

**PHILIPS**

Industry lighting

GreenParking



# The perfect parking space

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



# Saving you energy

while keeping visitors safe

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 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 Working from the moment of installation

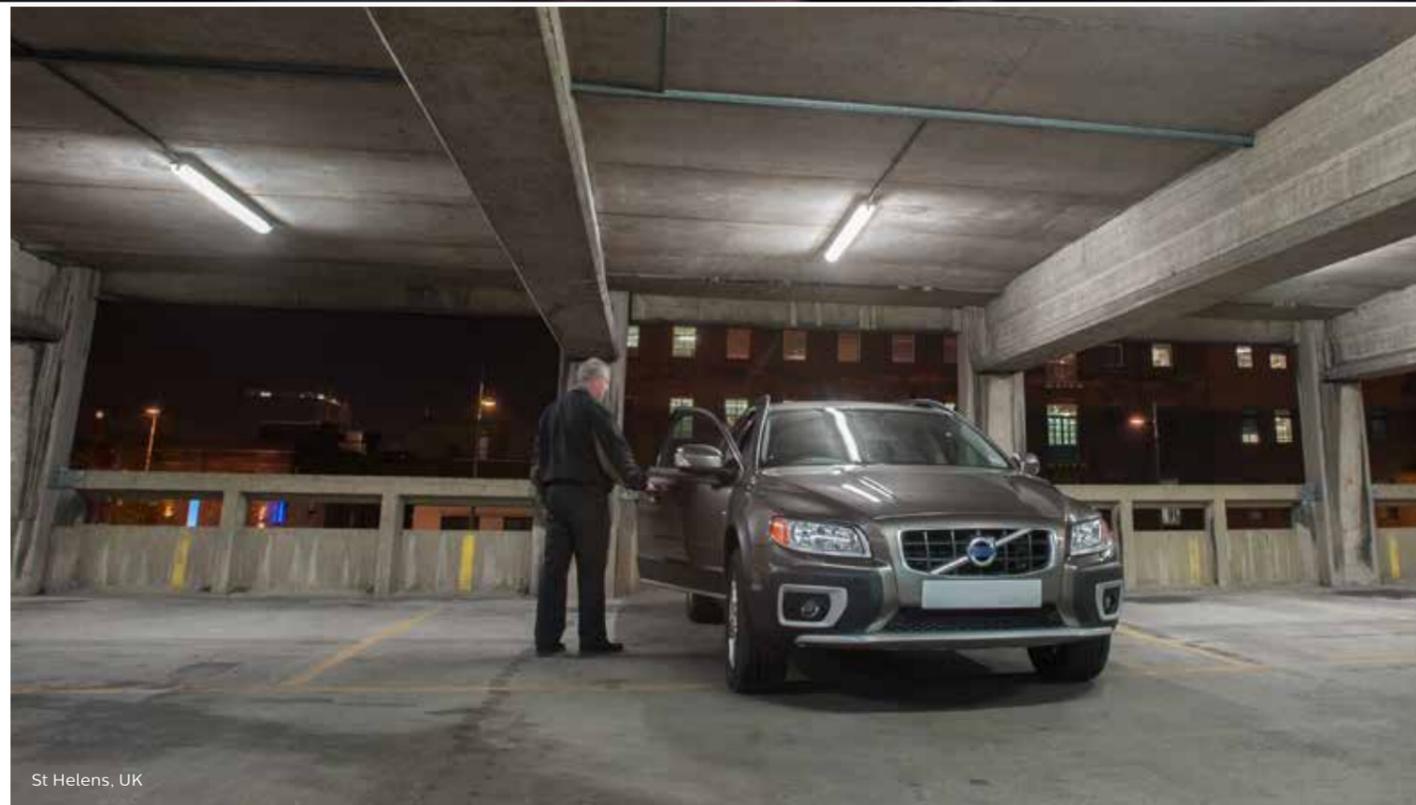
6/7 Staying one step ahead

8/9 Case study: Kungspportavenyen

10/11 Efficient system, fast payback

12/13 Case study: Globen Shopping

14/15 Services delivered the right way, your way



St Helens, UK





# Working

from the moment  
of installation  
with minimal disruption

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



One of the critical contributions of GreenParking is that it's a smart system which can start working for you immediately. A complete package of lighting and controls, it's both easy to install and intuitive to operate.

