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Philips CoreLine enriches library's learning environment

Installation of Philips CoreLine LED luminaires in the library at Millfield School in Somerset will deliver nearly £70,000 worth of energy savings over a 10 year period, while reducing the school's carbon dioxide emissions by over 39 tonnes per annum.

Millfield School was founded in 1935 and, along with its preparatory school, has some 1,700 pupils and over 600 employees. The library was built in the late 1970s and the original lighting comprised surface-mounted T12 fluorescent luminaires sunk in concrete 'pots' with pine louvres.

continued on page 2 »

Philips CoreLine brightens the workspace for council workers

Around 750 Philips CoreLine 600 x 600 Recessed LED luminaires have replaced fluorescent lighting at Bridgwater House, a 5-storey office building in Bridgwater occupied by Sedgemoor District Council.

continued on page 3 »

Jane Hart
Editor in chief

A word from the editor...

Welcome to the latest issue of the Lighting Standard, which includes details about some of our recent projects as well as useful information on an exciting new financing scheme for lighting.

In the last issue we emphasised the cost and environmental benefits of LED lighting for end users and you will see in this issue that the breadth of applications that can now take advantage of these benefits has increased significantly. A good example of this is Apex Car Rental, where no fewer than six different LED luminaire types have been used to meet a range of interior and exterior lighting requirements (see page 5). This project also takes advantage of the enhanced controllability of LED light sources to fine-tune the operation of the lighting and maximise energy savings.

One of the key products used at Apex was the CoreLine Panel, a relatively new LED luminaire that is proving an ideal alternative to recessed modular fluorescent fittings. In this issue you will see how CoreLine Panel has been used in a wide range of applications, including the library at Millfield School, a five-storey office building in Bridgwater, Routeco's head office and shops in Murco service stations.

In all of these cases, the financial and environmental savings have been significant. Millfield School, for example, will see nearly £70,000 of savings over a 10 year period just from upgrading from fluorescent to LED lighting in its library.

A quite different type of project was completed at the Brighton Toy and Model Museum, where innovative use has been made of our LED Cove Lights to transform the visual impact of displays, including those in glass cases. Of course, there is a slightly higher capital cost to introducing these benefits and we recognise how this can be a barrier to some projects. To tackle this issue we've introduced the Philips Lighting Capital scheme, which spreads the cost of the products and installation and, in most cases, enables the payments to be met from the energy savings that are achieved. The scheme is designed to help contractors and wholesalers as well as end users and you'll find more information on page 8.

We've also included an update on Part L and its significance for the wider use of LEDs and lighting controls (see page 10).

So there's plenty to read about.
I hope you enjoy it.

continued from page 1 »

The school's Head of Electrical, Andy Ellis, recalled: "The lighting quality wasn't as good as we would have liked, with low light levels in some areas of the library, and the wooden slats in the ceiling gave the light a yellowy tinge. In addition, the system was not energy-efficient and had high maintenance requirements. It was also becoming increasingly difficult and expensive to source replacement lamps."

While there had been a desire to replace the lighting for some time, the complexity of the existing ceiling arrangement meant this would not be a standard luminaire replacement project. Having considered a number of options, the school adopted a proposal put forward by electrical wholesaler Electric Center and Philips Lighting.

> "The light quality is much better and the improved colour rendering has enhanced the décor of the spaces."
> Andy Ellis, Head of Electrical, Millfield School

"One of the key problems was that simply removing the existing luminaires and louvres would leave gaps in the ceiling," explained Chris Plant from Electric Center's Taunton branch. "The proposed solution involved having the school's estates department construct a ceiling that the CoreLine luminaires could be recessed into.

"We therefore sent a number of CoreLine fittings to the school so that the estates staff could work with them in designing the ceiling, while also testing the performance of the luminaires. The ceiling space was restricted but sufficient to accommodate the low profile CoreLine design," he added.

The initial trial proved very successful and the 123 fluorescent fittings in the library have now been replaced with seventy 300mm x 1200mm CoreLine LED luminaires. Light level readings before and after the upgrade show that light levels have improved considerably. For example, illuminance levels on the middle floor computer area have increased from 124 lux to 724 lux, with similar results on the lower floor. The installed electrical load has been reduced from over 27kW to just 2.94kW.

