



**PHILIPS**

Parking

Green Parking

# The perfect parking space

Energy-efficient LED technology  
to create safe, secure environments.





# Saving you **energy**

while keeping visitors safe

Klosterhof, Germany



St Helens, UK





Car parks have never been the easiest areas to light effectively. They are, of course, a potentially hazardous environment for both drivers and pedestrians, which means that good visibility and safety are always a top priority.

And very often, lighting needs to remain on 24 hours a day, seven days a week, leading to a high use of energy and increased costs.

The challenge for the owners and managers of parking facilities is therefore twofold: how to create a warm and reassuring environment while also saving on costs and maintenance.

The answer comes in the shape of GreenParking – the adaptable and straightforward solution from Philips Lighting.

With this system in place, there is no need to compromise on safety in order to achieve savings. In fact, running costs can be reduced by up to 80% with the use of energy-efficient LED technology. You're assured of high-quality light levels, but can still make a positive contribution to the environment and cut your electricity bills.

What's more, with long-life LEDs, maintenance is cut to a minimum too – another way of saving on cost as well as reducing inconvenience. And with luminaires that are waterproof and easy to clean, the system is protected against dust and emissions from vehicles.

In summary, as well as providing safety and reassurance for visitors to your garage, GreenParking is a low maintenance, wireless lighting system that also works perfectly as a retrofit solution, complies with regulations and delivers outstanding energy savings.

This brochure explains the GreenParking system in more detail.

## Contents

4/5

Full illumination at a fraction of the cost

6/7

The simplicity of wireless

8/9

Case study: Kungsporsavenyen

10/11

Efficient system, fast payback

12/13

Case study: Globen Shopping

14/15

Services delivered the right way, your way







Klosterhof, Germany

# Full illumination at a **fraction** of the cost

In the past, you had to leave your car-park lighting running at full output, just to meet the safety requirements. Which meant paying to illuminate your parking lot, even when it wasn't being used. Not anymore.

GreenParking uses presence detectors and programmable LEDs to deliver lighting on demand – 100% illumination when vehicles or pedestrians enter a zone, dimmed lighting when no one is around. So you still get a car park that feels bright, welcoming and safe, but without the huge energy bill.

#### **Always one step ahead**

With sensors in every area of the car park, GreenParking lets you create 'zones' – essentially, groups of networked luminaires. When the sensors detect motion, the light increases to 100%, ensuring people can always see clearly as they move around the parking lot.

#### **Light it your way**

GreenParking gives you total flexibility. You can configure the zones according to your car park's layout, set how long lighting in each zone remains at 100%, and decide the dimming level. As a result, the GreenParking system becomes tailored to your particular space and requirements.



Both drivers and pedestrians benefit from uniform illumination as they move around the parking facility. Lights only come up to 100% when presence is detected. Otherwise, they dim to a fraction of full illumination.

**Dimming examples** – light is always one step ahead

**Pedestrian**

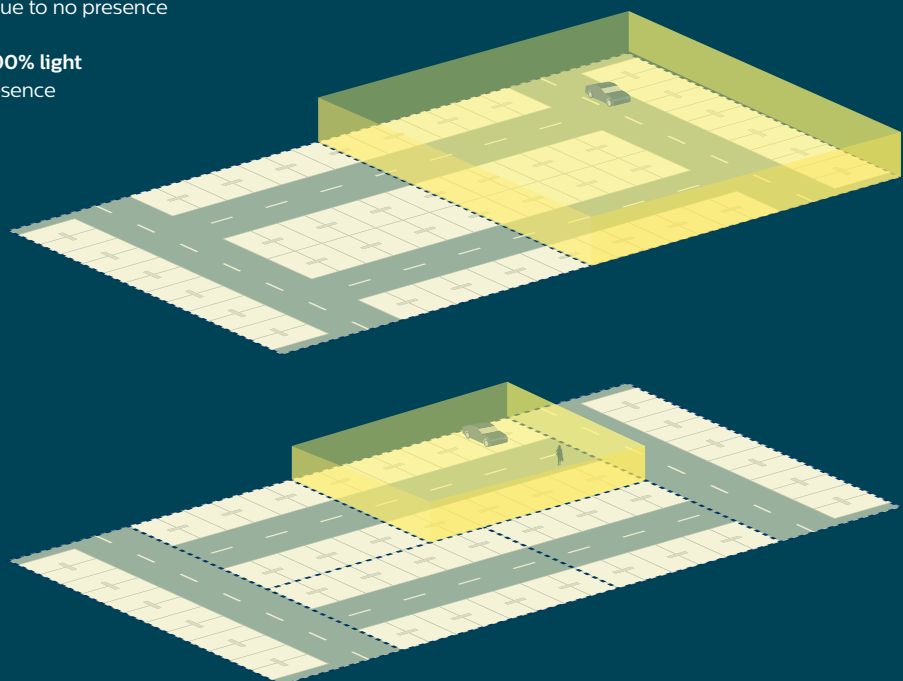


**Vehicle**



**Example zone configurations**

- Zone at background dimmed due to no presence
- Zone at 100% light due to presence





# The simplicity of wireless

The rock-solid construction of car parks can make installing wiring very difficult. Not a problem with GreenParking – it's completely wireless.

