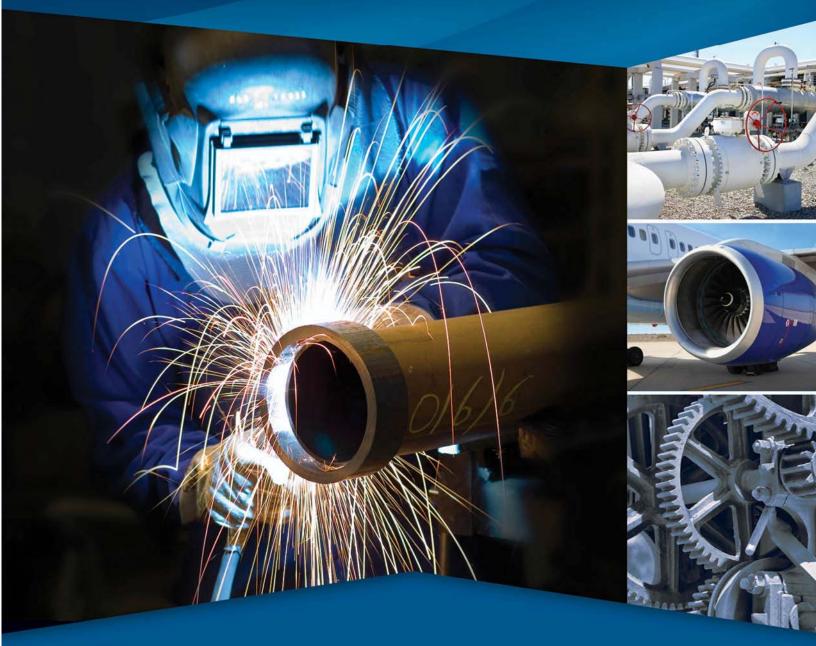
Catalog 201 May 2015



# Inspection Products for Nondestructive Testing Solutions for the NDT Technician





ISO 9001:2008 CERTIFIED COMPANY

# **NDT: AN OVERVIEW**

Nondestructive testing (NDT) is a procedure used to examine and/or inspect materials and components to locate surface and subsurface defects in a way that allows such materials to be examined without changing or destroying their original design or structure.

NDT plays a crucial role in everyday life. It is necessary to ensure structural integrity, safety and reliability in aircraft, motor vehicles, pipelines, seafaring vessels, bridges, trains, tunnels, power stations, refineries and oil platforms. All are inspected using some method of nondestructive testing.

Nondestructive testing is also a quality assurance production and management tool which can provide impressive results when used correctly. It requires an understanding of the various methods available, their capabilities and limitations, knowledge of the relevant standards and specifications for performing the tests.

Materials, products and equipment that fail to achieve their design requirements or projected life due to undetected defects may require expensive repair or early replacement. Such defects may also be the cause of unsafe conditions or catastrophic failure, as well as the loss of revenue due to unplanned shutdowns.

Nondestructive testing can be applied to each stage of an item's development, manufacture or construction. The item's materials and assembly can be examined using NDT and either accepted, rejected or repaired. NDT techniques can then be used to monitor the integrity of the item or structure throughout its service life.

The most commonly used NDT methods are visual inspection, liquid penetrant inspection, magnetic particle inspection, Eddy current inspection, acoustic emission, ultrasonic inspection and radiography.

Spectronics Corporation manufactures a wide array of medium and highintensity inspection lamps and products that are used to detect and identify surface and subsurface flaws in the performance of nondestructive testing utilizing the visual inspection, liquid penetrant and magnetic particle methods. For more information see www.spectroline.com.

Surface metal defect revealed using the TRITAN™ 365 UV-A inspection lamp and Zyglo<sup>®</sup> liquid penetrant

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## **OLX-365 Series** OPTI-LUX<sup>™</sup> 365 UV-A LED Inspection Flashlights

#### Affordable, Super-Compact and Designed Specifically for NDT!

Feature a powerful UV-A (365 nm) LED light source coupled with a rugged anodized lamp body. Lightweight and compact, they reduce user fatigue while providing an extremely uniform beam profile that surpasses those of more expensive lamps.

Available in <u>four models</u> to suit your specific NDT needs: high-intensity or standard-intensity versions, each with or without an internal black light filter.

- Choice of nominal steady-state UV-A intensity of <u>10,000 µW/cm</u><sup>2</sup> or maximum of <u>4,500 µW/cm</u><sup>2</sup> at 15 inches (38 cm)
- Coverage area up to 2.5 inch (6.3 cm) diameter at 15 inches (38 cm), with minimum UV-A intensity of <u>2,000 μW/cm</u><sup>2</sup>
- Anodized aluminum lamp body minimizes corrosion and stands up to years of heavy use
- Instant-on operation; lamp reaches full intensity immediately!
- Convenient on/off switch for easy, one-handed operation
- 100,000-hour LED service life
- Powered by one rechargeable lithium-ion battery with an extra battery included with the lamp. Each provides 4 hours of continuous inspection between charges.
- Meets ASTM UV-A intensity and wavelength specifications for FPI and MPI
- Both high- and standard-intensity versions are available with internal black light filter. Externally mounted black light filter with rubber bumper can be purchased as an accessory.
- *Certificate of compliance* for <u>both</u> wavelength and output measurements supplied with every lamp



OPTI-LUX" 365







② To address aerospace industry concerns

CE

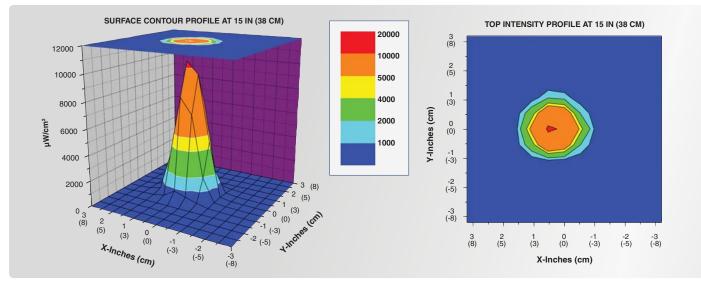
**OPTI-LUX<sup>™</sup> 365 Series flashlights** come complete with lanyard, belt holster, two rechargeable batteries, smart charging cradle with AC and DC cord sets, UV-absorbing spectacles and a padded carrying case.

#### **Replacement Parts & Accessories**

BF-365LX	External black light filter with rubber bumper
127423	Dome lens
127568	Lithium-ion battery (rechargeable)
127607	Internal black light filter
127785	Internal clear filter
128217	Battery charging cradle with AC cord
128225	DC cord set
127574	Belt holster
UVS-30	UV-absorbing spectacles
CC-365	Carrying case

## **HIGH-INTENSITY MODELS**

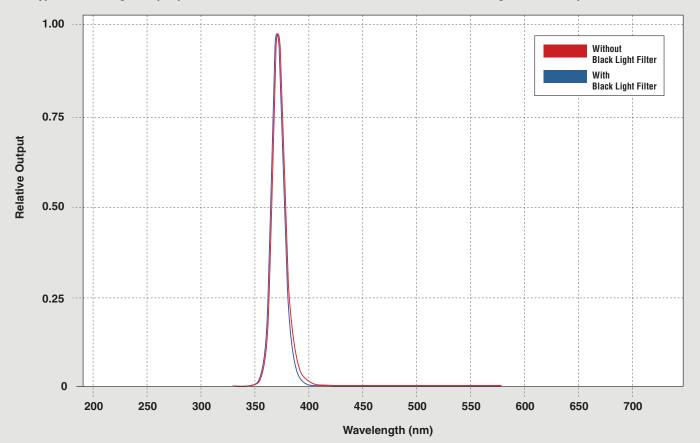
**OPTI-LUX<sup>™</sup> 365 Series** flashlights are available in two *high-intensity* models that are designed for NDT inspection applications requiring high UV-A output. The **OLX-365** is equipped with a <u>clear filter</u>, while the **OLX-365B** comes with an <u>internal black light filter</u> that reduces the output of wavelengths longer than 400 nm. Both versions provide a nominal steady-state UV-A intensity of <u>10,000 µW/cm</u><sup>2</sup> at 15 inches (38 cm).



#### **UV-A BEAM PROFILE**

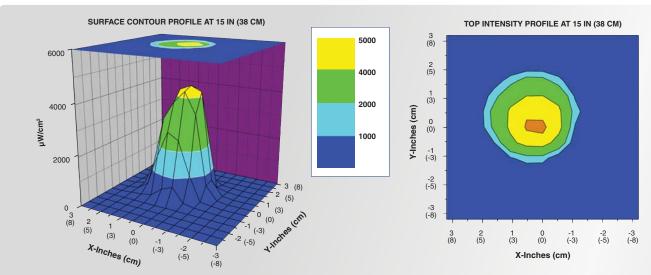
#### NORMALIZED UV IRRADIANCE

Typical wavelength output profile of OPTI-LUX™ 365 with and without internal black light filter, with peak at 365 nm.



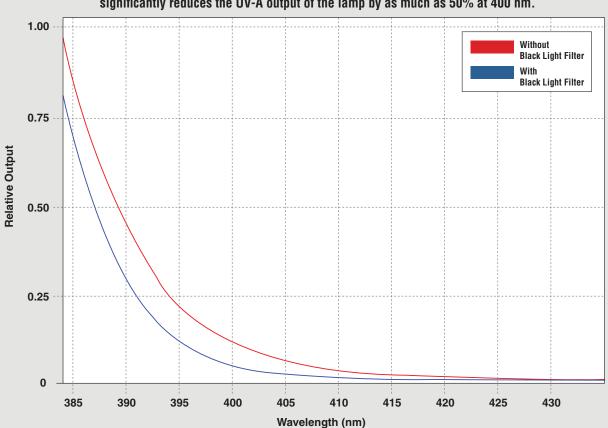
## **STANDARD-INTENSITY MODELS**

**OPTI-LUX™ 365** flashlights are also available in two *standard-intensity* models that are designed for inspection applications requiring limited UV-A output. The **OLX-365FL** is equipped with a <u>clear filter</u>, while the **OLX-365BFL** comes with an <u>internal black</u> <u>light filter</u> that reduces the output of wavelengths longer than 400 nm. These lamps also offer a larger coverage area compared to high-intensity models. Both versions provide a nominal steady-state UV-A intensity of <u>4,500 µW/cm</u><sup>2</sup> maximum at 15 inches (38 cm), and <u>comply with aerospace industry standards.</u>



#### **UV-A BEAM PROFILE**

#### SELECT WAVELENGTHS WITH AND WITHOUT INTERNAL BLACK LIGHT FILTER



As the wavelength of the OPTI-LUX<sup>™</sup> 365 moves into the visible light range, the black light filter significantly reduces the UV-A output of the lamp by as much as 50% at 400 nm.

#### **UV-A LED INSPECTION LAMPS**

## **OPX-365**

#### OPTIMAX<sup>™</sup> 365 UV-A LED Inspection Flashlight (U.S. and foreign patents pending)

#### *Powerful, rechargeable, high-intensity UV-A inspection flashlight featuring state-of-the-art, ultra-hi-flux LED technology!*

- Nominal steady-state UV-A intensity of 18,000 µW/cm<sup>2</sup> at 15 inches (38 cm)
- 100,000-hour LED service life
- Low visible light emission less than 2 foot-candles (22 lux)
- Electronic Intensity Stabilizer assures consistent performance. Beam strength will not weaken between charges!
- Instant-on operation. Lamp reaches full intensity immediately!
- · Rubber lamp protector prevents damage to LED head
- Ergonomic, portable and rugged. Anodized aluminum lamp body minimizes corrosion and stands up to years of heavy use.
- Powered by a rechargeable NiMH battery. Provides 90 minutes of continuous inspection between charges.

Also available: DF-365 diffusing filter (sold separately).

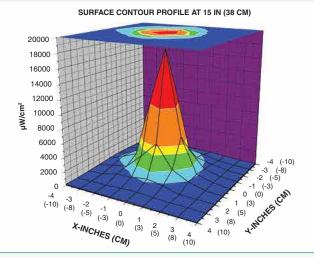


OPTIMAX<sup>™</sup> 365 UV-A LED Inspection Flashlight comes

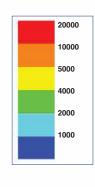
complete with rubber lamp protector, smart AC and DC chargers, UV-absorbing spectacles, belt holster and padded carrying case.

#### LAMP SPECIFICATIONS

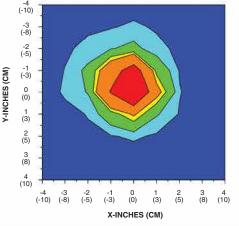
Style	Cordless flashlight body with UV-A LED lamp head
Length	8.0 inch (20.3 cm)
Weight (with Battery)	11.8 oz (335 g)
Power Requirement	3.6V, 2 AH NiMH internal battery stick (rechargeable)
Run Time	90 minutes (continuous)
Charge Time	4 hours
Spectacles	UVS-30 UV-absorbing, clear



#### **UV-A BEAM PROFILE**



#### TOP INTENSITY PROFILE AT 15 IN (38 CM)



# **OPK-300N**

## **OPTIMAX<sup>™</sup>** *Multi-Lite<sup>™</sup>* NDT Inspection Kit

(U.S. patent no. 5,905,268; foreign patents pending)

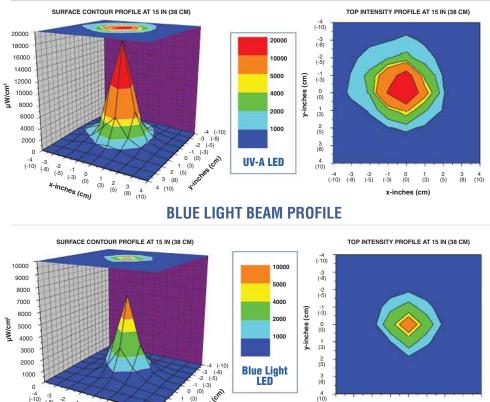
#### A New Powerful, Versatile, Multi-LED, NDT Light Source!

