

## Case Study: Energy Efficient Lighting

Objective: Reduce Energy Consumption	Contract Type: LED Lighting
Contractor: PLM/Thorn Lighting	Estimated savings: £1.5k per annum

### Scope:

The business environmental objective of a 1% year-on-year electricity reduction across all sites, combined with a 3 year environmental improvement plan had scheduled a critical analysis of our head office lighting during 2016.

The existing internal lighting was a mixture of 600x600 twin PLL fittings laid into the suspended ceiling for the office areas and 150mm PLC downlighters in the communal areas and stairwells. The existing fittings had been installed in the building from new, in 2005, and were starting to show their age through discolouring. Along with this, failures of the fittings themselves had started to occur.

Based upon current electricity prices and average usage, an estimate of over £2k annual spend was calculated just on the lighting considered within the study!

### Benefits:

The existing legacy fittings were to be replaced by 34W Thorn LED 600x600 panels combined with Cetus 24.6W downlighters and emergency packs. All new fittings were direct footprint replacements for the existing and the job was completed in the working day with no interruption in business.

Replacing the fittings give an estimated 8.4tonne of CO<sub>2</sub> footprint reduction per year and on overall saving of around £1500 per year on electricity usage. Based upon current usage, this represents a 40% saving for this site! Expected return on investment is approximately two years.

Measurements taken show there was an improvement in lux values to around 500 in the centre of the working areas and 400 at the edges and the new fittings employ a 4k colour opposed to 3k for the older ones, improving clarity within the working environment.

The fittings qualify for consideration on the Enhanced Capital Allowance scheme for energy saving projects; allowing the entire cost of the project to be written off in the first year.

### What the Customer says:

*"The lighting is much improved, with a clearer and brighter working environment and of course the energy savings!"*

**John Kennelly**

**Sales**

Smith Bros (Caer Conan) Wholesale Ltd.