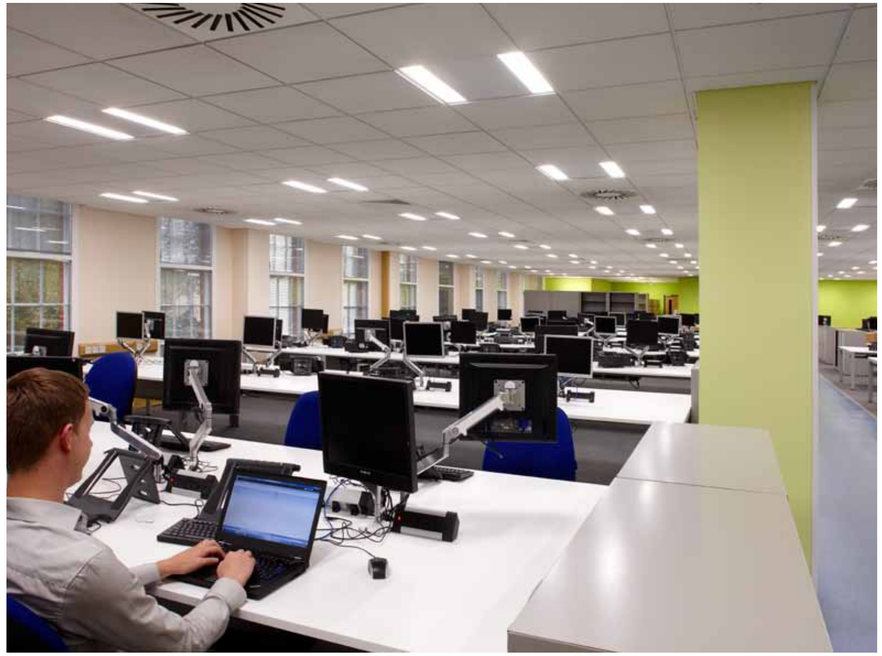
"The light quality is much better and the improved colour rendering has enhanced the décor of the spaces," Andy Ellis continued. "Given that the lighting is on for at least 12 hours a day, we will also save a considerable amount of energy – around 700,000kWh over the next 10 years. Maintenance costs will also be reduced and the fact that our estates department was able to carry out the work reduced the installation costs considerably, giving us an even faster return on investment," he concluded.

CoreLine Recessed Panel

- Up to 40% energy saving
- Lifetime: 30,000 hours
- Colour temperatures: 3000K / 4000K
- LED37S version: 42W, 3700 lm
- LED26S version: 31W, 2600 lm
- Slim design with a height of less than 35mm

continued from page 1 »

Enhancing the office



Since the existing fluorescent luminaires at Bridgwater House had originally been installed, light levels had fallen and the luminaires were coming to the end of their life. The Council therefore decided to take the opportunity of replacing the luminaires to improve the quality of lighting in the building while also reducing maintenance requirements.

To that end the Council's nominated electrical contractor Robson Electrics was asked to investigate the options available. "It was clear that LED lighting was going to provide the best value for the Council, so we consulted with wholesaler Western Electrical as we knew they had considerable experience of LEDs," recalled Adrian Robson of Robson Electrics. "We wanted to show the Council a number of options and let them decide which they preferred," he continued.

Rob Lucas of Western Electrical added: "We took a range of products to Bridgwater House and installed them in two ground floor rooms so that Council staff could see them operating and get a feel for what their new lighting might be like. Philips CoreLine Recessed luminaires were found to be the best technically and aesthetically, and they were also competitively priced. Once the decision had been made the remaining fluorescent luminaires in the building were replaced with CoreLine on a one-for-one basis."

The 42W CoreLine luminaires selected for the project have a colour temperature of 4000K and a lamp life of 30,000 hours - more than twice that of the previous luminaires. As a result, the Council will benefit from significant savings in re-lamping costs while also reducing its carbon footprint. More importantly, light levels have been increased and the overall quality of the lighting has been greatly improved.

Use of LED lighting has also enabled the introduction of dimming in selected areas, such as the Council Chamber and the training room, where different lighting levels are required for various types of activity. The lighting in the CCTV monitoring room is also dimmable, so that operators can adjust their visual environment for screen usage.

"The feedback from staff at Bridgwater House has been very positive. As the light levels had been falling gradually they hadn't really noticed the deterioration – but now they've seen a major improvement that really enhances the working environment. We have also been very pleased by the support we received from Western Electrical and Philips throughout the project," Adrian Robson concluded.

