	Mounting bracket	ø 108 x 200	24.2
	147-0213	TA4-L	Mounting bracket	ø 108 x 200	26.0



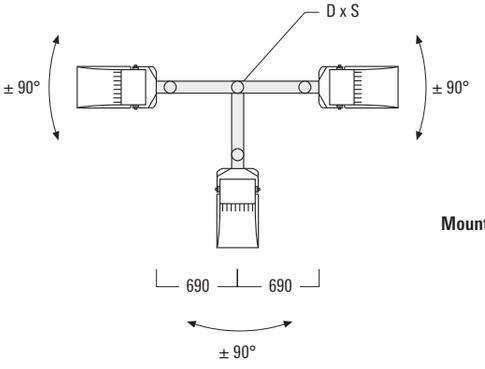
Mounting bracket TA1/TA2



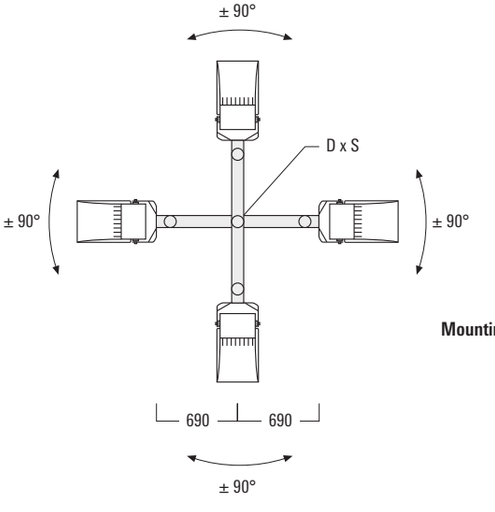
Mounting bracket TA2-L



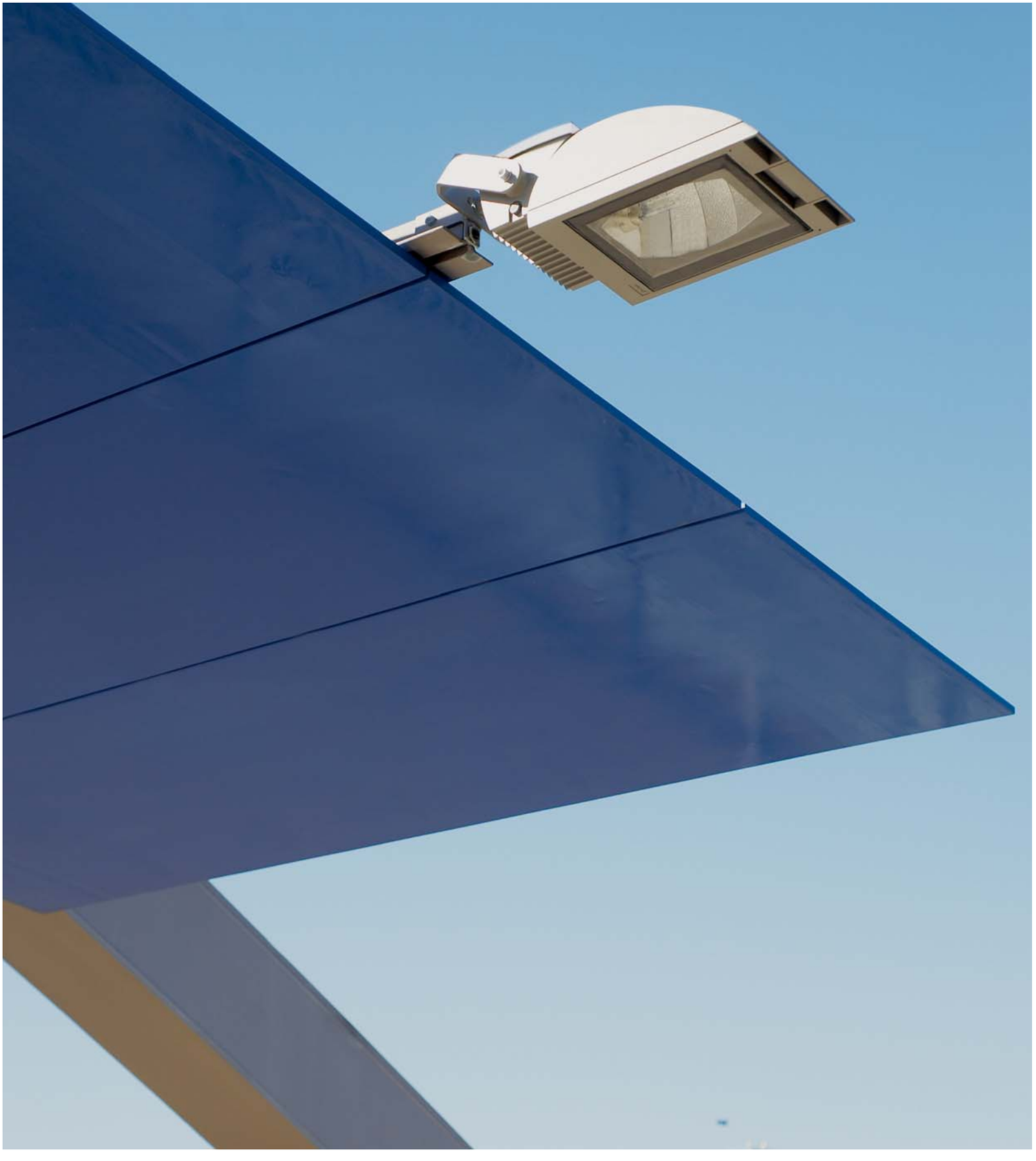
Mounting bracket TA3



Mounting bracket TA3-L



Mounting bracket TA4-L



Goodwill Bridge. Brisbane (AUS). Architect: Cox Rayner Architects. Lighting design: Webbs Australia.

OPTICAL ACCESSORIES – FLA400 SERIES

A maximum of one internal optical accessory.

Rearward cut-off shield

for [S] version, with side throw distribution.

for FLA440	108-9264
for FLA460	108-9810

Rearward cut-off shield

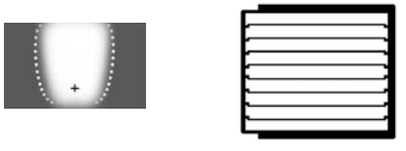
for [A] version, with forward throw distribution.

included in product

Sidewards cut-off shield

for [A] version, with forward throw distribution.

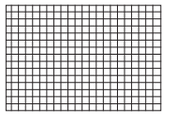
for FLA440	108-9268
for FLA460	108-9808



Flood lens

for [S] version, side throw, asymmetric distribution and
for [A] version with forward throw distribution, asymmetric.

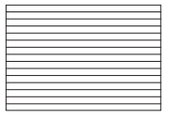
for FLA440	108-9260
for FLA460	108-9802



Linear spread lens

for [A] version, forward throw, asymmetric distribution.

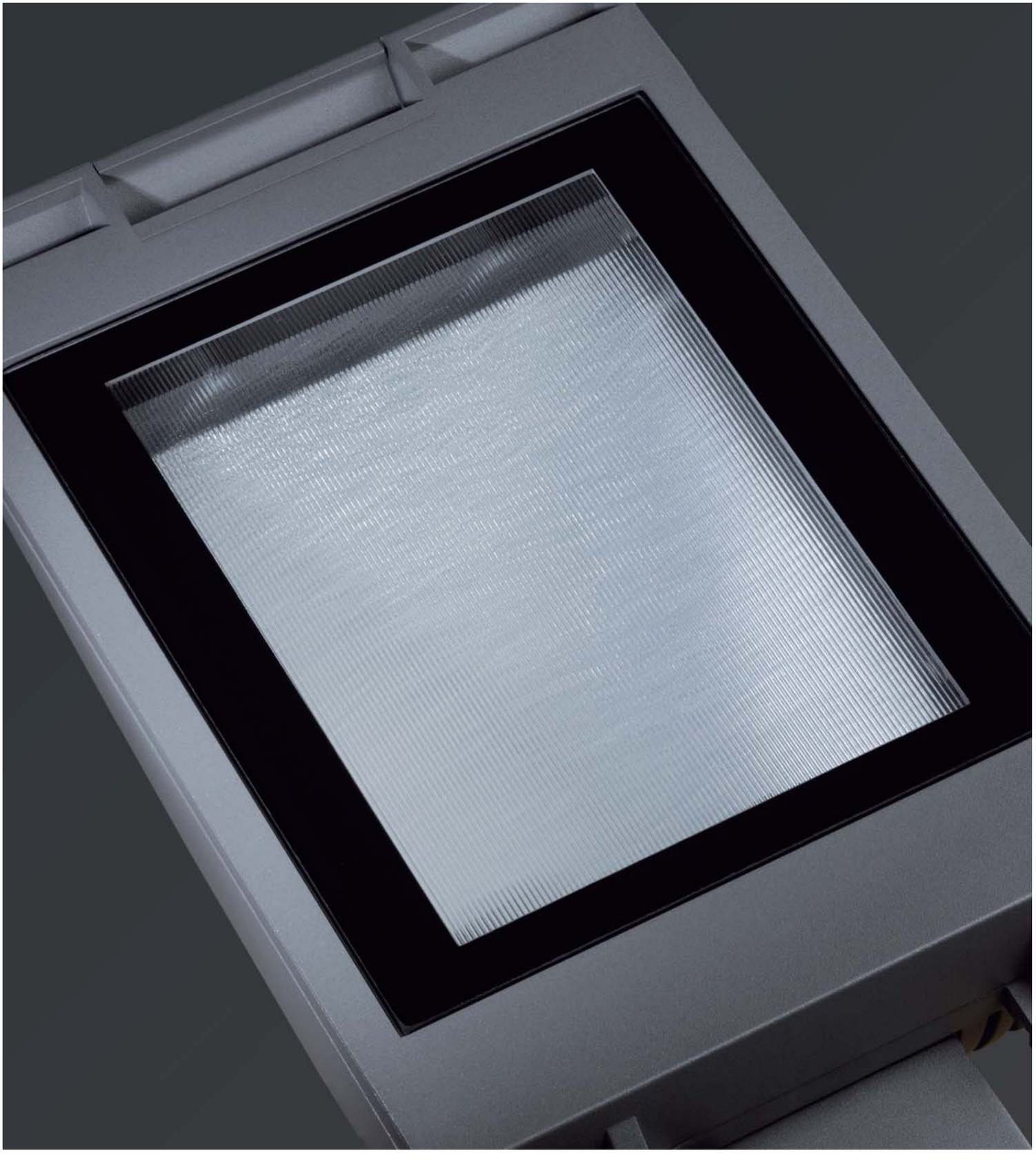
for FLA440	108-9262
for FLA460	108-9800



Absorbtion colour filter

in red, green, blue, yellow.

on request



Accessories

ELECTRICAL

ELECTRICAL

ELECTRICAL

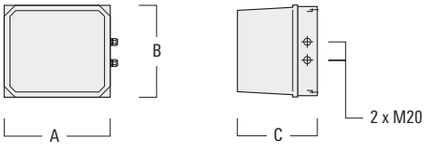
ELECTRICAL

ELECTRICAL ACCESSORIES

Gear boxes

IP65, Class I. Marine-grade die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in RAL 9004, RAL 9006, RAL 9007 or RAL 9016. Two cable glands. Additional cable glands on request.

Enclosure only				A	B	C	kg
400-0003	DK1A			180	125	110	1.2
400-0021	DK2A			230	160	140	1.8
400-0065	DK4A			250	230	170	2.9
400-0080	DK5			290	250	140	3.4
400-0092	DK5A			290	250	220	3.9
400-0140	DK6A			475	290	220	7.0



High power factor (HPF)				A	B	C	kg
400-0033	DK1A	for HI 70 W*	~ 230V / 1.00A	180	125	110	2.7
400-0259	DK1A	for HS-I 70 W	~ 230V / 1.00A	180	125	110	2.7
400-0261	DK1A	for HS-E 70 W*	~ 230V / 1.00A	180	125	110	2.6
400-0018	DK2A	for HI 100 W*	~ 230V / 1.10A	230	160	140	3.3
400-0053	DK2A	for HS 100 W*	~ 230V / 1.10A	230	160	140	3.3
400-0035	DK2A	for HI 150 W*	~ 230V / 1.80A	230	160	140	3.9
400-0056	DK2A	for HS 150 W*	~ 230V / 1.80A	230	160	140	3.9
400-0037	DK4A	for HI 250 W*	~ 230V / 3.00A	250	230	170	6.2
400-0075	DK4A	for HS 250 W*	~ 230V / 3.00A	250	230	170	6.2
400-0042	DK4A	for HI/HS 400 W*	~ 230V / 4.00-4.40A	250	230	170	9.1
400-0046	DK5A	for 2 HI/HS 400 W*	~ 230V / 2 x 4.00-4.40A	290	250	22	13.0
400-0058	DK5A	for HS 600 W*	~ 230V / 6.20A	290	250	220	11.1
400-0121	DK5A	for HI 1000 W*	~ 230V / 9.30-9.60A	290	250	22	13.4
400-0126	DK5A	for HS 1000 W*	~ 230V / 10.30A	290	250	22	13.
400-0271	DK6A	for HI 2000 W*	~ 400V / 9.60-11.30A	475	290	220	19.1

DK5A

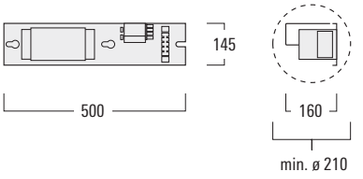
* Lamp requires ignitor

Gear trays

IP20, Class I. Gear tray, made from galvanised steel, for mounting in poles.

Pre-wired excluding ignitor with 1 or 2 fuses D01 16A.

High power factor (HPF)				A	B	kg
400-0301	PT110	for HI 1000 W*	~ 230V / 9.30-9.60A	500	145	10.9
400-0319	PT110	for HS 600 W*	~ 230V / 6.20A	500	145	8.4
400-0173	PT110	for HS 1000 W*	~ 230V / 10.30A	500	145	11.0
with 1 fuse D01						
400-0180	PT110	for HI 2000 W*	~ 400V / 9.60-11.30A	500	145	13.6
with 2 fuses D01						



* Lamp requires ignitor

ELECTRICAL ACCESSORIES

Surge protection

WE-EF LED street & area lighting luminaires are fitted with electronic converters featuring 6/6 kV surge protection in accordance with EN 61000-4-5. For comprehensive protection of the luminaire against lightning and electrical surges (high risk areas), primary (type 1) and secondary (type 2) surge arrestors, like the WE-EF SP20, must be installed into the power supply (sub-distributor/switch board). For installations in such high-risk areas, the optional WE-EF SP10 (type 3, 10 kV) surge protection accessory is recommended. If the surge protector has been triggered, the luminaire is automatically disconnected from the mains.

The technical planner/installer is responsible for the proper selection, sizing and installation of the surge protection modules that must be provided on site.

430-0020	SP10 Integral	for installation in luminaire
405-0124	SP10 Remote	for Eco Step Dim® versions (300 mm access door)
405-0136	SP10 Remote	for Eco Step Dim® versions (400 mm access door)
405-0143	SP20 Remote	for installation in switch board (3xL+N)
405-0144	SP20 Remote	for installation in switch board (1xL+N)

Photo: SP20

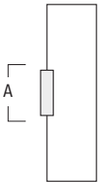
George Street. Sydney (AUS). Planning: Sydney City Council.

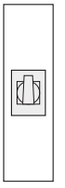
ELECTRICAL ACCESSORIES

Pole accessories

IP54. Class I. Recessed socket for poles, made from marine-grade die-cast aluminium alloy. Suitable for bollards and poles. Specify installation requirements when ordering.

Schuko			A	B	D	kg
405-0025	SD1	~ 230V / 16.00A	95	70	ø 76	0.35
405-0026	SD1	~ 230V / 16.00A	95	70	ø 89	0.35
405-0028	SD1	~ 230V / 16.00A	95	70	ø 108	0.35
405-0033	SD1	~ 230V / 16.00A	95	70	ø 133	0.35
405-0035	SD1	~ 230V / 16.00A	95	70	ø 160	0.35
C E E						
405-0032	SD10	~ 230V / 16.00A	95	70	ø 108	0.35
405-0088	SD10	~ 230V / 16.00A	95	70	ø 160	0.35



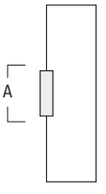


SD1

Pole accessories

IP54. Class I. Recessed switch for poles, made from marine-grade die-cast aluminium alloy. Suitable for bollards and poles. Specify installation requirements when ordering.

Schuko			A	B	D	kg
405-0039	SA1	~ 230V / 16.00A	95	70	ø 76	0.35
405-0040	SA1	~ 230V / 16.00A	95	70	ø 89	0.35
405-0041	SA1	~ 230V / 16.00A	95	70	ø 108	0.35
405-0042	SA1	~ 230V / 16.00A	95	70	ø 133	0.35
405-0043	SA1	~ 230V / 16.00A	95	70	ø 160	0.35



SA1

Cable connecting boxes

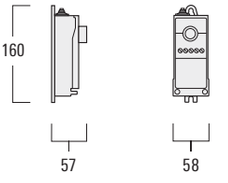
EK70: IP55, Class II.

EK80 / EK82 / EK93: IP54, Class II.

Cable connecting box for installation inside poles to DIN VDE 0660 and DIN 43628. Made from fibreglass and UV stabilized polycarbonate. Flame retardent to UL 94-V2 and UL94-V0. Terminal clamps made from corrosion-resistant non-ferrous materials, one level and lockable. Cable grip and finger touch protection.

Incoming max. 2 cables 5 x 6 mm², outgoing max. 1 cable 3 x 2.5 mm², 1 fuse D01, internal pole diameter 70 mm.

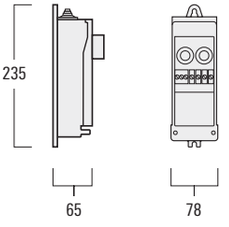
405-0078	EK70	Access door min. 85 x 150



Cable connecting box EK70

Incoming max. 3 cables 5 x 10 mm² or 2 cables 5 x 16 mm², outgoing max. 2 cables 5 x 2.5 mm², 2 fuses D01, internal pole diameter 89 mm.

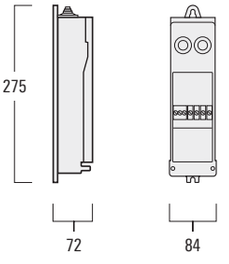
405-0112	EK80	Access door min. 85 x 300



Cable connecting box EK80

Incoming max. 3 cables 5 x 16 mm², outgoing max. 2 cables 5 x 2.5 mm², 2 fuses D01, internal pole diameter 89 mm.