## Sensor system works in every area

The GreenParking sensors are suitable for some of the toughest environments. They detect movement anywhere within a particular zone, regardless of whether we're talking about entrances and exits, junctions or longer corridors. As a driver turns a corner, the light is already up at 100% in the area ahead.

Within GreenParking we offer two systems.

A wireless system with external sensors and a wireless system with an integrated sensor in the luminaire. Depending on your situation, you select the best option.



## GreenParking wireless with internal sensor

Pacific LED luminaire with integral HF movement sensor and large detection area.

With the remote control you can easily adjust your settings.

The Pacific LED waterproof luminaire is the 'efficiency champion', as it saves up to 80% on energy and has limited maintenance costs thanks to its long lifetime. Designed to cope with extreme conditions, it also comes with diverse optics.



## GreenParking wireless with external sensors

Pacific LED luminaire with external sensors for ceiling or wall mounting, including IP65 protection box for harsh environments.

With the remote control you can easily adjust your settings.

The Pacific LED waterproof luminaire is the 'efficiency champion', as it saves up to 80% on energy and has limited maintenance costs thanks to its long lifetime. Designed to cope with extreme conditions, it also comes with diverse optics.



“

We save 50-60% on energy, maintenance costs, and created an **optimum sense of safety** through the flexible dimming system.

Inge Reindersma, IJsselstein Council.  
Parking Eiteren IJsselstein, the Netherlands

#### GreenParking works immediately on installation

GreenParking is a complete lighting and controls system that works the moment it's installed:

- Easy to install in new-build and retrofit installations – simply replace existing lighting, point for point
- Wireless system – ZigBee communication model uses low-power devices to transmit data over long distances
- Quick to configure using a remote control
- Intuitive to operate

St Helens, UK





**Case study:**

Kungsporsavenyen, Gothenburg

# Sustainable and scalable savings





When Bygg-Göta Göteborg AB renovated its parking garage at Kungssportavenyen, it wanted an easy-to-install, energy-efficient, sustainable lighting system that's good for the environment.

#### The challenge

The existing fluorescent light fittings – 2x 36W T8 luminaires – were at the end of their life. Also, there were no lighting controls, so the car park was lit around the clock – which meant wasted energy and unnecessary costs.

Initially, Bygg-Göta Göteborg AB was going to replace the fluorescent lamps with LED fixtures without lighting controls. Then the company discovered Philips GreenParking with wireless movement detection.

