

PHILIPS

Norrköping

Industry lighting



Case study

Energy-efficient
light

for high ceiling
grids



Saving **more than 70%** on energy!

Photo: Annelie Sundin

Prologis Park in Norrköping, Sweden replaced its fluorescent lighting with an energy-efficient, wireless LED lighting system – a top-quality investment that will pay for itself in three years.

Prologis: leader in logistics real estate

Prologis develops, owns, manages and leases modern, strategically located logistics facilities for corporate clients in various industries around the world. Prologis Park in Norrköping consists of two distribution centers equipped with the latest technologies in inventory management. With a well-developed infrastructure and harbor connecting directly to major international routes, Prologis Park is a logistics hub for Scandinavia and the Baltic region.

Meeting the environmental objectives

The logistics and distribution facilities in Norrköping previously had old fluorescent lighting in place. This lighting was installed in 2004 and could only be fully on or off – there was no possibility for dimming. “This meant that all the lights would be burning from morning to night: 6 a.m. until 11 p.m. The outside areas were also continuously lit even when nobody was working there,” says Magnus Thim, property manager for Prologis in Norrköping. “There was no flexibility to use lower light levels just to ensure sufficient illumination and meet safety requirements.”

At first, changing to LED tubes was considered, but this type of lighting would not have provided sufficient illumination, scalability and controllability. A smart lighting solution was therefore selected that would be long-lasting and consume little energy.

“Sustainability and reduced energy consumption are major concerns for Prologis – that’s why we are aiming for at least 95% of our properties to have energy-efficient lighting by the end of 2021,” adds Thim.

“It’s difficult to sufficiently illuminate a warehouse with twelve-meter-high ceilings and narrow aisles that swallow up light. In addition to energy-efficient and sustainable lighting, we needed to have luminaires delivering high quality of light with maximum glare limitation.”

Magnus Thim,
Property manager at Prologis

“

Our Philips Lighting expert estimated 50% energy savings with LEDs. It turned out even better – **we are now saving over 70%.**”

Magnus Thim,
Property manager at Prologis

GreenWarehouse offers new possibilities

Lighting installations in high ceiling applications used to be considered expensive. Maintenance was complicated and it was difficult to integrate controls. The GreenWarehouse lighting system opens up entirely new possibilities.

GreenWarehouse is a wireless package solution with dimmable LED luminaires and wireless presence detection. The luminaires have integrated sensors combined with presence detectors. The system is flexible and allows lighting zones to be created, resulting in an efficient and future-proof solution.

High quality of light

“Prologis always aims to establish long-term collaboration with our suppliers, and Philips Lighting is a large-scale and dependable supplier with extensive experience,” says Thim. Prologis Park chose the GentleSpace gen2 for high ceilings and Pacific LEDs for the lower ceilings. Both products supply significantly better light distribution than the previous fluorescent lighting.

Dimmable down to 20%

In the high ceiling warehouse, GentleSpace gen2 LED luminaires with the GreenWarehouse control system were mounted on existing cables without additional wiring. GreenWarehouse is preprogrammed to enable the luminaires to dim down to 20% when there is no presence detection and switch off completely five minutes after the last detection. When the presence detectors activate, lighting is turned up to the preset lighting level. The warehouse is divided into separate lighting zones and each zone can have its own unique dimming schedule.

In areas with lower ceiling height, for example the mezzanine and the loading and unloading areas, Pacific LED luminaires were installed on existing cables at a height of four meters.

“The new LED lighting makes for whiter and clearer light, which has improved the working environment for our warehouse personnel. LED lighting provides better quality of light so the entire warehouse has better illumination, and our energy savings objectives have been exceeded beyond expectations.”

Magnus Thim,
Property manager at Prologis

Significant energy savings

“We measured our energy consumption before and after installing the LED lighting and have found that we are now saving over 70% more energy after changing to LED. Pacific LED allows for energy savings of 60% and GentleSpace gen2 connected to GreenWarehouse allows for energy savings of 75%,” says Thim.

Both luminaires have a long service lifetime of 70,000 hours at 100% illumination. Using occupancy controls means a longer service lifetime for the luminaires. This guarantees that the warehouse will have maintenance-free lighting for 15 to 20 years, while keeping employees safe with efficient and high quality of light.

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GentleSpace gen 2
Pacific LED
GreenWarehouse





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