

# THE LIGHTS ARE ON BUT NOBODY'S HOME

LIGHTING ACCOUNTS FOR UP TO 20% OF ELECTRICAL ENERGY CONSUMED BY THE AVERAGE UK INDUSTRIAL SITE. AND ONE OF THE MOST ILLUMINATING FACTS IS THAT A GREAT DEAL OF THIS LIGHTING IS FOR SPACES – SUCH AS STOREROOMS – WHICH ARE FREQUENTLY UNOCCUPIED. SO BY COMBINING MORE EFFICIENT LUMINAIRES WITH SENSORS TO CONTROL LIGHT OUTPUT, YOU CAN MAKE SIGNIFICANT ENERGY AND COST SAVINGS, WITHOUT LEAVING ANYONE WORKING IN THE DARK.



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For several years in the pages of Know+How, *ERIKS* has been highlighting the benefits of more energy-efficient lighting. Recently, we've put our words into action with the installation of a new lighting system in our Halesowen warehouse.

This is a typical warehouse, operating 24-hours a day but with intermittent occupancy. Fixed output lights in the warehouse's mezzanine area, and high output lights in the rest of the space, were usually left on, or left lit unnecessarily brightly, even when the space was empty.

The solution was to install more efficient luminaires, combined with sensors, to ensure that lights are only lit when the space is occupied, or – if required for health and safety reasons – burning at the lowest permissible light level, to minimise energy consumption.

**Getting lights right**

An important part of any lighting redesign is to install the correct type of luminaire. Any lighting more than 10 years old can almost certainly be replaced with a more efficient product which will significantly reduce energy costs.

Of course there can be a sizeable capital outlay involved in a switch to, for example, LED lamps, which will lengthen the payback period. But in addition to lower energy consumption and a smaller carbon footprint, the lower milliamp ratings of LEDs helps to lengthen their life and save even more.

LEDs may not always be the most effective solution. A knowledgeable supplier will be able to advise on the most appropriate type of luminaire for your application, and provide the most efficient and up-to-date versions. But whichever type of luminaire is right for your application, to fully realise the benefits you need to choose high-quality products from a reputable supplier such as *ERIKS*. The market is currently being undermined by low-quality products which do not provide the same efficiency, reliability or service life.

**Controlling costs – wirelessly**

The type of luminaire installed is only part of the energy-saving lighting story. The other part is the way the lighting is controlled, and installing new control systems can be one of the most cost-effective ways to achieve energy savings. For example, motion sensors used in conjunction with daylight sensor-based controls can result in a huge cost saving on lighting energy bills.

However, if you are replacing or updating an existing lighting system, rather than installing from scratch in a new-build, the cost and complications of new wiring might make it a less attractive financial proposition. Rewiring to link fittings so that they work together in the way you need to maximise savings can involve extensive additional downtime, have health and safety implications, and cause access problems – all adding to the cost and lengthening the payback time.

Which is where a unique new wireless lighting communications technology lighting update, comes into its own.

Each fitting uses a communication module to interact with other fittings around it – even those on completely different circuits. No additional wiring is required, and an unlimited number of fittings can be controlled.

**Rethink, don't rewire**

Even if the working environment changes after the lighting has been set up, wireless control means there's no need for an expensive rewire.

The lighting layout can be stored on a tablet computer, and when changes are required the installation can be quickly and easily reprogrammed by a technician at ground level. For example, if a large area is split into several smaller areas, the changes can be mirrored on the tablet and the lighting adjusted accordingly.

This kind of flexibility is not the only benefit of wireless control.

It can also reduce the total cost of ownership, by testing and reporting on the condition of any emergency lighting which is part of the wireless installation. The relevant fittings can communicate their status to the tablet computer, and report any needing attention. Instead of costly, time-consuming inspections, a test regime can be carried out as part of a normal working day, by an engineer with the tablet in his toolbox, or even by a tablet attached to a cleaning cart as it goes around the plant.

It's just one more way that switching to an updated, efficient, lighting system can help you reduce downtime, reduce energy consumption, cut your electricity bill and save money. So if you've seen the light, maybe now's the time to make the light switch.

**BRILLIANT SAVINGS**



By installing a combination of LEDs and fluorescent lighting, with a system linking luminaires and sensors, *ERIKS* has realised impressive energy, cost and carbon footprint reductions.

	Previous system	New LED/fluorescent with sensors
Luminaire energy cost	£54,743.31 (688,596 units @ 0.0795 rate)	£5,602.25 (70,469 units @ 0.0795 rate)
Lamp replacement costs	£4,940.14 (706 units @ 7.0000)	£4,929.03 (110 units @ 45.0000)
Total annual running cost	£59,683.45	£10,531.28
Cost saving from reduced lighting load		£49,141.06 (90% energy saving)
Cost saving from reduced maintenance		£11.11
Savings on carbon offset charges		£4,048.08
Total Annual Cost Saving		£53,200.25 (89% annual cost saving)
Total project cost		£82,159.34 (Luminaires: £58,659.34 Installation: £23,500)
Payback		1.5 years
Net savings over 7 years		£290,242.43
CO2 reduction		337.3 tonnes p.a.
Number of trees saved		462

