

PHILIPS

Case study

Lighting

Healthcare



Case Study

Spire Hospital

Location: Leicester

Philips Products: Coreline Range (panels, office compliant panels, waterproof, wall mount and downlights) and Occupancy sensors



“ We considered a number of low energy technologies and **upgrading the lighting to LED showed the biggest predicted return on investment.**”

Nigel Sharp
 Director of Estates and Engineering, Spire Healthcare

Solution

“To firm up the business case, Philips helped us to organise a pilot at Spire Leicester Hospital in Oadby, focusing on areas where the lighting was used for the longest periods of time and installing metering equipment to independently measure the energy savings,” he added.

In corridors, the reception area and main offices the existing fluorescent lighting has been replaced by a number of different LED luminaires on a point-for-point basis. The project took full advantage of Philips’ ability to provide a total solution, which encompassed a site survey, lighting design, installation services, measurement of energy consumption and validation of savings.

The design also exploited the diversity of luminaire types within the Philips CoreLine range. These included CoreLine Recessed panels in corridors, CoreLine Recessed office-compliant versions in offices, CoreLine Waterproof in plant rooms, CoreLine Wall-mounted in stairwells and CoreLine Downlights in reception.

In addition, some of the existing wall lights were replaced with CoreLine Recessed panels to improve light distribution and, because of their recessed design, also facilitate cleaning.

Philips provides healthier energy performance for Spire Leicester Hospital

As part of its carbon reduction programme, Spire Healthcare has recently evaluated the benefits of LED lighting in a pilot project at its Leicester Hospital, which demonstrated energy savings of around 69%.

Background

Spire Healthcare has 39 hospitals in the UK and is currently constructing two more. At all of its sites the company seeks to minimise its carbon footprint and environmental impact as part of a broad-ranging Corporate

Social Responsibility policy. As part of this, environmental performance is monitored through a carbon reporting system which also helps to identify opportunities to further reduce energy consumption.

“Our carbon reduction target is to achieve a 10% reduction on a 2010 baseline by 2015,” explained Spire’s Director of Estates and Engineering Nigel Sharp. “To help achieve this we carried out energy audits to evaluate areas where further investment would yield significant energy savings. We considered a number of low energy technologies and upgrading the lighting to LED showed the biggest predicted return on investment.



Fast Facts

- Customer**
Spire Hospital

- Location**
Leicester

- Philips Products**
[Coreline Range \(panels, office compliant panels, waterproof, wall mount and downlights\)](#) and [Occupancy sensors](#)

- Application Areas**
Corridors, offices, plant rooms, stairwells, receptions

- Philips Services**
Survey, installation services, monitoring system

- Project Partners**
Powercor

The lighting has been linked to occupancy sensors in all public access areas except stairwells, where the lighting is on all the time for health and safety reasons. In controlling the lighting in relation to occupancy the hospital will be able to maximise its energy savings beyond the reduction in installed electrical load.

Installation services were managed by Philips and carried out by contractor Powercor. Powercor also provided independent monitoring, measurement and validation of energy consumption before and after installation of the new lighting.

Phillips worked closely with all parties from the early lighting survey throughout the installation and commissioning.

“The measurement of lighting energy consumption before and after the upgrade indicates an average energy saving across all of the circuits that were monitored of around 69%,” Nigel Sharp observed. “As well as these benefits there has been a massive improvement in both the quality of the lighting and the aesthetic appearance of the spaces. There are also considerable maintenance benefits as we will no longer need to be changing fluorescent tubes on a regular basis.”

“As a result of this successful pilot, there is now a broad agreement that we will roll out LED lighting across all of our existing hospitals. It is also our intention that the two new hospitals being constructed will have all-LED lighting.”