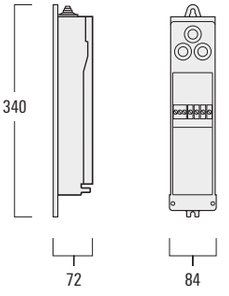
405-0113	EK82	Access door min. 90 x 300



Cable connecting box EK82

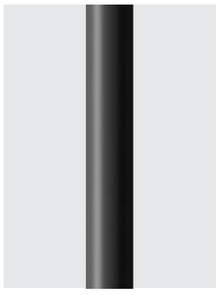
Incoming max. 3 cables 5 x 16 mm², outgoing max. 2 cables 5 x 2.5 mm², 3 fuses D01, internal pole diameter 89 mm.

405-0142	EK93	Access door min. 85 x 400



Cable connecting box EK93

Poles



Poles
Galvanised steel,
constant section

■ **AM-Z** **380**

Poles
Wood and galvanised steel,
constant section

■ **AMW-Z** **382**

Poles
Galvanised steel,
tubular, formed stepped

■ **AM-R** **384**

Poles
Galvanised steel,
tubular, stepped

■ **AM-S** **386**
■ **AM-S-B** **387**

Poles
Galvanised steel,
tapered, seamless

■ **AM-K** **388**
■ **AM-K-K** **389**

Poles
Aluminium,
tapered

■ **AML-K** **390**

Poles
Galvanised steel,
tapered, curved

■ **AM-V** **392**

Floodlighting Poles
Galvanised steel,
tapered

■ **FM-K** **394**

Accessories
■ **Mounting** **396**

AM-Z POLE SERIES

Tubular steel, constant section. Hot dipped galvanised inside and out.

Chrome-free conversion coating with superior powdercoat finish in RAL colour.

Including spigot.

Service door with stainless locking screw. Suitable for one cable connecting box.

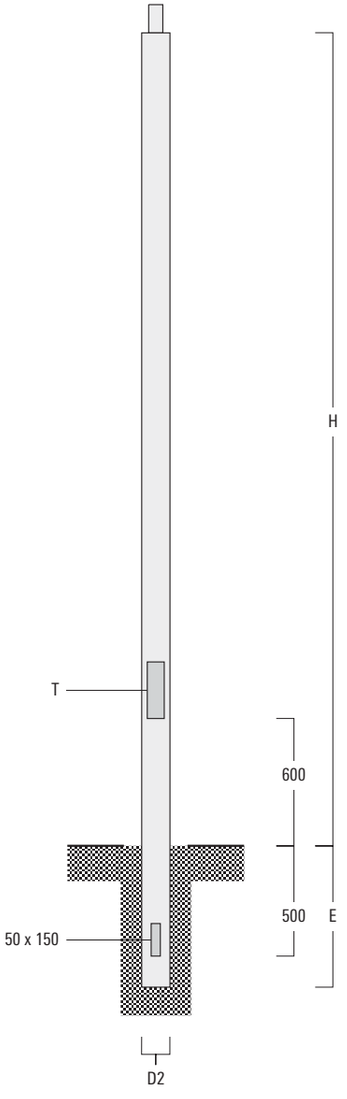
Please specify RAL colour reference number according to the WE-EF RAL Colour Chart.

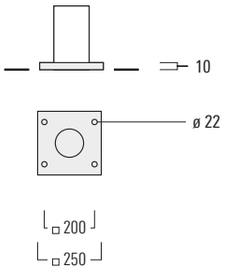
Standard version with planted root and cable entry hole with cable protection.

Special version with surface mounting flange plate is available on request.

For mounting bracket (ø 76 x 80)

		T	H	E	D2	kg
AM-Z 30	250-0089	85 x 300	3000	600	102	28.0
AM-Z 35	250-0099	85 x 300	3500	700	102	34.0
AM-Z 40	250-0091	85 x 300	4000	800	102	39.0
AM-Z 50	250-0628	85 x 300	5000	800	102	48.0

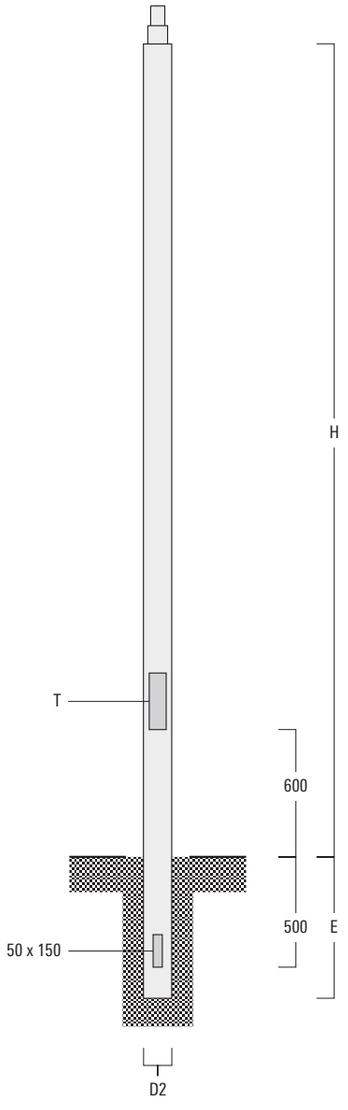


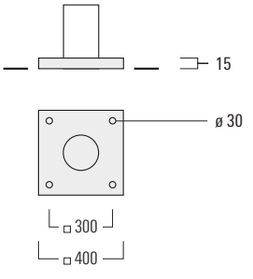


Special version with
surface mounting flange plate
for H: ≤ 5000
on request

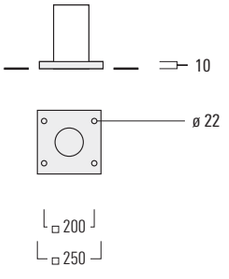
For mounting bracket (ø 76 x 80) and spigot (ø 76 x 80 or ø 102 x 80)

		T	H	E	D2	kg
AM-Z 25	250-0543	90 x 400	2500	600	152	47.8
AM-Z 35	250-0545	90 x 400	3500	700	152	63.8
AM-Z 45	250-0547	90 x 400	4500	700	152	79.9
AM-Z 55	250-0549	90 x 400	5500	800	152	94.4
AM-Z 65	250-0551	90 x 400	6500	1000	152	112.0
AM-Z 75	250-0553	90 x 400	7500	1200	152	129.0





Special version with
surface mounting flange plate
for H: > 5000
on request



Special version with
surface mounting flange plate
for H: ≤ 5000
on request

AMW-Z POLE SERIES

Mahogany veneer, natural finish and oil-impregnated. Base and inner section tubular steel, hot dipped galvanised inside and out. Chrome-free conversion coating with superior powdercoat finish in RAL colour. Including spigot.

Service door with stainless locking screw. Suitable for one cable connecting box.

Standard version with planted root and cable entry hole. Special version with surface mounting flange plate is available on request.

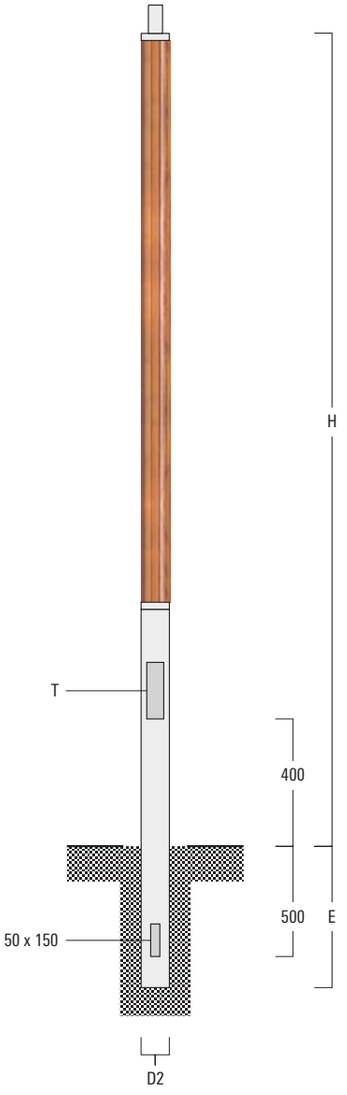
Please specify RAL colour reference number according to the WE-EF RAL Colour Chart.

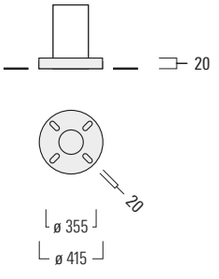
Wood is a natural material and therefore susceptible to higher colour and texture variations. Natural ageing is part of the product. We recommend to use a suitable wood stain every 12 months for maintenance and protection.

Special version with surface mounting flange plate on request.

For mounting bracket (ø 76 x 130)

		T	H	E	D2	kg
AMW-Z 25	250-0641	90 x 400	2500	600	152	57.7
AMW-Z 35	250-0642	90 x 400	3500	700	152	76.4
AMW-Z 45	250-0643	90 x 400	4500	700	152	95.0
AMW-Z 55	250-0644	90 x 400	5500	800	152	112.9
AMW-Z 65	250-0645	90 x 400	6500	1000	152	130.0
AMW-Z 75	250-0646	90 x 400	7500	1200	152	145.3

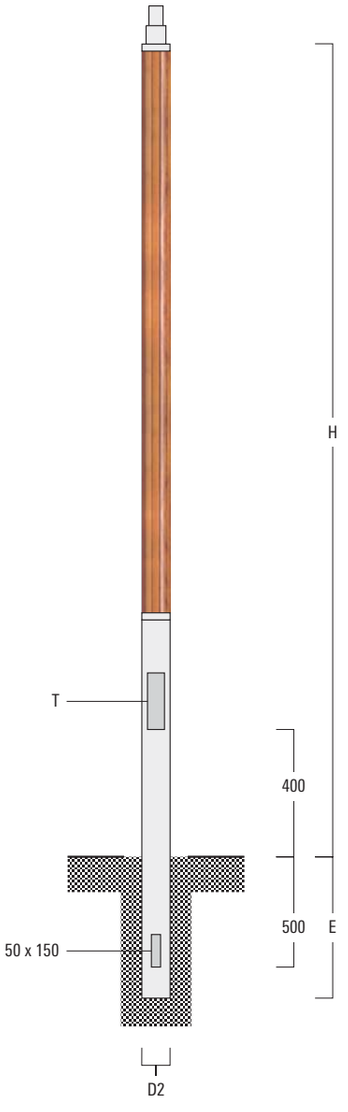


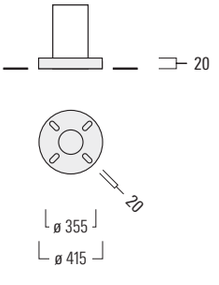


Special version with
surface mounting flange plate
on request

For mounting bracket (ø 76 x 80) and spigot (ø 76 x 80 or ø 102 x 80)

		T	H	E	D2	kg
AMW-Z 25	250-0488	90 x 400	2500	600	152	57.7
AMW-Z 35	250-0489	90 x 400	3500	700	152	76.4
AMW-Z 45	250-0490	90 x 400	4500	700	152	95.0
AMW-Z 55	250-0491	90 x 400	5500	800	152	112.9
AMW-Z 65	250-0492	90 x 400	6500	1000	152	130.0
AMW-Z 75	250-0513	90 x 400	7500	1200	152	145.3





Special version with
surface mounting flange plate
on request

AM-R POLE SERIES

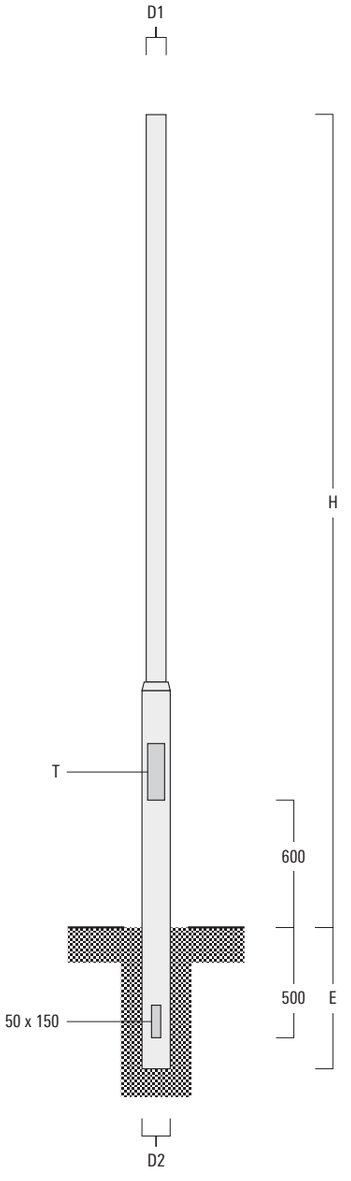
Tubular steel, one or two formed step. Hot dipped galvanised inside and out.
Chrome-free conversion coating superior powdercoat finish in RAL colour is available up to a maximum length of H + E < 9.3 m.

Service door with stainless locking screw. Suitable for one cable connecting box.

Standard version with planted root and cable entry hole.

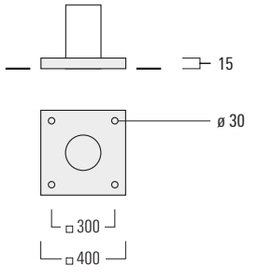
Please specify RAL colour reference number according to the WE-EF RAL Colour Chart.

Special version with surface mounting flange plate is available on request.

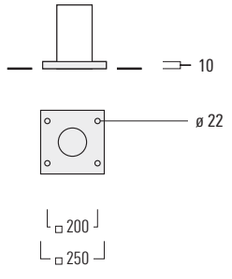


For mounting bracket (ø 76 x 80) and (ø 76 x 130)

		T	H	E	D1	D2	kg
AM-R 30	240-0667	85 x 300	3000	600	76	108	22.0
AM-R 35	240-0381	85 x 300	3500	700	76	108	26.0
AM-R 40	240-0395	85 x 300	4000	700	76	108	30.0
AM-R 45	240-0394	85 x 300	4500	700	76	108	31.0
AM-R 50	240-0696	85 x 300	5000	800	76	108	35.0
AM-R 55	240-0498	85 x 300	5500	800	76	108	40.0
AM-R 60	240-0481	85 x 300	6000	800	76	108	43.0



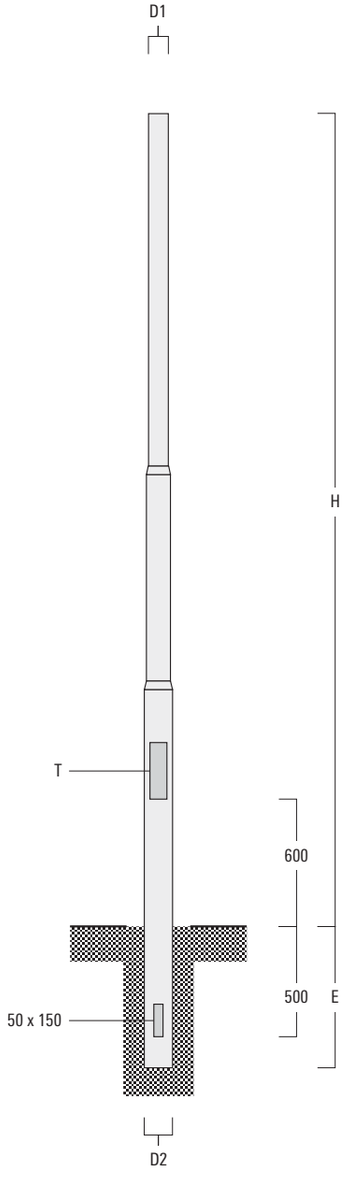
Special version with surface mounting flange plate for H: > 5000 on request

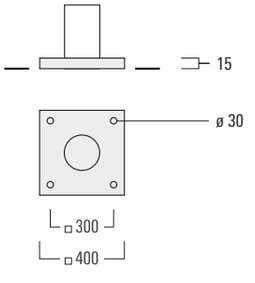


Special version with surface mounting flange plate for H: ≤ 5000 on request

For mounting bracket (ø 76 x 80) and (ø 76 x 130)

		T	H	E	D1	D2	kg
AM-R 65	240-0949	85 x 300	6500	800	76	108	48.0
AM-R 70	240-0731	90 x 400	7000	1000	76	133	65.0
AM-R 75	240-0528	90 x 400	7500	1200	76	133	73.0
AM-R 80	240-0679	90 x 400	8000	1200	76	133	75.0
AM-R 90	240-0104	90 x 400	9000	1400	76	133	88.0
AM-R 100	240-0108	90 x 400	10000	1500	76	133	98.0





Special version with
surface mounting flange plate
for H: > 5000
on request

AM-S / AM-S-B POLE SERIES

Tubular steel, one step. Hot dipped galvanised inside and out.

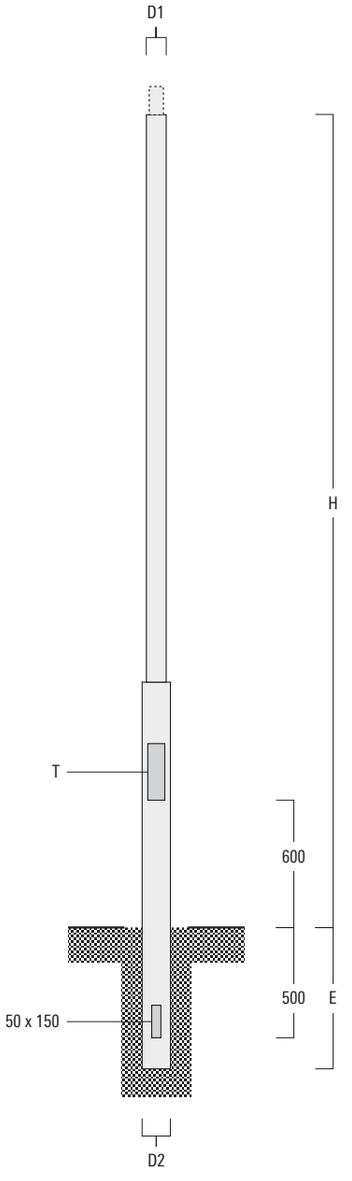
Chrome-free conversion coating with superior powdercoat finish in RAL colour.

Service door with stainless locking screw. Suitable for one cable connecting box.

Standard version with planted root and cable entry hole.

Please specify RAL colour reference number according to the WE-EF RAL Colour Chart.

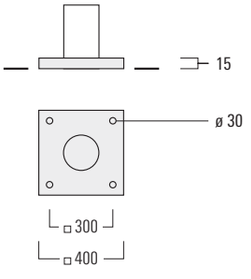
Special version with surface mounting flange plate is available on request.