Features three Qwik-Connect<sup>™</sup> interchangeable LED lamp heads that connect to a rugged, black-anodized flashlight body. It provides singlewavelength illumination in UV-A and blue light, and is ideal for both pre-screening of fluorescent particles in ambient light conditions and full-fledged NDT inspections utilizing magnetic particles or fluorescent penetrants. A convenient white light LED provides general illumination of dark work areas.

- · Super-powerful LED optical output with ultra-high intensity 365 nm UV-A and 450 nm blue light performance
- Provides nominal steady-state intensity of <u>18,000 µW/cm<sup>2</sup></u> (UV LED) or 7,000 µW/cm<sup>2</sup> (blue light LED) at 15 inches (38 cm)
- 100,000-hour LED service life
- Blue light LED with patented thin-film dichroic lens filters out long-wave visible light
- Electronic Intensity Stabilizer ensures consistent performance. Beam strength will not weaken between charges!
- Instant-on operation. Lamp reaches full intensity immediately!
- Lightweight, cordless, ergonomic design eliminates fatigue
- · Powered by a rechargeable NiMH battery. Provides 90 minutes of continuous inspection between charges (smart AC and DC chargers included).

OPK-300N Multi-Lite™ Inspection Kit comes complete with three storage pouches for the LED lamp heads, smart AC and DC battery chargers, UV-absorbing spectacles, fluorescentenhancing, yellow spectacles and a padded carrying case.

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LED

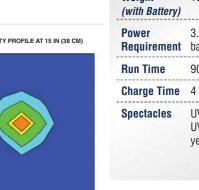
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x-inches (cm)

2 (5) 3 4 (8) (10)

**UV-A BEAM PROFILE** 



#### LAMP SPECIFICATIONS

Style	Cordless flashlight body with three interchangeable LED lamp heads	
Length	9.0 inch (22.9 cm)	
Weight (with Battery)	15.3 oz (434 g)	
Power Requirement	3.6V, 2 AH NiMH internal battery stick (rechargeable)	
Run Time	90 minutes (continuous)	
Charge Time	4 hours	
Spectacles	UVS-30 UV-absorbing, clear UVS-40 fluorescent-enhancing, yellow	

3 (8)

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<sup>x-inches</sup> (cm)

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#### **UV-A LED INSPECTION LAMPS**

## **TRI-365 Series** TRITAN™ 365 Multi-LED, Broad-Beam UV-A Inspection Lamps

Feature <u>three</u> ultra-hi-flux UV-A LEDs for fluorescent inspection, <u>plus</u> a convenient white light LED to scan for surface flaws and illuminate dark work areas. Their broadbeam configuration provides an extremely wide coverage area, while a compact head design allows access into areas inaccessible to larger UV inspection lamps.

Available in <u>three models</u> to meet your specific NDT inspection requirements: highintensity, standard-intensity and standardintensity with integral black light filters.

- Choice of one <u>high-intensity</u> model with a nominal steady-state UV-A intensity of <u>9,000 µW/cm</u><sup>2</sup> or two standard-intensity models, both with a maximum UV-A intensity of <u>less than 5,000 µW/cm</u><sup>2</sup> at 15 inches (38 cm)
- Large 4 inch (10 cm) diameter coverage area at 15 inches (38 cm), with a minimum UV-A intensity of <u>2,000 μW/cm</u><sup>2</sup>
- Low visible light emission less than 2 foot-candles (22 lux)
- Grip-mounted, three-way rocker switch (white light/off/UV) for easy control of light sources
- Built-in fans keep LEDs cool to maintain optimum light output during extended use
- Rubber bumper with Borofloat® glass lens protects LEDs from damage
- · Modular construction for easy servicing in the field
- Choice of standard 8 foot (2.4 m) or extra-long 20 foot (6.1 m) heavy-duty power cord with AC plug and rubber boot. Also available: Optional in-line power supply or industrial power supply with cord sets (sold separately).
- Meets ASTM UV-A intensity and wavelength specifications for FPI and MPI
- Certificate of compliance for <u>both</u> wavelength and output measurements supplied with every lamp
- UV-absorbing spectacles and soft carrying case included



TRITAN™ 365 faceplate shown with (left) and without (right) integral black light filters.





TRITAN<sup>m</sup> 365 shown with optional PS-200A (above) and PS-300A (below) power supplies.





#### Also Available:

**TRITAN™ 365 M-Series** portable, battery-operated AC/DC lamp kits. Include TRITAN™ 365 UV lamp, rechargeable NiMH battery pack, power supply adapter with AC and DC cord sets, smart AC charger, UV-absorbing spectacles and soft carrying case.

	Model	Nominal steady-state UV-A (365 nm) intensity at 15 inches (38 cm) <sup>①</sup>	Visible light measurement	Diameter of UV-A coverage area at 15 inches (38 cm)		
	<b>TRI-365HB</b> High intensity, with clear filter	9,000 µW/cm <sup>2</sup>	< 2 foot-candles (22 lux)	4 inch (10 cm)		
	<b>TRI-365DB</b> Standard intensity, with clear filter	< 5,000 µW/cm <sup>2</sup> maximum <sup>®</sup>	< 2 foot-candles (22 lux)	4 inch (10 cm)		
	<b>TRI-365DBB</b> Standard intensity, with integral black light filters	< 5,000 µW/cm <sup>2</sup> maximum <sup>®</sup>	< 2 foot-candles (22 lux)	4 inch (10 cm)		
	Light Source:			3 UV-A LEDs, 1 White Light LED		
	Lamp Style:		Pistol grip	• •		
	Lamp Head Diame	ter:	3.25 in (8.25 cm	)		
	Length: Weight:		8.0 in (20.3 cm)	1 lb (454 g)		
	White Light LED In	tansity:		400 foot-candles (4,306 lux)		
	Power Requiremen			(4,000 lux)		
AC Lamp						
(TRI-365DB, TRI-365DBB, TRI-365HB)		120VAC*				
	AC/DC Lamp (TRI-365MDB, TRI-365MDBB, TRI-365MHB)		3) 120VAC*/12VDC			
Battery Pack:						
Type Run Time Charge Time		12V, NiMH (rechargeable) 3.5 hours (continuous) 2 hours				
	*Also available in 230V, 240V and 100V versions.					

To address aerospace industry concerns

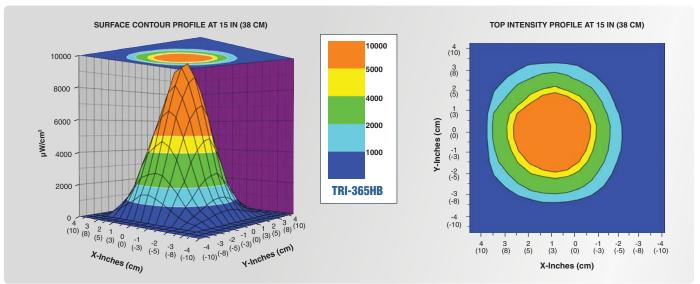
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129141	Standard, 8 foot (2.4 m) AC power cord
129145	Extra-long, 20 foot (6.1 m) AC power cord
129162	3.5 foot (1.1 m) DC power cord for "M" series lamps
127933	Particulate filter assembly
127955	Standard faceplate
128196	Faceplate with integral black light filters
BP-30	Battery pack with 12V rechargeable NiMH battery
BR-150A	Smart AC charger
CC-370A	Soft carrying case
FP-365	Rubber bumper with Borofloat® glass
PSA-250A	AC/DC power supply adapter for "M" series lamps
PS-200A	Industrial power supply. Primary cord: 8 feet (2.4 m); secondary cord: 20 feet (6.1 m).
PS-300A	In-line power supply. Primary cord: 8 feet (2.4 m); secondary cord: 8 feet (2.4 m).
UL-100	UV-A lens
UVS-30	UV-absorbing spectacles

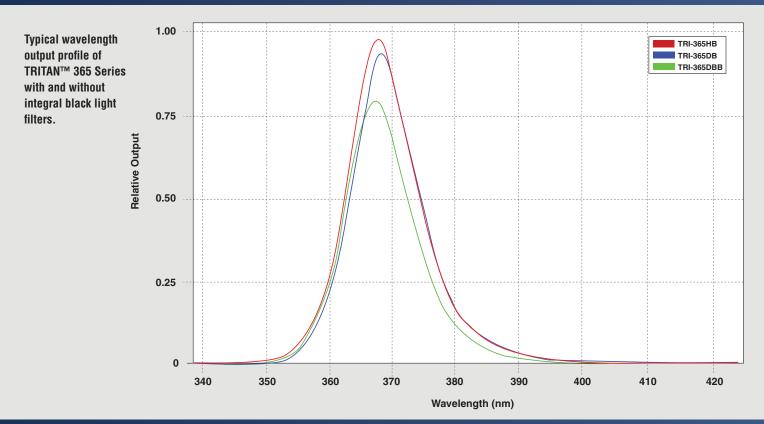
### HIGH-INTENSITY MODEL UV-A BEAM PROFILE

The **TRITAN™ 365** lamp is available in a *high-intensity* model specifically designed for NDT inspection applications requiring high UV-A output.

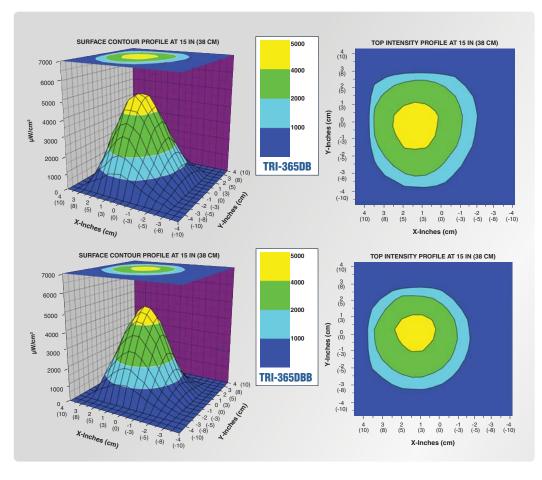
The **TRI-365HB** comes equipped with a <u>clear glass filter</u> and is "tuned" to provide a nominal steady-state UV-A intensity of <u>**9**,000  $\mu$ W/cm</u><sup>2</sup> at 15 inches (38 cm).



#### NORMALIZED UV IRRADIANCE



## STANDARD-INTENSITY MODELS UV-A BEAM PROFILES

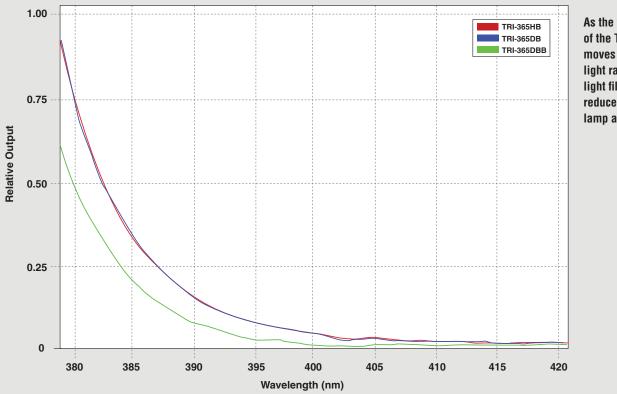


The **TRITAN™ 365** lamp is also available in two *standard-intensity* models that are designed for inspection applications requiring limited UV-A output.

The **TRI-365DB** is fitted with a <u>clear glass</u> filter. The **TRI-365DBB** is equipped with a faceplate with integral black light filters that cover each of the LEDs and reduce the output of wavelengths longer than 400 nm. <u>This addresses aerospace</u> industry concerns.

Both versions are "tuned" to ensure that they provide a maximum steady-state UV-A intensity of <u>less than</u> <u>**5,000** µW/cm</u><sup>2</sup> at 15 inches (38 cm).

#### SELECT WAVELENGTHS WITH AND WITHOUT INTERNAL BLACK LIGHT FILTER



As the wavelength of the TRITAN™ 365 moves into the visible light range, the black light filters significantly reduce the output of the lamp at 400 nm.

#### **UV-A LED INSPECTION LAMPS**

# QDR-365 Series

# QUADRAN<sup>™</sup>365

## Versatile, Dual-Intensity, Multi-LED, Broad-Beam NDT Inspection Lamps!



Feature <u>four</u> ultra-hi-flux UV-A LEDs <u>plus</u> a convenient white light LED to quickly switch between fluorescent inspection and flaw location. A unique dual-intensity feature provides both high and standard UV-A <u>and</u> white light output for added versatility.

The lamps' broad-beam configuration produces an extremely wide coverage area, making them ideal for both in-line and hand-held applications. Models are available either with or without integral black light filters to meet <u>your</u> specific inspection requirements.

The **QUADRAN™ 365** can be quickly mounted for in-line inspections using various Spectroline<sup>®</sup> accessories (FA-100 flexible arm shown).



- Dual-intensity capability: High setting produces a nominal steady-state UV-A intensity as high as <u>8,000 µW/cm</u><sup>2</sup>; standard setting produces a nominal steadystate intensity of <u>4,500 µW/cm</u><sup>2</sup>, both at 15 inches (38 cm)
- Extremely large coverage area of up to 6 inches (15 cm), with a minimum UV-A intensity of <u>2,000 μW/cm</u><sup>2</sup>
- Low visible light emission less than 2 foot-candles (22 lux)
- · Conveniently located rocker switches for quick and easy control of light sources
- Built-in fan keeps LEDs cool to maintain optimum light output during extended use
- Rubber bumper with Borofloat<sup>®</sup> glass lens protects LEDs from damage
- Rugged, modular construction allows for easy field serviceability
- Lamp handle pin receptacle allows for easy attachment of various Spectroline<sup>®</sup> mounting accessories for in-line inspection applications (accessories sold separately)
- Choice of standard 8 foot (2.4 m) or extra-long 20 foot (6.1 m) heavy-duty power cord with AC plug and rubber boot. Also available: Optional industrial power supply or in-line power supply with cord sets (sold separately).
- UV-absorbing spectacles and soft carrying case included





QUADRAN<sup>™</sup> 365 faceplate shown with (top) and without (bottom) integral black light filters.