> "Philips CoreLine Recessed luminaires were found to be the best technically and aesthetically, and they were also competitively priced."
> Rob Lucas, Western Electrical

Putting on a display

Imaginative use of a range of Philips LED lighting products has paved the way for cost-effective, visually stunning lighting in showcase and other display applications.

A major renovation project at the Brighton Toy and Model Museum has made innovative use of Philips LED Cove Lights to transform the visual impact of the displays. The result is a vibrant lit environment that enhances the visitor experience while reducing energy and maintenance costs.

The Brighton Toy and Model Museum was founded in 1991 by Chris Littledale and is home to over 10,000 toys and models with priceless model train collections and period antiques. Until recently, however, the lighting of displays was relatively flat, lifeless and insufficiently bright; failing to show the exhibits at their best. The museum team therefore initiated a project to explore cost-effective ways to improve the lighting that would also deliver low cost-in-use.

Richard Ludlow of Lighting Services added: "We worked with the Museum in considering a number of options and it was clear that Philips offered the most comprehensive LED lighting solution. Philips' reputation for quality, backed by a 5-year warranty, also provided the reassurance of long-term support that the Museum was looking for."

Historically, lighting of display showcases has been a major challenge with traditional light sources. Using fluorescent light sources creates a flat appearance, while spotlights create pools of light with harsh shadows. There were also issues with putting the lighting inside the showcases because of the potential damage to exhibits from heat and ultra-violet light.

> "Philips' reputation for quality, backed by a 5-year warranty, also provided the reassurance of long-term support that the Museum was looking for."
>
> Richard Ludlow, Lighting Services

The project was led by the Chair of the Museum's Collection Trust, Anthony Capo-Bianco, who recalled: "The Museum has limited financial resources so we needed to find a way to meet the design challenges using off-the-shelf lighting products. To that end we worked closely with Lighting Services and Philips Lighting to find ways to use standard lighting products in a non-standard way."

A key benefit of using LED light sources is that they can be mounted inside the cabinets with no issues of heat and ultra-violet light. They also provide a multiplicity of light sources from each tube, enabling ambient light to be combined with precisely focused accent lighting. The effects within the cabinets are achieved using Philips LED Cove lights set in custom built light boxes and custom snoots designed and manufactured at the Museum.

These principles were clearly demonstrated in re-lighting a display of tinplate model

locomotives sitting on glass shelves and surrounded by numerous reflective surfaces. "We needed to light these exhibits without creating hotspots or harsh shadows – or distorting the colours. In using the Philips LED Cove Lights, and with a great deal of experimentation, we achieved a gradient of light with soft shadows and reflections from glass and metallic surfaces to make the whole display come alive," Anthony Capo-Bianco continued.

"Crucially, the methods that we have perfected here can be used to provide relatively low cost and highly effective lighting for virtually any display case application," he added.

Another challenge was the lighting of a large 1930s layout of an operational O-gauge railway which can be viewed from four sides. Here, sparkling ambient light has been combined with cross-washed multiple LED spots of varying intensity to eliminate glare and hotspots. In the Museum's aisles, LED light sources have been retrofitted to existing fittings to cross-wash model aeroplanes 'flying' within the arches.

Thanks to a combination of detailed design work, willingness to experiment with different solutions and the use of the latest LED lighting technologies, the Museum and its exhibits have been brought back to life. The exhibits now draw the visitor in and engage with them in a way that would not have been possible with traditional lighting.

"At the beginning of this project I had a vision of what we wanted to achieve, underpinned by a list of 15 technical requirements that the new lighting needed to address. These requirements ranged from the effects of the lighting through to energy and maintenance costs. Through excellent teamwork and a problem-solving approach, Lighting Services and Philips have helped us to realise the vision and meet all of the technical criteria," Anthony Capo-Bianco concluded.

15 requirements for museum lighting

At the beginning of the project, Anthony Capo-Bianco drew up a list of 15 technical requirements. These are summarised below:

1. Optimise energy use and operating costs.
2. Minimise maintenance costs associated with re-lamping.
3. Minimise heat output from fittings within cabinets to safeguard exhibits.
4. Remove risk from ultra-violet and infra-red light emissions.
5. Facilitate lighting of vulnerable 'soft' toys and fabrics.
6. Enhance the richness of the colours of the exhibits.
7. Use lighting to entice visitors to the shop and tourist area.
8. Use subtle changes in ambient lighting levels supplemented by highlights to encourage visitors to progress from the entrance through the museum.
9. Avoid competition between aisle lighting and display lighting.
10. Minimise reliance on harsh single source spot lights.
11. Minimise harsh shadows and glare.
12. Subtly light higher reaches of arches to create a feeling of space without detracting from the display of the exhibits.
13. Create a sense of 'balance', harmony and excitement.
14. Create a three dimensional 'glow' with soft shadows avoiding 'flat' uniform light.
15. Make display cabinets three dimensional spaces with a balanced level of overall ambient light adding depth and creating soft shadows whilst avoiding dark corners.