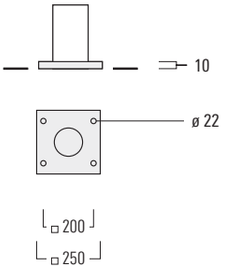
For mounting bracket (ø 76 x 80) and (ø 76 x 130)

		T	H	E	D1	D2	kg
AM-S 30	240-0584	85 x 300	3000	600	76	108	22.6
AM-S 35	240-0585	85 x 300	3500	700	76	108	26.0
AM-S 40	240-0586	85 x 300	4000	700	76	108	30.0
AM-S 45	240-0587	85 x 300	4500	700	76	108	33.4
AM-S 50	240-0588	85 x 300	5000	800	76	108	37.0
AM-S 55	240-0589	85 x 300	5500	800	76	108	41.0
AM-S 60	240-0590	85 x 300	6000	800	76	108	45.0

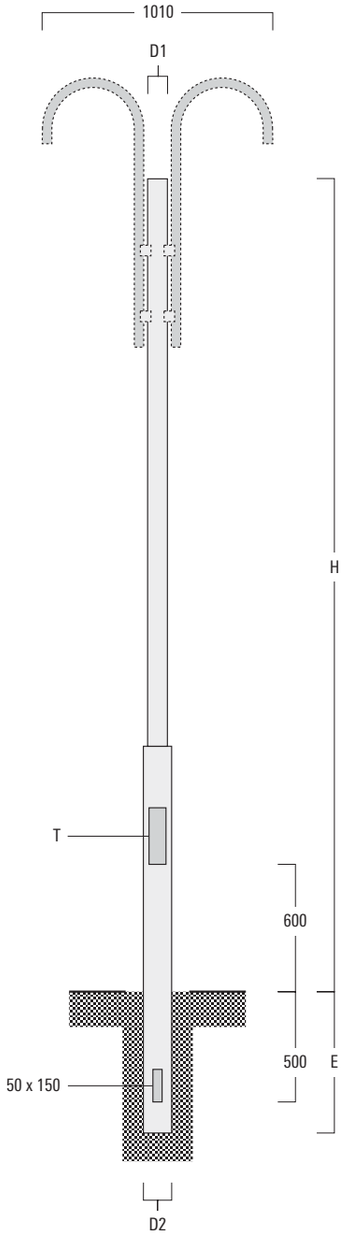
For mounting bracket (ø 76 x 80)		T	H	E	D1	D2	kg
AM-S 30	240-1450	90 x 400	3000	600	89	152	29.0
AM-S 35	240-1451	90 x 400	3500	700	89	152	32.0
AM-S 40	240-1452	90 x 400	4000	700	89	152	35.0
AM-S 45	240-1459	90 x 400	4500	700	89	152	38.0
AM-S 45	240-1453	90 x 400	4500	700	102	152	38.0
AM-S 50	240-1454	90 x 400	5000	800	102	152	46.0
AM-S 55	240-1455	90 x 400	5500	800	102	152	55.0
AM-S 60	240-1456	90 x 400	6000	800	102	152	64.0



Special version with
surface mounting flange plate
for H: > 5000
on request



Special version with
surface mounting flange plate
for H: ≤ 5000
on request

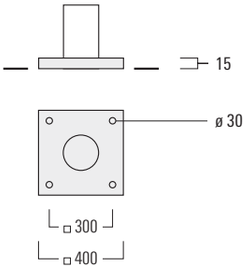


For mounting bracket BC1

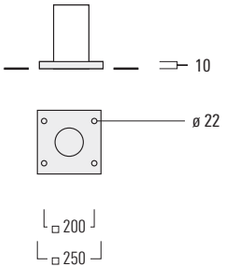
		T	H	E	D1	D2	kg
AM-S-B1 30	240-0594	85 x 300	3000	600	76	108	22.6
AM-S-B1 35	240-0596	85 x 300	3500	700	76	108	26.0
AM-S-B1 40	240-0598	85 x 300	4000	700	76	108	30.0
AM-S-B1 45	240-0600	85 x 300	4500	700	76	108	33.4
AM-S-B1 50	240-0602	85 x 300	5000	800	76	108	37.0
AM-S-B1 60	240-0606	85 x 300	6000	800	76	108	45.0

For mounting bracket BC2

		T	H	E	D1	D2	kg
AM-S-B2 30	240-0595	85 x 300	3000	600	76	108	22.6
AM-S-B2 35	240-0597	85 x 300	3500	700	76	108	26.0
AM-S-B2 40	240-0599	85 x 300	4000	700	76	108	30.0
AM-S-B2 45	240-0601	85 x 300	4500	700	76	108	33.4
AM-S-B2 50	240-0603	85 x 300	5000	800	76	108	37.0
AM-S-B2 60	240-0607	85 x 300	6000	800	76	108	45.0



Special version with
surface mounting flange plate
for H: > 5000
on request



Special version with
surface mounting flange plate
for H: ≤ 5000
on request

AM-K / AM-K-K POLE SERIES

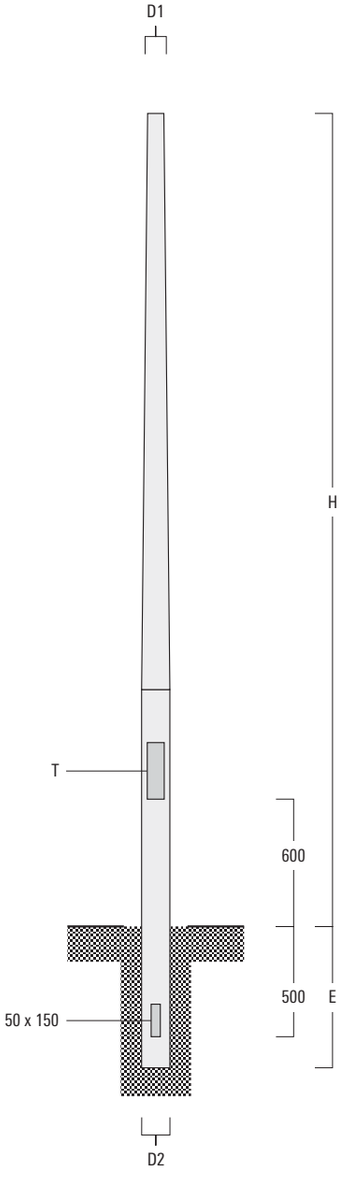
Tubular steel, tapered, seamless. Hot dipped galvanised inside and out.
Chrome-free conversion coating superior powdercoat finish in RAL colour is available up to a maximum length of H + E < 9.3 m.

Service door with stainless locking screw. Suitable for one cable connecting box.

Standard version with planted root and cable entry hole.

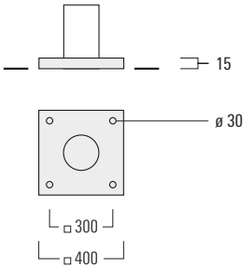
Please specify RAL colour reference number according to the WE-EF RAL Colour Chart.

Special version with surface mounting flange plate is available on request.

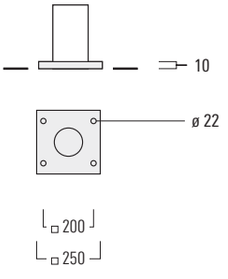


For mounting bracket (ø 76 x 80) and (ø 76 x 130)

		T	H	E	D1	D2	kg
AM-K 30	240-0699	85 x 300	3000	600	76	108	26.0
AM-K 35	240-0484	85 x 300	3500	700	76	108	31.0
AM-K 40	240-0345	85 x 300	4000	800	76	108	35.0
AM-K 45	240-0536	85 x 300	4500	800	76	114	38.0
AM-K 50	240-0659	85 x 300	5000	800	76	114	43.0
AM-K 60	240-0561	90 x 400	6000	1000	76	121	58.0
AM-K 70	240-0627	90 x 400	7000	1200	76	133	79.0
AM-K 75	240-0186	90 x 400	7500	1300	76	133	84.0
AM-K 80	240-0511	90 x 400	8000	1300	76	168	119.0
AM-K 90	240-0200	90 x 400	9000	1400	76	168	135.0
AM-K 100	240-0206	90 x 400	10000	1500	76	168	186.0



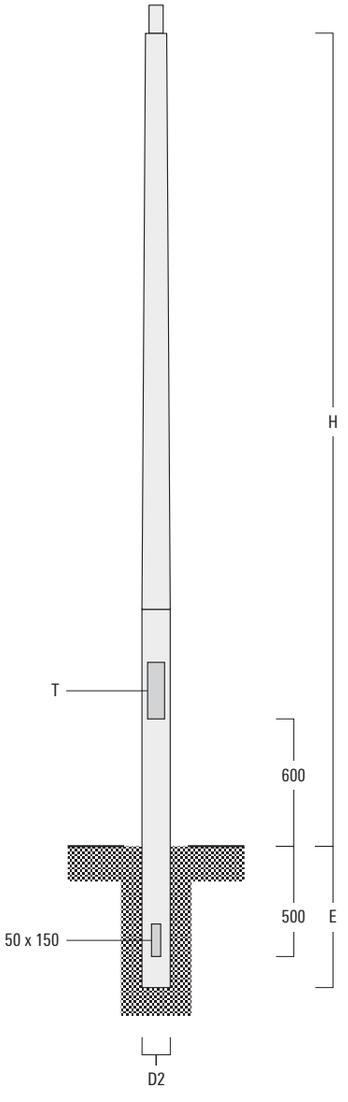
Special version with
surface mounting flange plate
for H: > 5000
on request

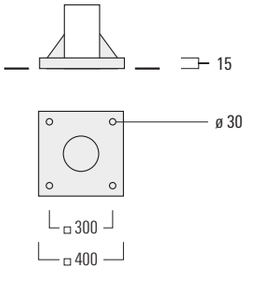


Special version with
surface mounting flange plate
for H: ≤ 5000
on request

For mounting bracket (ø 76 x 130)

Poles for increased load capacity		T	H	E	D2	kg
AM-K-K 40	240-0628	90 x 400	4000	800	133	44.0
AM-K-K 45	240-0629	90 x 400	4500	800	133	49.0
AM-K-K 50	240-0630	90 x 400	5000	800	168	75.0
AM-K-K 60	240-0631	90 x 400	6000	1000	168	91.0
AM-K-K 70	240-0632	90 x 400	7000	1200	168	105.0
AM-K-K 75	240-0633	90 x 400	7500	1200	168	113.0
AM-K-K 80	240-0634	90 x 400	8000	1200	168	119.0
AM-K-K 90	240-0635	90 x 400	9000	1400	168	135.0
AM-K-K 100	240-0636	90 x 400	10000	1500	168	186.0





Special version with
surface mounting flange plate
on request

AML-K POLE SERIES

Tubular aluminium, tapered.

Chrome-free conversion coating with superior powdercoat finish in RAL colour.

Specify required spigot dimensions when ordering.

Service door with stainless locking screw. Suitable for one cable connecting box.

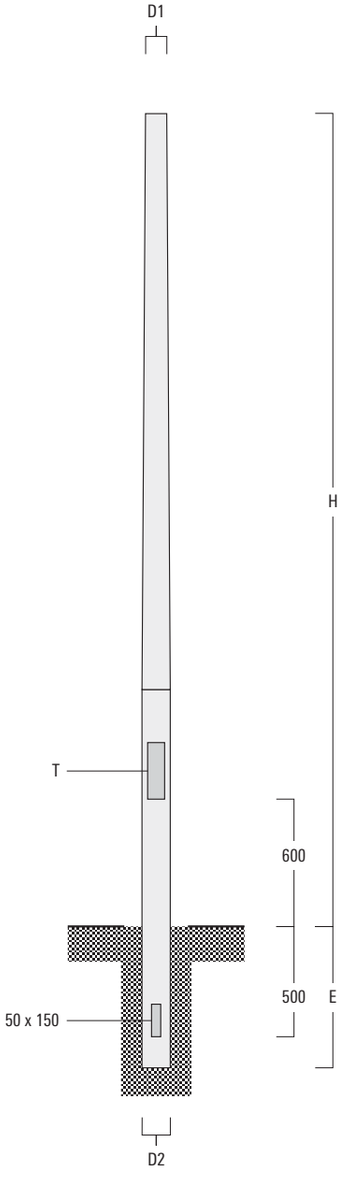
Standard version with planted root and cable entry hole with cable protection.

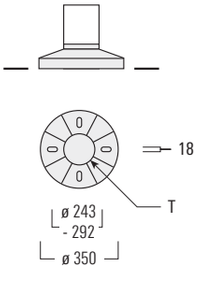
Please specify RAL colour reference number according to the WE-EF RAL Colour Chart.

Special version with surface mounting cast base, for installation to a concrete foundation or to a separate planted root, is available on request.

For mounting bracket (ø 76 x 80) and (ø 76 x 130)

		T	H	E	D1	D2	kg
AML-K 30	240-0221	85 x 400	3000	800	76	114	10.0
AML-K 35	240-0226	85 x 400	3500	800	76	114	11.0
AML-K 40	240-0233	85 x 400	4000	800	76	114	12.0
AML-K 45	240-0238	85 x 400	4500	800	76	114	13.0
AML-K 50	240-0242	85 x 400	5000	900	76	114	15.0
AML-K 60	240-0248	85 x 400	6000	900	76	120	21.0





Special version
with cast base
on request

BMW car dealer Riller & Schnauck am Hindenburgdamm. Berlin (D). Planning: Uwe Nüßer, Gebäudemanagement Riller & Schnauck.

AM-V POLE SERIES

Tubular steel, tapered, curved. Hot dipped galvanised inside and out.

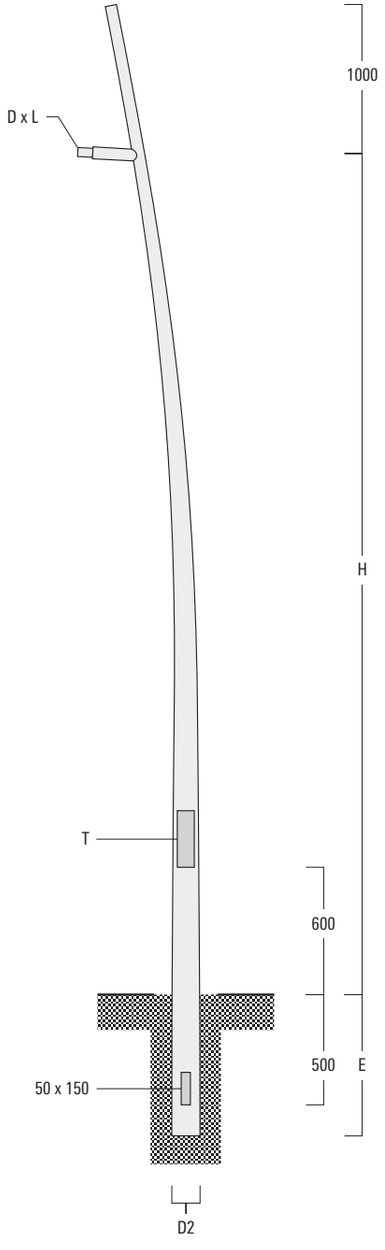
Chrome-free conversion coating superior powdercoat finish in RAL colour is available.

Service door with stainless locking screw. Suitable for one cable connecting box.

Standard version with planted root and cable entry hole.

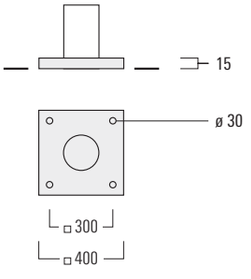
Please specify RAL colour reference number according to the WE-EF RAL Colour Chart.

Special version with surface mounting flange plate is available on request.

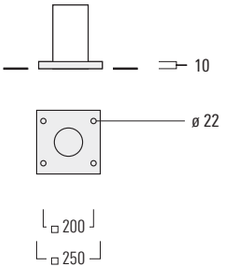


For spigot mounted luminaires (ø 42 x 100) or (ø 60 x 100)

		D x L	T	H	E	D2	kg
AM-V 40	240-1149	ø 42 x 100	90 x 400	4000	800	157	83.6
AM-V 40	240-1150	ø 60 x 100	90 x 400	4000	800	157	83.6
AM-V 60	240-1151	ø 42 x 100	90 x 400	6000	1000	191	118.7
AM-V 60	240-1152	ø 60 x 100	90 x 400	6000	1000	191	118.7
AM-V 80	240-1153	ø 42 x 100	90 x 400	8000	1300	223	162.0
AM-V 80	240-1154	ø 60 x 100	90 x 400	8000	1300	223	162.0



Special version with
surface mounting flange plate
for H: ≥ 6000
on request



Special version with
surface mounting flange plate
for H: ≤ 4000
on request

Aller bridge. Celle (D). Lighting design: SSP - Schmitz Schiminski Partner, Hildesheim.

FM-K FLOODLIGHTING POLE SERIES

Tubular steel, tapered. Hot dipped galvanised inside and out.

Standard version with planted root and cable entry hole.

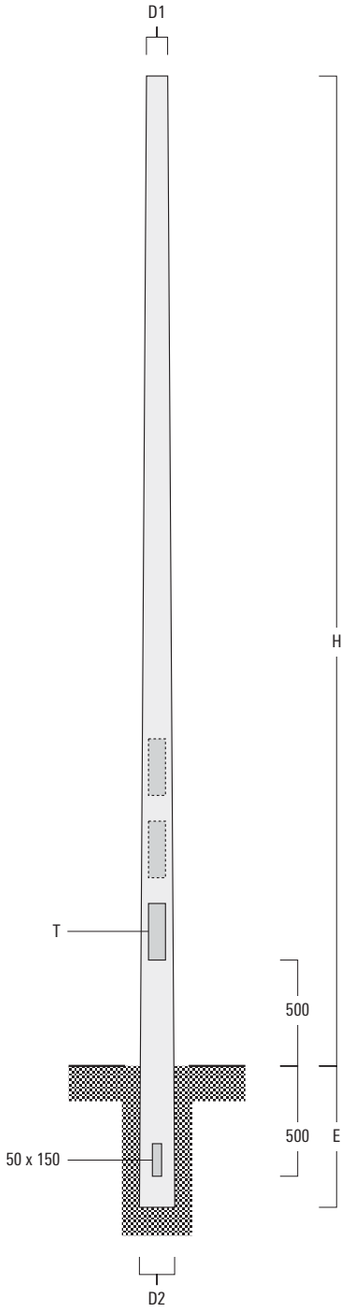
One, two or three service doors, depending on application.

Poles are supplied in two sections for nominal heights of 16 m or above.