Model	Nominal steady- state UV-A (365 nm) intensity at 15 inches (38 cm) ①	Visible light measurement	UV-A coverage area (at minimum 2,000 µW/cm²)
<b>QDR-365A</b> Standard Intensity	4,500 µW/cm² maximum	< 2 foot-candles (22 lux)	5 in (13 cm)
<b>QDR-365A</b> High Intensity	8,000 μW/cm <sup>2</sup>	< 2 foot-candles (22 lux)	6 in (15 cm)
<b>QDR-365BLA</b> Standard Intensity	4,500 μW/cm² maximum	< 2 foot-candles (22 lux)	4 in (10 cm)
<b>QDR-365BLA</b> High Intensity	7,000 μW/cm <sup>2</sup>	< 2 foot-candles (22 lux)	6 in (15 cm)
Light Source:	4 UV-A LEDs, 1 White Light LED		

Lamp Style: Lamp Head (WxH): Length: Weight: White Light LED Intensity: High setting: Low setting:

Pistol grip 6 x 5.5 in (15 x 14 cm) 10 in (25 cm) 3 lb (1.36 kg)

10 foot-candles (108 lux)

**Power Requirement:** AC Lamp (QDR-365A, QDR-365BLA) AC/DC Lamp (QDR-365MA, QDR-365MBLA) **Battery Pack:** Туре Run Time High intensity: Standard intensity: **Charge Time** 

300 foot-candles (3,229 lux)

120VAC\* power cord supplied with lamp

120VAC\*/12VDC

12V, NiMH (rechargeable)

2.5 hours (continuous) 4.5 hours (continuous) 2 hours

\*Also available in 230V, 240V and 100V versions.

CE

① All UV-A intensity readings were taken with Spectroline<sup>®</sup> AccuMAX<sup>™</sup> Series meter, and are factory set to the values shown



#### Also Available:

QUADRAN™ 365 M-Series portable, battery-operated AC/DC lamp kits. Include QUADRAN™ 365 UV lamp, rechargeable NiMH battery pack, power supply adapter with AC and DC cord sets, smart AC charger, UVabsorbing spectacles and soft carrying case.

#### **UV-A LED INSPECTION LAMPS**

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(5) X-Inches (cm)

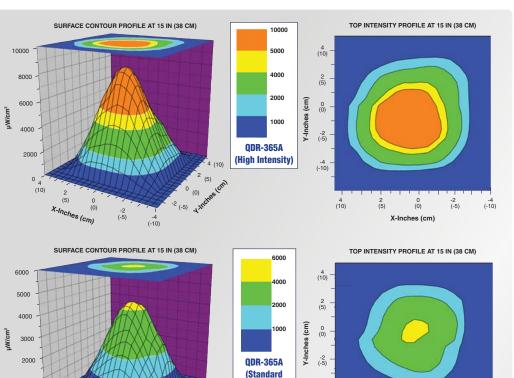
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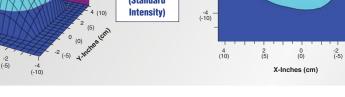
#### **QDR-365A MODELS UV-A BEAM PROFILES**

When the QDR-365A is in high *intensity* mode, the lamp provides a nominal steady-state UV-A intensity of 8,000 µW/cm<sup>2</sup> at 15 inches (38 cm).

When switched to the standard intensity mode, the QDR-365A provides a nominal steady-state UV-A intensity of 4,500 µW/cm<sup>2</sup> at 15 inches (38 cm).

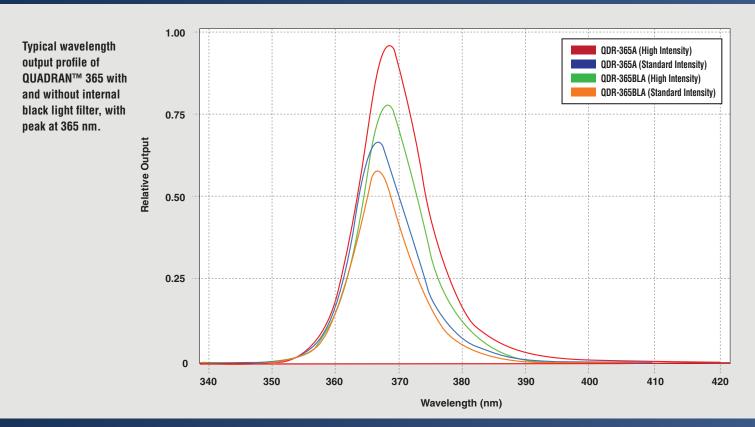
In addition, the lamp has a high/ low switch to control the white light LED output.



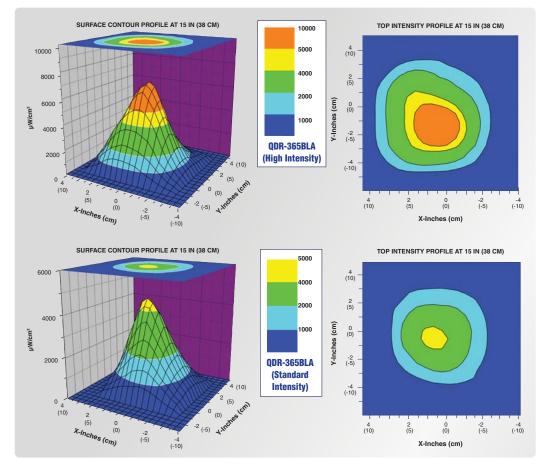


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#### NORMALIZED UV IRRADIANCE



### QDR-365BLA MODELS UV-A BEAM PROFILES

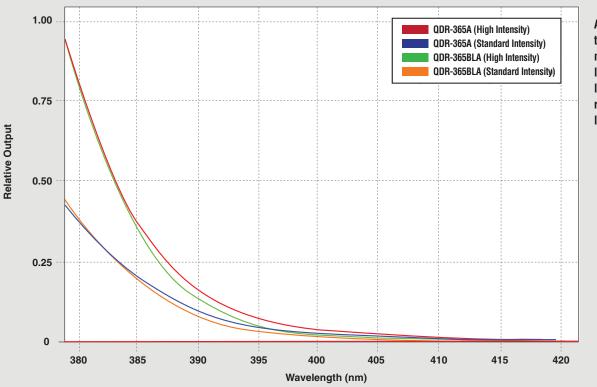


The **QDR-365BLA** is equipped with a faceplate with <u>integral</u> <u>black light</u> filters that reduce the output of wavelengths longer than 400 nm. When in the *high intensity* mode, the lamp provides a nominal steady-state UV-A intensity of <u>**7,000** µW/cm</u><sup>2</sup> at 15 inches (38 cm).

When switched to the standard intensity mode, the QDR-365BLA provides a nominal steady-state standard UV-A intensity of <u>4,500 µW/cm</u><sup>2</sup> at 15 inches (38 cm).

In addition, the lamp has a high/ low switch to control the white light LED output.

#### SELECT WAVELENGTHS WITH AND WITHOUT INTERNAL BLACK LIGHT FILTER



As the wavelength of the QUADRAN™ 365 moves into the visible light range, the black light filters significantly reduce the output of the lamp at 400 nm.

#### **UV-A LED INSPECTION LAMPS**



## Powerful, Multi-LED, Broad-Beam NDT Inspection Lamps!

Feature <u>four</u> ultra-hi-flux UV-A LEDs <u>plus</u> a convenient white light LED to quickly switch between fluorescent inspection and flaw location. For increased flexibility, a unique dual-intensity feature provides high/low white light output control.

The lamps' broad-beam configuration produces an extremely wide coverage area, making them ideal for both in-line and hand-held applications. Two models are available, either with or without integral black light filters to meet <u>vour</u> specific NDT inspection requirements. QUADRAN™ 365 S-Series lamps can be quickly mounted for in-line inspections using various Spectroline<sup>®</sup> accessories (FA-100 flexible arm shown).



- Choice of <u>two models</u>, both with a maximum standard UV-A intensity of <u>4,500 µW/cm</u><sup>2</sup> at 15 inches (38 cm)
- Extremely large coverage area of up to 5 inches (13 cm), with a minimum UV-A intensity of <u>2,000 μW/cm</u><sup>2</sup>
- Low visible light emission less than 2 foot-candles (22 lux)
- · Conveniently located rocker switches for quick and easy control of light sources
- Built-in fan keeps LEDs cool to maintain optimum light output during extended use
- Rubber bumper with Borofloat® glass lens protects LEDs from damage
- Rugged, modular construction allows for easy field serviceability
- Lamp handle pin receptacle allows for easy attachment of various Spectroline<sup>®</sup> mounting accessories for in-line inspection applications (accessories sold separately)
- Choice of standard 8 foot (2.4 m) or extra-long 20 foot (6.1 m) heavy-duty power cord with AC plug and rubber boot. Also available: Optional industrial power supply or in-line power supply with cord sets (sold separately).
- · Meets ASTM UV-A intensity and wavelength specifications for FPI and MPI
- *Certificate of compliance* for <u>both</u> wavelength and output measurements supplied with every lamp
- UV-absorbing spectacles and soft carrying case included





QUADRAN™ 365 S-Series faceplate shown with (top) and without (bottom) integral black light filters.



Model	Nominal steady- state UV-A (365 nm) intensity at 15 inches (38 cm) <sup>①</sup>		Visible light measurement	UV-A coverage area (at minimum 2,000 µW/cm²)
QDR-365SA	4,500 μW/cm² maximum @		< 2 foot-candles (22 lux)	5 in (13 cm)
<b>QDR-365SBLA</b> With integral black light filters	4,500 μW/cm <sup>2</sup> maximum <b>@</b>		< 2 foot-candles (22 lux)	4 in (10 cm)
Light Source:4 UV-A LEDs, 1 White Light LEDLamp Style:Pistol gripLamp Head (WxH):6 x 5.5 in (15 x 14 cm)Length:10 in (25 cm)Weight:3 lb (1.36 kg)White Light LED Intensity:300 foot-candles (3,229 lux)Low setting:10 foot-candles (108 lux)				)
Power Requirement:         AC Lamp         (DR-365SA, QDR-365SBLA)       120VAC* power cord supplied with lamp         AC/DC Lamp         (QDR-3655MSA, QDR-365MSBLA)       120VAC*/12VDC         Battery Pack:         Type       12V, NiMH (rechargeable)         Run Time       4.5 hours (continuous)         Charge Time       2 hours				

Also available in 230V, 240V and 100V versions.

- ① All UV-A intensity readings were taken with Spectroline<sup>®</sup> AccuMAX<sup>™</sup> Series meter, and are factory set to the values shown
- ② To address aerospace industry concerns



#### Also Available:

QUADRAN™ 365 MS-Series portable, battery-operated AC/DC lamp kits. Include QUADRAN™ 365 UV lamp, rechargeable NiMH battery pack, power supply adapter with AC and DC cord sets, smart AC charger, UVabsorbing spectacles and soft carrying case.

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### STANDARD-INTENSITY MODELS UV-A BEAM PROFILES

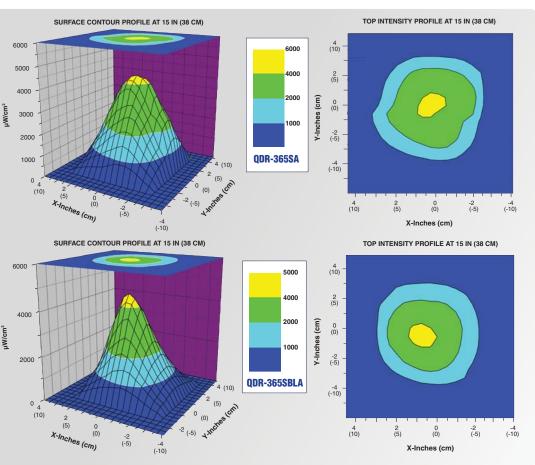
#### QUADRAN™ 365 S-Series

lamps are available in two models (QDR-365SA and QDR-365SBLA).

Both are designed for NDT inspection applications requiring limited UV-A output. The **QDR-365SA** comes with a standard faceplate. The **QDR-365SBLA** is equipped with a faceplate containing <u>integral black light filters</u> that reduce the output of wavelengths longer than 400 nm.

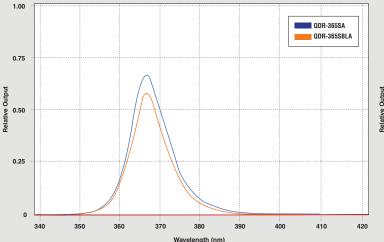
Both lamps are "tuned" to provide a nominal steady-state UV-A intensity of <u>4,500 µW/cm</u><sup>2</sup> at 15 inches (38 cm). <u>This addresses aerospace</u> industry concerns.

In addition, both lamps have a high/low switch to control the white light LED output.



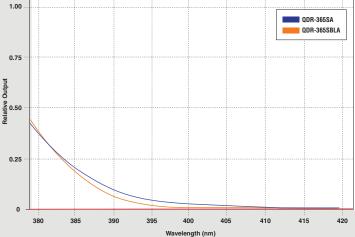
#### NORMALIZED UV IRRADIANCE

Typical wavelength output profile of QUADRAN™ 365 S-Series lamps with and without black light filters.



## SELECT WAVELENGTHS WITH AND WITHOUT INTERNAL BLACK LIGHT FILTER

As the wavelength of the QUADRAN™ 365 S-Series moves into the visible light range, the black light filters significantly reduce the output of the lamp at 400 nm.



## All QUADRAN™ 365 Series lamps are ideal for performing <u>both</u> in-line and hand-held inspections!

QDR-365 and QDR-365 S-Series lamps can easily be attached to a variety of Spectroline<sup>®</sup> mounting accessories, as well as to our optional in-line power supplies.

> QUADRAN™ 365 lamp shown with optional PS-200A (left) and PS-300A (right) power supplies.

