



Case Study



Brunts Academy, Mansfield **LED lighting takes centre stage at Brunts Academy**

Brunts Academy in Mansfield, Nottinghamshire, is a Performing Arts College that can trace its roots right back to 1709. This year, the College has been brought well and truly up to date, with the installation of the latest in Kosnic LED lamp technology.

The refurbishment of the College's lighting has not only left staff and pupils impressed at the new light levels and ambience, but delivers significant cost and energy savings moving forwards. With a SALIX payback of 5.49 years, the new lighting scheme will deliver total financial savings of £33,671 per year.



Background

Brunts Academy is an 11-18 year olds community academy of some 1600 students, including approximately 250 in the Sixth Form, and 150 staff.

Mick Stevens, Brunts Academy's premises manager explains how the move to LED lighting took place: "I had been wanting to transfer the College over to LED lighting for some time. Following discussions with a colleague in Garibaldi College in Mansfield, who had made the move already, I decided that there was no time like the present!"

Working with Darren Brocklehurst, branch manager, at Lenton Electrical Supplies Ltd and electrical contractor, Alan Proctor of A.K. Proctor Electrical, a test area of T8 panels was retrofitted with 20 Kosnic LED panels. The feedback was instantaneous from the staff. They were amazed at the difference in light levels.

The Project

To prove that the existing T8 scheme at Brunts Academy would benefit from replacement with Kosnic LED lamp technology, Mick Stevens and Darren Brocklehurst prepared the data to submit an application to SALIX for funding of £185,000.

One condition on the part of SALIX was that the installation be completed by the end of February 2014. This gave Mick Stevens, Kosnic, Lenton Electrical Supplies



and A.K. Proctor Electrical only 8 weeks to source, deliver and carry out the installation at the College.

Alan Proctor comments: "On a commercial retrofit, one of the biggest problems in lighting is making sure lux levels are sufficient, especially in classrooms and in rooms where emergency lighting is needed. This is where the spacing of fittings is key."

Due to the increased lux levels of Kosnic's LED panels compared to the original T8's, it was not necessary to do a one for one replacement in the majority of the classrooms. Paul Stearman, Kosnic's Project Specification Manager, advised on the new grid layouts for the classrooms, to obtain optimum luminance levels with fewer panels.

As with any electrical installation within education, a wide range of issues need to be taken into account to enable refurbishment work to be carried out safely. It was decided that for maximum speed and safety, all of the lighting retrofit work be done between 6pm and 6am.

A priority during the lighting refurbishment was that all the classrooms had to be up and running every morning. With this in mind, speed of installation was everything on this project. At key points in the refurbishment, 160 Kosnic LED panels were fitted per night with Kosnic and Lenton Electrical shipping product to the school on an almost daily basis to keep up with the demand.