Cutting costs and carbon for Apex Car Rental

In reducing the energy costs and carbon footprint of its Brooklands facility, Apex Car Rental has selected a range of Philips LED luminaires to replace existing metal halide and fluorescent lighting.

Apex Car Rental has a hire fleet of over 3,000 vehicles, which are available on short or long term rental from its head office in Eastbourne and the more recently acquired site at Brooklands, near Weybridge.

Managing Director Roland Standley recalled: "When we bought the Brooklands site we inherited some quite old and inefficient lighting both inside and outside the building. It was clear there was potential to make significant savings on both energy and maintenance costs by upgrading the lighting to LED. We had used LEDs at another branch but there were a lot of failures so this time we opted for Philips as we could rely on the quality – and Philips will replace any lamps that fail within the warranty period."

> "The occupancy control ensures that the lighting is switched off when it's not required but comes back immediately when someone is in the area."
>
> Roland Standley, Managing Director, Apex Car Rental

CoreLine High Bay

- Up to 50% energy saving
- Lifetime: 50,000 hours
- Colour temperature: 4000K
- BY120P: 110W, 10,000 lm
- BY121P: 210W, 20,000 lm

Philips worked closely with Apex to identify the most cost-effective solutions using LED light sources for exterior lighting as well as in the offices, workshops, spray booth, valet area and petrol station. The chosen solution uses seven different LED luminaires and has reduced lighting energy consumption by 96,000kWh per annum, equivalent to at least £10,000 a year. It has also reduced carbon emissions by 67%.

In addition, annual maintenance costs associated with replacing lamps are predicted to reduce by £1,720 per annum, thanks to the long life of the LED light sources. For example, the exterior lighting used 37 x 400W metal halide floodlights mounted on 7 metre high masts – requiring special access equipment to change the lamps. These have now been replaced with 132W Vaya LED floodlights with a projected life of 15 years.

Similarly, LED high bay, Gondola bulkheads, Pacific surface mounted fittings and small floodlights have been sighted strategically in workshops etc. to optimise light distribution while reducing the installed electrical load. Major savings have been made in the petrol station area, where 25 twin fluorescent fittings have been replaced with just four Mini 300 LED 132W floodlights while improving the quality of the lighting and giving a payback of two years for this area.

> "With the combination of better lighting, reduced energy costs and lower carbon emissions we are very pleased with the end result"
>
> Roland Standley, Managing Director, Apex Car Rental

In the offices, the existing fluorescent lighting has been upgraded to 42W CoreLine LED Panel recessed fittings and linked to OccuSwitch automatic movement detectors to control the lighting in relation to occupancy.

"There was a tendency to turn the lighting on in the mornings when daylight levels were quite low and then forget it about it during the day, such is human nature," Roland Standley explained. "The occupancy control ensures that the lighting is switched off when it's not required but comes back immediately when someone is in the area.

"The new lighting is much cleaner and crisper and it also helps with the inspection of returned cars, as better lighting makes it easier to notice any damage. The feedback from staff has been very positive, so with the combination of better lighting, reduced energy costs and lower carbon emissions we are very pleased with the end result," he concluded.

A brighter environment for Routeco's offices

Philips CoreLine LED Panel recessed luminaires have transformed the lighting at Routeco's head office while also reducing energy consumption and carbon emissions.

Routeco is one of the UK's leading distributors of industrial automation and control products, with a nationwide network as well as operations in the Netherlands and Austria. The company has a strong commitment to sustainability and is continually exploring ways to reduce its carbon footprint.

The company identified that replacing the fluorescent lighting at its head office in Milton Keynes would yield significant energy savings while improving lighting levels for staff. To that end, the company carried out a comprehensive evaluation of LED panels from a number of manufacturers, assessing product quality and aesthetics as well as light output and light quality.

Routeco's Jamie Aitken recalled: "There was a lot of variation in both light output and price between the different luminaires and it was clear that Philips offered the best combination of quality, performance and value for money. Once the CoreLine LED Panel had been selected, Mico Lighting provided a full lighting design and helped us develop a business case."