#### Replacement Parts & Accessories for the QDR-365 & QDR-365 S-Series

129141	Standard, 8 foot (2.4 m) AC power cord	FP-550	Rubber bumper with Borofloat® glass
129145	Extra-long, 20 foot (6.1 m) AC power cord	PSA-250A	AC/DC power supply adapter for "M" series lamps
129162	3.5 foot (1.1 m) DC power cord for "M" series lamps	PS-200A	Industrial power supply. Primary cord: 8 feet (2.4 m);
127922	Particulate filter assembly		secondary cord: 20 feet (6.1 m).
127944	Standard faceplate	PS-300A	In-line power supply. Primary cord: 8 feet (2.4 m);
128094	Faceplate with integral black light filters		secondary cord: 8 feet (2.4 m).
B-6	Bench mount	W-6	Bench mount with pin
BP-30	Battery pack with 12V rechargeable NiMH battery	WM-100	Wall mounting bracket
BR-150A	Smart AC charger	UL-100	UV-A lens
CC-400	Soft carrying case	UVS-30	UV-absorbing spectacles
FA-100	Flexible arm		

### **UV-A LED INSPECTION LAMPS**



## **UV-A/White Light LED Inspection Kit**

(U.S. and foreign patents pending)

(1)

### Palm-Sized, Cool-Running, Hands-Free Light Source!

Ideal for fluorescent magnetic particle and penetrant testing, mining inspection and a variety of other specialized applications!



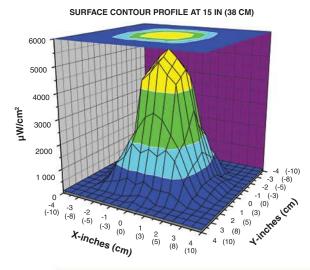
Spray <u>and</u> inspect in one simple step!

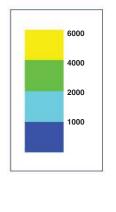
- Compact, lightweight lamp with two ultra-high intensity UV-A (365 nm) LEDs for inspection, plus a three-LED white light assembly for general illumination
- Adjustable strap allows lamp to be worn on a hard hat or directly on the head for hands-free operation
- Unique lamp mount/sprayer attachment permits lamp and spray can to be mounted together for convenient, single-handed fluorescent yoke inspection
- Built-in fan keeps lamp cool to maintain optimum UV-A intensity during extended use
- Splash guard with integral particulate filter protects UV lenses and cooling fan from damage
- 100,000-hour LED service life
- Powered by a rechargeable lithium-ion battery (included). Provides up to 75 minutes of continuous inspection between charges.
- *Certificate of compliance* for <u>both</u> wavelength and output measurements supplied with every lamp



EK-3000 EagleEye<sup>™</sup> Kit comes with a lanyard, two replacement splash guards with integral particulate filters, two spare batteries, battery charging cradle with AC and DC cord sets, UV-absorbing spectacles and soft carrying case.

#### **UV-A BEAM PROFILE**





#### -4 (-10) -3 (-8) -2 (-5) Y-inches (cm) -1 (-3) 0 (0) (3) (5) 3 (8) 4 (10)

#### LAMP SPECIFICATIONS

**Product Number:** EE-365

Light Sources: 2 UV LEDs, 3 white light LEDs

 Dimensions:

 Length
 3.75 in (9.5 cm)

 Width
 2.25 in (5.7 cm)

 Height
 1.85 in (4.7 cm)

Weight with Battery: 8 oz (227 g)

Power Requirement: (rechargeable)

**Run Time:** 75 minutes (continuous)

**Charge Time:** 4 hours (two batteries)

**Charging Cradle:** Two-battery capability with AC and DC cord sets.

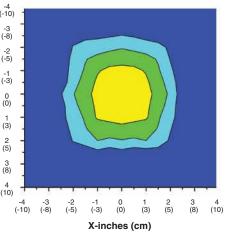
Nominal Steady-State UV-A (365 nm) Intensity:

6 in (15 cm) — 20,000 μW/cm<sup>2</sup> 15 in (38 cm) — 4,500 μW/cm<sup>2</sup> 24 in (61 cm) — 2,000 μW/cm<sup>2</sup> 36 in (91 cm) - 1,000 µW/cm<sup>2</sup>

NOTE: All UV-A intensity readings taken with a Spectroline<sup>®</sup> AccuMAX™



#### TOP INTENSITY PROFILE AT 15 IN (38 CM)



#### **Replacement Parts & Accessories**

EE-365	UV-A/white light LED lamp
LMS-100	Lamp mount/sprayer
HS-100	Head strap
SG-100	Splash guard with integral particulate filter (set of three)
128217	Battery charging cradle with AC cord

128225	DC cord set for 128217
127568	Lithium-ion battery (rechargeable)
UVS-30	UV-absorbing spectacles
UL-100	UV-A lens
CC-370A	Soft carrying case

## **PM-1600 Series**



## UV-A LED Panel Flood Lamps Designed Specifically for NDT Professionals!

**PowerMAX<sup>™</sup> 365 Series** flood lamps feature a panel of <u>16</u> powerful UV-A (365 nm) LEDs specially engineered for non-destructive testing applications. These versatile, stationary light sources can be installed overhead or in-line, and can be ganged together to provide an even wider coverage area.

Available in <u>four models</u> to meet your specific inspection needs: high-intensity and standardintensity versions, each with or without a black light filter. Ideal for NDT inspection booths, fluorescent penetrant and magnetic particle inspection, screening of fluorescent particles, wash station inspection and many other applications requiring maximum uniformity of UV-A coverage over a large area.

- Choice of two high-intensity models with a nominal steady-state UV-A intensity as high as <u>8,000 µW/cm</u><sup>2</sup> or two standard-intensity models with a maximum UV-A intensity of <u>4,500 µW/cm</u><sup>2</sup> at 15 inches (38 cm)
- Large coverage area of 15 inches by 6 inches (38 cm x 15 cm), with a minimum UV-A intensity of <u>2,000 µW/cm</u><sup>2</sup>
- Low visible light emission less than 2 foot-candles (22 lux)
- · Easily mountable for overhead inspection or in-line applications
- Built-in fans keep LEDs cool to maintain optimum light output during extended use
- Customizable multiple lamp units can be "ganged" together longitudinally or back-to-back for a larger coverage area to meet <u>your</u> specific inspection requirements!
- Both high- and standard-intensity versions available with or without black light filter
- Standard-intensity lamps meet ASTM UV-A intensity and wavelength specifications for FPI and MPI, and come with a *certificate of compliance* for <u>both</u> wavelength and output measurements





For applications requiring extremely large coverage areas, the PowerMAX™ 365 can be quickly ganged together longitudinally (top) or back-to-back (below) using customized, easy-toinstall connecting plates and brackets.

Model	Nominal steady-state UV-A (365 nm) intensity at 15 inches (38 cm) <sup>①</sup>	teady-state /-A (365 nm) Visible light ntensity at measurement 15 inches		
<b>PM-1600UVH</b> High intensity, with clear filter	8,000 μW/cm <sup>2</sup>	< 2 foot-candles (22 lux)	15 in by 6 in (38 cm x 15 cm)	
<b>PM-1600BLH</b> High intensity, with black light filter	6,500 µW/cm <sup>2</sup>	< 2 foot-candles (22 lux)	15 in by 6 in (38 cm x 15 cm)	
<b>PM-1600UV</b> Standard intensity, with clear filter	4,500 µW/cm² maximum <sup>⊘</sup>			
<b>PM-1600BL</b> Standard intensity, with black light filter	4,000 µW/cm² maximum <sup>@</sup>	< 2 foot-candles (22 lux)	15 in by 6 in (38 cm x 15 cm)	
Light Source:	Light Source: 16 UV-A (365 nm) LEDs			
Lamp Style:	Panel flood lamp			
Dimensions: (W x L x H)	5.5 x 13.75 x 6 i	5.5 x 13.75 x 6 in (14 x 35 x 15 cm)		
Weight:	9 lb (4 kg)	9 lb (4 kg)		
Power Requirem	Power Requirement: AC power (main AC power cord supplied with the unit)			

① All UV-A intensity readings were taken with Spectroline<sup>®</sup> AccuMAX<sup>™</sup> Series meter, and are factory set to the values shown

<sup>(2)</sup> To address aerospace industry concerns

CE



Replacement Parts & Accessories			
128177	AC power cord		
BF-365PM	Black light filter assembly		
CF-100	Clear glass filter assembly		
127918	Particulate air filter		
127935	Retainer, LED assembly face plate		
CC-200	Connector cable for ganging lamps		
CP-100	Top connecting plate for ganging lamps longitudinally		
CP-200	Top connecting plate for ganging lamps back-to-back (Two required)		
CP-300	Side connecting bracket for ganging lamps longitudinally (Two required)		
UL-100	UV-A lens		
UVF-80	Face shield, UV-absorbing		
UVG-50	Goggles, UV-absorbing		
UVS-30	Spectacles, UV-absorbing		

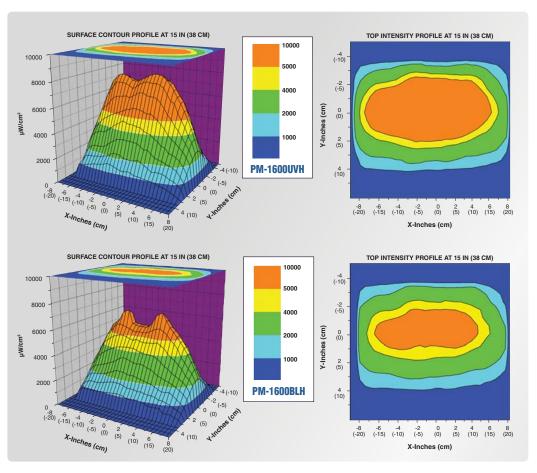
#### **UV-A STATIONARY LAMPS**

#### HIGH-INTENSITY MODELS UV-A BEAM PROFILES

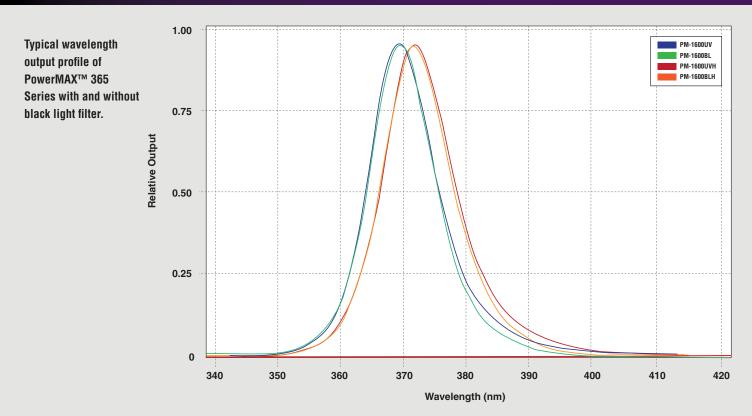
PowerMAX<sup>™</sup> 365 Series UV-A LED panel flood lamps are available in two *high-intensity* models that are specifically designed for NDT inspection applications requiring high UV-A output.

The **PM-1600UVH** is equipped with a <u>clear glass filter</u> and provides a nominal steady-state UV-A intensity of <u>**8**,000  $\mu$ W/cm</u><sup>2</sup> at 15 inches (38 cm).

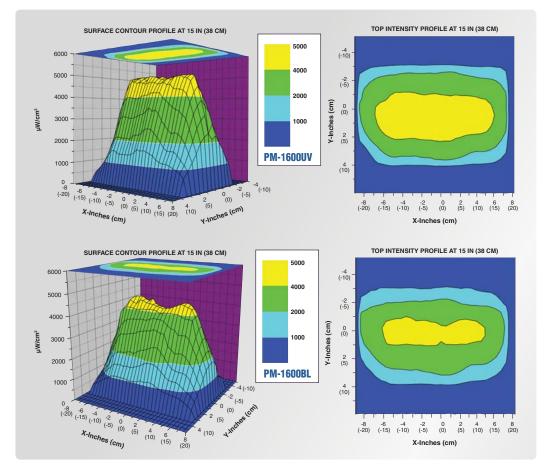
The **PM-1600BLH** is equipped with a <u>black light filter</u> that reduces the output of wavelengths longer than 400 nm. It provides a nominal steady-state UV-A intensity of <u>6,500 µW/cm</u><sup>2</sup> at 15 inches (38 cm).



#### NORMALIZED UV IRRADIANCE



### STANDARD-INTENSITY MODELS UV-A BEAM PROFILES

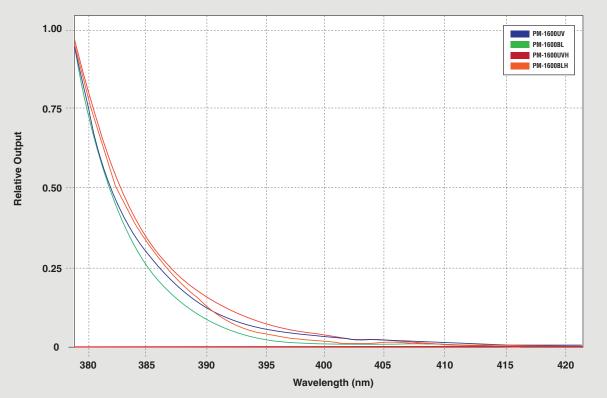


PowerMAX<sup>™</sup> 365 Series UV-A LED panel flood lamps are also available in two *standardintensity* models that are designed for NDT inspection applications requiring limited UV-A output.

The **PM-1600UV** is quipped with a <u>clear glass filter</u> and provides a nominal steady-state UV-A intensity of <u>4,500 µW/cm</u><sup>2</sup> (maximum) at 15 inches (38 cm).

The **PM-1600BL** is equipped with a <u>black light filter</u> that reduces the output of wavelengths longer than 400 nm. It provides a nominal steady-state UV-A intensity of <u>**4,000** µW/cm</u><sup>2</sup> (maximum) at 15 inches (38 cm). <u>This addresses</u> <u>aerospace industry concerns.</u>

#### SELECT WAVELENGTHS WITH AND WITHOUT INTERNAL BLACK LIGHT FILTER



As the wavelength of the PowerMAX<sup>™</sup> 365 moves into the visible light range, the black light filter significantly reduces the output of the lamp at 400 nm.

# UV-400 Series SuperFlood™

## Our Most Powerful UV-A Flood Lamps Designed Specifically for NDT

These super-powerful <u>and</u> versatile lamps have been specially engineered for fluorescent penetrant and magnetic particle inspection, parts degreasing inspections and wash station inspections.