Optional climbing rungs from 3 m above ground are available at additional charge.

The maximum windage area is dependant on location.

The maximum permissible number of floodlights require individual calculations.



For mounting brackets (ø 76), (ø 89) or (ø 108)

			T	H	E	D1	D2	kg
FM-K 10	260-0001	1 door	90 x 400	10000	1500	108	223	189.0
FM-K 10	260-0003	2 doors	90 x 400	10000	1500	108	223	189.0
FM-K 12	260-0055	1 door	90 x 400	12000	1500	76	211	198.0
FM-K 12	260-0056	1 door	90 x 400	12000	1500	89	223	221.0
FM-K 12	260-0004	1 door	90 x 400	12000	1500	108	243	247.0
FM-K 12	260-0008	2 doors	90 x 400	12000	1500	108	243	247.0
FM-K 16	260-0013	1 door	140 x 600	16000	1500	108	272	380.0
FM-K 16	260-0015	2 doors	140 x 600	16000	1500	108	272	380.0
FM-K 18	260-0018	1 door	140 x 600	18000	1500	108	292	462.0
FM-K 18	260-0019	2 doors	140 x 600	18000	1500	108	292	462.0
FM-K 18	260-0021	3 doors	140 x 600	18000	1500	108	292	462.0

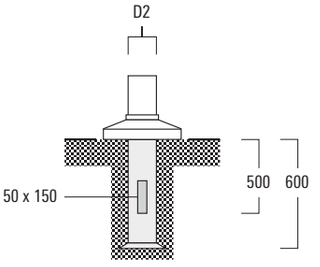
Middlehaven. Middlesbrough (UK). Architect: SMC Alsop/Studio Egret West/FAT. Landscape architect: Grant Associates.

MOUNTING ACCCESSORIES

Planted root

for mounting of poles with cast base. Tubular steel, hot dipped galvanised inside and out. Stainless steel hardware.

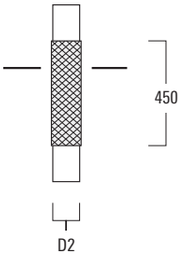
			kg
ESV6	300-0457	for poles AML-K with D2: > 100	11.2



Anti corrosion sleeve

Made from Polyethylene (HDPE), to protect against corrosion of the pole's inground section.
Factory installed component.

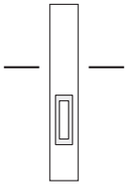
KSM100	300-0790	for poles with D2 = 89-114
KSM115	300-0321	for poles with D2 = 120
KSM125	300-0791	for poles with D2 = 133-140
KSM160	300-0325	for poles with D2 = 152-168
KSM200	300-0329	for poles with D2 = 168-219
KSM230	300-0331	for poles with D2 = 220-230
KSM315	300-1019	for poles with D2 = 290-340



Cable protection

Made from Polyethylene (LDPE), to prevent damage to the underground cable insulation.

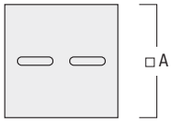
KST150	300-0323	for cable entry hole 50 x 150



Base plate

Galvanised steel, including fixing hardware.

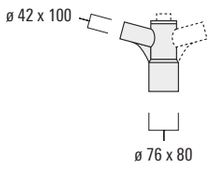
GP-200	300-0802	A = 200	for poles with D2: ≤ 114: AM-Z, AM-S, AM-S-B, AM-R, AM-K
GP-300	300-0803	A = 300	for poles with D2: > 114: AM-Z, AMW-Z, AM-R, AM-K, AM-K-K, AM-V



Post top fitter

Corrosion resistant aluminium alloy, coated/uncoated. Requires additional 'LS' spigots or 'AV' bracket extensions to mount luminaires.

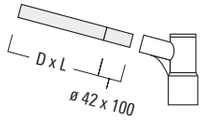
		kg
AK101	300-0556	2.2
AK102	300-0558	2.5
AK103	300-0559	2.8



Spigot

Corrosion resistant aluminium alloy or galvanised steel, coated/uncoated, for post top fitter AK.

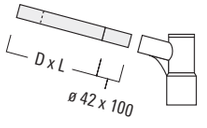
		D x L	kg
LS42	300-0022	ø 42 x 100	0.4
LS42	300-0023	ø 42 x 250	0.7
LS42	300-0358	ø 42 x 400	1.1
LS60	300-0024	ø 60 x 100	0.8
LS60	300-0359	ø 60 x 250	1.4
LS60	300-0360	ø 60 x 400	1.9

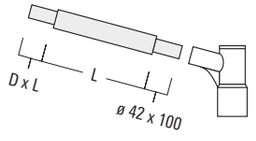


Extension bracket

Galvanised steel, coated/uncoated, for post top fitter AK.

		D x L	L	kg
AV-50	300-0333	ø 42 x 100	500	2.8
AV-50	300-0336	ø 60 x 100	500	2.8
AV-80	300-0338	ø 42 x 100	800	4.1
AV-80	300-0341	ø 60 x 100	800	4.1
AV-100	300-0343	ø 42 x 100	1000	5.1
AV-100	300-0345	ø 60 x 100	1000	5.1
AV-150	300-0353	ø 42 x 100	1500	7.3
AV-150	300-0355	ø 60 x 100	1500	7.3





Technical information

IOS® INNOVATIVE OPTICAL SYSTEM

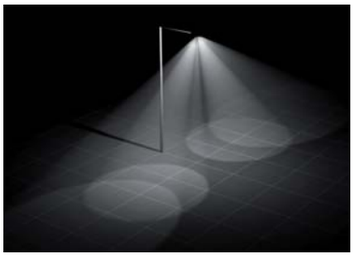
Supported by an in-house lighting laboratory that develops high-performance innovative optical systems IOS®, WE-EF combines the latest advances in LED technology with specially-designed lenses. When applied to streetlighting, IOS® optimises luminaire spacing while ensuring the best lighting result.

OLC® Technology

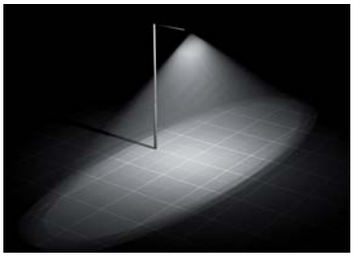
WE-EF has taken the unique and critical features of LEDs (e.g., long lifetime) as the basis for OLC® One LED Concept. The current trend in LED streetlighting has the LEDs with either a symmetric or elliptical distribution in order to achieve uniformity. The interaction and overlapping of the beams from the individually-oriented LEDs provides the overall light level and, to some extent, uniform distribution. This standard solution is known as the multi-spot technique. However, WE-EF has moved away from this thinking and adopted, via OLC® technology, the multi-layer principle. Each LED, in combination with the special 'butterfly' lens, illuminates the same area. The sum of all the layers provides a uniform output.

The multi-layer principle has five advantages:

- If one LED fails and the light level drops, uniformity is retained.
- As well as dimming, it is possible to simply switch off individual or groups of LEDs to reduce the light level.
- The system ensures through modular engineering that groups of LEDs can be simply and quickly exchanged. The same linear board system means that when more efficient LEDs become available, they can simply be retrofitted. The photometric performance remains the same.
- OLC® technology has been developed with the future in mind.
- Light is strictly controlled, and any light pollution is kept to an absolute minimum through the exact aiming of the LEDs in combination with the unique 'butterfly' lens.



Standard Solution: Multi Spot

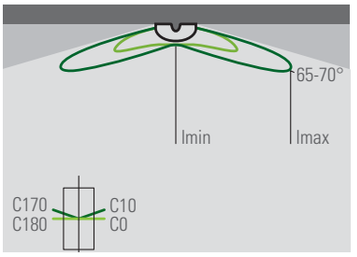


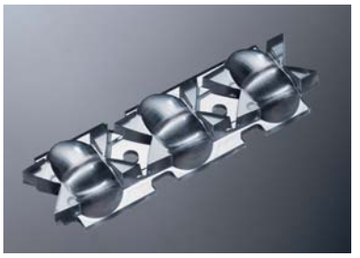
WE-EF Solution: Multi Layer

The OLC® technology (multi-layer principle) is the ideal method for achieving a uniform and energy saving lighting solution, particularly for streetlighting, providing highest safety in ensuring that the failure of individual LEDs does not lead to an adverse affect in the lighting. It balances the needs for safety with visual comfort and energy savings.

[P65] Lens – The advantages of this lens are:

- Optimised for illuminance-based design work (maximum spacing). The 65–70 references the nominal angle of peak intensity from nadir (downward vertical).
- Pedestrian and bicycle lane distribution.
- No light above the horizontal (ILE Class E1/E0). Ideal for pedestrian and bicycle lanes according to the criteria for illuminance EN DIN 13201, Class S2 – S4.

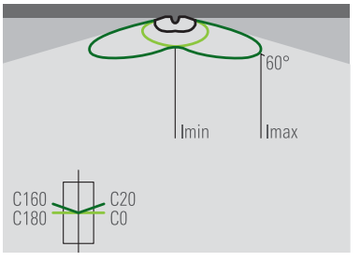




[P65]

[S60] and **[S65] Lenses** – The advantages of these lenses are:

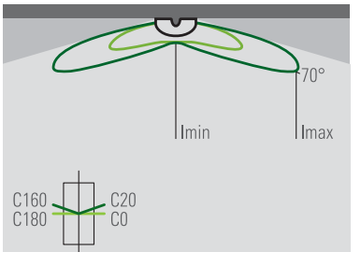
- Optimised for luminance-based design work (high visual comfort). The '60' references the nominal angle of peak intensity from nadir (downward vertical).
- Streetlighting distribution.
- No light above the horizontal (ILE CLASS E1/E0). Ideal for streetlighting according to the criteria for luminance EN DIN 13201, Class ME3-ME6. For a one-sided arrangement, guaranteed spacing = 5-5.5 x MH Ul ≥ 0.4, Ti <15 per cent.



[S60]

[S70] Lens – The advantages of this lens are:

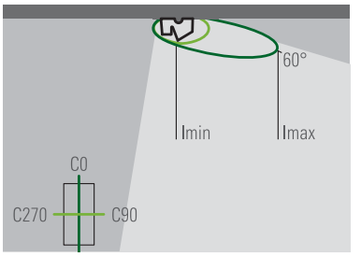
- Optimised for illuminance-based design work (maximum spacing). The '70' references the nominal angle of peak intensity from nadir (downward vertical).
- Streetlighting distribution.
- No light above the horizontal (ILE CLASS E1/E0). Ideal for streetlighting according to the criteria for illuminance EN DIN 13201, Class S1-S6. For a one-sided arrangement, guaranteed spacing = 7-9 MH Uniformity Uo ≥ 0.2-0.4, with good visual comfort (the norm does not provide specific values for glare limitation).



[S70]

[A60] and **[R65] Lenses** – The advantages of these lenses are:

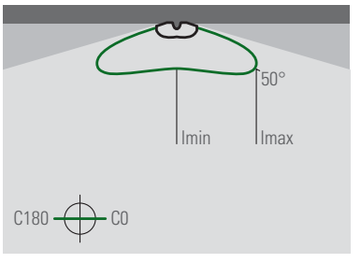
- A comparable performance to conventional asymmetric 'forward throw' HID reflectors.
- Nominal angle of peak intensity through C0 60-65°.
- Rearward spill limited to an angle of 10°.
- No light above the horizontal (ILE CLASS E1/E0). Ideal for lighting public spaces where visual comfort (glare) is a critical factor.



[A60]

[C50] and **[R] Lenses** – The advantages of these lenses are:

- Optimised for illuminance-based design work (maximum spacing) with good visual comfort.
- Symmetric and rectangular distribution
- For [C50] maximum angle of peak intensity through C0 50°. For [R] maximum angle peak intensity through C0 65°, C90 45°. The [R] distribution has a forward to side ratio of 1:2. No light above the horizontal (ILE Class E1/E0). Ideal for lighting public spaces where both uniformity and visual comfort are critical factors.



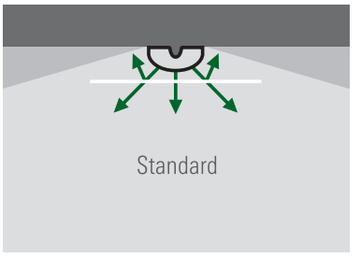
[C50]

IOS® INNOVATIVE OPTICAL SYSTEM

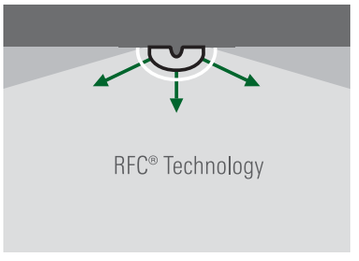
RFC® Technology

RFC® technology is designed to complement the streetlighting versions and it is an important method of further enhancing system performance.

- The conventional flat-glass panel or cover is replaced by a UV-stabilised panel which has a contoured surface, contoured in a way that imitates the shape of the 'butterfly' lens; the goal is to minimise the loss of light that normally occurs due to internal reflection. The RFC® technology is available for the WE-EF lens systems [P65] [S60] [S65] [S70] [A60] [R65] [C50] [R].
- In the case of the [S60] lens, the benefits include the transmission factor at the critical 60° (downwards vertical), which is improved by ~20 per cent. With the [S70] lens, at the critical 70°, the transmission factor is improved by ~30 per cent. As much as 5 per cent will be added to the light output ratio (LOR) of both luminaires.
- In the case of the [S60] lens, this means there is a modest improvement in spacing due to it being a luminance-optimised luminaire. In the case of the [S70] lens, which is optimised for illuminance design work, important increases have been achieved in spacing. This adds to the economic and environmental case favouring the OLC® One LED Concept technology with the special 'butterfly' lens.



Standard distribution



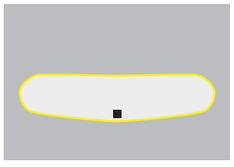
RFC® distribution

The contour of the cover follows the shape of the lens, thereby minimising the internal reflection within the luminaire caused by the light hitting the cover.

IOS® INNOVATIVE OPTICAL SYSTEM

LED beam distribution

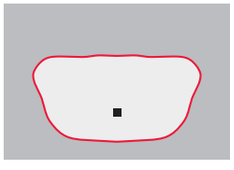
The modular construction of WE-EF LED luminaires makes optimised distribution possible for different lighting solutions.



[P65] Pedestrian / bicycle lane distribution. Illuminance optimised lens, based on Class S2-S4 from EN 13201.

Spacing 5 – 7 x mounting height.

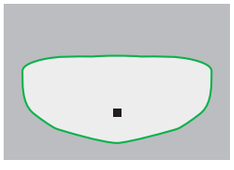
Typical mounting height 3 – 5 m.



[S60] Streetlighting distribution, luminance-optimised lens, based on Class ME3-ME6 from EN 13201.

Spacing 5 to 5.5 times the mounting height; Ti<15 per cent.

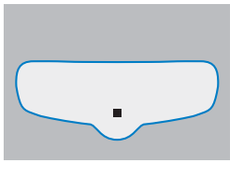
Typical mounting height 3 m to 6 m.



[S65] Streetlighting distribution including intersections and public spaces, luminance-optimised lens, based on Class ME3-ME6 from EN 13201.

Spacing 5 to 5.5 times the mounting height; Ti<15 per cent.

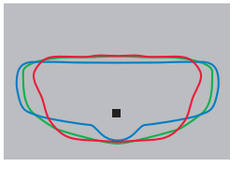
Typical mounting height 6 m to 10 m.



[S70] Streetlighting distribution, illuminance-optimised lens, based on Class S1-S6 from EN 13201.

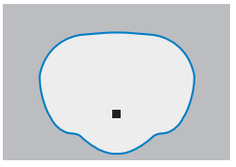
Spacing 7 to 9 times the mounting height; Ti<15 per cent.

Typical mounting height 3 m to 6 m.



[S60] [S65] [S70]

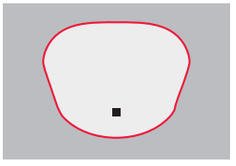
light distributions in comparison.



[R65] Rectangular forward throw distribution for lighting public spaces and car parks.

Maximum angle of peak intensity (side and forward) approximately under 65°. Rearward spill limited to an angle of 10°.

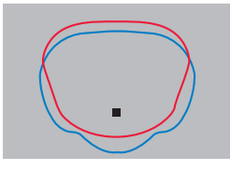
Typical mounting height 4 m to 8 m.



[A60] Asymmetric forward throw distribution for lighting public spaces.

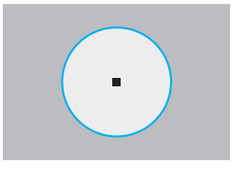
Maximum angle of peak intensity 60°-65°. Rearward spill limited to an angle of 10°.

Typical mounting height 4 m to 8 m.



[A60] [R65]

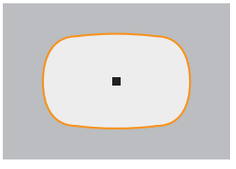
light distributions in comparison



[C50] Symmetric distribution for lighting public spaces and car parks.

Maximum angle of peak intensity approximately 50°. Glare index G1 from EN 13201.

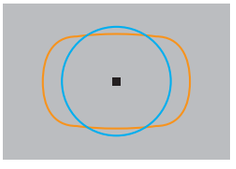
Typical mounting height 4 – 6 m.



[R] Rectangular distribution for lighting public spaces and car parks.

Maximum angle of peak intensity approximately 45° and 65°. Glare index G1 from EN 13201.

Typical mounting height 4 – 6 m.



[C50] [R]

light distributions in comparison

LED ENGINEERING

The development of high quality and efficient LED lenses is one of WE-EF's core competencies. WE-EF possesses the expertise for design, engineering and production.

WE-EF is able to apply its expertise gained from a long experience in the development and operation of LEDs. For example, at the SONY Center in Berlin, 12 years ago, WE-EF was involved with one of the first major LED projects. It was an invaluable advantage, both in understanding today's possible LED technology and in converting this knowledge into innovative lighting solutions.