Mico's Fiona Thomson added: "It was clear that the CoreLine luminaires would greatly improve the lighting in the offices and we predicted that Routeco would see a return on investment within around 3 years when installation costs were taken into account."

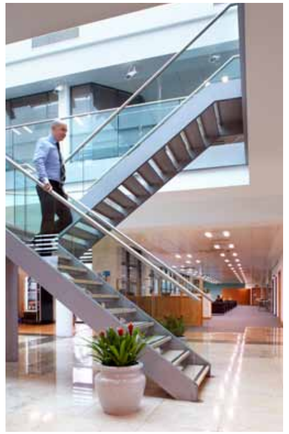
In all 240 x 42W CoreLine LED Panel luminaires have been installed by Milton Keynes-based Spartan Electrical Contractors throughout the offices. These replaced 327 luminaires, each using 4 x 18W fluorescent tubes, resulting in a reduction in installed electrical load of more than 57%.

> "Many staff have said they can perform their tasks more effectively under the new lighting and quite a few commented that their eyes don't feel as tired in the afternoons as they used to."
>
> Jamie Aitken, Routeco

One of the challenges facing the installer was the complexity of ductwork in the ceiling void, but the low profile of the CoreLine luminaires ensured the project went smoothly.

"The contractor commented on how easy the luminaires were to fit and praised the CoreLine panel as 'the best LED luminaire he'd seen'. The lighting is now much brighter and the response from staff has been very positive. Many staff have said they can perform their tasks more effectively under the new lighting and quite a few commented that their eyes don't feel as tired in the afternoons as they used to," Jamie Aitken continued.

The CoreLine LED Panel is a high output LED luminaire that is ideal for upgrading recessed fluorescent lighting in 600 x 600mm and 1200 x 300mm ceiling grids. It is fully compliant with requirements for display screens and with a luminous efficacy of over 80 lm/W qualifies for Enhanced Capital Allowances. CoreLine LED Panel luminaires are also available in surface-mounted and suspended versions.



> "Philips offered the best combination of quality, performance and value for money."
>
> Jamie Aitken, Routeco

Enhanced Capital Allowances

The Enhanced Capital Allowance (ECA) scheme encourages businesses to invest more freely in energy saving solutions. Certain types of energy efficient lighting products are eligible for 100% corporation tax relief in the year the investment is made in capitalised lighting equipment and controls. This is in contrast to other types of capital expenditure, which are usually amortised over a number of years – resulting in improved cash flow and a shorter payback period.

For further information, talk to your local Philips representative or email **thelightingstandard.uk@philips.com** for a copy of our guide on the ECA scheme.

LED roll-out for Murco forecourt shops

As part of its rolling refurbishment programme, Murco Petroleum is upgrading lighting in its forecourt shops to LED luminaires provided by Philips Lighting.

Murco has a network of over 225 company owned service stations throughout England, Scotland and Wales, each with a retail outlet operated under the Costcutter brand. The company takes its environmental responsibilities very seriously and is continually seeking ways to improve energy efficiency and reduce carbon emissions.

To that end, the company decided to take advantage of the latest generation of LED lighting to increase energy efficiency in its shops, while also reducing the cost of ownership. Electrical contractor, Peter Oakes who has worked with Murco on many shop upgrades was therefore asked to explore possible solutions.

Peter Oakes said: "We have a very close relationship with Murco and wanted to ensure we found the best solution, in terms of performance, energy and cost. We began by obtaining a sample of all the LED options available and sent them for independent sphere testing to evaluate the claims made by the manufacturers.

"The Philips products literally 'shone through' and all of their claims were validated, so they were selected for the project. We also worked with Murco to develop a business case, which showed they could expect a return on investment within 15-18 months, depending on the type of store and the lighting being replaced."

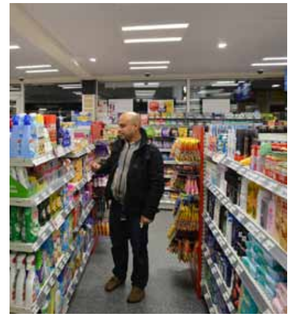
Following the initial testing, trials were carried out at two different-sized stores, enabling the lighting design to be further evaluated and fine-tuned.

"We were very pleased with the results of the trials and decided to proceed with a roll-out programme," said Amalan Poopal, Murco's Shop Network Manager.