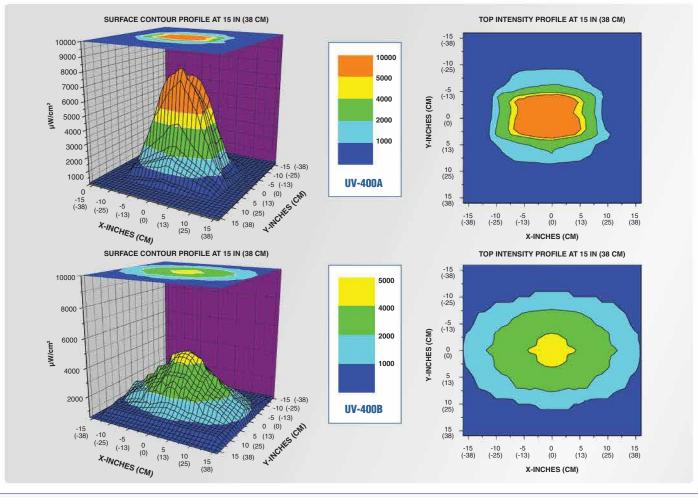
- Powerful, 400-watt metal halide bulb, combined with tempered, heat-resistant low solarization UV filters provide the highest intensity over the largest area
- Easily mounts over automated magnetic particle systems or above penetrant inspection booths for the most accurate inspections of even the largest parts
- Unique twin-filter system eliminates hazardous UV-B and UV-C radiation escaping from lamp
- Compact design and built-in mounting features allow lamps to be positioned anywhere even in previously inaccessible areas

The **UV-400A** features a concentrated-beam reflector designed to assure the highest concentrated UV-A intensity available. It has a nominal steady-state UV-A intensity of  $\underline{8,000 \ \mu W/cm}^2$  at lamp center, measured at 15 inches (38 cm). Irradiates an area as large as 16" x 10" (41 cm x 25 cm), producing a nominal steady-state UV-A irradiance of not less than  $\underline{2,000 \ \mu W/cm}^2$ .

The **UV-400B** features a unique broad-beam reflector designed to provide NDT inspectors with maximum uniformity of coverage over the largest area. It has a nominal steady-state UV-A intensity of  $4,000 \mu W/cm^2$  at lamp center, measured at 15 inches (38 cm). The lamp irradiates an area as wide as 20" x 12" (51 cm x 31 cm) with unmatched uniformity, producing a nominal steady-state UV-A irradiance of not less than  $2,000 \mu W/cm^2$ .

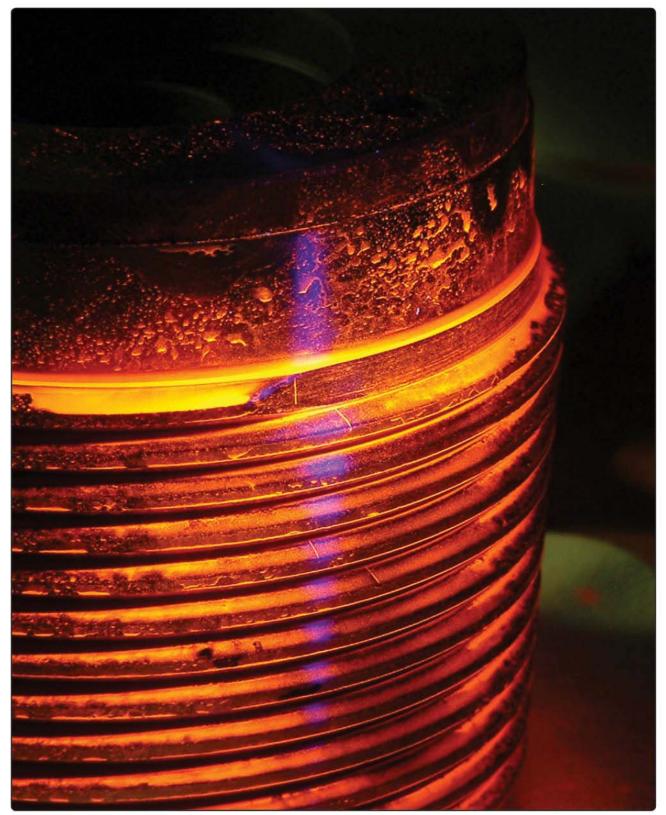
ERFLOOD

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#### **UV-A BEAM PROFILE**

## A weld defect...



Revealed by the MAXIMA  $^{\rm TM}$  ML-3500S UV-A inspection lamp using the liquid penetrant method.

#### UV-A/WHITE LIGHT LED MODULAR INSPECTION SYSTEM



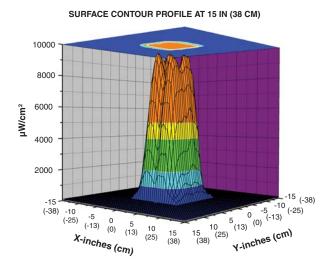
#### (U.S. and foreign patents pending)

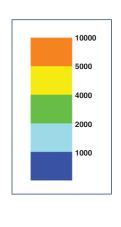
The **ONT-365 On-Trak**<sup>™</sup> is an innovative, track light-style modular inspection system. It features <u>four</u> broad-beam lamps, each of which utilizes <u>three</u> powerful, ultra-high-flux UV-A (365 nm) LEDs for inspection plus one white light LED for general illumination. This overhead lighting system allows inspectors to customize lamp beam patterns to suit their individual needs. Two lamp head assemblies can be added, as desired, to increase the coverage area. Perfect for NDT inspection booths, pre-inspections and screening applications requiring maximum uniformity of coverage over large areas.

- · Cool-running, energy-efficient LEDs
- · Broad-beam profiles provide wide coverage area
- Electronic Intensity Stabilizers ensure consistent LED performance
- Instant-on operation; lamps reach full intensity immediately
- Built-in fans keep LEDs cool to maintain optimum UV-A intensity during extended use
- · Produces less than 2 foot-candles of visible light
- Filter protectors with rubber bumpers and Borofloat<sup>®</sup> glass lenses prevent damage to LEDs
- Easily customizable! Move, adjust and add up to two lamp heads according to <u>your</u> specific inspection requirements (additional lamp heads sold separately)
- Optional remote control with three-position rocker switch provides added convenience and versatility
- · Comes complete with UVS-30 UV-absorbing spectacles

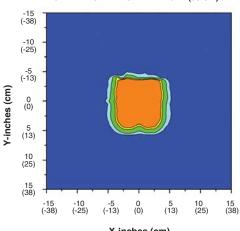


#### **UV-A BEAM PROFILE**





TOP INTENSITY PROFILE AT 15 IN (38 CM)



X-inches (cm)

#### **Replacement Parts & Accessories**

LA-365	UV-A/white light LED lamp head assembly	PS-100A	Power supply module
PT-200	Platform and track assembly	RC-200	C-200 AC remote control with 8 foot (2.4 m) cord
UL-100	UV-A lens		
FP-100	Filter protector with rubber bumper and Borofloat® glass lens	UVS-30	Spectacles, UV-absorbing
		UVG-50	Goggles, UV-absorbing
AF-200	Air filter (package of 24)	UVF-80	Face shield, UV-absorbing

#### LAMP SPECIFICATIONS

Product Number: ONT-365

**Light Sources:** 3 UV-A LEDs and 1 white light LED per lamp head

**System dimensions:** (L x W x H) 28.5 x 18.3 x 11 in (72 x 46 x 28 cm)

Lamp: 3.25 in (8.3 cm) 9.5 in (24 cm) Head diameter: Length:

**Platform Dimensions:** (L × W × H) 28.5 x 18.3 x 2.5 in (72 x 46 x 6 cm)

Platform Weight: 13 lb (5.9 kg)

**Power Supply Cord:** 8 ft (2.4 m)

Power Supply: Input: 100-240 VAC 50/60 Hz Output: 12 VDC

Nominal Steady-State UV-A (365 nm) Intensity: 15 in (38 cm) — 9,000 µW/cm²

NOTE: UV-A intensity reading taken with a Spectroline<sup>®</sup> AccuMAX<sup>™</sup> Series meter

## ML-3500 Series MAXIMA™

## **Ultra-High Intensity UV-A Lamps**

These super-powerful lamps make NDT inspections easier, safer and more reliable. They feature state-of-the-art micro discharge light (MDL) technology with a fatigue-free ergonomic design.

- · Powerful, 35 watt high-intensity MDL bulb
- Deliver up to 10 times the UV-A output of conventional HID inspection lamps
- Prefocused at the factory
- Instant on/off/restrike
- Lightweight, solid-state ballast
- · Integral bulb/reflector assembly
- · Stay-cool, impact-resistant and dent-proof housing
- · Battery-operated versions available
- · All bulbs feature a rated life of 2,000 hours
- · Come complete with both UV-absorbing and fluorescent-enhancing spectacles

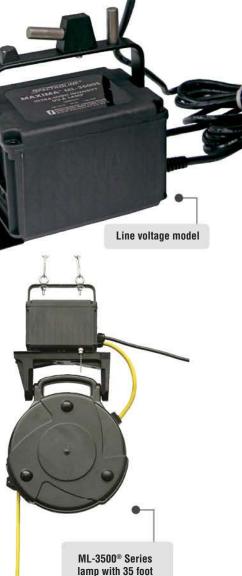
#### The MAXIMA<sup>™</sup> series consists of three models:

- » The **ML-3500S** with a spot reflector has a nominal steady-state UV-A intensity of  $50,000 \mu W/cm^2$  at 15 inches (38 cm). Works even in direct sunlight!
- » The ML-3500D with a spot reflector and diffusing filter has a nominal steady-state UV-A intensity of <u>14,000 µW/cm</u><sup>2</sup> at 15 inches (38 cm).
- » The ML-3500FL with a flood reflector has a nominal steady-state UV-A intensity of <u>4,500 µW/cm<sup>2</sup></u> at 15 inches (38 cm).

All models come standard with 8 foot (2.4 m) primary and secondary cords. Lamps are also available with extended length primary cords or with a 35 foot (10.7 m) secondary cord housed in a retractable "flying" reel.

In addition, <u>all</u> MAXIMA<sup>™</sup> lamps are available in battery-operated "M" versions. Each includes a 12-volt, 7 amp/hr rechargeable battery that will operate the lamp for a full two hours. A battery charger and carrying case are included.





V.V. OGVV

(10.7 m) secondary

#### **UV-A BEAM PROFILES**

60000

20000

10000

4000

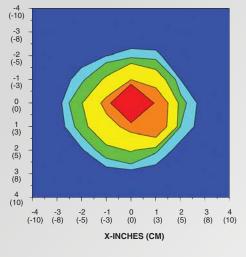
2000

1000

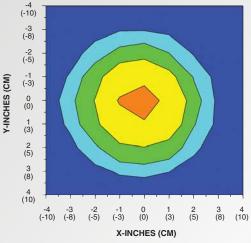
Y-INCHES (CM)

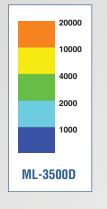
SURFACE CONTOUR PROFILE AT 15 IN (38 CM) 60000 50000 40000 μW/cm² 30000 20000  $\begin{array}{c} & -4 & (-) \\ & -3 & (-8) \\ & -2 & (-5) \\ & -1 & (-3) \\ & 0 & (0) \\ & (3) \end{array}$ -4 (-10) 10000 V-INCHES COM \_0 -4 **ML-3500S** (-10) (-8) -2 -1 0 (-5) (-3) 0 (0) 1 2 (5) 3 (8) X-INCHES (CM) (3) 3 4 (8) (10) 4 (10) (5)

TOP INTENSITY PROFILE AT 15 IN (38 CM)



TOP INTENSITY PROFILE AT 15 IN (38 CM)





6000

5000

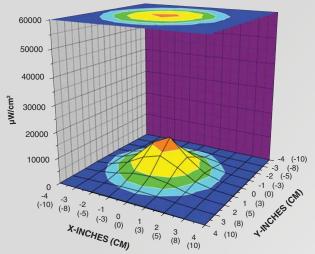
4000

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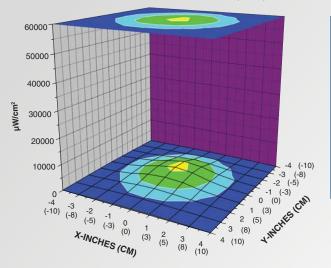
1000

**ML-3500FL** 

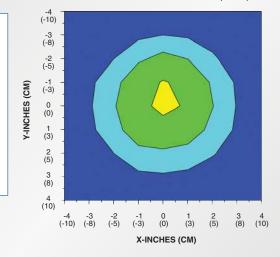
SURFACE CONTOUR PROFILE AT 15 IN (38 CM)



SURFACE CONTOUR PROFILE AT 15 IN (38 CM)



TOP INTENSITY PROFILE AT 15 IN (38 CM)



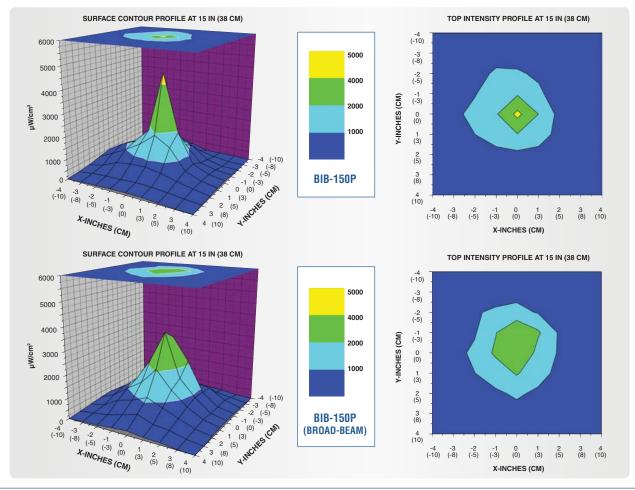
#### **UV-A HID INSPECTION LAMPS**

## BIB-150P Series C€ World's Highest Intensity, Self-Ballasted UV-A Lamp

This lamp is a favorite with NDT inspectors because it provides super-high UV-A intensity at an economical price. Its light weight and ergonomic design ensure easy handling for long inspections.

