

ActiveAhead

Helvar



freedom in lighting

ActiveAhead

PREDICTIVE LIGHTING - ALWAYS ONE STEP AHEAD OF YOU



ActiveAhead® brings enhanced comfort and convenience together with energy savings thanks to its patent pending predictive self-learning algorithm.

Helvar's ActiveAhead is a self-learning, out-of-the box lighting control solution consisting of an LED driver, a control unit and a multi-functional sensor, all built into a luminaire. ActiveAhead is the next step in the self-learning Active family building on the success of Active+.

Wirelessly networked luminaires learn the movement patterns in the space they are installed and use those patterns

to adjust the luminaire operations to offer the users an unobtrusive experience without any need for commissioning or programming. However, customisation is possible using a mobile application when fine-tuning and/or grouping is desired.

Luminaires in an ActiveAhead 1.0 installation have pre-programmed software and work autonomously from the moment they are powered on. Thus, the savings an ActiveAhead solution offers do not limit to the smart energy savings the solutions inherently provides. Additional significant savings come from the simple installation and operation with no control wiring, programming or configuration.



- Offices
- Corridors
- Refurbishment
- Open-plan areas
- Storage areas

Enhanced Comfort

An ActiveAhead luminaire starts learning the moment it is powered up. It is likely that the luminaire has learned the first movement patterns within a couple of hours/days depending on the amount of clear movements in the space.

ActiveAhead luminaire learns constantly more about the movement patterns in the space and thus will adapt to the possible changes; such as, a wall installation or removal.

Smart Energy Savings

Compared to a simple switched luminaire, ActiveAhead takes comfort to a totally new level while offering substantial energy savings. In addition to increasing the lights in a predictive manner it also dims them down in a smart way depending on the actual movement.

Simple Installation

Luminaires fitted with ActiveAhead are extremely easy to install. Just fix the luminaires to their intended position and switch on the mains. No control wiring, programming or configuration is needed. ActiveAhead is a true plug-and-forget solution.



Predictive lighting

ActiveAhead luminaries will autonomously learn the common movement patterns in a space. Being one step ahead of you means you will never enter a dark space.

LEARNING

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ActiveAhead corridor

Buddies, I see some movement, I'm on.

Hmmm... should I react on this?

Now I see him, too. I'll remember this.

Let's see what'll happen.

some hours later...

There's movement again.

He'll probably come here next...

...and then here.

RE-LEARNING

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ActiveAhead corridor

Seems that I'm no longer in the same light space with you.

That seems to be the case.

There's someone here.

No one here, I will keep this in mind.

some days later...

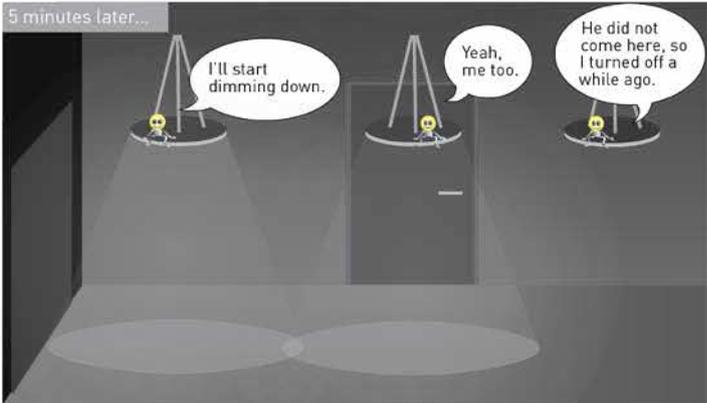
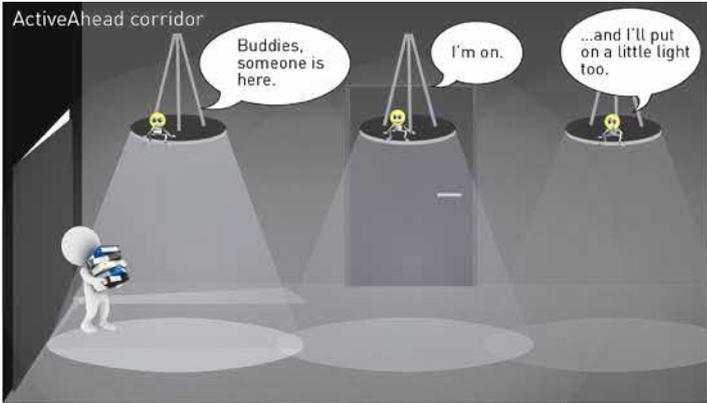
There he is again.

No need for me to react!

PREDICTIVE SHUTDOWN

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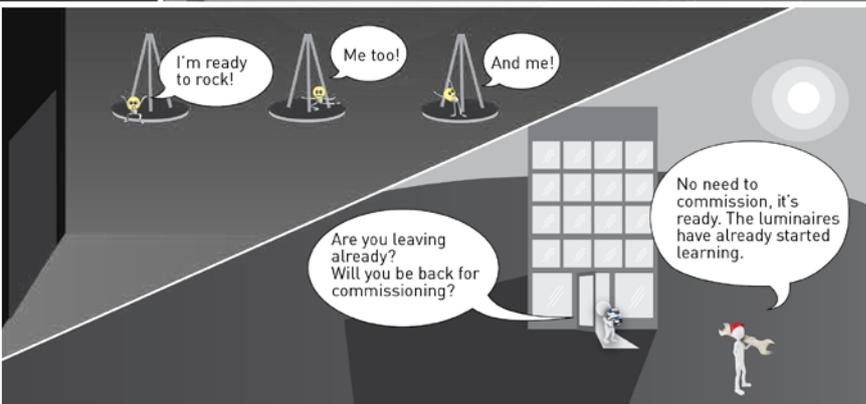
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INSTALLATION

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ActiveAhead Control Unit

The ActiveAhead wireless networking capable control unit has a pre-programmed software to continuously learn and operate the luminaire accordingly. ActiveAhead control units form a low-energy Bluetooth mesh network through which they share information; e.g., on the detected movements in their vicinity.