> "The Philips products literally 'shone through' and all of their claims were validated, so they were selected for the project."
>
> Peter Oakes, Electrical contractor

He continued: "We upgraded around 30 shops during 2013 and expect to complete a further 30-35 by the end of 2014. These have been prioritised so that the shops with the oldest, least efficient lighting are upgraded first."

The new lighting was required to comply with strict design criteria, maintaining light levels of 500-600 lux with good colour rendering and a colour temperature of 2800K. To achieve this, modular fluorescent luminaires have been replaced with CoreLine Panel fittings, along with CoreLine Downlight LED fixtures in place of compact fluorescent downlighters. In some stores, 70W CDM spotlights used for display lighting have also been replaced with Philips 35W Turnaround adjustable LED downlights.



Amalan concluded: "In addition to the energy and carbon savings we have achieved, there is a significant benefit having the Philips 5-year warranty, as it means that the Murco Contract Managers who run the shops no longer have to spend time and money on lamp replacement.

"The upgraded shops look great and we have had very positive feedback from staff. In fact, when we carry out refurbishment surveys, the first thing Contract Managers ask is when will they get the new lighting!"

CoreLine LED Downlight

- Up to 75% energy saving
- Lifetime: 50,000 hours
- Colour temperatures: 3000K / 4000K
- Mini: 13W, 1000 lm
- Compact: 24W, 2000 lm
- Dimmable

PHILIPS

Breaking down the barriers

The higher capital costs associated with upgrading to LED lighting can often prove to be a barrier for end users. Duncan Chamberlain explains how new financing schemes can break down the barriers.

If you have any involvement in lighting you are sure to be aware of how LED lighting has now gone from being a niche product for special applications to a good 'all-rounder' for just about any lighting application. However, your customers may well have reservations about the somewhat higher initial costs of LED lighting. The purpose of this article is to look at ways to make LED lighting more appealing and affordable to end customers.

There are a number of significant benefits to LED lighting – not least the savings on energy and maintenance, better quality lighting with improved control, and reduced carbon emissions that support the customer's sustainability agenda. Nevertheless, the higher capital costs at the front end of the project can prove to be a stumbling block that prevents such projects going ahead, despite the ongoing cost of ownership benefits.

Consequently, electrical contractors may wish to consider a slightly different approach, compared to traditional lighting jobs, when encouraging their customers to adopt LED.

This approach may include an element of encouraging customers to think in terms of lifecycle costs, rather than just focusing on the capital cost. In addition, there are now innovative financing schemes available that spread the capital costs through regular payments that are linked to the predicted energy savings. These need to be combined with the education element, as the customer will need to understand the cost of ownership aspects to appreciate how such financing schemes work.

Easing the pain

One solution is to introduce a capital financing programme that links the repayments to the energy savings that the project will deliver. This is the thinking behind Philips Lighting Capital, which spreads the cost of the products and installation over a pre-defined period, with monthly repayments that are calculated in relation to the predicted energy savings.

This means that most, if not all, of each monthly payment is financed through the reduced energy bills for that month. In this way, the customer gets a new lighting scheme with no capital outlay while maintaining a positive cash flow. At the end of the payback period the customer owns the lighting installation.

There are also significant benefits for the installer in encouraging the customer to go down this route. First of all, it cuts through the traditional 'haggling' element of the project, where the customer negotiates a discount to bring the project within their budget. In removing the capital cost barrier it also speeds up the sales process, so that the project gets underway sooner. The finance agreement is between the end customer and the financing organisation so all other parties in the supply chain are paid at the point when the agreement is made. In addition, this approach creates a long-standing relationship with the customer through multi-year contracts and interim extensions.

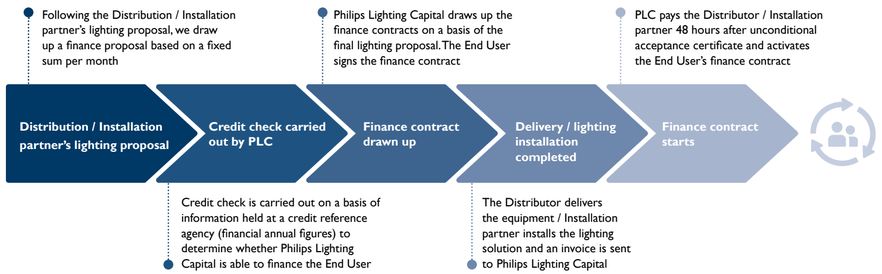
Crucially, Philips Lighting Capital takes care of most of the paperwork, so that you don't get bogged down by hours of administration.

