

The Philips logo is displayed in a white rounded rectangle on a blue background. The word "PHILIPS" is written in a bold, blue, sans-serif font.

Industry lighting

GreenWarehouse

Gothenburg terminal



Case study

# Robust and reliable lighting for around the clock operations

Gothenburg Ro/Ro Terminal AB had an ageing lighting system that needed replacing with an energy-saving system able to meet all the requirements of a good lighting environment.



**CO<sub>2</sub> emissions cut by 143 tonnes per year**

General lighting with LED and wireless control  
 .....  
 GreenWarehouse GentleSpace LED with presence detectors  
 .....  
**Person responsible:**  
**Martin Augustsson, Philips Lighting**  
 .....

**Reduced CO<sub>2</sub> emissions**

The GreenWarehouse lighting concept gave Gothenburg Ro/Ro Terminal an energy-efficient and eco-friendly lighting system that requires minimal maintenance. CO<sub>2</sub> emissions will be cut by 143 tonnes per year. Thanks to the lighting controls coupled with long life LED technology, the lighting installation is expected to last around 90,000 hours, which equates to a staggering 20 years.

**75% energy savings**

“The Philips fittings are solid, and we have a lighting solution that meets our requirements. We now have better light quality and a well-lit environment to work in. The personnel in forklift garage G1 perform a daily inspection of their vehicles. The light quality has to be really good for the drivers to be able to spot any defects. We’ve also gained very energy-efficient lighting. We expect to be able to save 75% on energy costs for lighting, including the presence detectors. According to calculations, the investment in lighting should be paid back within three years while the lighting will last for 20 years. It’s comforting to have such a large company as Philips as supplier in view of possible future needs for spare parts and support”, says Vaernholt.



“Movement detection is integrated into the fittings, and light intensity can be easily reconfigured. That’s a big advantage.”

**Anders Vaernholt,**  
 Infrastructure Manager,  
 Gothenburg Ro/Ro Terminal AB

**Saves 75% energy**

**Better lighting and lower operating costs**

Gothenburg Ro/Ro Terminal AB is one of the biggest terminals in Europe. Ro/Ro vessels (Roll On Roll Off) carry loads that are either driven on board using HGV trailers or on wheeled load carriers. The terminal is a vital part of Sweden’s logistics flow. It handles all types of goods that can be rolled onto or off a vehicle and is open around the clock, everyday of the year.

“We had around 190 SON 400W light fittings in the PLC (Paper Logistic Centre) building. The PLC building covers 11,000m<sup>2</sup> of floor space and has a ceiling height of nine metres. The G1 forklift truck garage – covering just under 2,000m<sup>2</sup> and with six metres to the ceiling – also had SON fittings. The lights are on all the time – that’s 4,500 hours per year. They were getting old and needed a lot of maintenance. “We wanted to reduce maintenance and energy costs as much as possible, whilst gaining better lighting and colour reproduction”, explains Anders Vaernholt, Infrastructure Manager at Gothenburg Ro/Ro Terminal AB.

**Robust fitting**

“We wanted to ensure satisfactory lighting levels that are comfortable to work in. We also looked at other types of lighting, but the Philips solution meant fewer fittings to install than products from other suppliers. The GentleSpace LED fitting also seemed more robust”, adds Vaernholt.

**GreenWarehouse**

High ceilings used to mean expensive lighting installations and high operating costs. Maintenance was complicated, and it was difficult to integrate a control system. GreenWarehouse is a package solution with dimmable LED fittings and wireless presence detection. The presence sensor sits in a small box close to the LED fitting. The control and intelligence system are integrated into the fitting itself. The system is flexible and easy to configure in zones, ensuring an efficient and advanced solution.

**Presence control**

Gothenburg Ro/Ro Terminal replaced its SON light fittings one-to-one with the GentleSpace LED 165W, complete with presence detection.

“The presence sensors are strategically located in the building and detect the approach of forklift trucks. All the lights in that zone then automatically activate up to 100%. The PLC building is divided into 10 zones with 18 fittings in each. Five minutes after the forklift has left the zone, the lighting dims down to 20%. After another five minutes, it switches off completely. The forklift garage, which is smaller, only has one zone with around 30 LED fittings. The best thing about the new LED solution is that it is flexible. We can configure the lighting level ourselves as and when needed”, explains Vaernholt.

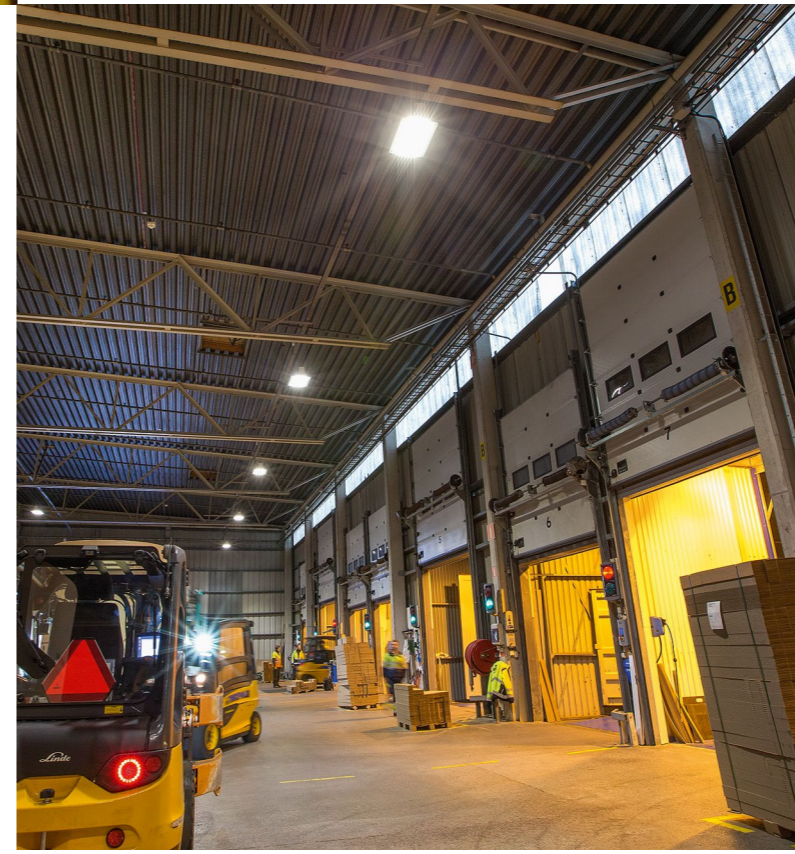


Photo: Claus Logstrup



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