- Unique Built-In-Ballast™ 150-watt bulb eliminates the need for a heavy, external transformer
- Space-age engineering polymer housing is impact-resistant and dent-proof
- Total weight of only 3<sup>1</sup>/<sub>4</sub> lbs (1.5 kg). Measures just 9<sup>5</sup>/<sub>8</sub> inches (24 cm) long, including the heat guard/stand
- Vinyl-coated, stainless-steel, wraparound heat guard protects against burns and acts as a lamp stand
- Special Bulb-Saver™ minimizes bulb movement during handling and reduces the risk of breakage
- · Come complete with UV-absorbing spectacles
- · Meets ASTM UV-A intensity and wavelength specifications for FPI and MPI
- Available in either concentrated spot or broad-beam versions. Concentrated spot configuration has a nominal steady-state UV-A intensity of <u>4,500 µW/cm</u><sup>2</sup> at 15 inches (38 cm). Broad-beam configuration has a nominal steady-state UV-A intensity of <u>3,000 µW/cm</u><sup>2</sup> at 15 inches (38 cm).

Both models come standard with an 8 foot (2.4 m) power cord. Lamps are also available with extended length power cords or with a 35 foot (10.7 m) cord housed in a retractable "flying" reel.



#### **UV-A BEAM PROFILES**

# **SB-100P Series**

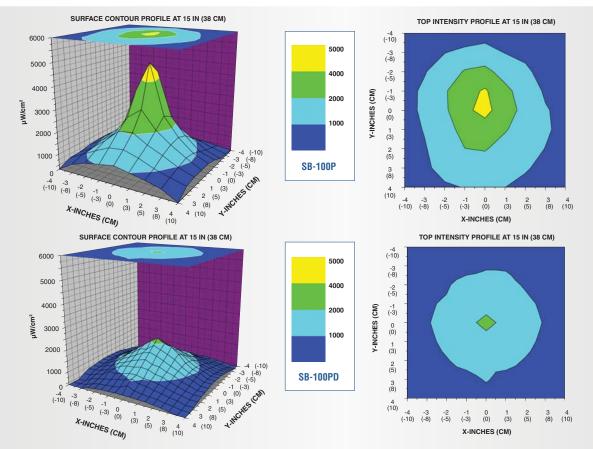
## **Designed for Maximum Efficiency and Versatility**

## We developed the SB-100P Series UV-A lamps to be very affordable, super-high intensity "workhorses" for MPI and FPI inspections.

- · Powerful, transformer-based, 100 watt spot bulb
- Combines state-of-the-art innovations with proven features. The cord comes out of the staycool, contoured handle to prevent tangling, and the crack-resistant, tempered filter reduces replacement costs significantly.
- Lamp head and transformer base housings are constructed of a special heat-resistant engineering polymer that ensures years of rugged use
- Lamp head is ergonomically designed and detaches easily from the transformer base for comfortable, fatigue-free handling
- Transformer provides maximum power to the unit and features an indicator light to show when the lamp is on
- · Meets ASTM UV-A intensity and wavelength specifications for FPI and MPI
- Available in concentrated spot SB-100P and diffused SB-100PD versions. Spot configuration has a nominal steady-state UV-A intensity of <u>4,800 µW/cm</u><sup>2</sup> at 15 inches (38 cm). Diffused configuration has a nominal steady-state UV-A intensity of <u>2,200 µW/cm</u><sup>2</sup> at 15 inches (38 cm).
- · Bulbs feature average rated life of 5,000 hours
- · Come complete with UV-absorbing spectacles

Both models come with a special heat-resistant, 3-wire secondary cord. The primary and secondary cords are both 8 feet (2.4 m) long. Lamps are also available with extended length primary or secondary cords, or with a 35 foot (10.7 m) secondary cord housed in a retractable "flying" reel.

Also available: 100S/M-PQL upgraded, Premium Quality Lighting (PQL), 100-watt, medium base, HID replacement spot bulb, for SB-100P Series lamps. Average rated bulb life is 12,000 hours. With upgraded bulb, lamp has a nominal steady-state UV-A intensity of 7,500 μW/cm<sup>2</sup> at 15 inches (38 cm).



#### UV-A BEAM PROFILES

CE

# **FC-Series**

## World's Lightest Fan-Cooled, Portable UV-A Lamps

NDT inspectors find that FC-Series UV-A lamps make prolonged inspections seem much shorter because they provide cool operation and increased comfort.

- Quiet, *built-in* fan dramatically reduces running temperature, provides more comfort and safety for users, and ensures long bulb life.
- Ergonomically designed with the handle and cord at the balance point of the lamp head. As a result, the lamp can be held for long periods with little user fatigue.
- Special remote lamp switch in the pistol grip prevents accidental shutoff, while separate fan control switch allows for safe cool-down.
- Lamp head is housed in a super-strong engineering polymer that is dent-proof and impact-resistant. Weighs just 3 5/8 lbs (1.6 kg).
- · Meets ASTM UV-A intensity and wavelength specifications for FPI and MPI
- · Bulb features average rated life of 5,000 hours
- · Come complete with UV-absorbing spectacles

#### The FC-series consists of three models:

» The FC-100 comes with a 100-watt bulb, available in concentrated spot (FC-100) and diffused filter (FC-100D) versions. Spot configuration has a nominal steady-state UV-A intensity of <u>4.800 µW/cm</u><sup>2</sup> at 15 inches (38 cm). Diffused configuration has a nominal steady-state UV-A intensity of <u>2.200 µW/cm</u><sup>2</sup> at 15 inches (38 cm). Both lamps come with 8 foot (2.4 m) primary and secondary cords. Lamp head weighs just 3 <sup>5</sup>/<sub>8</sub> lbs (1.6 kg).

CE

- »The FC-150 with a Built-In-Ballast<sup>™</sup> 150-watt concentrated spot bulb has a nominal steady-state UV-A intensity of <u>4,500 µW/cm</u><sup>2</sup> at 15 inches (38 cm), has an 8 foot (2.4 m) power cord. Lamp head weighs just 3 <sup>1</sup>/<sub>2</sub> lbs (1.6 kg).
- » The **FC-100M** has the same specifications as the FC-100 model, but is a direct replacement lamp for use with Magnaflux<sup>®</sup> magnetic particle machines.

#### Lamps also available with extended length primary and secondary power cords.

Also available: 100S/M-PQL upgraded, Premium Quality Lighting (PQL), 100-watt, medium base, HID replacement spot bulb, for FC-100 Series lamps. Average rated bulb life is 12,000 hours. With the upgraded bulb, lamp has a nominal steady-state UV-A intensity of 7,500 µW/cm<sup>2</sup> at 15 inches (38 cm).

Magnaflux® is a registered trademark of Magnaflux Corporation



FC-100

## **UV-A BEAM PROFILES**

SURFACE CONTOUR PROFILE AT 15 IN (38 CM) 6000 5000 4000 μW/cm² 3000 2000 1000  $\begin{smallmatrix} 0 \\ -4 & -3 & -2 & -1 \\ (-10) & (-8) & (-5) & (-3) & 0 & 1 & 2 & 3 \\ (-5) & (-3) & (0) & (3) & (5) & (8) & (4) \\ (-5) & (-3) & (-5) & (-3) & (-5) & (-5) \\ (-3) & (-5) & (-5) & (-5) & (-5) \\ (-3) & (-5) & (-5) & (-5) & (-5) \\ (-3) & (-5) & (-5) & (-5) & (-5) \\ (-3) & (-5) & (-5) & (-5) & (-5) \\ (-3) & (-5) & (-5) & (-5) & (-5) \\ (-3) & (-5) & (-5) \\ (-3) & (-5) & (-5) \\ (-3) & (-5) & (-5) \\ (-3) & (-5) & (-5) \\ (-3) & (-5) & (-5) \\ (-3) & (-5) & (-5) \\ (-5) & (-5$ 0 4 (10)

5000 4000 2000 1000 FC-100

Y-INCHES (CM)

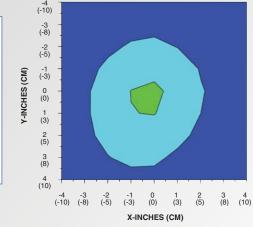
-4 (-10) -3 (-8) -2 (-5) (-3) 0 (0) 1 (3) 2 (5) 3 (8) 4 (10)

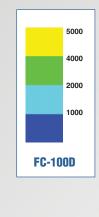
0 (0) -4 -3 (-10) (-8) -2 (-5) -1 (-3) X-INCHES (CM)

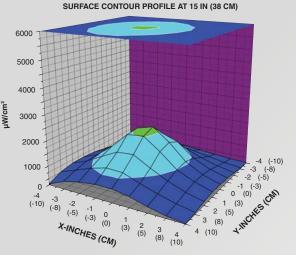
 $\begin{array}{c} & -4 & (-10) \\ & -3 & (-8) \\ & -2 & (-5) \\ & & 1 & (-3) \\ & & 2 & (5) \\ & & 3 & (8) \\ & & (10) \end{array}$ 

TOP INTENSITY PROFILE AT 15 IN (38 CM)

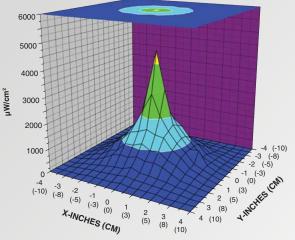
TOP INTENSITY PROFILE AT 15 IN (38 CM)

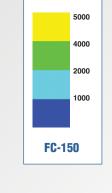




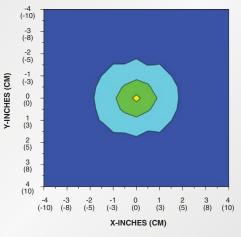


SURFACE CONTOUR PROFILE AT 15 IN (38 CM)





TOP INTENSITY PROFILE AT 15 IN (38 CM)



3 4 (8) (10)

2 (5) (3)

# **LED Light Sources in <b>Blue Light Wavelengths!**

The importance of high-intensity UV-A black lights for proper magnetic particle or penetrant NDT inspection is well established. However, a concern for UV safety has always existed. Our new blue light inspection lamps and modular systems address this concern. While still no substitute for UV-A lamps, blue light does provide the safety and convenience desired for quick pre-inspection or screening of fluorescent particles in operating conditions with ambient light, saving time and limiting the use of black lights to only when necessary.



# **OPX-450**

## OPTIMAX<sup>™</sup> 450 Rechargeable Blue Light LED Flashlight (U.S. patent no. 5,905,268; foreign patents pending)

This versatile, cordless inspection lamp features a high-intensity, 450 nm blue light LED, a black anodized lamp body and our patented, thin-film dichroic lens to filter out long-wave visible light.

- Nominal steady-state blue light intensity of 7,000 µW/cm<sup>2</sup> at 15 inches (38 cm)
- 100,000-hour LED service life

10000

9000

8000

7000

6000

5000

4000

3000

2000

1000

0

-4 (-10)

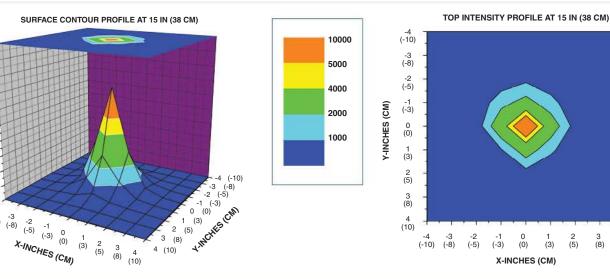
µW/cm<sup>2</sup>

- · Patented, thin-film dichroic lens improve contrast and fluorescent response
- Electronic Intensity Stabilizer assures consistent performance. Beam strength will not weaken between charges!
- Instant-on operation. Lamp reaches full intensity immediately!
- Lightweight, cordless, ergonomic design eliminates fatigue
- Portable and rugged. Anodized aluminum lamp body minimizes corrosion and stands up to years of heavy use.
- Powered by a rechargeable NiMH battery. Provides 90 minutes of continuous inspection between charges.



**OPTIMAX™ 450** comes complete with smart AC and DC chargers, fluorescent-enhancing, yellow spectacles, belt holster and rugged, padded carrying case.

LAMP SPECIFICATIONS		
Style	Cordless flashlight	
Lamp Head Diameter	2.0 inch (5.1 cm)	
Length	8.0 inch (20.3 cm)	
Weight (with Battery)	11.8 oz (335 g)	
Power Requirement	3.6V, 2 AH NiMH internal battery stick (rechargeable)	
Run Time	90 minutes (continuous)	
Charge Time	<sup>4 hours</sup> CE	



## **BLUE LIGHT BEAM PROFILE**

BLUE LIGHT LED INSPECTION LAMPS

3 4 (8) (10)

## **BLUE LIGHT LED INSPECTION LAMPS**

# **TRI-450B Series** TRITAN™ 450 Multi-LED, Broad-Beam Blue Light Lamp

(U.S. patent no. 5,905,268; foreign patents pending)

Feature <u>three</u> cool-running, ultra-high flux 450 nm blue light LEDs with a broad-beam configuration. This powerful lamp provides a wider coverage area than conventional inspection lamps, while its compact head design allows access into areas inaccessible to larger inspection lamps. Ideal for most non-destructive testing applications.

- Nominal steady-state blue light intensity of <u>9,500 µW/cm</u><sup>2</sup> at 15 inches (38 cm)
- Large 5 inch (13 cm) diameter coverage area at 15 inches (38 cm) with a minimum intensity of <u>2,000 µW/cm</u><sup>2</sup>
- Rubber bumper with patented thin-film dichroic lens filters out long-wave visible light
- Electronic Intensity Stabilizer ensures consistent LED performance
- Built-in fans keep LEDs cool to maintain optimum light output during extended use
- Instant-on operation. Lamp reaches full intensity immediately!
- Rugged, ergonomic, angled lamp body provides safe, fatigue-free handling
- Choice of standard 8 foot (2.4 m) or extra-long 20 foot (6.1 m) heavy-duty power cord with AC plug and rubber boot. Also available: Optional in-line power supply or industrial power supply with cord sets (sold separately).
- Includes fluorescent-enhancing, yellow spectacles and soft carrying case



### Also Available:

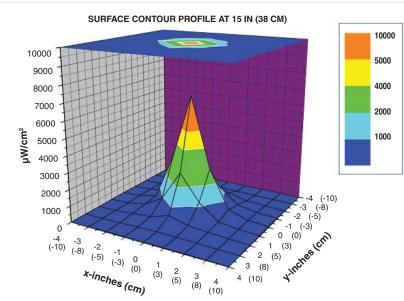
**TRITAN™ 450MB** portable, battery-operated AC/DC lamp kit. Includes TRITAN 450 blue light LED lamp, rechargeable NiMH battery pack, power supply adapter with AC and DC cord sets, smart AC charger, fluorescentenhancing, yellow spectacles and soft, lightweight carrying case.