Definitions

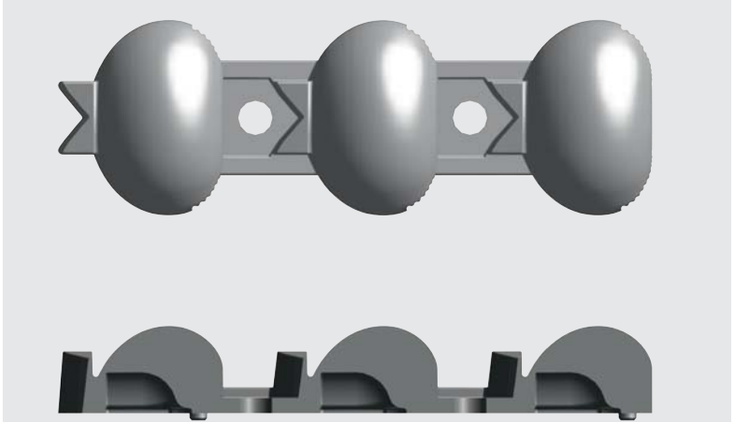
The terms and definitions used in this section are based on the document entitled 'Guidelines for project design safety in LED lighting' (Leitfaden Planungssicherheit in der LED-Beleuchtung) as published by the German Electrical and Electronic Manufacturers' Association (ZVEI) in November 2015.

Rated input power P (W): the effective input of a luminaire, comprising the power consumption of all components integrated in the luminaire.

Rated luminous flux Φ_v (lm): the total radiant flux of a luminaire in its visible range, also known as the initial luminous flux.

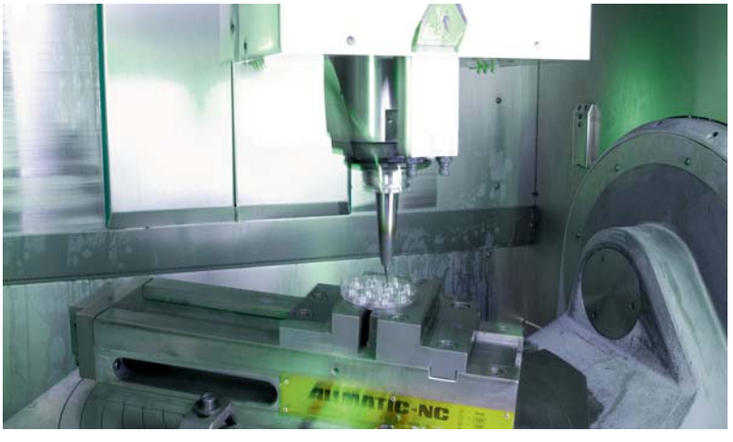
Luminaire efficacy η_v (lm/W): the quotient of the rated luminous flux and the rated input power.

Rated ambient operating temperature T_a (°C): the maximum ambient temperature at which a luminaire can be operated whilst still maintaining all safety-relevant parameters. In this catalogue, Ta = 25°C. However, please note that the majority of the

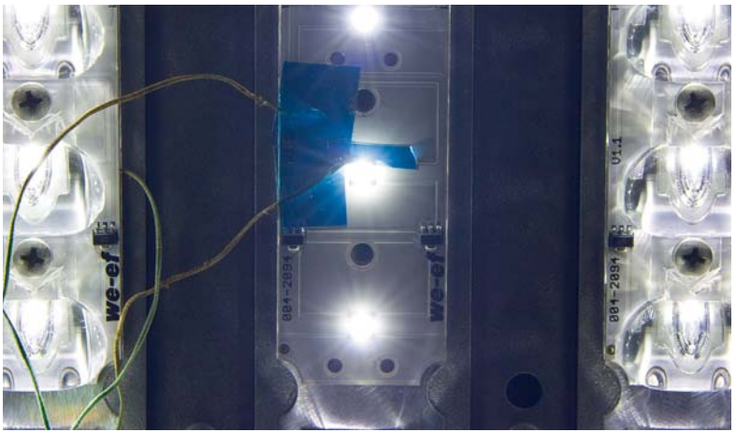


CAD design, optical simulations, prototypes, verification and injection moulding tooling are all used in WE-EF's development and production facilities.

WE-EF LED boards fitted with high-quality LEDs, which have narrowly-defined binning tolerances, guarantee high-visual comfort.



For every LED lens type a prototype is prepared in WE-EF's tooling shop, which is then measured and optimised.



The junction temperature T_J of the LEDs in operation is important for defining lumen depreciation and lifetime.

luminaires listed have a significantly higher rated temperature T_a.
Contact WE-EF to request data for a particular luminaire.

Rated ambient performance temperature T_q (°C): the maximum ambient temperature at which a luminaire reaches the specified values for luminous flux and service life, for example. All of the data in this catalogue is based on a rated ambient temperature of T_q = 25°C.

Rated service life L_xB_y (h): the number of hours after which
a) a group of LED luminaires have dropped to a luminous flux of x (%)
b) a number y (%) of LED luminaires have dropped below the specified luminous flux

Example:
Requirement $L_{70}B_{10}$ – 60,000 h means that after 60,000 hours the group of LED luminaires in question must still provide 70% of the initial luminous flux, whereby 10% of the LED luminaires in question are permitted to provide less than 70% of the initial luminous flux.

Using either a 1-10V or DALI interface with electronic converter, the light output and energy usage of the individual luminaires can be controlled.

In all WE-EF luminaires the LED boards can be individually exchanged without special tools.

All components of the luminaire are engineered for reliability and longevity.

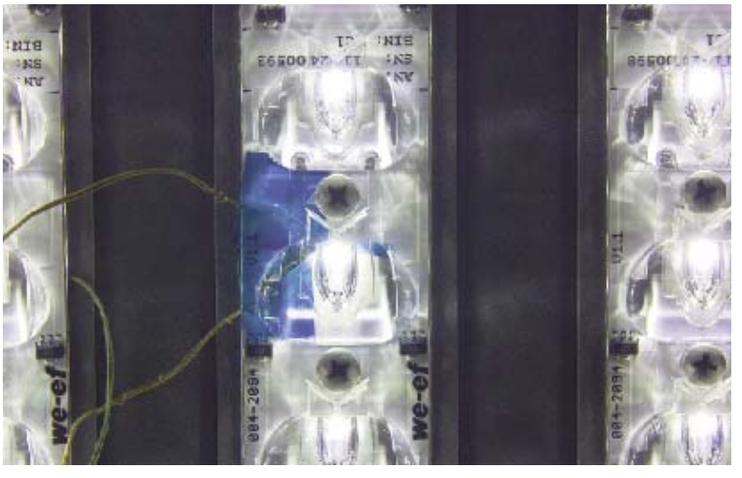
LED ENGINEERING

Thermal management

Long service life and maximum efficiency can only be achieved with perfectly coordinated thermal management. WE-EF products discharge the heat generated by the LEDs through the enclosure that contains a built-in heat sink. As part of a first development step, thermal conditions are simulated with the relevant computer programs and optimised at a theoretical level. Once this optimisation process is complete, prototypes are produced for each luminaire, which are then subjected to intensive testing until they provide results that meet the requirements. WE-EF guarantees optimised heat discharge with maximum service life and minimal reduction in luminous flux.

The luminaire housing is made from die-cast aluminium with integrated heat sink. This, in addition to the excellent heat-conducting properties of aluminium, helps to optimise thermal management.

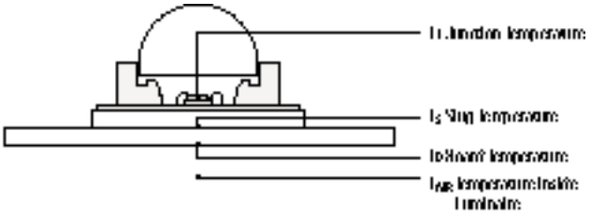
Thermal simulation results are verified using prototypes and actual products before a new luminaire is introduced to the market.



Extensive stress testing is carried out under extreme operating conditions. Products tested in this manner perform exceptionally well under normal field conditions.

LED Lighting Emitting Diodes

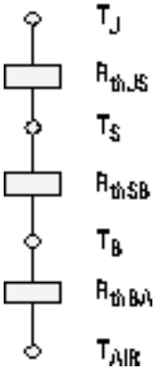
As a luminaire manufacturer, WE-EF aims to shape the thermal conditions in the luminaire so as to ensure that the LEDs are operated at the optimum working point and overloads can be avoided. The product data sheets of the LED manufacturers, which are based on the results of tests and mathematical calculations, form the foundation for ensuring that these tasks can be performed successfully. An assessment of whether an LED in a luminaire is operated in an optimum manner and the effects on service life and reduction in luminous flux is much more complex than for conventional lamps, and therefore requires more attention.



Thermal resistance R_{th}

One of the main focus areas of LED developments in recent years was and is the reduction in thermal resistance $R_{th} = R_{thJS} + R_{thSB} + R_{thBA}$ (resistance between the LED's junction temperature and the temperature on the inside of the luminaire). The smaller the resistance, the smaller the LED's thermal load. This leads to higher luminous flux and reduced ageing, and hence to a longer service life. A luminaire manufacturer can influence thermal resistance by

- developing optimised cooling elements for specific applications,
- guaranteeing clean and level contact surfaces between the LED circuit board and the heat sink, and
- selecting materials with very high thermal conductivity for the LED circuit boards, for example aluminium or ceramics. Circuit boards made of plastics are not suitable in this context.

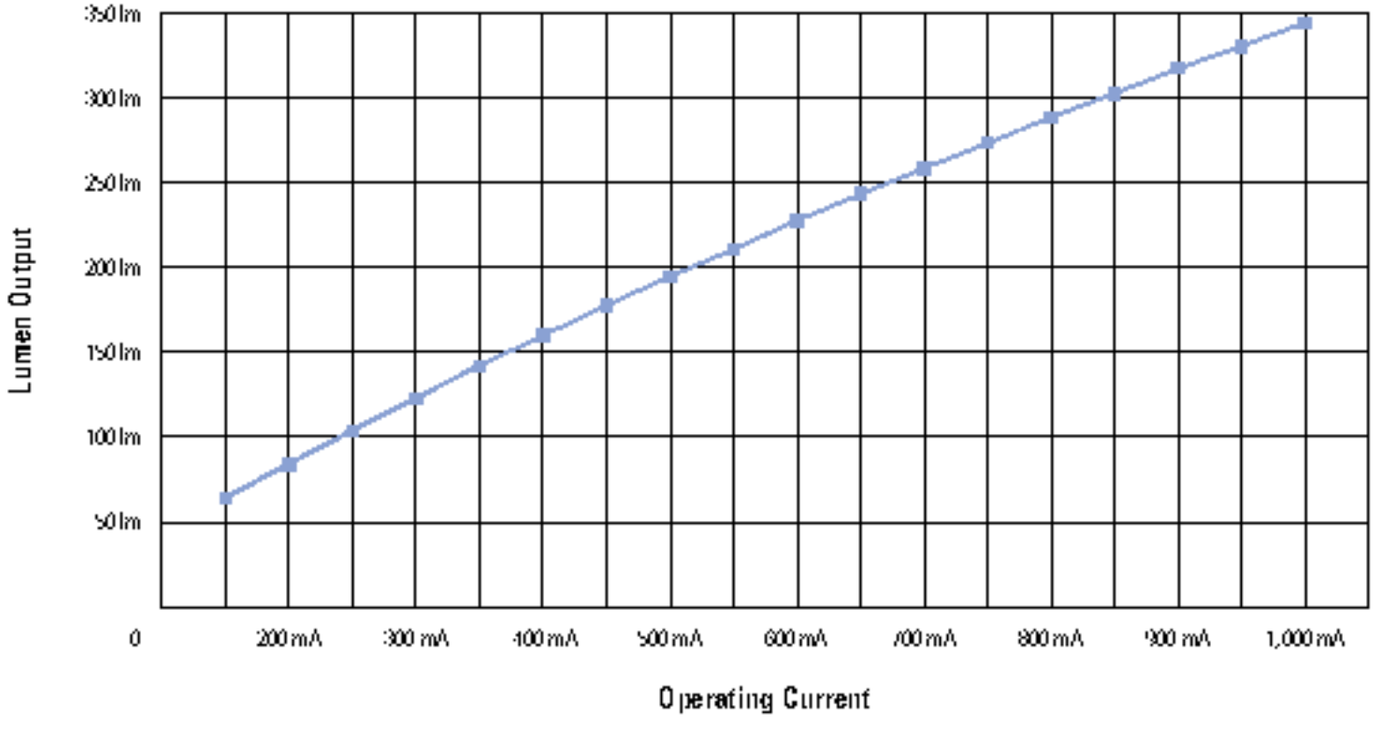


LED ENGINEERING

Operating current I_f

LEDs can be operated with a variety of currents. While at present currents range between 350 mA, 500 mA, 700 mA and 1,050 mA, there is also a development trend towards 1,400 mA and up to 4,000 mA. The higher the operating current, the higher the luminous flux. Unfortunately, LEDs also feature a declining operating current/luminous flux characteristic line. In other words, increases in operating current are accompanied by disproportionately low increases in luminous flux, and luminaire efficacy (lumen/watt) also decreases. The ideal situation is a proportional linear relationship between operating current and luminous flux.

The non-linearity between operating current and luminous flux increases as the temperature of the junction temperature (T_J) increases.



Service life and junction temperature T_J

The service life information provided by LED manufacturers is based on measurements pursuant to LM-80-08 (minimum testing 6,000 h). By combining these measurement values with mathematical calculation models according to TM-21, it is possible to make statements about the behaviour of LEDs during a significantly larger time frame. Today, it is possible to expect a rated service life according to TM-21 of up to 6 times the measured time period. This calculation can be used as a basis to extrapolate a service life curve and draw conclusions regarding the expected service life.

(It is now up to the luminaire manufacturer to transfer these results to the luminaires, which in turn requires them to conduct extensive testing on their luminaires.)*

The service life indications that are derived from this process are based on certain assumptions, which must be clearly documented. Information on the following is required:

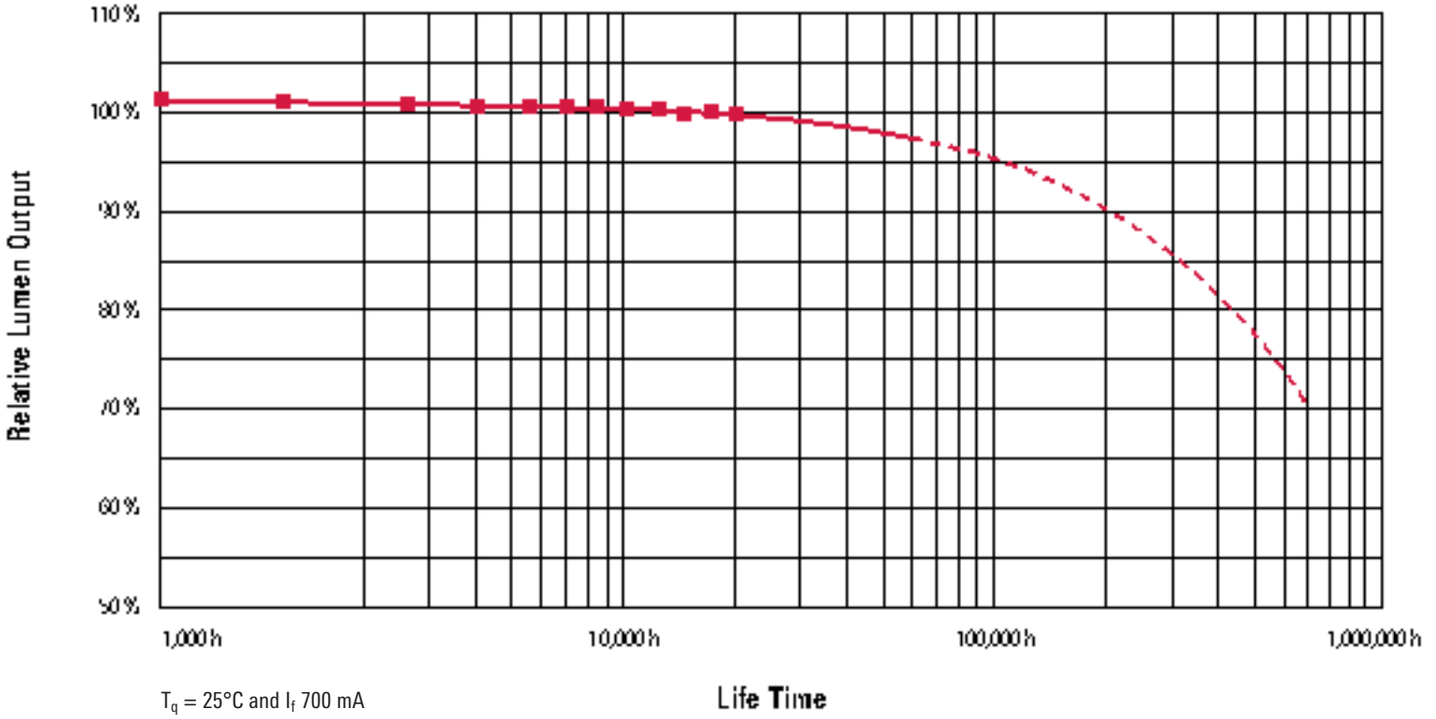
- Maximum rated ambient performance temperature (T_q);
- Operating current (I_f);
- Service life L_xB_y

If for example the average rated ambient performance temperature T_q is 30°C (basis T_q = 25°C) for an application, then the so-called junction temperature T_J will also increase by the difference (30°C – 25°C).

The junction temperature T_J is different for each luminaire, depending on system performance and operating current. This temperature is a maximum of 85°C on average for all of the luminaires shown in this catalogue, which are fitted with the maximum number of LEDs and are operated with 700 mA at an average rated ambient performance temperature of 25°C.

LEDs also undergo an ageing process similar to conventional lamps, i.e. the initially available rated luminous flux decreases the longer the LED is in operation. The lower the LED's thermal load, the lower the reduction in luminous flux. The diagram below illustrates the dependency of an LED's luminous flux on the service life and the average rated ambient performance temperature at an operating current of 700 mA. The diagram below can be used to calculate the luminous flux that can be expected after a certain operating period.

* WE-EF data is based on continual testing for at least 10,000 h



T_q = 25°C and I_f 700 mA

LED ENGINEERING

Maintenance factor MF

When using conventional lamps, the luminaire manufacturer is only responsible for supplying information pertaining to the luminaire maintenance factor (LMF). With the introduction of LED this method of approach changed. All three values which provide the maintenance factor (MF), are to be provided by the luminaire manfacturer, as LEDs are now a fixed part of the luminaire.

In addition, in LED luminaires, the three factors in terms of how they are derived has changed, which is detailed as follows.

MF = LLMF x LSF x LMF

MF Maintenance Factor
LLMF Lamp Lumen Maintenance Factor
LSF Lamp Survival Factor
LMF Luminaire Maintenance Factor

Lamp lumen maintenance factor LLMF

It is also possible to calculate the luminous flux that can be expected after a defined rated service life by multiplying the respective rated luminous flux with a lamp lumen maintenance factor that takes into account the ageing of the LEDs; this is easier than trying to read the information from the diagram.