#### Our solution

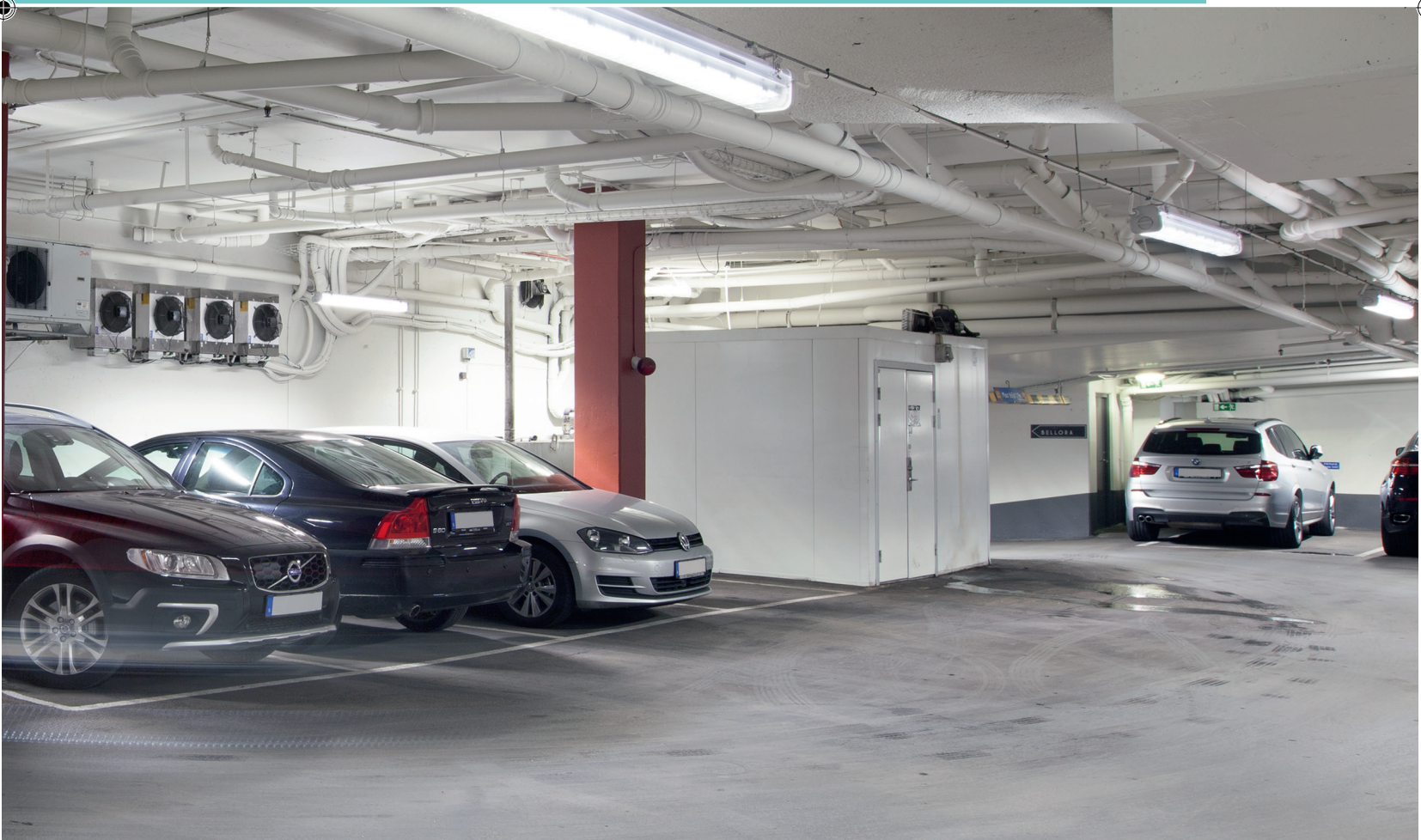
The GreenParking system was quick and easy to set up. The company used the existing cabling for the luminaires, and because the sensors are wireless, no additional cables were needed – which minimized installation costs.

The conventional fluorescent fittings were replaced with energy-saving Pacific LED luminaires. The garage was then divided into zones, with wireless movement detection sensors mounted on each of the 5 floors.

“The LED lighting produces a crisp white light, making the garage feel very safe and secure,” says Nemanja Brankovic, Project Manager at Bygg-Göta Göteborg.

The wireless movement detection sensors ensure lighting only activates when it's needed – which means Bygg-Göta Göteborg AB is only paying for energy it's actually using.

“When a car enters the garage, lighting increases to 90% of its full output,” adds Brankovic. “And when it leaves, lighting dims to 10% after 2 minutes.”





# Efficient system, **fast payback**

ExCeL, UK

“

Our calculations showed that upgrading the car park lighting would deliver a **payback within 1.5 years\*** through energy savings, so this was clearly a very worthwhile investment.”

Brian Cole, Operations Director, ExCeL

\*ExCeL's reduced payback time was due to a very energy inefficient legacy system.