If you want to introduce GreenParking in a new build, it's a perfect solution, but it can actually work just as well as a retrofit. You can simply replace your existing lighting point for point.

Wiring in car park environments has often been problematic because of the solid construction, but this Philips system is entirely wireless. The ZigBee communication model uses low-power devices to transmit data over long distances.

And once it's up and running, you'll find it's easy to configure too. Just adjust it using a remote, in the same way you would a TV.

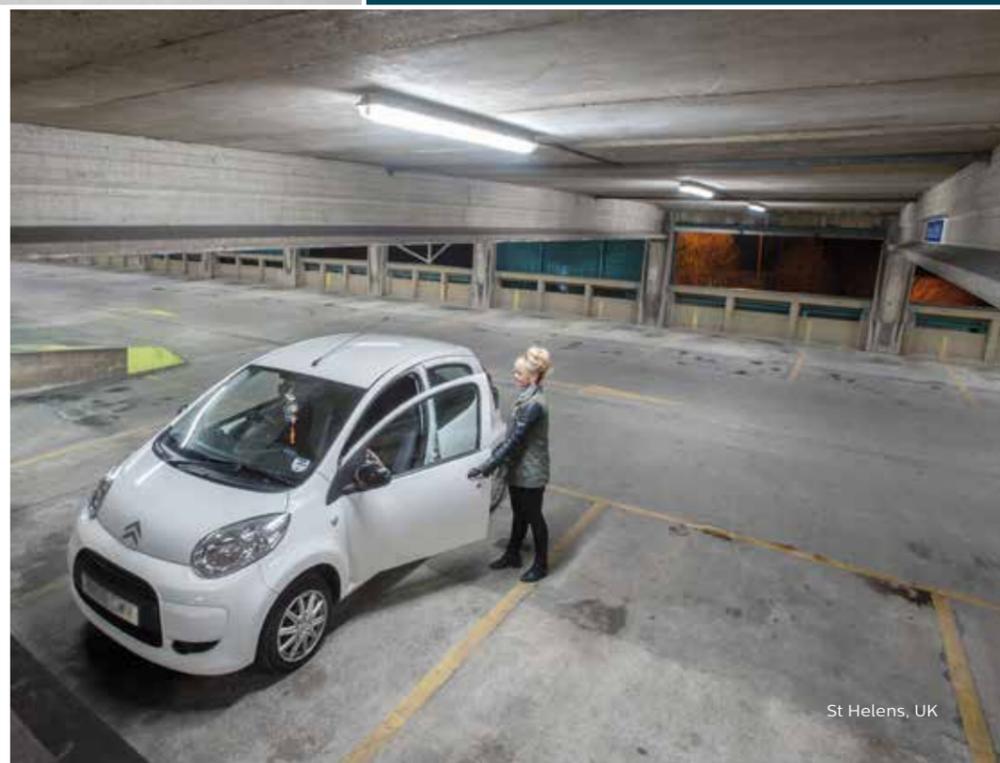
#### Provide light where and when it's needed

It's wasteful for lights to be on 100% of the time in areas where there's no activity.

Thanks to presence detectors and the programmable nature of LEDs, GreenParking allows you to dim areas when no one is around and then instantly bring up the light when people enter the zone. The savings in terms of energy and cost can be significant.

LEDs are tough, durable lights that are perfect for challenging environments. In addition, they can provide increased clarity, uniformity and consistency around your car park. No more dark corners.

GreenParking is designed to be future-proof, so you're able to add other systems as you require them. Take advantage of management systems and remote monitoring to ensure that you're maximizing its true potential.