Example Luminaire: VFL540 [S70], 4000 K
Part ID: 108-0910
Nominal luminous flux: 8,854 lm
Rated luminous flux: 8,164 lm

Using the information in the table, we obtain a lamp lumen maintenance factor of LLMF = 0.925 for an average rated ambient performance temperature of 25°C, an operating current of 700 mA and a rated service life of 60,000 h. We obtain the following theoretical minimum rated luminous flux after 60,000 h. 8,164 x 0.925 = 7,552 lm.

T_q = 25°C				
I_f [mA]	T_J *** [°C]	TM-21 [1,000 h]	LLMF at 60,000 h	Theoretically Expected Lifetime [1,000 h] L95
350*	45	>60	0.975	170
500*	55	>60	0.950	150
700*	69	>60	0.925	120
1,050**	80	>60	0.950	90
1,400**	90	>60	0.925	80

* based on 30,000 h continual testing with XP-G2 LED and than extrapolated
** based on 6,000 h continual testing with XP-L LED and than extrapolated
*** measured, average junction temperature T_J in nominated luminaire series

Lamp survival factor LSF

According to the information provided by the LED manufacturer, due to SIC technology, the total failure rate of LEDs is very small. It is approximately 750ppm (after 60,000 h, if = 700mA/1,050mA/1,400mA).

LSF = 1

Luminaire maintenance factor LMF

LED Luminaires operate differentely to HID street & area lighting luminaires. Therefore, the factors applied in line with CIE 154:2003 for WE-EF street & area lighting luminaires have been adjusted.

The reasons for, are as follows:

a) reduced insect build-up because of less thermal heat across the outer cover and less UW damage due to lamp source

b) reduced obscuring/ageing of the outer lens due to reduced convection.

Recommended maintenance factor MF after 60.000 h

I_f [mA]	T_J *** [°C]	LLMF	LSF	LMF (4 Years, IP6x)			MF (N)	MF (M)
				N	M	H		
350*	45	0.975	1	0.96	0.92		0.94	0.90
500*	55	0.950	1	0.96	0.92		0.92	0.88
700*	69	0.925	1	0.96	0.92		0.89	0.85
1,050**	80	0.950	1	0.96	0.92		0.92	0.88
1,400**	90	0.925	1	0.96	0.92		0.89	0.85

* based on XP-G2 LED
** based on XP-L LED
*** measured, average junction temperature T_J in nominated luminaire series

N = area with low pollution
M = area with moderate pollution
H = area with high pollution

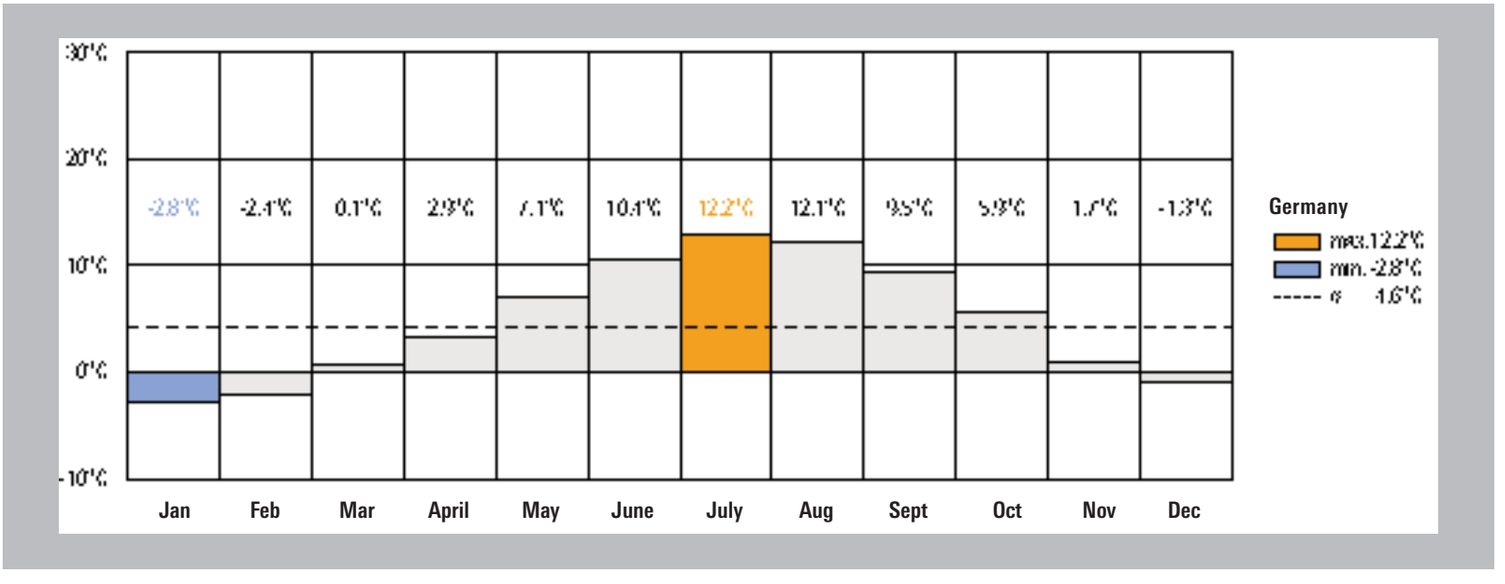
LED ENGINEERING

Rated ambient performance temperature T_q

The Isolux curves shown in this catalogue refer to an average rated ambient performance temperature of 25°C. However, conditions at a particular location will often deviate from this standard and can have a fairly significant influence on the technical lighting quality and service life of a system. If the average rated ambient performance temperature falls below 25°C, then the luminous flux and service life increase, and vice versa if the temperature increases above this level.

To obtain a more precise calculation, we recommend that the average rated ambient performance temperature that applies when the luminaire is in operation (i.e. night-time hours) during the hottest month of the year at its respective location is used as a measurement basis. The national weather services publish this type of data. The diagram and table show the average ambient temperature for several selected European countries. You can use e.g. www.laenderdaten.info to obtain more comprehensive and detailed global data for selected cities and regions in Germany and Europe.

	Germany	Belgium	Finland	France	Ireland	Italy	Croatia	Netherlands	Norway	Austria	Portugal	Russian Federation	Sweden	Switzerland	Slovakia	Spain	Czech Republic	Ukraine	Hungary	U. K.
max. °C in July	12.2	12.7	10.8	15.0	11.7	20.7	19.2	12.4	8.5	10.8	17.7	10.3	11.0	13.5	9.7	18.3	12.3	15.5	14.6	11.9
min. °C in January	-2.8	0.1	-14.4	2.1	3.1	6.2	1.3	-0.6	-6.0	-7.4	9.2	-23.2	-10.8	-0.8	-9.4	8.0	-5.4	-7.7	-5.0	2.8
average temperature °C	4.6	6.1	-1.8	8.6	6.9	13.1	10.3	5.5	0.9	2.1	13.2	-6.5	0.4	5.9	1.0	12.7	4.2	4.3	5.0	7.0



Luminous flux – nominal vs. rated luminous flux

The luminous flux values listed in this catalogue refer to so-called nominal luminous lux levels. They have been obtained from the data sheets of the LED manufacturers and relate to the set operating currents 350 mA, 500 mA, 700 mA, 1,050 mA or1,400 mA at a junction temperature of 85°C. These values are derived from the laboratories of the LED manufacturers, from free-burning LEDs, with so-called pulsed currents. However, the junction temperature increases differently once the LEDs are in operation inside a luminaire. This temperature is set at a maximum 95°C (based on a average rated ambient performance temperature T_q = 25°C) for the WE-EF luminaires shown in this catalogue. This heating up of the LED leads to a change in luminous flux, hence a decrease in the luminous flux which must be recorded when the luminaire is measured in the lighting laboratory. All of the technical lighting data published by WE-EF takes this context into account. It means that technical lighting computer calculations using original WE-EF technical lighting data, such as is available worldwide via DIALUX, also render these correlations correctly. Current information regarding the luminous flux that can be achieved during the operation of the luminaire can be obtained from www.we-ef.com.

PRODUCT INFORMATION

5CE Superior Corrosion Protection

Outstanding and long lasting anticorrosion properties can only be achieved by a comprehensive, integrated approach. The result of many years of research and development, hands-on testing and experience, WE-EF's unique 5CE system encompasses 5 Critical Elements:

1. Substrate
2. Conversion Coating
3. Powder
4. PCS Hardware
5. Process control

Powder Applications

PCS Hardware

1. Substrate

A marine grade, low copper content aluminium alloy is used for all above ground luminaires. Typical alloy composition:

Cu	≤	0.1 %	Zn	≤	0.1 %
Mg	≤	0.1 %	Ph	≤	0.1 %
Si	=	10.0-13.5 %	Sn	≤	0.05 %
Fe	≤	1.0	Ti	≤	0.2 %
Mn	≤	0.5 %	Al	=	Balance
Ni	≤	0.1 %			

2. Conversion Coating

The multi-step pre-treatment and conversion coating process includes degreasing, deoxidizing, etching and depending on product, zirconium conversion coating. It is considered the most effective conversion coat available for aluminium substrates.

Zirconium conversion coating process:

- Acid degreasing / etching
- Clear water rinse
- Counterflow clear water rinse
- Demineralised water rinse
- Zirconium (+polymer) conversion coating (3-10 mg/m²)
- Hot air drying

Strict controls are constantly maintained over the parameters of every step in each process, such as purity, pH, chemical concentrations, temperature, etc. This ensures the best achievable substrate penetration and uniformity of the conversion coat, thereby ensuring optimum corrosion resistance and powdercoat adhesion.

3. Powder

UV-stabilised, architectural grade polyester powder is electrostatically applied (60-100 µm) and oven cured at ~ 200°C. The grade of polyester powder used is based on saturated polyester resins. Combined with UV resistant cross-linking agents and selected pigments, it features outstanding resistance to atmospheric ageing and UV light exposure. Properly applied to a suitable metal substrate, the resulting powdercoat finish exhibits excellent outdoor durability, and complies with German GSB and European QUALICOAT standards.

4. PCS Hardware

All exposed hardware is made from austenitic stainless steel, and additionally sealed with a tough, impregnated polymer coat, which fulfills two functions:

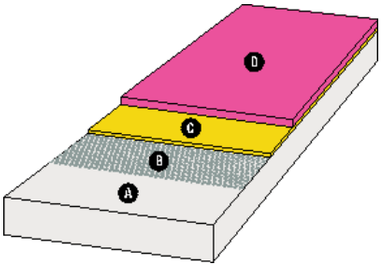
- Reduced friction between male and female thread causes tighter fit between connected parts.
- Non-metallic barrier between the two metals, aluminium and steel, prevents galvanic corrosion that otherwise occurs, when metals of dissimilar electro-negativities are in contact.

5. Process Control

All materials and production steps are part of a tightly controlled process under ISO9001 quality assurance. It includes ongoing spectrometer analysis of aluminium alloy used, daily checks of chemicals concentration in the pre-treatment phase, quality control checks on finished parts, up to 2,000 hours salt spray exposure tests etc.

The Final Product

The final result is a quality product of excellent corrosion resistance, that can be serviced after years of operation, and features a powdercoat finish of outstanding adhesion and colour stability.



A Marine Grade Aluminium Alloy
B Etched Surface
C Conversion Coating
D Architectural Grade Powder Coat

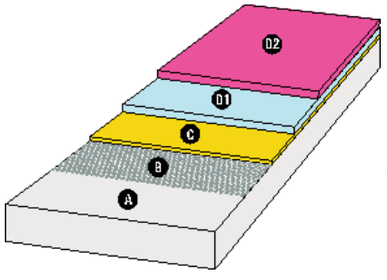
5CE + Primer

For installations where corrosion protection over and above the 5CE system is required, 5CE+ Primer introduces an additional element to the process:

1. Substrate
2. Conversion Coating + Primer
3. Powder Top Coat
4. PCS Hardware
5. Process control

Primer

Immediately after conversion coating, a specially formulated 'intercoat' bonding epoxy primer is electrostatically applied (80-100 µm), and initially semi-cured in a 180°C oven. Following the subsequent application of the polyester powder top coat, full curing and essential 'intercoat' bond is achieved at 200°C.



A Metal substrate
B Etched Surface
C Conversion Coating
D.1 'Intercoat' bonding primer
D.2 Architectural Grade Powder Coat

Luminaires

WE-EF luminaires may be custom ordered to feature the described 5CE+ Primer finish.

PRODUCT INFORMATION

ASC Anti Slip Coating for Inground Uplights

A translucent, tough and highly abrasion resistant ceramic material is fused into the surface of the luminaire's safety glass lens. Slip resistance, as required in pedestrian traffic and wet environments, conforms with DIN 51130 (class R10) and AS/NZS4586:1999 (class V). Corresponding tests were performed at the German BIA and the Australian CSIRO institutes. Arranged in a stochastic (irregular) pattern, the ASC Anti Slip Coating has only moderate effect on the luminaire's light distribution and LOR (light output ratio).

CTA® Cool Touch Adaptor for Inground Uplights

Designed for inground uplights, this unique accessory provides significant reduction in glass surface temperature, while maintaining high LOR (light output ratio). The matt black die-cast aluminium adaptor features a prismatic glass insert, and is hinged to permit easy relamp. The effect on operating temperature of electrical components is negligible (WE-EF Patent DE 10013304).

Lenses and Diffusers

Toughened safety glass, borosilicate glass, acrylic (PMMA) and UV-stabilised poly-carbonate (PC) are used throughout the WE-EF product range. Usage is depending on product and application. Safety glass lenses used in inground luminaires are load rated up to 5 tonnes.

Gasketing

Weatherproof and non-ageing silicone rubber is used extensively in the WE-EF range. It provides excellent sealing qualities in corrosive and high temperature environments. A number of luminaires are also designed with CCG (Controlled Compression Gasket) technology for a maintained protection rating.

Electronic Control Gear

WE-EF luminaires equipped with ECG control gear provide energy savings, extended lamp life and stable colour temperature. The circuit's power factor is up to 0.97.

Electromagnetic Control Gear

WE-EF luminaires equipped with magnetic ballasts and power factor correcting capacitors feature an HPF high power factor of up to 0.95. LPF low power factor versions are available on request.

Voltage

WE-EF luminaires and electrical accessories are supplied ready for connection to a 230 V 50 Hz supply. Control gear for other voltages and frequencies is available on request.

Electrical Protection

German and European industrial standards DIN/EN 60598, VDE 0711 and DIN 40050, specify electrical protection and IP classification of luminaires. WE-EF products comply with these as well as with equivalent international standards. WE-EF luminaires conform to electrical protection class I. The compulsory earthing terminal is marked with the symbol ⏚. In the event of a fault, a correctly installed luminaire shall cause the circuit protection device to trip. Special luminaire versions with protection according to Class II ⧈ are available on request.

Ambient Temperatures

The WE-EF range of products is generally designed for operation at 25°C. In many cases, test data confirm higher ratings, at 40°C or more. For installations where excessive ambient temperatures exist, special luminaires and equipment can be supplied on request.

Standards

WE-EF luminaires, floodlights and lighting columns are designed to conform with present DIN/EN and VDE standards. Furthermore, all luminaires manufactured for the European market bear the CE standards conformity mark. WE-EF is constantly develop-ing and improving its products. The technical information given, including data and designs, can be subject to change without prior notice. The dimensions and weights stated are approximate values, subject to manufacturing tolerances. Special finishing, executions and constructions are available on request.

LED Light Emitting Diodes

Only first grade (bin-1) High Efficiency LEDs by leading international manufacturers are used. LED performance in terms of light output and life is substantially influenced by effective thermal management and suitably matched control devices. These are critical issues particularly when applied to sealed, IP rated exterior luminaires.

Lamps

Luminaires exclude lamps, which are ordered separately. Refer to Lamp Chart on pages 424-426 for lamp manufacturers' cross references.

Installation

Installation instructions are provided with all WE-EF products. Suitably qualified personnel must be engaged for installation and maintenance in compliance with the latest applicable regulations and relevant legislation.

Customer Service

Supported by WE-EF expertise, authorised agents provide planning services to consulting engineers, lighting designers and other professionals. The current status of our global distribution network as well as substantial technical and product information, such as product specifications, photometric data and software can be obtained by visiting our website at www.we-ef.com.

IP-Classification

The international Protection Code (IP) classifies luminaires according to their protection against the ingress of dust, solid foreign bodies and water.

IP1X Protection against solid objects of diameter greater than 50 mm
IP2X Protection against finger touch and solid objects of diameter greater than 12 mm
IP3X Protection against solid objects of diameter greater than 2.5 mm
IP4X Protection against solid objects of diameter greater than 1.0 mm
IP5X Complete protection against solid objects and harmful dust deposits (dust proof)
IP6X Total protection against dust (dust-tight)
IPX1 Protection against vertically dripping water (drip proof)
IPX2 Protection against dripping water up to 15° from the vertical
IPX3 Protection against spraying water or falling rain up to 60° from the vertical (rain proof)
IPX4 Protection against splashing water from any direction (splash proof)
IPX5 Protection against water jets from any direction (jet proof)
IPX6* Protection against heavy seas or powerful water jets
IPX7* Protection against the effects of immersion (watertight-immersible)
IPX8* Protection against submersion (pressure watertight-submersible)

The combination of both numerals describes the IP classification of a luminaire.
All WE-EF luminaires are marked accordingly, e.g. IP66 (dust and water jet tight).

* WE-EF luminaires that comply with IPX7 and/or IPX8 are always additionally tested to meet IPX6 requirements under DIN EN 60529. This is because the test conditions and procedures for IPX7 and IPX8 differ significantly from those for IPX6 and compliance for all is not automatically assured.

LIGHTING DATA AND PROJECT SUPPORT

Light Distribution (Fig. 1 and 2)

The three dimensional light distribution pattern of a luminaire is measured by means of a so-called photo goniometer. Depending on their application, WE-EF luminaires feature light distributions that are either symmetrical, bi-symmetrical or asymmetrical. Luminous intensities are measured in cd/klm, and form the basis for lighting design calculations. This catalogue features a range of different photometric diagrams, in order to enable the lighting practitioner to conduct rough calculations. Detailed and precise calculations can be made by using lighting design software.

Isolux Diagrams (Fig. 3)

Illuminance, as a measure, indicates how strongly a surface is lit. The distribution of illuminance on a surface is presented by the isolux diagram. All points of identical illuminance levels are connected by a line. Variations in mounting height or aiming of a luminaire will result in an altered diagram.

Luminance Diagrams (Fig. 4)

Luminaires with opal or frosted lenses are generally used for orientation. For functional and aesthetic evaluation, the level of the average luminance on the lens, as well as its uniformity, have to be taken into consideration.