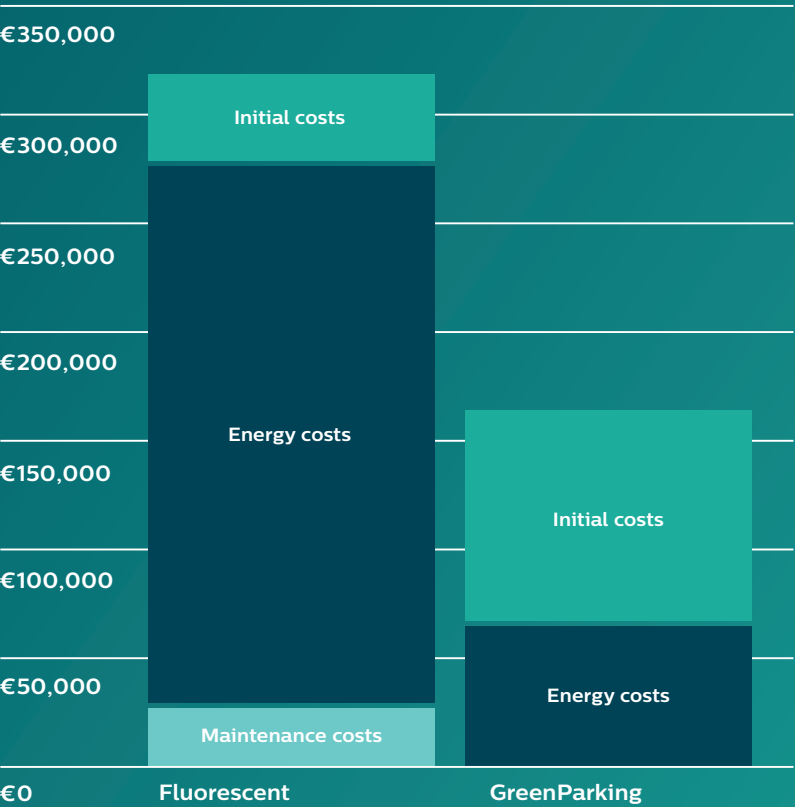
Speedy return on investment

While the initial outlay is higher than a traditional solution, the savings start from day one. Typical payback time for the Philips GreenParking system is just three years, as the combined efficiency of LED plus controls and zoning results in up to 80% energy and cost savings. Constant light output – adjusting over-lighting by dimming down to the correct lumen level – from installation can create up to 10% additional energy savings.



Return on investment:  
over a 10 year period

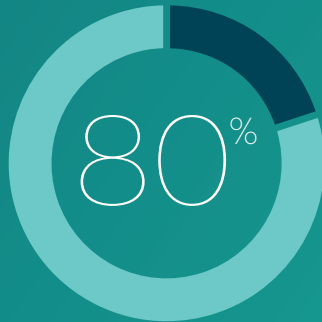
The graph below shows the cost savings possible over 10 years by comparing the installation and running costs of the GreenParking system against traditional fluorescent\*



\*1x58wTL-D installation versus GreenParking system over 10 years, on 450 luminaires in typical covered parking garage at €0.12 energy price.



payback time



possible savings



possible savings



**Case study:**

Globen Shopping, Stockholm

# Bright and secure lighting, **lower energy bills**




“

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

Lennart Lindkvist, Energy Manager at Klöver AB





“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 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.

#### The challenge

The three-floor, 9,000 square meter garage has 1,500 parking places. The original lighting installation was divided into four 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.

#### Our solution

Klöver AB installed GreenParking: Pacific LED luminaires with wireless controls which were paired with wireless movement detection sensors to create a complete, controllable lighting system.

For the new lighting installation, the parking garage was divided into 13 zones per floor, with 120 wireless movement detection sensors mounted in strategic locations.

The lighting system produces bright, well-distributed white light – making the garage feel safe and secure.

“We replaced the luminaires and kept the cabling, which saved significant labor and material costs,” says Lennart Lindkvist, Energy Manager at Klöver AB.

“When a car or pedestrian enters the programmed zone, the lighting comes on at 90% of its full power. When the car or pedestrian leaves the area, output drops to 10% after 2 minutes. We’ve cut energy consumption by more than 50%.”

Klöver AB has also greatly reduced its maintenance costs – the LED modules won’t need replacing for 15 years.



# Services delivered the right way, **your way**

Lighting is in our DNA. We've been designing and delivering lighting installations for more than 120 years, so one thing you can bank on is peace of mind. How do we work? We're big on flexibility. We'll package our support around exactly what you need.







## Professional services: pre installation

We offer help at the planning stage through our unique professional services approach – by doing an initial audit and recommending a design solution to ensure best outcomes.

### Audit

#### On-site data collection and data analysis

We make recommendations for improving performance, with a clear base line, and ensure customers receive the most up-to-date information on the lighting installation

- Lead
- Scope
- Data collection
- Data analysis

### Consulting

#### Solution design arising out of data analysis

We come up with most cost-effective design, incorporating data from the field, and implement the design according to customer's precise specifications

- Solution design
- Business case
- Solution implementation
- Sign off



## Lifecycle services: post installation

And post installation we offer a menu of options to choose from, with three packages, from Essential to Premium and Premium+ depending on your needs.

### Essential Package

#### Protecting your investment

- Helpdesk and service ticketing
- Preventive maintenance via field support
- Corrective maintenance via remote call support
- Spare parts and additional services at discounted prices

### Premium Package

#### Ensuring hassle-free and budgeted operation

- Everything in the Essential Package
- Comprehensive maintenance via trained service engineers for on-site service activities
- Spare-part kit and replacement for failures

### Premium+ Package

#### Optimize performance and meet your business objectives

- Everything in the Premium Package
- Documentation and project information in a customer portal
- Ongoing user training





© 2016 Koninklijke Philips N.V. All rights reserved. Philips reserves the right to make changes in specifications and/or to discontinue any product at any time without notice or obligation and will not be liable for any consequences resulting from the use of this publication.

[www.philips.com/greenparking](http://www.philips.com/greenparking)