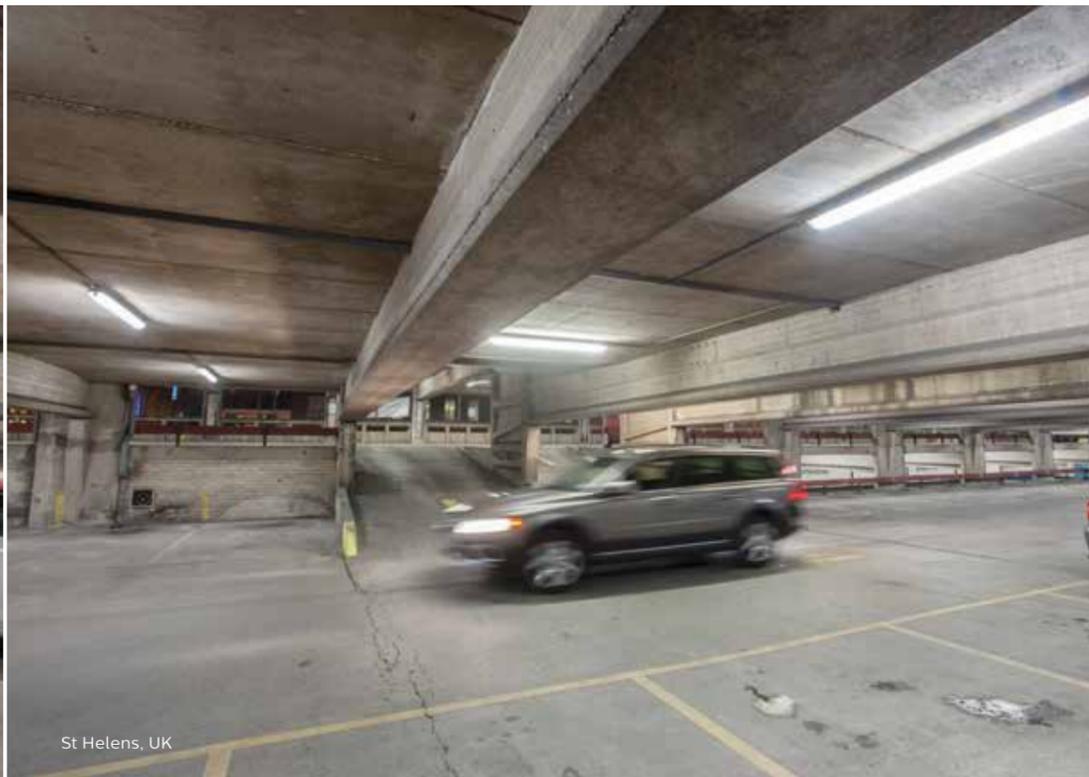


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**Sensor system works in every area**

The GreenParking sensors are housed within a robust IP65 protection box, so 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 car driver turns a corner, he or she finds that the light is already up at 100% in the area ahead.

Equally, pathways light up for those on foot as they move from, say, a stairwell into a corridor. There is good facial recognition, meaning that pedestrians feel safe and secure.

“

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

# Staying one step ahead

In the past, safety policy dictated that you kept lights in your car park permanently on. Now, with GreenParking, you can ensure that you have lighting on demand.

It's always there when it's needed by motorists and pedestrians, but dimmed, to say 10%, when there's no one in a particular zone. That way, you can reduce energy and cost, while still delivering an environment which is reassuring and welcoming.

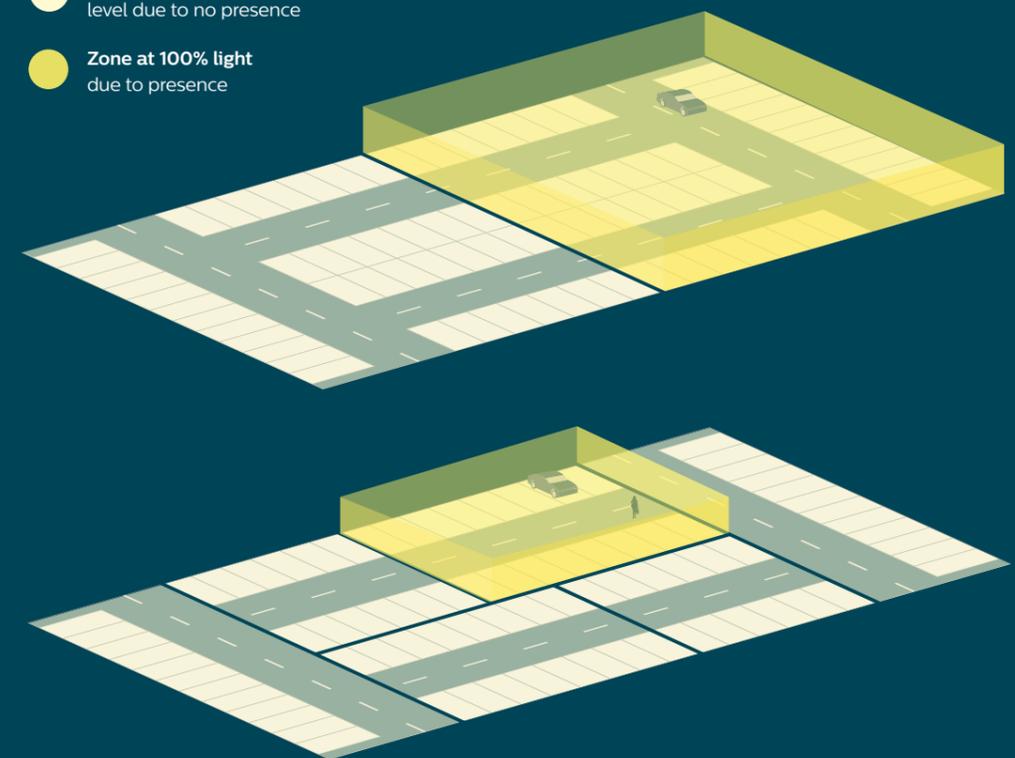
With sensors in every area, you can create zones that allow customers to 'move into the light'. The light stays one step ahead of them and comes up to 100% instantly when motion is detected.

