

POWER-OVER-ETHERNET CONNECTED LIGHTING

Control your office lighting with your smartphone

Using Power-over-Ethernet to connect office lighting fixtures to a building's IT network



Recently Philips launched the world's first complete Power-over-Ethernet (PoE) connected lighting system for open-plan offices that gives workers personal control of their office lighting via their smartphone, and building managers new insights into building usage. The intelligent lighting system can incorporate sensors to provide encrypted occupancy and climate data for more efficient facility management and energy savings. At the same time it gives office workers more control of their open-plan environment, aiding comfort and productivity.

What is it?

The new lighting system uses Power-over-Ethernet (PoE) to connect office lighting fixtures to a building's IT network. The system acts as an information pathway, enabling workers to access and control services – such as lighting and heating – via their smartphones, allowing them to enjoy greater visual comfort and productivity.

The office lighting fixtures, when outfitted with sensors, are able to capture encrypted data on room occupancy, temperature, and humidity. They connect to the IT network and interface with other building systems such as heating, ventilation, and IT services. This benefits the facility manager who has a single system showing real-time and historical views of building utilization. With these insights, he or she could, for example, decide to cancel the cleaning roster if rooms or floors are shown to not be used on certain days.

What is innovative about it?

- **Personal control of office building services:** office workers are able to personalize lighting and temperature via a smartphone app, which could lead to a more comfortable work environment and increased productivity.
- **Gathering information through lighting:** connected LED lighting powered over Ethernet provides encrypted occupancy, climate, and energy usage data, which leads to more informed decision-making with unprecedented levels of energy and operational efficiency.

What is the benefit of this innovation to 'you'?

The new system allows office workers to control the lighting in open-plan offices as well as temperature in meeting rooms via a smartphone app, to suit their individual preferences.

For building owners, this intelligent system not only offers energy efficiency and cost savings on installation, but also advanced capabilities such as indoor positioning, thereby enabling comfort, personalization and safety, which will increase the total value of a building, and make it more attractive to tenants.

The world's first connected lighting system was installed at 'The Edge', a cutting-edge office building developed by OVG Real Estate for Deloitte in Amsterdam, the Netherlands. As pioneers in workplace

innovation, Deloitte and OVG Real Estate chose Philips and its connected lighting system to help the building meet the highest standards of sustainability (certified BREEAM¹ - Outstanding).

¹The highest ranking according to the internationally recognized Building Research Establishment Environmental Assessment Method (BREEAM)

"Innovation is our top priority at Deloitte and we want to create a more intuitive, comfortable and productive environment for our staff. We also see our office raising the bar in data analytics with completely new insights in the use of office space, leading the way for offices to reduce the CO₂ footprint of buildings and create a more sustainable world." Erik Ubels, Chief Information Officer at Deloitte in the Netherlands.

How did we do it?

Philips has been lighting workspaces for over a century, so when exploring the potential for added value, offices were an obvious starting point. The connected office lighting system in 'The Edge' has been co-developed together with OVG and Deloitte, incorporating the needs of modern stakeholders. We explored how our digital ceiling could help for example the facility manager controlling his assets more efficiently.

Did you know?

- The installation of Philips connected lighting system for offices at The Edge in Amsterdam, the Netherlands, is expected to be completed before the end of this year.
- Heating, cooling and lighting together account for 70% of a building's energy usage. (Frost and Sullivan)

Find out more

[Press release](#) – Philips gives workers smartphone control of office lighting with ground-breaking connected lighting system

[VIDEO](#) – Connected lighting system for offices

[Infographic](#) - Connected lighting system for offices

[Images](#) – on Flickr

Contacts

Information about the product:

Albert Fokkens, Philips Lighting, albert.fokkens@philips.com

Information about the innovation behind the product:

Liesbeth de Smedt, Innovation & Design Communications, liesbeth.de.smedt@philips.com