## LAMP SPECIFICATIONS

Style	Pistol grip
Light Source	3 blue light LEDs
Lamp Head Diameter	5 in (13 cm)
Length	8.0 in (20.3 cm)
Weight	1 lb (454 g)
Power Requirements: AC lamp AC/DC lamp	(TRI-450A) 120VAC* (TRI-450MA) 120VAC*/12VDC
Battery Pack: Type Run Time Charge Time	12V, NiMH (rechargeable) 3.5 hours (continuous) 2 hours
*Also available in 230V, 240	V and 100V versions.

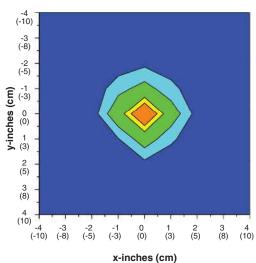
## **Replacement Parts & Accessories**

129141	Standard, 8 foot (2.4 m) AC power cord
129145	Extra-long, 20 foot (6.1 m) AC power cord
129162	3.5 foot (1.1 m) DC power cord for "M" series lamps
127933	Particulate filter assembly
BP-30	Battery pack with 12V rechargeable NiMH battery
BR-150A	Smart AC charger
CC-370A	Soft carrying case
FP-450	Rubber bumper with dichroic lens
PSA-250A	AC/DC power supply adapter for "M" series lamps
PS-200A	Industrial power supply. Primary cord: 8 feet (2.4 m); secondary cord: 20 feet (6.1 m).
PS-300A	In-line power supply. Primary cord: 8 feet (2.4 m); secondary cord: 8 feet (2.4 m).
UVS-40	Fluorescent-enhancing spectacles, yellow



#### **BLUE LIGHT BEAM PROFILE**

TOP INTENSITY PROFILE AT 15 IN (38 CM)



## **BLUE LIGHT LED INSPECTION LAMPS**



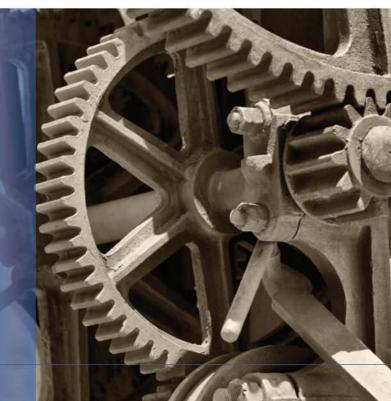
## Blue Light LED Panel Flood Lamp Designed Specifically for NDT Professionals!

**PowerMAX<sup>™</sup> 450** flood lamp features a panel of <u>16</u> powerful blue light (450 nm) LEDs specially engineered for non-destructive testing applications when limiting the use of UV-A light is a requirement. This versatile, stationary light source can be installed overhead or in-line, and can be ganged together to provide an even wider coverage area.

Ideal for NDT inspection booths, quick preinspection or screening of fluorescent particles in ambient light conditions and <u>any</u> other applications requiring maximum uniformity of blue light coverage over a large area.



- Nominal steady-state blue light intensity of <u>14,000 µW/cm</u><sup>2</sup> at 15 inches (38 cm)
- Large coverage area of 18 inches by 8 inches (46 cm x 20 cm) with a minimum blue light intensity of <u>2,000 µW/cm</u><sup>2</sup>
- Patented, thin-film dichroic lens to filter out long-wave visible light
- · Easily mountable for overhead inspection or in-line applications
- Built-in fans keep LEDs cool to maintain optimum light output during extended use
- Customizable multiple lamp units can be "ganged" together longitudinally or back-to-back for a larger coverage area to meet <u>your</u> specific inspection requirements!







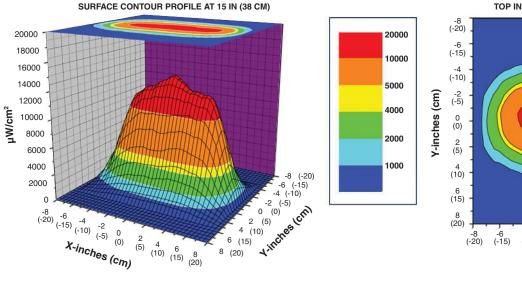
## LAMP SPECIFICATIONS

Style	Panel flood lamp		
Light Source	16 blue light (450 nm) LEDs		
Dimensions (WxLxH)	5.5 x 13.75 x 6 in (14 x 35 x 15 cm)		
Weight	9 lb (4 kg)		
Power Requirement	AC power (main AC power cord supplied with the unit)		

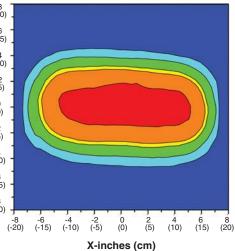
For applications requiring extremely large coverage areas, the PowerMAX™ 450 can be quickly ganged together longitudinally (top) or back-to-back (bottom) using customized, easy-to-install connecting plates and brackets.

Replacement Parts & Accessories		
128177	AC power cord	
127918	Particulate air filter	
127935	Retainer, LED assembly face plate	
DF-450PM	Dichroic filter assembly	
CC-200	Connector cable for ganging lamps	
CP-100	Top connecting plate for ganging lamps longitudinally	
CP-200	Top connecting plate for ganging lamps back-to-back (two required)	
CP-300	Side connecting bracket for ganging lamps longitudinally (two required)	
UVS-40	Fluorescent-enhancing spectacles, yellow	

## **BLUE LIGHT BEAM PROFILE**



#### TOP INTENSITY PROFILE AT 15 IN (38 CM)



## BLUE LIGHT LED MODULAR INSPECTION SYSTEM



#### (U.S. and foreign patents pending)

## Blue Light LED Inspection System

The **ONT-450 On-Trak™** is an innovative, modular, track light-style inspection system. It features <u>four</u> broad-beam lamps, each of which utilizes three powerful, blue light (450 nm) LEDs. This overhead lighting system provides a fast, safe and effective alternative to UV-A light. It allows inspectors to customize lamp beam patterns to suit their individual needs, and provides the ability to add two additional lamp head assemblies to further increase the coverage area.

Perfect for NDT inspection booths, pre-inspections and screening of fluorescent particles in operating conditions with ambient light or <u>any</u> application requiring maximum uniformity of coverage over large areas.

- · Powerful, cool running, energy-efficient blue light LEDs
- · Broad-beam profiles provide wide coverage area
- · Electronic Intensity Stabilizers ensure consistent LED performance
- Instant-on operation; lamps reach full intensity immediately
- · Built-in fans keep LEDs cool to maintain optimum light output during extended use
- Rubber bumpers with patented thin-film dichroic lenses filter out long-wave visible light while preventing damage to the LEDs
- Easily customizable! Move, adjust and add up to two additional lamp heads according to <u>your</u> specific inspection requirements (additional lamp heads sold separately)
- Optional remote control with two-position rocker switch provides added convenience
   and versatility
- Comes complete with UVS-40 fluorescence-enhancing spectacles



#### LAMP SPECIFICATIONS

Product Number: ONT-450

**Light Sources:** 3 blue light LEDs per lamp head

**System dimensions:** (L x W x H) 28.5 x 18.3 x 11 in (72 x 46 x 28 cm)

Lamp: Head diameter: 3.25 in (8.3 cm) Length:

9.5 in (24 cm)

**Platform Dimensions:** (L x W x H) 28.5 x 18.3 x 2.5 in (72 x 46 x 6 cm)

Platform Weight: 13 lb (5.9 kg)

**Power Supply Cord:** 8 ft (2.4 m)

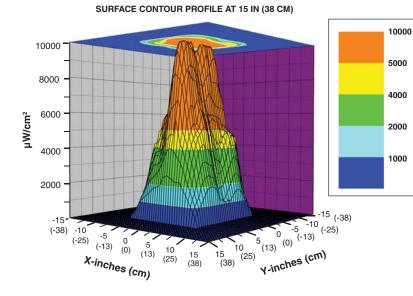
Power Supply: Input: 100-240 VAC 50/60 Hz Output: 12 VDC

Nominal Steady-State Blue Light (450 nm) Intensity:

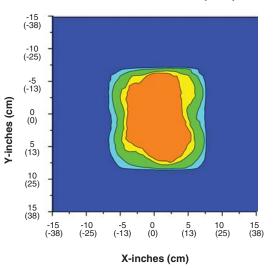
15 in (38 cm) — 9,500 µW/cm<sup>2</sup>

NOTE: Blue light intensity reading taken with a Spectroline<sup>®</sup> AccuMAX<sup>™</sup> Series meter





TOP INTENSITY PROFILE AT 15 IN (38 CM)



# **Replacement Parts & Accessories**

LA-450 PS-100A			Filter protector with rubber bumper and thin-film dichroic lens
PT-200	Platform and track assembly	UVS-40	Fluorescence-enhancing spectacles, yellow
RC-300	AC remote control with 8 foot (2.4 m) cord	AF-200	Air filter (package of 24)

## **DIGITAL RADIOMETERS**

# **XRP-3000 AccuMAX<sup>TM</sup>** Digital Radiometer/Photometer

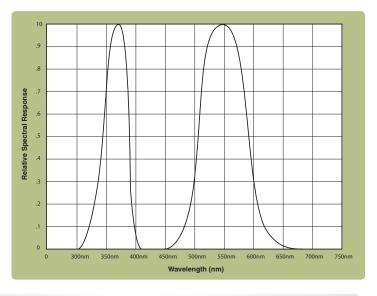
Features an advanced microprocessor-controlled readout unit with a dual-wavelength sensor detector to measure *both* ultraviolet and visible light.

- Large, easy-to-read LCD screen
- · Provides readouts for UV-A, visible irradiance or radiance
- Overall accuracy greater than ± 5% per NIST standards
- Choice of direct or USB cable connection between sensor detector and readout unit
- · Superior bandpass interference filter
- · Automatic zeroing, integration and signal hold
- · Excellent cosine response
- User-selectable, multilingual display settings. Choose from English, French, German and Spanish.
- · User-defined power save and automatic shutoff
- Rugged meter housing features removable, protective rubber boot for better grip and to help prevent accidental breakage
- Sealed sensor housing and USB connection with waterresistant adapter
- Compact, lightweight and battery-operated for convenient use in the factory, field or anywhere measurements are needed
- Complies with ASTM specifications for MPI and FPI
- Comes complete with readout unit, dual-wavelength sensor detector, USB cable with water-resistant adapter, protective rubber boot, two 9V alkaline batteries and padded carrying case.



XR-1000 readout unit with dualwavelength sensor detector connected directly to unit XR-1000 readout unit with dual-wavelength sensor detector connected to unit via USB cable

00,000 µW/cm<sup>2</sup>)



## SPECIFICATIONS

#### **Readout Unit (XR-1000)**

Resolution Screen	4-digit autoranging display 128 x 64 dot pixel chip on glass STN transmissive monochrome LCD 2.8 in (7.1 cm) diagonal illuminated (backlit)		
Sample Rate	7.5 Hz (single sensor)		
	15 Hz (dual sensor)		
Read Update	2 Hz		
Overall Accuracy	Better than $\pm$ 5% with reference		
	to NIST standards		
Temperature Coefficient	<u>+</u> 0.025%/°C (0 to 50°C)		
Power Requirements	Two 9V alkaline batteries (included)		
Dimensions			
Length	7.75 in (19.7 cm)		
Width	4.25 in (10.8 cm)		
Thickness	1.25 in (3.2 cm)		
Weight	0.8 lb (360 g)		

#### **Dual UV-A/Visible Sensor Detector (XDS-1000)**

Irradiance Range UV-A Sensor Visible Sensor	0-100 mW/cm² (0-100,00 0-5,300 lux (0-500 fc)
Spectral Range UV-A Sensor Visible Sensor	320-400 nm 460-675 nm
Dimensions Length Width Thickness Weight USB Cable (Length)	4.75 in (12.1 cm) 2.0 in (5.1 cm) 7/8 in (2.2 cm) 0.22 lb (100 g) 5 ft (1.5 m)
	UV-A Sensor Visible Sensor Spectral Range UV-A Sensor Visible Sensor Dimensions Length Width Thickness Weight

# DM-365XA

## **Digital UV-A Radiometer**

# Provides increased accuracy for more repeatable results.

- Measures UV-A light sources with overall accuracy of ± 5% per NIST standards
- Autozeroing, excellent linearity and cosine response, solid-state design, compact, durable, simple operation, battery-level indicator
- Sealed silicone photodiode protects against shock and humidity
- Sensor housing is constructed with series of baffles and unique self-sealing mechanism to eliminate light leakage
- Compact, lightweight and battery operated so measurements can be taken anywhere
- · Complies with ASTM specifications for MPI and FPI



SPECIFICATIONS	
Readout Unit	
Resolution	10 μW/cm <sup>2</sup>
Screen	41/2 digit, 7 segment, LED display
	0.5 in (1.3 cm) high
Overall Accuracy	Better than ± 5% with reference to NIST standards
Temperature Coefficient	± 0.025%/°C (0 to 50°C)
Irradiance Range	0-19,900 µW/cm <sup>2</sup>
Spectral Range	320-400 nm
Power Requirements	Two "AA" alkaline batteries (included)
Length	7¼ in (18.4 cm)
Width	3.5 in (8.9 cm)
Thickness	2 in (5.1 cm)
Weight	1 lb (0.45 kg)
	CE
Sensor Detector	
Length	3 in (7.6 cm)
Width	2 in (5.1 cm)
Thickness	0.70 in (1.8 cm)
Weight	1¼ lb (0.57 kg)
Cord Length	3 ft (91.4 cm)

