PHILIPS

InterAct Office

Connected lighting

LED

Frequently
Asked Questions

What is connected lighting?

Connected lighting is where every light point is connected to an intelligent system that delivers high-quality, reliable illumination and serves as a pathway for information and services. A connected luminaire gathers and shares information which helps to:

Lighting   HVAC

Various sensors

Automation   WiFi   Cameras

Connect people with location based services and in-context information delivered via mobile apps. It delivers an enhanced experience for building occupants with personalization and response to needs and preferences.

Connect spaces with integrated sensors and collect insights on energy consumption, occupancy patterns, space utilization and light level data. It also integrates into a building's digital ecology to increase efficiencies.

Future proof & scalable with more unexplored possibilities.

How is it different from conventional lighting?

Primary value propositions of conventional lighting (fluorescents and LEDs with 0-10V, DALI or DMX controls) are energy savings and operational (OpEx) savings with easier maintenance. In addition to these benefits, connected lighting can enable ease of integration with other sub systems in the building, provide actionable insights on space utilization with occupancy and people counting sensors and an enhanced employee experience with personal control, room reservation, wayfinding, etc.

What is PoE lighting technology?

PoE (Power over Ethernet) technology is a collection of standards whereby IT protocols are sent over standard Ethernet cables but where also power is transferred at the same time. It is in use globally already for VoIP phones, network cameras and Wireless Access Points. A PoE enabled lighting setup uses standard Ethernet cables to draw power from PoE switches & to communicate data, thus eliminating the need for separate electrical wires. Each luminaire is assigned a unique IP address for two-way communications with the building's IT network.

Why PoE vs WiFi for new construction?

Power over Ethernet offers a significant cost benefit at installation which is an important point from a capital expenditure standpoint. Using WiFi would mean still separate AC mains to power the fixtures, and the cost of installation. From a technology standpoint WiFi has the disadvantage of higher cost as it is more energy intensive and less reliable due to high interference, especially in an office situation that has just added thousands of WiFi IP-based connections.

What kind of projects is PoE technology suitable for?

PoE is a great solution for many indoor applications such as offices, data centers, hospitals and schools. Due to the nature of its architecture with Ethernet cables, it works best when this technology is part of the design and specification consideration for either new construction or deep renovation projects.

Can my entire building lighting be PoE?

In theory, yes, but it may not be necessary or economical. The benefits of a PoE installation are best realized in main spaces such as open office, meeting/conference rooms, private offices, break out areas and cafeterias. Ancillary spaces such as stairwells, bathrooms, storage rooms, etc, may meet all needs with a 0-10V or DALI control system. The Philips connected lighting system platform allows both connected and conventional technologies to be merged/integrated into a common control network.

What are the advantages of integrating PoE and non-PoE into a single network?

With Philips, the entire system is conveniently and cost-effectively managed by a centrally hosted software dashboard. This enables customers to take advantage of the extra cost savings, productivity boost and data harvesting of applicable luminaires without having to pay for the technology in areas where the benefits are minimal.

Do all the luminaires have to be Philips brand for connected lighting?

Yes. Philips makes all the components, hardware and software and they have been tested with each other to optimize performance.

Is this technology available now?

Yes! In the North American market this system is ready and available.

Are there connected lighting projects using PoE technology?

One of the first large scale projects completed is The Edge in Amsterdam. In North America, Waterpark Place II (Cisco, Toronto HQ) has multiple floors of the PoE technology installation. Case studies for both of these projects are on the website at www.philips.com/connectedofficelighting. For additional installation information, please email Philip Lighting at enterprise@philips.com.

Is lighting installation based on PoE technology cheaper since it's low voltage?

PoE technology eliminates all the high voltage circuit alignment in the ceiling and any associated metal conduits required to run those high voltage wiring. Taking into account this benefit along with the low voltage installation labor charges, PoE based connected lighting installations tend to be significantly cost effective than traditional lighting installations. The actual savings varies for each market and is heavily influenced by the local labor charges.

Do you need to locate additional controls for connected lighting?

Detailed descriptions of all connected components are in the brochure located at www.philips.com/connectedofficelighting.

What is the advantage of having the driver inside the luminaire vs. externally to drive multiple luminaires?

When these drivers or controllers are mounted externally then additional labor effort is required for this installation and associated sensor mounting. This cost adds linearly with the total luminaire count in the space. With luminaire integrated drivers & sensors, the labor effort is limited to physical installation of the luminaires, therefore, there is no additional cost involved for sensor and driver installation.

What kind of power loss is expected in the cables?

Please refer to the "Power over Ethernet cable losses" document published on the website.

When technology advances, can I upgrade my system?

Many new features can be enabled with simple firmware upgrades and with minimum infrastructure investments. Others will require new hardware which may be installed as a new insert or stand–alone system install.

What kind of ROI can I expect?

The answer varies depending on project size, location, current installation if applicable, project needs. It is important to evaluate any connected lighting project with not only energy savings potential but also savings with space optimization, productivity and other benefits. Philips can assist in any such project specific evaluation for lighting.