Kosnic Solution

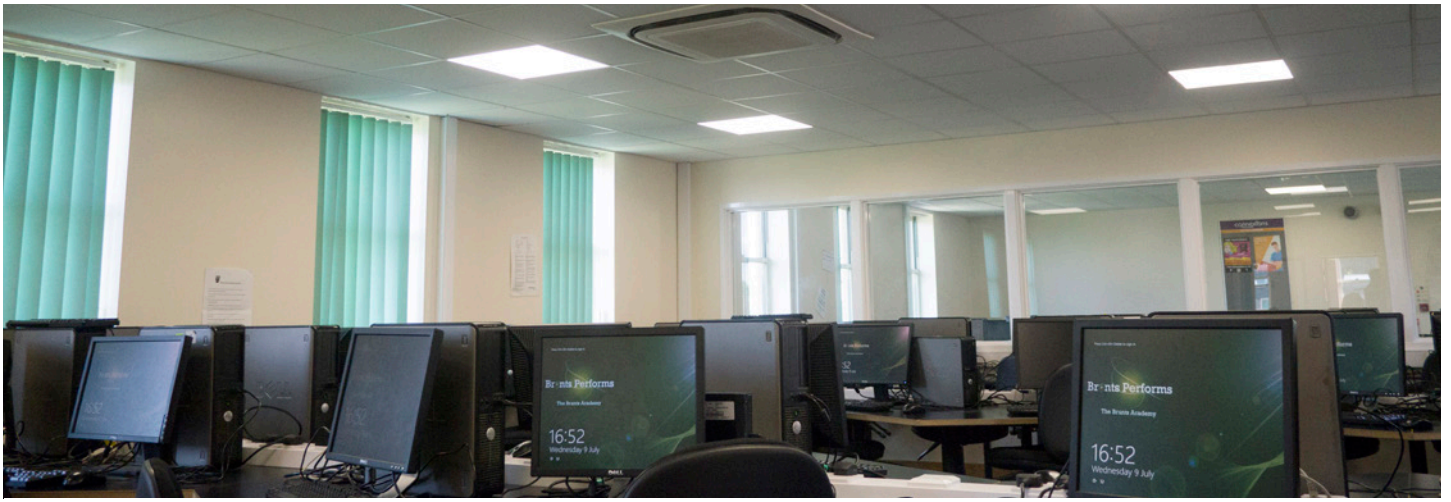
In total, over 1,600 Kosnic LED light sources were installed at Brunts Academy within the timeframe. These included Kosnic LED panel lights (36W and 45W), Kosnic LED T8 tubes (4ft x 20W, 5ft x 25W and 6ft x 30W in cool white) and Kosnic LED DD standard, sensor and emergency lamps (12W and 18W). In addition, Kosnic LED GU10's were retrofitted in key display areas and Kosnic LED DD IP44 bulkhead fittings were used to replace existing damaged luminaires.

Product Installed	Quantity
36W and 45W Kosnic LED Panels	751
36W and 45W Kosnic LED Panels with Emergency Module	153
20W 4ft Kosnic LED Tubes (4000K)	70
25W 5ft Kosnic LED Tubes (4000K)	327
30W 6ft Kosnic LED Tubes (4000K)	195
12W Kosnic LED DD Lamps (Sensor versions included)	5
18W Kosnic LED DD Lamps (Sensor versions and Emergency Module included)	103
5W Kosnic GU10 Dimmable LED lamps	6
Kosnic DD IP44 Bulkheads	2

“...Kosnic LED panels were so flat that it meant we didn't have any problems...”

Alan Proctor comments: “I was very impressed with the speed of installation of the lighting. The LED panels were so flat that it meant we didn't have any problems with pipework or girders in the ceiling void that I am used to when fitting the deeper modular back boxes. Also, as they were thinner, they slid in quickly and simply. The switch starts were easy to install and even on the frequency lighting, once we had done a few it became very straightforward to install them.”

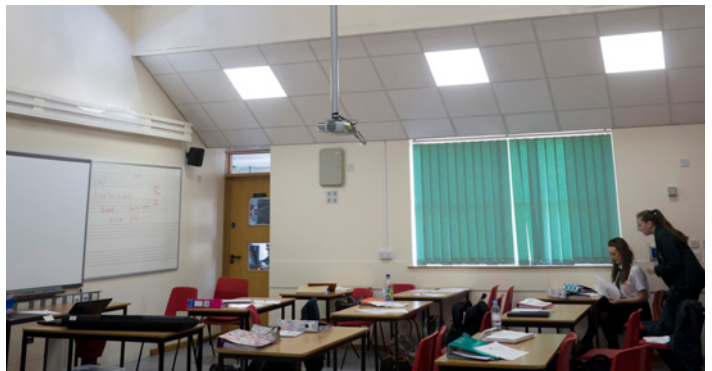




Results

Mick Stevens concludes: "Once the governors signed off the LED refurbishment, the job was completed within one month from start to finish. Not only has it been completed quickly and with minimal disruption to the College, it has reduced the schools lighting electricity bill by 45% and achieved significant financial savings for us long-term. The end result has also brought a whole new quality of light to the classrooms, corridors and staff areas."

"In addition, thanks to the increased lux levels of the Kosnic LED panels and other light sources, we were able to use fewer throughout the College than at first predicted, leading to a £20,000 saving on the scheme. This money has now been used to upgrade the College's exterior lighting to a more energy efficient alternative."



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