DIGITAL RADIOMETERS

## **REPLACEMENT PARTS & ACCESSORIES**



**BP-12A** BATTERY PACK

Complete with RB-12S Smart Charger with Cordset, 12 Volt Rechargeable NiMH Battery and Nylon Carrying Case for MAXIMA™ ML-3500 Series Lamps



**BP-30** BATTERY PACK

Complete with BR-150A Smart Charger, 12 Volt Rechargeable NiMH Battery for QUADRAN™ QDR-365M, TRITAN™ TRI-365M and TRI-450MB AC/DC Lamp Kits



CC-120A CARRYING CASE for BIB-150P Series. FC-Series and SB-100P Series Lamps



CC-350 CARRYING CASE for MAXIMA™ ML-3500 Series Lamps



CC-365 CARRYING CASE for OPTIMAX<sup>™</sup> OPX-365 and OPX-450 Flashlights



**CC-370A CARRYING CASE** for EagleEye<sup>™</sup> and TRITAN<sup>™</sup> Series Lamp Kits



CC-400 CARRYING CASE for QUADRAN™ 365 Series Lamp Kits



UVS-30 SPECTACLES UV-Absorbing



UVS-40 SPECTACLES Fluorescence-Enhancing



UVF-80 FACE SHIELD UV-Absorbing



UVG-50 GOGGLES UV-Absorbing



**100S SPOT BULB** Ad-Medium Base, 100 Watt for SB-100P and FC-Series Lamps



#### 100S/M SPOT BULB Medium Base 100 Watt for SE

Medium Base, 100 Watt for SB-100P and FC-Series Lamps



#### **100S/M-PQL** UPGRADED, PREMIUM QUALITY LIGHTING SPOT BULB

Medium Base, 100 Watt for SB-100P and FC-100 Series Lamps



## BLE-35PRA MDL BULB/POLISHED REFLECTOR ASSEMBLY

for MAXIMA™ ML-3500 Series Lamps



BLE-35RA MDL BULB/COATED REFLECTOR ASSEMBLY for MAXIMA™ ML-3500 Series Lamps



#### BLE-35RAF MDL BULB/ANODIZED REFLECTOR ASSEMBLY

for MAXIMA<sup>™</sup> ML-3500 Series Lamps for CH-50P/12 and MAXIMA<sup>™</sup> ML-3500 Series Lamps



#### BLE-150BS-115/M BROAD-BEAM BULB

Self-Ballasted, 150 Watt for BIB-150P Series Lamps (115 volt version)



BLE-150CS-100/M CONCENTRATED SPOT BULB Self-Ballasted, 150 Watt for BIB-150P

Series Lamps (100 volt version)

8,

## BLE-150CS-115/M

Series Lamps (115 volt version)

**CONCENTRATED SPOT BULB** Self-Ballasted, 150 Watt for BIB-150P



BLE-150CS-230/M CONCENTRATED SPOT BULB Self-Ballasted, 150 Watt for BIB-150P Series Lamps (230 volt version)



#### BLE-150FC-115/M CONCENTRATED SPOT BULB Self-Ballasted, 150 Watt for FC-150 Lamp (115 volt version)



## **BLE-150FC-230/M** CONCENTRATED SPOT BULB

Self-Ballasted, 150 Watt for FC-150 Lamp, (230 volt version)

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BLE-400 METAL HALIDE BULB 400 Watt for SuperFlood™ UV-400 Series Lamps



**119584** MDL BULB

35 Watt for MAXIMA™ ML-3500 Series Lamps



**120344 COATED SPOT REFLECTOR** for MAXIMA™ ML-3500 Series Lamps

## **REPLACEMENT PARTS & ACCESSORIES**



120514 **ANODIZED FLOOD REFLECTOR** for MAXIMA™ ML-3500 Series Lamps





123378 **POLISHED REFLECTOR** for MAXIMA™ ML-3500 Series Lamps



## 127423

for OPTI-LUX™ 365 Series LED Flashlights



## **OF-300W**

LED LAMP HEAD, WHITE LIGHT for OPTIMAX™ OPK-300N Multi-Lite™ Lamp



**OF-365UV** LED LAMP HEAD, UV (365 NM) for OPTIMAX™ OPK-300N Multi-Lite™ Lamp



#### **OF-450BD** LED LAMP HEAD, BLUE LIGHT (450 NM)

with dichroic lens for OPTIMAX™ OPK-300N Multi-Lite<sup>™</sup> Lamp





**UL-100** 





for SuperFlood™ UV-400 Series Lamps



2F350 **DIFFUSING FILTER** 

for FC-Series and MAXIMA™ ML-3500 Series Lamps

2F400B **UV-B BLOCKING FILTER** for SuperFlood™ UV-400 Series Lamps



#### 2F958 **UV-A FILTER**

for BIB-150P Series, FC-Series and MAXIMA<sup>™</sup> ML-3500 Series Lamps



125565 **RUBBER LAMP PROTECTOR** for OPTIMAX<sup>™</sup> Flashlights



127796 **RUBBER LAMP PROTECTOR** for OPTI-LUX™ 365 Flashlight



**BF-365LX EXTERNAL BLACK LIGHT FILTER** WITH RUBBER BUMPER for OPTI-LUX™ 365 Flashlight

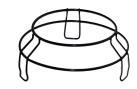


**DF-365 DIFFUSING FILTER** for OPTIMAX<sup>™</sup> OPX-365 Flashlight



**FP-100 FILTER PROTECTOR** 

with Rubber Bumper/Borofloat® glass lens for ONT-365 On-Trak™ Inspection System Lamps



**FP-175** FILTER PROTECTOR/LAMP **STAND** for BIB-150PR and FC-Series Lamps

Using genuine Spectroline® replacement parts ensures that lamps will operate at their optimum performance.



#### **FP-200** FILTER PROTECTOR

with Rubber Bumper/Dichoric glass lens for ONT-450 On-Trak™ blue light Inspection System Lamps

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#### FP-365 FILTER PROTECTOR

with Rubber Bumper/Borofloat<sup>®</sup> Glass for TRITAN™ 365 Series Lamps

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## **FP-450**

FILTER PROTECTOR with Rubber Bumper/Dichroic Filter for TRITAN™ 450 Series Lamps

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## HGS-100A

HEAT GUARD/STAND for SB-100P Series Lamps

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HGS-150A HEAT GUARD/STAND for BIB-150P and BIB-150PX Lamps HS-100 HEAD STRAP for EagleEye™ Lamp



LMS-100 LAMP MOUNT/SPRAYER for EagleEye™ Lamp



SG-100 SPLASH GUARDS WITH INTEGRAL PARTICULATE FILTER for EagleEye™ Lamp (3 pack)



for OPTIMAX™ OPX-365 and OPX-450 Flashlights



**127574** BELT HOLSTER For OPTI-LUX™ 365 Series Flashlights

## **REPLACEMENT PARTS & ACCESSORIES**



124826 CORD SET

2 Foot (0.6 m), 7 Pin for MAXIMA™ ML-3500 Series Lamps (12V DC version)



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**124827 CORD SET** 8 Foot (2.4 m), 7 Pin for MAXIMA<sup>™</sup> ML-3500 Series Lamps (230V version)



**124828 CORD SET** 8 Foot (2.4 m), 7 Pin for MAXIMA<sup>™</sup> ML-3500 Series Lamps (115V and 100V versions)



**129141** AC CORD SET 8 Foot (2.4 m) for QUADRAN<sup>™</sup> and TRITAN<sup>™</sup> Series Lamps



20 Foot (6.1 m) for QUADRAN™ and TRITAN™ Series Lamps



**127435** DC CORD SET 3.5 Foot (1.1 m) for QUADRAN™ and TRITAN™ "M" Series Lamps



**128217** BATTERY CHARGING CRADLE with AC cord for Eagle-Eye<sup>™</sup> Inspection Lamp and OPTI-LUX<sup>™</sup> 365 Series Flashlights



**128225** DC CORD SET for Eagle-Eye<sup>™</sup> Inspection Lamp and OPTI-LUX<sup>™</sup> 365 Series Flashlights



BR-150A SMART BATTERY CHARGER for BP-30 Battery Pack



**PS-200A INDUSTRIAL POWER SUPPLY** with cord sets for QUADRAN™ 365 and TRITAN™ Series Lamps

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IN-LINE POWER SUPPLY for QUADRAN™ 365 and TRITAN™ Series Lamps



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PSA-250A POWER SUPPLY ADAPTER

with AC and 12V DC connections for QUADRAN™ and TRITAN™ "M" Series Lamps



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SMART BATTERY CHARGER for BP-12A Battery Pack



SMART AC CHARGER for OPTIMAX<sup>™</sup> OPK-300N, OPX-365 and OPX-450 Flashlights

Using genuine Spectroline® replacement parts ensures that lamps will operate at their optimum performance.



**RB-300DC 12V DC CHARGER** for OPTIMAX™ OPK-300N, OPX-365 and OPX-450 Flashlights

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**RC-200** AC REMOTE CONTROL for On-Trak<sup>™</sup> ONT-365 UV-A Inspection System with 8 foot (2.4 m) cord



## **RC-300**

**AC REMOTE CONTROL** 

for On-Trak<sup>™</sup> ONT-450 Blue Light Inspection System with 8 foot (2.4 m) cord

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125608 **BATTERY STICK WITH TAILCAP** 

for OPTIMAX™ OPK-300N, OPX-365 and OPX-450 Flashlights



#### 127568 LITHIUM-ION BATTERY

Rechargeable for EagleEye<sup>™</sup> Lamp and OPTI-LUX™ 365 LED Flashlights

**XCB-100** 

WATER-RESISTANT USB CABLE WITH ADAPTER for AccuMAX™ Meter



for AccuMAX™ XRP-3000 Meter



**XRB-100 RUBBER BOOT** for AccuMAX™ XR-1000 Readout Unit

**XCC-100** 

**AB-100 ADAPTER BRACKET** 

for Mounting Transformer-Based Spectroline<sup>®</sup> HID Lamps onto a Magnaflux<sup>®</sup> Wet Horizontal Mag Machine

**B-6 BENCH MOUNT** 

for all Spectroline<sup>®</sup> HID, QUADRAN™ and TRITAN<sup>™</sup> Series Lamps



**FA-100 FLEXIBLE ARM** for all Spectroline<sup>®</sup> HID, QUADRAN™ and TRITAN<sup>™</sup> Series Lamps



LAMP HOLDER for OPTIMAX™ OPX-365 and OPX-450 Flashlights (for use with VF-100A)



LAMP HOLDER for TRITAN<sup>™</sup> Series Lamps (for use with VF-100A, FA-100, WM-100, B-6 and W-6)

LH-300A



### **VF-100A** SPEC-STIK<sup>™</sup> VERIFICATION FIXTURE

for all Spectroline<sup>®</sup> sensors, as well as HID, QUADRAN™, TRITAN™ and OPTIMAX™ Series Lamps.

NOTE: Lamp mounting accessories for TRITAN™ and OPTIMAX™ Series Lamps are sold separately (see LH-200 and LH-300A)



W-6 **BENCH MOUNT** for all Spectroline<sup>®</sup> HID, QUADRAN™ and TRITAN<sup>™</sup> Series Lamps





## **Company Background**

Spectronics Corporation is the world's leading manufacturer of ultraviolet equipment and fluorescent materials. Spectronics supplies over 1,000 different products for the nondestructive testing, laboratory, biotechnology, industrial, electronics, semi-conductor, forensics, financial, automotive, HVAC/R and other markets. Spectronics' modern, 100,000 square-foot manufacturing facility and office headquarters is located in Westbury, New York. Nearly 200 personnel are involved in all phases of research and development, manufacturing, sales, marketing, customer service, and logistical and technical support.

Over five decades since its inception, the goal of Spectronics is still the same — to produce effective, top-quality products with the utmost dedication to customer satisfaction.

#### **Product Specifications**

Spectronics Corporation reserves the right to alter product specifications without notice. Spectronics is under no obligation to make similar changes in its products previously produced.

## Warranty

All equipment is warranted against defects in manufacture. Spectronics Corporation's obligation under this warranty is limited to repairing or replacing, at the option of Spectronics Corporation, any part(s) of the product which, if properly installed, used and maintained, proves upon factory examination to have been defective in materials or workmanship within 12 months from the date of delivery to the customer, including LEDs.

This warranty does not apply to any component which (1) is normally consumed in operation or (2) has a normal life inherently shorter than the warranty stated. For example, bulbs, filters and rechargeable batteries are warranted for 30 days; the 100S/M-PQL bulb is warranteed for 90 days. In addition, Spectronics Corporation does not warrant any instrument that has been subjected to misuse, negligence or accident, or has been repaired or altered by anyone other than Spectronics Corporation.

This warranty is in place of all other warranties of quality. There are no other warranties either oral, written, express, implied or statutory. IMPLIED WARRANTIES OF FITNESS FOR PURPOSE AND MERCHANTABILITY ARE EXCLUDED. This warranty and your remedies thereunder are solely as stated in this form. In no event shall Spectronics Corporation be liable for special, indirect, incidental or consequential damages, nor for any damages arising out of delay in shipment or production.

# **Product/Customer Support & Technical Assistance**

Product literature, instructions and a full staff of trained customer service representatives and technical service engineers are available for support. Additional product information and support are available on our website.

#### • Order Information • Technical Assistance • Local Sales Representatives • Authorized Distributors



CUSTOMER SERVICE

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### Fax Toll-Free:

1-800-491-6868 (Outside the U.S. and Canada: 516-333-4859)

> Website www.spectroline.com



**TECHNICAL ASSISTANCE** 

#### **UV-A LED INSPECTION LAMPS**

EK-3000
OLX-365 4.5
OLX-365B 5
0LX-365FL
OLX-365BFL
OPX-365
OPK-300N
QDR-365A 14, 15
QDR-365BLA
QDR-365MA 15
QDR-365MBLA 15
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#### **UV-A STATIONARY LAMPS**

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