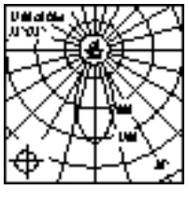


Fig. 1

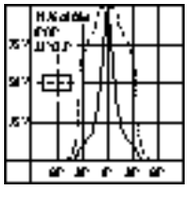


Fig. 2

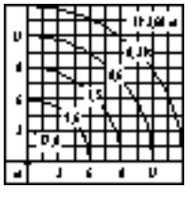


Fig. 3

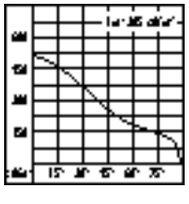


Fig. 4

Luminance diagrams shown in this catalogue present the lens' luminance as a function of the observer's viewing angle. They are based on a maintenance factor of 1.0 for new installations. The unit of measure is candelas per square metre (cd/sqm).

Project Support

WE-EF's customer service includes lighting design and planning support for project engineers, lighting consultants and other professionals. While varying specific customer requirements and installation practices are taken into consideration, the following German/European standards are generally used as a working basis:

DIN EN 12464 Workplace lighting
DIN EN 12193 Sport lighting
DIN EN 13201 Street lighting

LIGHTING DATA AND PROJECT SUPPORT

Streetlighting standards – EN 13201

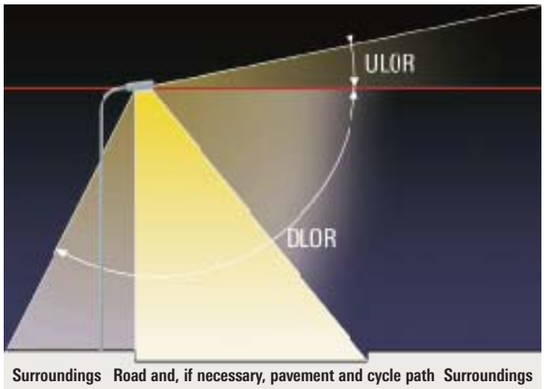
Among other things, the EN 13201 streetlighting standard requires that safety standards and standards related to comfortable lighting conditions be met. Currently, economic operation in conjunction with environmentally-friendly and sustainable luminaire design are essential. Depending on the application, visual systems are employed that optimise luminance and illuminance. WE-EF guarantees modern optical state-of-the-art systems. Highly-specialised employees, suitable simulation software, a technical lighting laboratory and corresponding tool construction constitute the foundation on which WE-EF realises its goal of becoming a world leader in the field of reflector and lens system development.

Illuminance (Lux/lx)

The illuminance measures the amount of light thrown by a streetlighting luminaire onto a surface, e.g., a road (the reference surface). The reflection properties of the illuminated surface are not taken into account. This means that, with the same technical features (luminaire type, number of luminaires, mounting height, road geometry etc.), the results are identical even if road surfaces differ (dark R3 asphalt or light R2 cement) and how the human eye perceives them varies. The criterion of illuminance is therefore only used for smaller roads with low to medium volumes of traffic. Classes S1 to S6 are used depending on requirements. Typical assessment criteria are the mean illuminance (Em) and total uniformity (Uo).

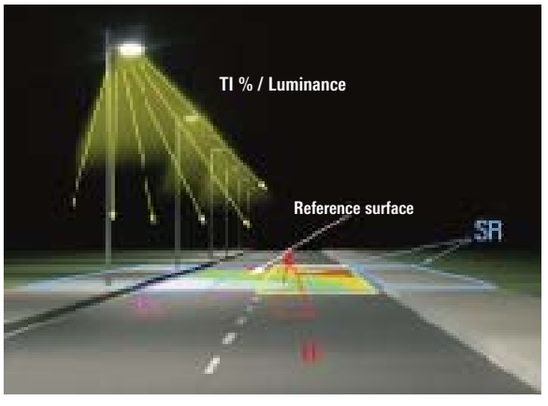
Luminance (candela per square metre/cd/m²)

The calculation of luminance takes into account the reflective properties of a road surface. This means that, with the same technical features (luminaire type, number of luminaires, mounting height, road geometry etc.), the results vary with different road surfaces (dark R3 asphalt or light R2 cement). Road conditions (e.g., dry or wet) also affect the results as does the point of view selected for the calculation. Classes ME1 to ME6 are used here depending on requirements. Typical assessment criteria are the mean luminance (Lm), total uniformity (Uo), longitudinal uniformity (Ul), threshold increment (TI) and the ambient illuminance ratio (SR).



Surroundings Road and, if necessary, pavement and cycle path Surroundings

ULOR: The main task of optical systems is to effectively direct light onto target surfaces that are to be illuminated. With regard to streetlighting, this means light emitted above the horizontal is not only useless, but will also unnecessarily light up the night sky. The upwards flux light output ratio (ULOR) is a measure of how much light escapes from the luminaire into the sky. A ULOR of zero per cent therefore indicates that no light whatsoever escapes from the luminaire into the night sky. The better the optical systems, the lower the burden on the environment.



Reference surface = surface for which the calculation is carried out

Uo = total uniformity of luminance or illuminance on the reference surface.

UI = Uniformity of luminance on the reference surface in the direction of travel.

TI = Threshold increment.

SR = Ambient illuminance ratio.

Lighting Class ME					
	Lm cd/m²	Uo	UI	TI %	SR
ME1	2	0.4	0.7	10	0.5
ME2	1.5	0.4	0.7	10	0.5
ME3a	1	0.4	0.7	15	0.5
ME3b			0.6		
ME3c			0.5		
ME4a	0.75	0.4	0.6	15	0.5
ME4b			0.5		
ME5	0.5	0.35	0.4	15	0.5
ME6	0.3	0.35	0.4	15	–

Lighting Class S		
Class	Em lx	Emin lx
S1	15	5
S2	10	3
S3	7.5	1.5
S4	5	1
S5	3	0.6
S6	2	0.6

In accordance with EN 13201-2 Streetlighting – Part 2: Performance requirements.

LIGHTING DATA AND PROJECT SUPPORT

Recommended Values (excerpt) as per DIN EN 12464-2:2014

General requirements for areas and for cleaning at outdoor work places	Em (lux)	U0	RG_L	Ra ≥	Ref. No. EN 12464-2:2014 (E)
Walkways exclusively for pedestrians	5	0.25	50	20	5.1.1
Traffic areas for slowly moving vehicles (max. 10 km/h), e.g. bicycles, trucks and excavators	10	0.40	50	20	5.1.2
Regular vehicle (max. 40 km/h) traffic	20	0.40	45	20	5.1.3
Pedestrian passages, vehicle turning, loading and unloading points	50	0.40	50	20	5.1.4
Cleaning and servicing	50	0.25	50	20	5.1.5

Canals, locks and harbours	Em (lux)	U0	RG_L	Ra ≥	Ref. No. EN 12464-2:2014 (E)
Waiting quays at canals and locks	10	0.25	50	20	5.4.1
Gangways and passages exclusively pedestrians	10	0.25	50	20	5.4.2
Lock control and ballasting areas	20	0.25	55	20	5.4.3
Cargo handling, loading and unloading	30	0.25	55	20	5.4.4
Passenger areas in passenger harbours	50	0.40	50	20	5.4.5
Coupling of hoses, pipes and ropes	50	0.40	50	20	5.4.6
Dangerous part of walkways and driveways	50	0.40	45	20	5.4.7

Building Sites	Em (lux)	U0	RG_L	Ra ≥	Ref. No. EN 12464-2:2014 (E)
Clearance, excavation and loading	20	0.25	55	20	5.3.1
Construction areas, drain pipes mounting, transport, auxiliary and storage tasks	50	0.40	50	20	5.3.2
Framework element mounting, light reinforcement work, wooden mould and framework mounting, electric piping and cabling	100	0.40	45	40	5.3.3
Element jointing, demanding electrical, machine and pipe mountings	200	0.50	45	40	5.3.4

Parking Areas	Em (lux)	U0	RG_L	Ra≥	Ref. No. EN 12464-2:2014 (E)
Light traffic, e.g. parking areas of shops, terraced and apartment houses; cycle parks	5	0.25	55	20	5.9.1
Medium traffic, e.g. parking areas of department stores, office buildings, plants, sports and multipurpose building complexes	10	0.25	50	20	5.9.2
Heavy Traffic, e.g. parking areas of schools, churches, major sport and multipurpose building complexes	20	0.25	50	20	5.9.3

Em = Rated illuminance (lux)

U0 = Uniformity of illuminance Emin/Em

RG_L = upper limit of glare by CIE Glare Rating system

Ra = Colour rendering index

Recommended Values (excerpt) as per DIN EN 13201

ME-series of lighting classes	Luminance of the road surface of the carriageway for the dry road surface condition				
	Ln	U_0	U_l	TI[a]	SR[b]
ME1	2.0	0.4	0.7	10	0.5
ME2	1.5	0.4	0.7	10	0.5
ME3a	1.0	0.4	0.7	15	0.5
ME3b	1.0	0.4	0.6	15	0.5
ME3c	1.0	0.4	0.5	15	0.5
ME4a	0.75	0.4	0.6	15	0.5
ME4b	0.75	0.4	0.5	15	0.5
ME5	0.5	0.35	0.4	15	0.5
ME6	0.3	0.35	0.4	15	no requirement

[a] An increase of 5 percentage points in **TI** can be permitted where low luminance light sources are used. (see note 6)

[b] This criterion can be applied only where there are no traffic areas with their own requirements adjacent to the carriageway.

Note 6

The Threshold increment (**TI**) indicates that although road lighting improves visual conditions it also causes disability glare to a degree depending on the type of luminaires, lamps and geometric situation. Low-pressure sodium lamps and flourescent tubes are normally considered to be low luminance lamps. For these lamps, and luminaires providing less or equivalent luminance, footnote a of Table 1a and footnote b of Table 1b permits higher values.

S-series of lighting classes	Horizontal Illuminance	
	$\bar{E}$ in lx[a]	E_{min} in lx
S 1	15	5
S 2	10	3
S 3	7.5	1.5
S 4	5	1
S 5	3	0.6
S 6	2	0.6
S 7	performance not determined	performance not determined

[a] To provide uniformity, the actual value of the maintained average illuminance may not exceed 1.5 times the minimum $\bar{E}$ value indicated for the class.

Ln = Average luminance (cd/m²)

UI = Longitudinal uniformity Lmin/Lmax

TI = Threshold Increment in %

SR = Surrounding Ratio

Recommended Values (excerpt) as per DIN EN 12193 (Illumination of Sports Grounds)

	Class I			Class II			Class III		
Outdoor	**Em (lux)**	**Emin/Em**	**Ra ≥**	**Em (lux)**	**Emin/Em**	**Ra ≥**	**Em (lux)**	**Emin/Em**	**Ra ≥**
Riding - jumping & dressage, light athletics	500	0.7	60	200	0.5	60	100	0.5	20
Basketball, soccer, handball, rugby, volleyball	500	0.7	60	200	0.6	60	75	0.5	20
Golf (Driving Range)*	-	-	-	-	-	-	100	0.8	20
Hockey	500	0.7	60	200	0.7	60	200	0.7	20
Competition swimming, water polo	500	0.7	60	300	0.7	60	200	0.5	20
Tennis	500	0.7	60	300	0.7	60	200	0.6	20
Horse racing* - trotting track, race track and derby	200	0.6	60	100	0.4	60	50	0.2	20

	Class I			Class II			Class III		
Indoor	**Em (lux)**	**Emin/Em**	**Ra ≥**	**Em (lux)**	**Emin/Em**	**Ra ≥**	**Em (lux)**	**Emin/Em**	**Ra ≥**
Badminton, ice-hockey, fencing*, hockey, squash, table-tennis	750	0.7	60	500	0.7	60	300	0.7	20
Basketball, handball, fist-ball, volleyball, judo	750	0.7	60	500	0.7	60	200	0.5	20
Riding - jumping & dressage, light athletics	500	0.7	60	300	0.6	60	200	0.5	20
Competition swimming, water polo	500	0.7	60	300	0.7	60	200	0.5	20
Tennis	750	0.7	60	500	0.7	60	300	0.5	20

* There are additional requirements for vertical illuminance

LAMP CHART

This catalogue lists lamp designations in accordance with the lamp designation system of the German electrotechnical industry. The lamp chart is for comparison purposes only and for luminaires listed in this catalogue. It is not complete and errors are expected.

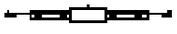
Due to ongoing research and development by the manufacturers, lamp specifications may change. Ensure that all technical data is checked prior to application.

				OSRAM	PHILIPS	GE
	QT (Tungsten Halogen Lamps)					
	QT 12 (-LP) ax 35W/c GY6.35 12V	Ra100	3000 K	64432 ES	---	---
	QT 12 (-LP) ax 65W/c GY6.35 12V	Ra100	3000 K	64447 ES	---	---
	QT18 25W/m B15d	Ra100	2900 K	64466AM	---	---
	QT18 40W/m B15d	Ra100	2900 K	64467AM	---	---
	QT18 60W/m B15d (l=67mm)	Ra100	2900 K	64481AM	---	---
	QT18 75W/m B15d (l=86mm)	Ra100	2900 K	64473AM	12123	---
	QT18 100W/m B15d (l=86mm)	Ra100	2900 K	64475AM	12122	---
	QT-DE 12 150W R7s-15	Ra100	2900 K	64696	---	---
	QT-DE 12 200W R7s-15	Ra100	2900 K	64698	200 T3Q/CL/P small	K11/Q200T3/CL
	QT-DE 12 300W R7s-15	Ra100	2900 K	64701	300 T3Q/CL/P small	K9/Q300T3/CL
	TC (Compact Flourescent Lamps)					
	T5 21W/ … G5	Ra 80	27/30/4000 K	HE 21W/ …	TL5 HE 21W/ …	T5 HE 21W/ …
	T5 39W/ … G5	Ra 80	27/30/4000 K	HE 39W/ …	TL5 HE 39W/ …	T5 HE 39W/ …
	T26 58W/827 G13	Ra > 80	2700 K	L 58W/827	---	
	T26 58W/830 G13	Ra > 80	3000 K	L 58W/830	TL-D 58W/830 SLV	
	T26 58W/835 G13	Ra > 80	3500 K	L 58W/835	---	
	T26 58W/840 G13	Ra > 80	4000 K	L 58W/840	TL-D 58W/840 SLV	
	T26 58W/865 G13	Ra > 80	6500 K	L 58W/865	TL-D 58W/865 SLV	
	T26 58W/880 G13	Ra > 80	8000 K	L 58W/880	---	
	TC-TEL 13W/... GX24-q1	Ra 85	27/30/4000 K	DULUX T/E 13W/…PLUS	---	F13TBX/.../4P
	TC-TEL 18W/... GX24-q2	Ra 85	27/30/4000 K	DULUX T/E 18W/…PLUS	---	F18TBX/.../4P
	TC-TEL 26W/... GX24-q3	Ra 85	27/30/4000 K	DULUX T/E 26W/…PLUS	---	F26TBX/.../4P
	TC-TEL 32W/... GX24-q3	Ra 85	27/30/4000 K	DULUX T/E 32W/…PLUS	---	F32TBX/.../4P
	TC-TEL 42W/... GX24-q4	Ra 85	27/30/4000 K	DULUX T/E 42W/…PLUS	---	F42TBX/.../4P
	TC-TELI 26W/... GX24-q3	Ra 85	30/4000 K	DULUX T/E 26W/…IN PLUS	---	---
	TC-TELI 32W/... GX24-q3	Ra 85	27/30/4000 K	DULUX T/E 32W/…IN PLUS	---	---
	TC-TELI 42W/... GX24-q4	Ra 85	27/30/4000 K	DULUX T/E 42W/…IN PLUS	---	---
	TC-TELI 57W/... GX24-q5	Ra 85	30/4000 K	DULUX T/E 57W/…IN PLUS	---	---
	TC-L 18W/... 2G11	Ra 85	27/30/4000 K	DULUX L 18W/…	PL-L 18W/4p	F18BX/…
	TC-L 24W/... 2G11	Ra 85	27/30/4000 K	DULUX L 24W/…	PL-L 24W/4p	F24BX/…
	MH (Metal Halide Lamps)					
	HIT-COS 45W/628 PGZ12	Ra > 60	2800 K	---	CPO-TW 45W/628 PGZ12	---
	HIT-COS 60W/628 PGZ12	Ra > 65	2800 K	---	CPO-TW 60W/728 PGZ12	---
	HIT-COS 90W/628 PGZ12	Ra > 65	2800 K	---	CPO-TW 90W/728 PGZ12	---
	HIT-COS 140W/628 PGZ12	Ra > 65	2800 K	---	CPO-TW 140W/728 PGZ12	---
	HIT-TC-CE 20W/830 PGJ5	Ra > 85	3000 K	---	CDM-Tm 20W/830 PGJ5	---
	HIT-TC-CE 35W/930 PGJ5	Ra > 85	3000 K	---	CDM-Tm 35W/930 PGJ5	---