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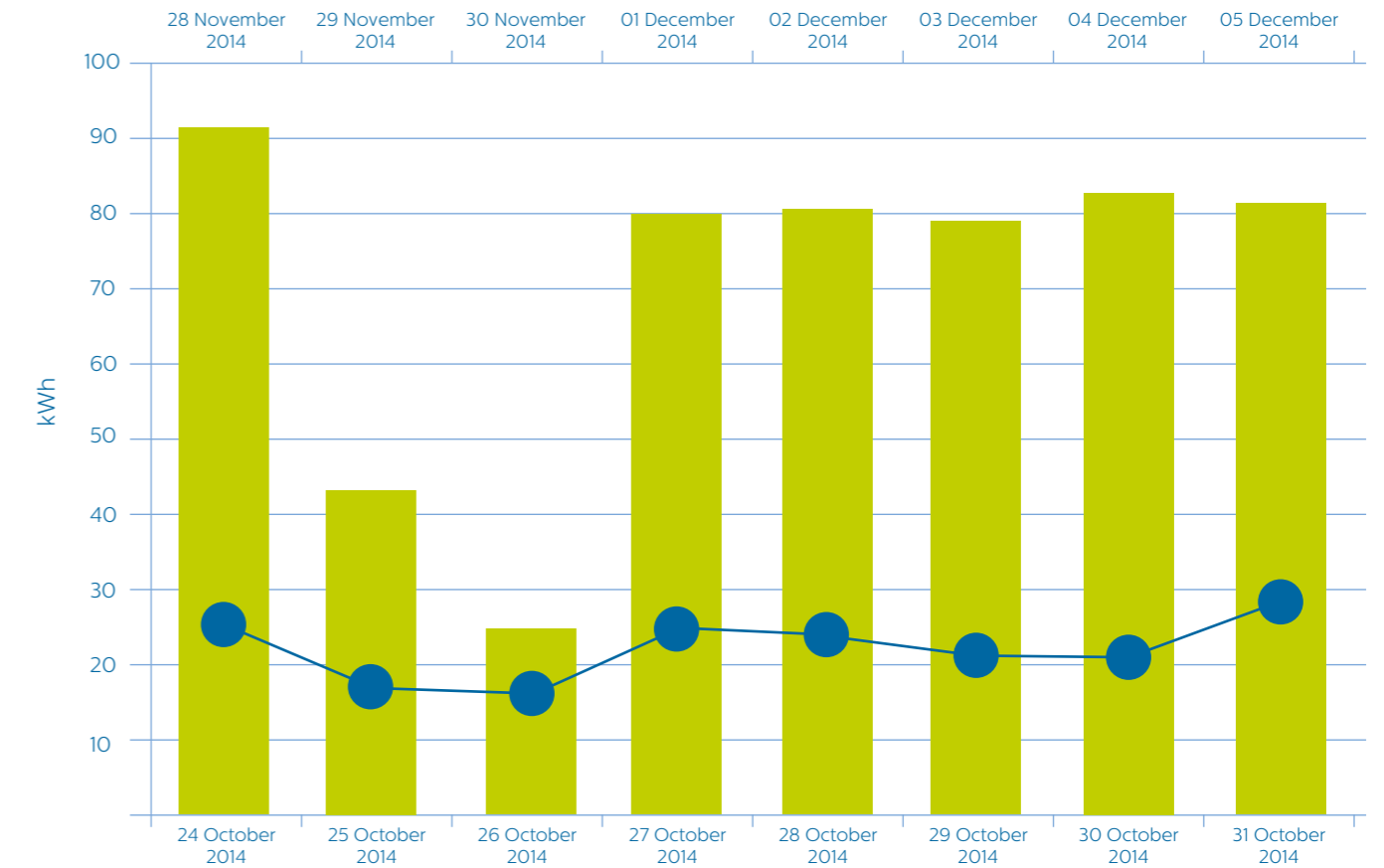
Nigel Sharp
Director of Estates and Engineering, Spire Healthcare



Compare Period (Unit) Report

Report Created using Daily data for 1st Floor Corridor Lighting
 Report Generated for Data from (24 October 2014 to 01 November 2014) and (28 November 2014 to 06 December 2014)

■ Period 1
 ● Period 2



Report summary

| | Period 1 | Period 2 | Difference |
|-----------------------|---------------|--------------|----------------------|
| Total Units: | 563.90 kWh | 172.94 kWh | 390.96 kWh |
| Total Cost*: | £56.39 | £17.29 | £39.10 |
| Total CO2e: | 302.81 kgCO2e | 92.87 kgCO2e | 209.95 kgCO2e |
| Average Value: | 70.49 kWh | 21.62 kWh | 48.87 kWh |
| Highest Value: | 91.56 kWh | 27.25 kWh | 64.31 kWh |
| Lowest Value: | 24.64 kWh | 7.79 kWh | 16.85 kWh |

*Based on 10p/kWh



If you would like to see more projects or have an enquiry, please visit us at www.philips.co.uk/lighting or email: lighting.uk@philips.com



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