The patent pending algorithm learns the behaviour of people in their environment through the data received from the other ActiveAhead nodes in the network as well as the locally connected sensors, detecting both presence and ambient light. This information is used to predict where people will be moving to provide the appropriate lighting conditions. The algorithm learns constantly and continuously. Consequently, the solution is able to adapt instantly to changing conditions and always keep the lighting at the ideal level.



Control unit

ActiveAhead LED Driver

The ActiveAhead compliant LED drivers (e.g. LL1x80 Active+) switch to ActiveAhead mode when the wireless networking capable control unit is connected. In this mode the LED driver take commands from the control unit. There is no need for programming, configuration or external control wiring. The driver has an inbuilt power supply that provides power for the ActiveAhead control unit and the sensor.



Active+ ActiveAhead compliant

ActiveAhead Sensor

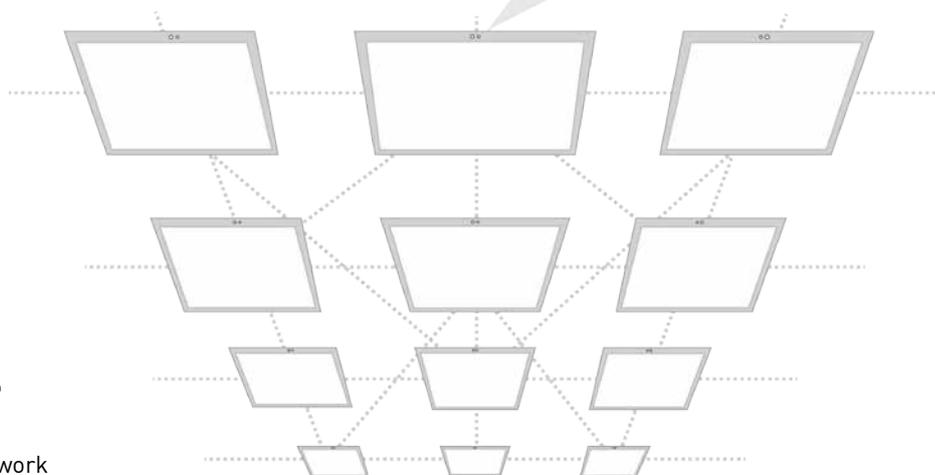
ActiveAhead utilises the Active+ Sense sensor from its sister solution Active+. Active+ Sense combines motion and light sensing all packaged up in "our smallest sensor yet". The device is mounted inside the luminaire and is connected to the ActiveAhead Control Unit with no need for an additional power supply. Both circular and rectangular sensor ceiling mountings are planned to be available to make it possible to have the sensor placed outside of the luminaire.



Active+ Sense

Fitting in a Luminaire

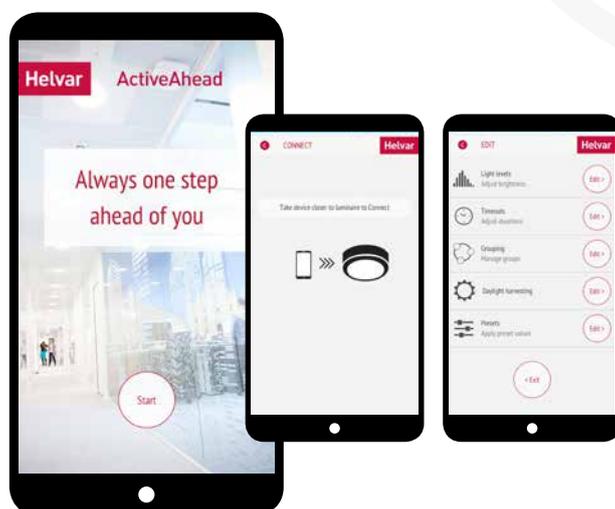
The ActiveAhead control unit, driver and sensor are designed to fit flexibly into a luminaire, which then can be installed as easily as a basic switching luminaire, having no physical or electrical connection to any other external lighting components such as control panels, dimmers or common sensors. Luminaires fitted with ActiveAhead solution are ideal for refurbishment projects in office applications, as well as for new offices, corridors and stairways.



Low energy mesh network

ActiveAhead Mobile App for Optional Customisation

In the unlikely event that the default parameters would not match the desired lighting experience, ActiveAhead offers a mobile application for optional customisation. The ActiveAhead mobile application is available for optional fine-tuning of luminaire parameters. However, normal operation is not reliant on configuration by the mobile application or any other commissioning software. Basic and Pro versions of the mobile application are available. The Basic version allows adjusting the parameters and levels for one luminaire. The Pro version allows also adjusting group of luminaires and controlling daylight harvesting. The applications are available for mobile devices running Android (4.4 onwards) and iOS (iPhone 4s onwards).



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