**Our flexible system can be tailored to your parking lot**

You have complete flexibility over the configuration of the zones, which are effectively groups of networked luminaires. You decide the dimming level. You decide the duration and hold time. As a result, the GreenParking system becomes tailored to your particular space and requirements.

Example zone configurations

- **Zone at background level**  
due to no presence
- **Zone at 100% light**  
due to presence



**Case study:**

Kungsportavenyen, Gothenburg

# Sustainable and scalable savings

When Bygg-Göta Göteborg AB renovated its parking garage at Kungsportavenyen, 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.”



“

**We anticipate energy savings of 80%,** which will greatly reduce the total cost of ownership. In fact, we predict the system will pay for itself within 4 years.”

Nemanja Brankovic, Project Manager Bygg-Göta Göteborg AB

# Efficient system, fast payback

## 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.



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.”

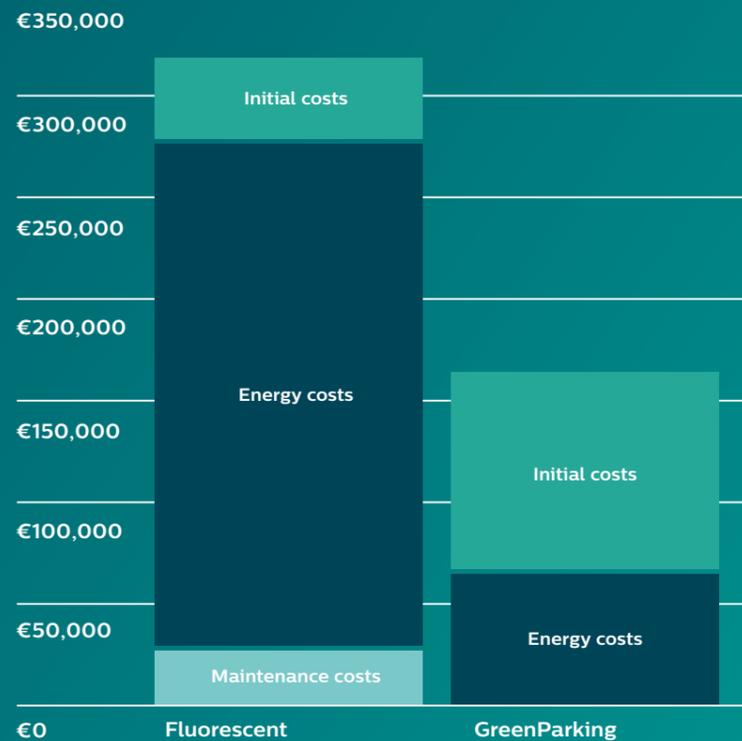
Brian Cole, Operations Director, ExCeL

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

## 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



“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



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

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 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

Recommendation for improvement with a clear base line; ensures customer receives the latest and most up-to-date information on the lighting installation

- Lead
- Scope
- Data Collection
- Data Analysis

### Consulting

#### Solution design arising out of data analysis

Right design with help of data from field, options to work with to get best optimized (cost to benefit) solution to move forward, we also ensure selected design is implemented to expectation

- 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



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