



Case study

Millfield School

Location
Philips Lighting

Somerset, UK
Philips CoreLine Recessed LED luminaires



PHILIPS



“The light quality is much better and the improved colour rendering has enhanced the décor of the spaces. Given that the lighting is on for at least 12 hours a day, we will also save a considerable amount of energy.”

Andy Ellis, Head of Electrical, Millfield School

Philips CoreLine enriches library's learning environment



Before



After



Fast Facts

- Customer
Millfield School
- Location
Somerset
- Philips Products
CoreLine LED Recessed
- Project Partners
Philips Lighting
Electric Center
Newbery Smith Photography

Background

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 1700 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.

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 Solution

“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.

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