



**PHILIPS**

Industry lighting

GreenParking

Globen Shopping,  
Stockholm



Our stories

Save and  
**feel safe**

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Pacific LED GreenParking

General lighting with LED,  
wireless movement detection  
GreenParking system

# Smart, energy efficient lighting

The lighting in the parking garage of the Globen Shopping Center needed total renovation. Property owner, Klöver AB, wanted a 'future-proof' solution with smart lighting controls. Step forward GreenParking.

### Sustainable lighting

The three-floor, 9,000 square meter garage has 1,500 parking places. The original existing lighting installation was divided into 4 zones per floor, each lit with traditional batten luminaires, each housing a 1 x 58W T8 fluorescent tube.

When a car entered the garage, the lighting operated at 100% of its full output for two hours, before switching off completely. The lighting quality was poor, and the luminaires were starting to fall apart.

When it came to the renovation, Klöver AB didn't just want to replace the fluorescent lamps with LED lamps. The company wanted something more sustainable.

"We're highly committed to sustainability, so it was very important that we installed a 'future-proof' lighting system," explains Lennart Lindkvist, Energy Manager at Klöver AB.

"We wanted a lighting installation that would produce bright, well-distributed white light, so the garage felt safe and secure for our customers. But at the same time, we wanted a smart, energy-saving system that would help reduce our operating expenses."

### Avoiding cabling costs

Klöver AB wanted to avoid the cost of replacing the cabling, meaning that the new LED luminaires had to be the same length as the existing fluorescent lamp luminaires.

"After exploring various options on the market, we decided that the GreenParking system from Philips, which couples Pacific LED waterproof luminaires with wireless control, was the best long-term solution from a sustainability perspective," continues Lindkvist.

"We replaced the luminaires and kept the cabling, which saved significant labor and material costs."

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Our aim was to recoup our investment in seven years. With the huge energy savings we're making with GreenParking, we anticipate doing that within five to six years.” Lennart Lindkvist, energy manager at Klöver AB

### The complete GreenParking package

GreenParking is an easy-to-install, full lighting system: PacificLED luminaires paired with wireless movement detectors create a complete and controllable wireless lighting system, which enables the luminaires to communicate with each other and behave according to how they are programmed.

"For the new lighting installation, the parking garage was divided into 13 zones per floor and more than 120 wireless movement detection sensors were mounted in strategic locations" says Lindkvist. "Unlike with our previous system, we're only paying for lighting when it's needed. When a car or pedestrian enters the programmed 'zone', the lighting comes on to 90% of its full power. When the car or pedestrian leaves the area, the output drops to 10% after 2 minutes".

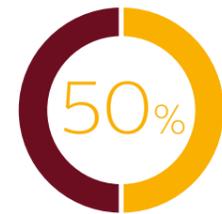
"The LED lighting produces a crisp white light – essential for customers to feel safe and secure. And because Pacific LED luminaires are IP65 class rated, we know the luminaires are tough enough to withstand the exhaust gases."

### Halving energy costs

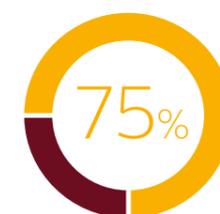
For Klöver AB, it was crucial that the new lighting system saved energy and cut operating costs: "Energy consumption is a major business expense for us – but also one we can address by investing in new technology. With every penny we save on energy, the property becomes more profitable".

"We've cut energy consumption by more than 50%. The LED luminaires account for 75% of the energy savings, the lighting controls 25%.

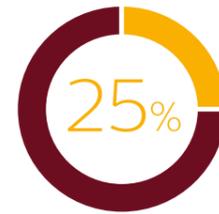
"We've saved 350,000 kWh per year by switching to the Philips GreenParking system. In fact, we save as much energy as 17 houses consume every year." The long life span of the LED luminaires means Klöver AB will also reduce its maintenance costs: "With the old system, we had to replace the fluorescent lamps every other year. The new LED modules won't need replacing for 15 years. This not only saves time and money – it makes us a more environmentally friendly company as well."



Overall energy savings



Savings from the control system



Savings from the LED luminaires

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We save as much energy as **17 houses** consume per year.”

Lennart Lindkvist, energy manager at Klöver AB