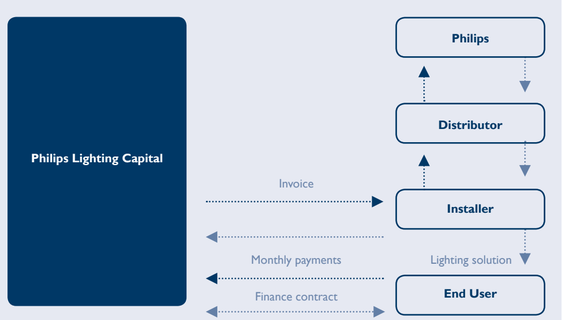
The key point here is that the energy-saving and long life delivered by LEDs, now make it possible to consider alternatives to the traditional approach of pricing a lighting project. So when you come across a situation where the capital cost is likely to be an issue, it's worth taking a different approach and getting in touch with suppliers that are prepared to 'think outside the box'.

About Philips Lighting Capital

- Customised terms of between 24 and 60 months which can be linked to the energy savings
- The minimum amount for financing options is £10,000, no maximum limit
- Straightforward documentation prepared by Philips Lighting Capital
- Fast and efficient process
- Payment by installment / project financing possible for large-scale and complex projects
- 100% financing of the solution (lighting products, consultancy, installation, support services, e.g extended warranty)

How it works





A simple calculation

Lamps replacements and installation project:

From Halogen 35W to MASTER LEDspot MR16 7W

Annual energy savings	£50,000
Payment period	3 years
Monthly energy savings	£4,167
Monthly payments	£3,200
Net monthly savings	£967
Net monthly savings after 3 years	£34,812

Consulting for greater efficiency

Consultations around the latest Part L are steering lighting to a more intuitive approach that more accurately represents the use of the space and the needs of its occupants. John Gorse, Technical Marketing Manager with Philips Lighting, explains.

Over the last 18 months or so there has been considerable consultation around the requirements for lighting to be included in Part L of the Building Regulations 2014, which came into effect in April 2014. One of the most significant results of this consultation is a move away from the former prescriptive approach, based on lumens per Watt, to a more intuitive approach that will support good lighting design. In particular, it allows for inclusion of the Lighting Energy Numeric Indicator (LENI).

To understand these regulations it's useful to review the background briefly. In 2003 the EU published the Energy Performance of Buildings Directive, which is then implemented in member countries using national regulations.

the main, this article refers to Part L for England.

Clearly a major contributor to improved energy efficiency in lighting has been the evolution of LED light sources, which has revolutionised the expectations of performance and energy savings that can be achieved from artificial lighting. LED has gone from being only suitable for coloured effects in architectural highlighting, to being capable of providing lighting solutions that replace 400W HID light sources – with even higher outputs now being trialed.

In other words, LED technology already presents a platform for lighting which represents one of the singularly most energy efficient and sustainable technologies available today. For example, a number of lamps on the market are now falling below

the 5W threshold (taking them out of scope for Part L) yet still delivering sufficient lumen packages to be used in fixed downlighter applications.

Consequently, LED is rapidly becoming the light source of choice. However, in the case of non-domestic lighting there is another factor to consider, and that is how we can change our working relationship with lighting through the application of controls.

In the case of England (and Wales until recently), the method of implementation is Part L. Since 2011 the Welsh Assembly is responsible for implementation of the Directive in Wales. Scottish Building Regulations are covered by the Technical Handbooks 0 – 7 and for lighting specifically Handbook 6. Northern Ireland also has a separate office for Building Regulations. It is important to note therefore that, in

Taking control

The Energy Bill refers to zero-carbon non-domestic buildings by 2019, but the stated overall target efficiency has dropped from the originally stated 20% for 2013 to just 9% for Part L 2014. Therefore building efficiency needs all the help it can get. To that end the lighting industry has been working hard to develop a more intuitive framework for the future of Part L of the Building Regulations where lighting controls are concerned.

As a result, the Part L consultation served as an opportunity for industry to propose a methodology that will pave the way to a far more effective and flexible approach to building regulations in future. This is via the use of LENI, as mentioned earlier, which promotes the intuitive use of controls, and promotes best practice in the use of lighting to minimise energy consumption. It is a methodology that reflects much more accurately how a space will be used and lit accordingly based on kWh/m2/year.