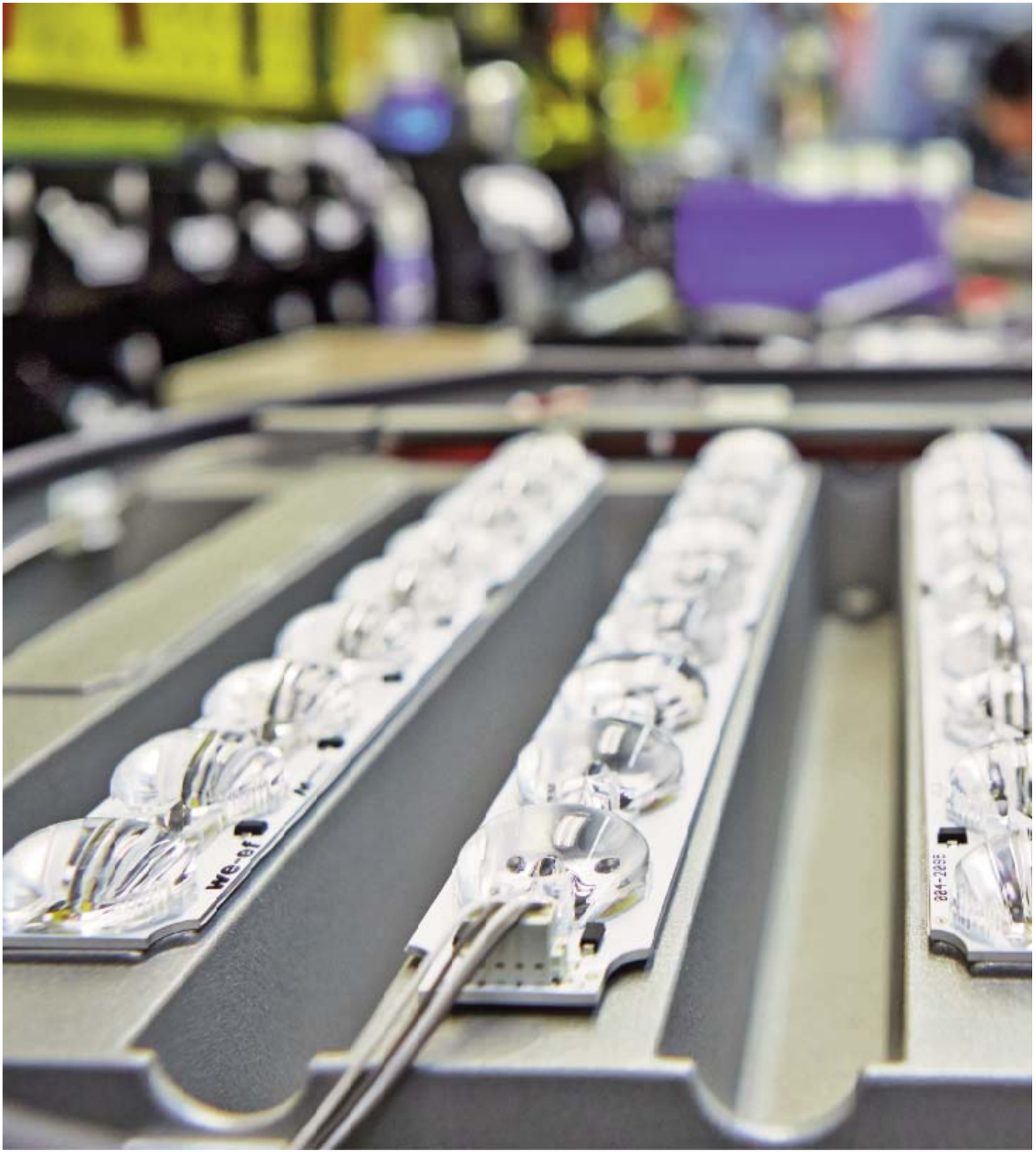
				OSRAM	PHILIPS	GE
	HIT-TC-CE 20W/830 GU6.5	Ra > 80	3000 K	HCI-TF 20W/830 WDL PB	CDM-Tm Mini GU6.5 20W/830	CMH20/T/UVC/830/GU6.5
	HIT-TC-CE 35W/930 GU6.5	Ra > 90	3000 K	HCI-TF 35W/930 WDL PB	CDM-Tm Elite Mini GU6.5 35W/930	CMH35/T/UVC/930/GU6.5
	HIT-TC-CE 35W/942 GU6.5	Ra > 90	4200 K	---	---	CMH35/T/UVC/942/GU6.5
	HIT-TC-CE 50W/930 GU6.5	Ra > 90	3000 K	---	CDM-Tm Elite Mini GU6.5 50W/930	---
	HIT-TC-CE 20W/830 G8.5	Ra > 80	3000 K	HCI-TC 20W/830 WDL PB	---	CMH20/TC/UVC/U/830/G8.5
	HIT-TC-CE 35W/830 G8.5	Ra > 80	3000 K	HCI-TC 35W/830 WDL PB	CDM-TC 35W/830	CMH35/TC/UVC/U/830/G8.5
	HIT-TC-CE 35W/930 G8.5	Ra > 90	3000 K	HCI-TC 35W/930 WDL PB SHOP	CDM Elite - TC 35W/930	---
	HIT-TC-CE 35W/942 G8.5	Ra > 90	4200 K	HCI-TC 35W/942 NDL PB	---	---
	HIT-TC-CE 70W/830 G8.5	Ra > 80	3000 K	HCI-TC 70W/830 WDL PB	CDM-TC 70W/830	CMH70/TC/UVC/U/830/G8.5
	HIT-TC-CE 70W/930 G8.5	Ra > 90	3000 K	HCI-TC 70W/930 WDL PB SHOP	CDM Elite - TC 70W/930	---
	HIT-TC-CE 70W/942 G8.5	Ra > 90	4200 K	HCI-TC 70W/942 NDL PB	---	CMH70/TC/UVC/U/942/68.5
	HIT-CE 20W/830 G12	Ra > 80	3000 K	---	CDM T 20W/830	---
	HIT-CE 35W/830 G12	Ra > 80	3000 K	HCI-T 35W/830 WDL PB	CDM T 35W/830	CMH35/T/UVC/U/830/G12
	HIT-CE 35W/930 G12	Ra > 90	3000 K	HCI-T 35W/930 WDL PB SHOP	CDM Elite-T 35W/930	---
	HIT-CE 35W/942 G12	Ra > 90	4200 K	HCI-T 35W/942 NDL PB	CDM T 35W/942	CMH35/T/UVC/U/942/G12
	HIT-CE 70W/830 G12	Ra > 80	3000 K	HCI-T 70W/830 WDL PB	CDM T 70W/830	CMH70/T/UVC/U/830/G12
	HIT-CE 70W/930 G12	Ra > 90	3000 K	HCI-T 70W/930 WDL PB SHOP	CDM Elite-T 70W/930	---
	HIT-CE 70W/942 G12	Ra > 90	4200 K	HCI-T 70W/942 NDL PB	CDM T 70W/942	CMH70/T/UVC/U/942/G12
	HIT-CE 100W/830 G12	Ra > 85	3000 K	HCI-T 100W/830 WDL PB	---	---
	HIT-CE 100W/942 G12	Ra > 90	4200 K	HCI-T 100W/942 NDL PB	---	---
	HIT-CE 150W/830 G12	Ra > 85	3000 K	HCI-T 150W/830 WDL PB	CDM T 150W/830	CMH150/T/UVC/U/830/G12
	HIT-CE 150W/942 G12	Ra > 90	4200 K	HCI-T 150W/942 NDL PB	CDM T 150W/942	CMH150/T/UVC/U/942/G12
	HIT-CE 250W/830 G12	Ra > 85	3000 K	---	CDM T 250W/830	---
	HIT-CE/S 250W/830 G22	Ra > 80	3000 K	HCI-TM 250W/830 WDL PB	---	---
	HIT-CE/S 250W/942 G22	Ra > 90	4200 K	HCI-TM 250W/942 NDL PB	---	---
	HIT-CE/S 400W/942 G22	Ra > 90	4200 K	HCI-TM 400W/942 NDL PB	---	---
	HIT 1000W/961 G22	Ra > 90	6100 K	HQI-TM 1000W/961 D	---	---
						
	HIT-CE 70W/828 E27	Ra > 80	2800 K	---	CDO-TT 70W/828	---
	HIT-CE 70W/830 E27	Ra > 85	3000 K	HCI-TT 70W/830 WDL PB	---	CMH70/TT/U/830/E27
	HIT-CE 100W/830 E40	Ra > 85	3000 K	HCI-TT 100W/830 WDL PB	CDO-TT 100W/828	---
	HIT-CE 150W/828 E40	Ra > 85	2800 K	---	CDO-TT 150W/828	---
	HIT-CE 150W/830 E40	Ra > 85	3000 K	HCI-TT 150W/830 WDL PB	---	CMH150/TT/U/830/E40
	HIT-CE 250W/828 E40	Ra > 85	2800 K	---	CDO-TT 250W/828	---
	HIT-CE 250W/830 E40	Ra > 85	3000 K	HCI-T 250W/830 WDL PB	---	CMH250/TT/U/830/E40
	HIT-CE 250W/942 E40	Ra > 90	4200 K	HCI-T 250W/942NDL PB	---	-
	HIT 250W/952 E40	Ra > 90	5200 K	HQI-T 250W/952 D	---	---
	HIT 400W/635 E40	Ra > 65	3500 K	HQI-T 400W/635 N	---	---
	HIT 400W/952 E40	Ra > 90	5200 K	HQI-BT 400W/952 D	---	---
	HIT 1000W/973 E40	Ra > 90	7250 K	HQI-T 1000W/973 D	---	SPL1000/T/H/960/E40
	HIE-CE 35W/830 E27	Ra > 85	3000 K	HCI-E/P 35W/830 WDL PB coated*	---	---
	HIE-CE 35W/942 E27	Ra > 90	4200 K	HCI-E/P 35W/942 NDL PB coated*	---	---
	HIE-CE 50W/830 E27	Ra > 85	3000 K	HCI-E/P 50W/830 WDL PB coated*	---	---
	HIE-CE 50W/942 E27	Ra > 90	4200 K	HCI-E/P 50W/942 NDL PB coated*	---	---
	HIE-CE 70W/828 E27	Ra > 75	2800 K	---	CDO-ET 70W/828	CMH70/E/U/830/E27/D
	HIE-CE 70W/830 E27	Ra > 85	3000 K	HCI-E/P 70W/830 WDL PB coated*	---	---
	HIE-CE 70W/942 E27	Ra > 90	4200 K	HCI-E/P 70W/942 NDL PB coated*	---	---

* for open luminaire versions

LAMP CHART

				OSRAM	PHILIPS	GE
	HIE-CE 100W/830 E27	Ra > 85	3000 K	HCI-E/P 100W/830 WDL PB coated*	---	CMH100/E/U/830/E27/D
	HIE-CE 100W/942 E27	Ra > 90	4200 K	HCI-E/P 100W/942 NDL PB coated*	---	---
	HIE-CE 150W/930 E27	Ra > 90	3000 K	HCI-E/P 150W/930 WDL PB coated*	---	---
	HIE-CE 150W/942 E27	Ra > 90	4200 K	HCI-E/P 150W/942 NDL PB coated*	---	---
	HIE-CE 150W/828 E40	Ra > 80	2800 K	---	---	---
	HIE-CE 250W/830 E40	Ra > 85	3000 K	HCI-E 250W/830 WDL PB coated	---	---
	HIE 400W/947 E40	Ra > 90	4700 K	HQI-E/P 400W/947 D coated	---	---
	HIE 400W/952 E40	Ra > 90	5200 K	HQI-E 400W/952 D coated	---	---
	HIT-DE-CE 70W/830 RX7s	Ra > 80	3000 K	HCI-TS 70W/830 WDL PB	CDM-TD 70W/830	CMH70/TD/UVC/830/Rx7s
	HIT-DE-CE 70W/942 RX7s	Ra > 90	4200 K	HCI-TS 70W/942 NDL PB	CDM-TD 70W/942	CMH70/TD/UVC/942/Rx7s
	HIT-DE-CE 150W/830 RX7s	Ra > 85	3000 K	HCI-TS 150W/830 WDL PB	CDM-TD 150W/830	CMH150/TD/UVC/830/Rx7s
	HIT-DE-CE 150W/942 RX7s	Ra > 95	4200 K	HCI-TS 150W/942 NDL PB	CDM-TD 150W/942	CMH150/TD/UVC/942/Rx7s
	HIT-DE 250W/830 Fc2	Ra = 80	3200K	HQI-TS 250/830 WDL	---	---
	HIT-DE 250W/842 Fc2	Ra > 85	4200 K	HQI-TS 250W/842 NDL	MHN-TD 250W/842	RC250/TD/840/Fc2
	HIT-DE 250W/951 Fc2	Ra > 90	5100 K	HQI-TS 250W/951 D	---	---
	HIT-DE 400W/842 Fc2	Ra > 85	4200 K	HQI-TS 400W/842 NDL	---	---
	HIT-DE 400W/952 Fc2	Ra > 90	5200 K	HQI-TS 400W/952 D	---	---
	HIT-SA-DE 1000W/959 Cable	Ra > 90	5900 K	HQI-TS 1000W/959 D S	---	---
	HIT-SA-DE 2000W/959 Cable	Ra > 90	5900 K	HQI-TS 2000W/959 D S	MHN-SB Pro 2000W/956/400V	---
	HIT-LA-DE 1000W/842 Cable	Ra > 80	4200 K	---	MHN-LA 1000W/842 230V	---
	HIT-LA-DE 1000W/956 Cable	Ra > 90	5600 K	---	MHN-LA 1000W/956 230V	---
	HIT-LA-DE 2000W/842 Cable	Ra > 80	4200 K	---	MHN-LA 2000W/842 400V	---
	HIT-LA-DE 2000W/956 Cable	Ra > 90	5600 K	---	MHN-LA 2000W/956 400V	---
	HIT-LA-DE 1000W/642 Cable/FC	Ra > 65	4200 K	---	MHN-FC 1000W/740 230V X-W	---
	HIT-LA-DE 1000W/655 Cable/FC	Ra > 65	5500 K	---	MHN-FC 1000W/750 230V X-W	---
	HIT-LA-DE 2000W/642 Cable/FC	Ra > 65	4200 K	---	MHN-FC 2000W/740 400V X-W	---
	HPS (High Pressure Sodium Lamps)					
	HST-X4 50W/220 E27	Ra 25	2000K	NAV-T 50 SUPER 4Y	SON-T PLUS 50W	LU50/90/XO/T/27
	HST-X4 70W/220 E27	Ra 25	2000K	NAV-T 70 SUPER 4Y	SON-T PLUS 70W	LU70/90/XO/T/27
	HST-X4 100W/220 E40	Ra 25	2000K	NAV-T 100 SUPER 4Y	SON-T PLUS 100W	LU100/100/XO/T/40
	HST-X4 150W/220 E40	Ra 20	2000K	NAV-T 150 SUPER 4Y	SON-T PLUS 150W	LU150/150/XO/T/40
	HST-X4 250W/220 E40	Ra 20	2000K	NAV-T 250 SUPER 4Y	SON-T 250W	LU250/XO/T/40
	HST-X4 400W/220 E40	Ra 20	2000K	NAV-T 400 SUPER 4Y	SON-T 400W	LU400/XO/T/40
	HST-X4 600W/220 E40	Ra 25	2000K	NAV-T 600 SUPER 4Y	SON-T PLUS 600	LU600/XO/T/40
	HST 1000W/220 E40	Ra 20	2000K	NAV-T 1000	SON-T 1000W	LU1000/110/T/40 4pk
	HST-DE-X4 70W/220 RX7s	Ra 25	2000K	NAV-TS 70 SUPER 4Y	---	---
	HST-DE-X4 150W/220 RX7s	Ra 25	2000K	NAV-TS 150 SUPER 4Y	---	---
	HST-DE 250W/220 Fc2	Ra 20	2000K	NAV-TS 250	---	LU250/TD
	HST-DE 400W/220 Fc2	Ra 20	2000K	NAV-TS 400	---	LU400/TD

* for open luminaire versions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Product specifications given in this catalogue reflect the status as of March 2016. Errors and omissions are excepted. Data given can be subject to change without prior notice.

The conditions of sale, as published in WE-EF's current price lists and/or business forms apply. Export transactions require special agreements, particularly regarding shipment and payment.

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WE-EF Farben | Colours | Couleurs

WE-EF Standard — **RAL 9004** Signalschwarz / Signal black / Noir de sécurité

WE-EF Standard — **RAL 9006** Weißaluminium / White aluminium / Aluminium blanc

WE-EF Standard — **RAL 9007** Graualuminium / Grey aluminium / Aluminium gris

WE-EF Standard — **RAL 9016** Verkehrsweiß / Traffic white / Blanc signalisation

Classic Silver

RAL 1015 Hellelfenbein / Light ivory / Ivoire clair

RAL 3002 Karminrot / Carmine red / Rouge carmin

RAL 3005 Weinrot / Wine red / Rouge vin

RAL 3011 Braunrot / Brown red / Rouge brun

RAL 3020 Verkehrsrot / Traffic red / Rouge signalisation

RAL 5003 Saphirblau / Sapphire blue / Bleu saphir

RAL 5004 Schwarzblau / Black blue / Bleu noir

RAL 5014 Taubenblau / Pigeon blue / Bleu pigeon

RAL 5021 Wasserblau / Water blue / Bleu d'eau

RAL 5023 Fernblau / Distant blue / Bleu distant

RAL 6005 Moosgrün / Moss green / Vert mousse

RAL 6009 Tannengrün / Fir green / Vert sapin

RAL 6011 Resedagrün / Reseda green / Vert réséda

RAL 6012 Schwarzgrün / Black green / Vert noir

RAL 6020 Chromoxidgrün / Chrome green / Vert chromique

RAL 6021 Blassgrün / Pale green / Vert pâle

RAL 7006 Beigegrau / Beige grey / Gris beige

RAL 7012 Basaltgrau / Basalt grey / Gris basalte

RAL 7016 Anthrazitgrau / Anthracite grey / Gris anthracite

RAL 7022 Umbragrau / Umbra grey / Gris terre d'ombre

RAL 7024 Graphitgrau / Graphite grey / Gris graphite

RAL 7030 Steingrau / Stone grey / Gris pierre

RAL 7032 Kieselgrau / Pebble grey / Gris silex

RAL 7035 Lichtgrau / Light grey / Gris clair

RAL 7037 Staubgrau / Dusty grey / Gris poussière

RAL 7045 Telegrau 1 / Telegrey 1 / Telegris 1

RAL 8004 Kupferbraun / Copper brown / Brun cuivré

RAL 8016 Mahagonibraun / Mahogany brown / Brun acajou

RAL 8017 Schokoladenbrau / Chocolate brown / Brun chocolat

RAL 8019 Graubraun / Grey brown / Brun gris

RAL 9002 Grauweiß / Grey white / Blanc gris

RAL 9005 Tiefschwarz / Jet black / Noir foncé

RAL 9010 Reinweiß / Pure white / Blanc pur

RAL 9018 Papyrusweiß / Papyrus white / Blanc papyrus

DB 501 WE-EF 51 Gris bleu clair

DB 502 WE-EF 52 Gris bleu foncé

DB 701 WE-EF 71 Gris clair

DB 702 WE-EF 72 Gris moyen

DB 703 WE-EF 73 Gris foncé

Geringe Abweichungen in Farbton und Glanz sind drucktechnisch bedingt. Maßgeblich für RAL-Farben sind allein die RAL-Register 840-HR (seidenmatt) oder 841-GL (glänzend). **Gültig ab März 2016**

The colour shades and gloss levels are for guidance only. For accurate colour matching, use the official 840-HR (semi-gloss) and 841-GL (gloss) reference charts. **Valid from March 2016**

Un léger écart de couleur est dû aux techniques d'imprimerie. L'origine des couleurs RAL provient du registre RAL-840-HR (brillant satiné) ou 841-GL (brillant). **Valable à partir d' Mars 2016**

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