This is essential if we, as an industry, are to develop optimised energy efficiencies via lighting, whilst maintaining lit environments that promote health and wellbeing.

However, some potential for confusion exists as either a table of luminaire efficiencies or the LENI can be used; but this is a great start and generally it is hoped that LENI will be adopted as the only metric in the subsequent update of Building Regulations in 2016.

Overall the intention is that, thanks to the results of the consultation process, Part L can now start to ensure that future solutions and designs consider value for money, improved cost of ownership, effective reduction in carbon emissions and savings in energy. It must also ensure these values are delivered by lighting schemes that consider the health, wellbeing and productivity of the users of these schemes.

LED technology, and very soon organic LED (OLED) as complementary technology, will continue to deliver improvements in performance and energy efficiency over years to come. Lighting controls and better practices will also contribute to optimised efficiency in the future.

Win a DiamondClean sonic toothbrush

Spot the moth and win a DiamondClean rechargeable sonic toothbrush. The moth can be found hidden in a picture somewhere in this edition of The Lighting Standard.

To enter, email your answer along with your name and address to:
thelightingstandard.uk@philips.com

Rate and review your Philips Lighting Products

Let us know what you think

To share your product experiences with other customers, go to:
philips.co.uk/lightingrateandreview

Simply rate and review any product you have recently seen, tried or purchased.

At Philips we value your feedback. It helps us to develop products to meet your needs and to ensure we continue to be the No. 1 in LED lighting sales worldwide.

COMPETITION TERMS AND CONDITIONS

1. The promoter of this competition is Philips Electronics UK Limited (Company number: 446897).
2. Entry to the competition is open only to persons of 18 years or over at the time of entry who are resident in the UK but excluding employees of Philips Electronics UK Limited, their families and anyone professionally connected to the promotion.
3. By entering the competition you agree to be bound by these terms and conditions.
4. To enter, please email thelightingstandard.uk@philips.com with the answers to the questions. Philips will not be responsible for any entries which are not received.
5. Entries should be submitted no later than midday on 31 May 2014 to be included in the competition. Incomplete entries shall be subject to disqualification.
6. Only one entry per person is permitted.
7. We reserve the right to disqualify or reject any entry we believe to be in conflict with our competition or not made in good faith or on other reasonable grounds.
8. The winner will receive a Philips DiamondClean Rechargeable Sonic Toothbrush.
9. Cash alternatives are not offered in respect of any prize unless separately agreed in writing.
10. The winner shall be drawn at random within 21 days of the competition closing date from all correct entries received. The draw will be conducted in accordance with the laws of chance and will be independently supervised. If an incorrect or non-confirming entry is drawn it shall be disqualified and shall not be awarded a prize.
11. Notification shall be sent to the competition winner no later than seven days after the completion of the draw. Notification shall take place by letter, email or SMS using the contact details supplied and such notification shall set out the procedure for claiming prizes.
12. The prize must be claimed within six weeks of the date of notification. All rights to prizes not claimed within this period shall be lost. The prize winner may need to verify their proper identity before claiming the prize.
13. Prize winners may be required to participate in publicity without additional compensation; however reasonable expenses will be paid for provided the prior written consent of Philips Electronics UK Limited is obtained.
14. Names of prize winners shall be made available to entrants on receipt of a written request enclosing a stamped self-addressed envelope to: Philips Centre, Guildford Business Park, Guildford, Surrey GU2 8XH, United Kingdom.
15. No correspondence, except for notification of prizes, shall be entered into.
16. We may cancel or amend the terms of this competition and promotion at any time by publishing notice of the relevant details.
17. We shall not be liable for any delay or failure to perform due to any event beyond our control.
18. You may not transfer or otherwise deal with any of your rights or obligations acquired under or in connection with these terms and conditions.
19. These terms and conditions will be interpreted in accordance with the laws of England.
20. Your personal data will only be used for the purpose of administering this competition. No data will be retained or passed on to third parties.

Email thelightingstandard.uk@philips.com to receive future issues of THE LightingStandard electronically.

What's your news?

We'd love to hear from you and maybe feature your story in the next edition of The Lighting Standard…

You could tell us about a recent project you have worked on or recently completed. Alternatively, what would you like to see featured in the next issue? Please get in touch and let us know, this paper is for you so we really want to hear what interests you the most.

Email us today at:
thelightingstandard.uk@philips.com

Photography supplied by: Newbery Smith Photography, Millers Photography

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