

Powerboss Eluma in Action

The results are exceeding expectations



British Ceramics Tiles (BCT) was established in the late 1990s as a state of the art manufacturing facility. They operate on the site that had been occupied by Candy Tiles since the 1860s and manufacture wall tiles under several different brands including; Laura Ashley, Wet by Hemingway Design and Candy Tile Company, as well as BCT branded and own brand designs exclusively for Homebase, Focus and Topps Tiles, amongst others.

A comprehensive project was undertaken in mid-2006 to replace BCT's existing metal halide fittings with Powerboss Eluma Intelligent Luminaires. In addition to substantial energy savings, significant operator benefits were delivered for the facility.

An initial lighting audit at BCT identified that the existing lighting at the facility consisted of 370 x 400W metal halide fittings hung at between 8m and 16m. There was a clear issue of poor light quality within various parts of the site and this was a specific problem within the quality control inspection areas, where colour differentiation was very difficult. Additionally, the ceramic dust generated by the process had caused corrosion damage through dust ingress into the existing fittings, through the heat vents.

The tile manufacturing facility operates 24 hours per day, 7 days per week and although there were significant levels of ambient daylight being provided through roof-lights, the existing fittings were left on continually and could not be dimmed when ambient light levels were high during the daytime. Additionally, owing to the re-strike time of the metal halide fittings all lights were left on even though some areas had minimal and infrequent occupancy by site operatives.

The audit report highlighted the potential to replace the existing fittings with 340 x Powerboss Eluma Intelligent Luminaires. It was proposed that enclosed Eluma fittings be used owing to the corrosive nature of the ceramic dust. As this fitting is rated to IP54,

the same ingress problem would not occur as had been evident with the previous vented fittings.

Owing to the intelligence of Eluma, as provided by the integral sensor, each Eluma luminaire would independently and automatically react to occupancy and ambient light levels and switch fittings off when no one was working in the immediate vicinity, and/or automatically adjust light levels to maintain a constant level.

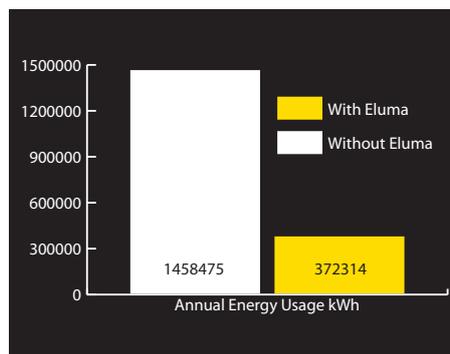
In addition to the savings exhibited during the test period immediate positive response was received from the site operatives. The excellent uniformity of "daylight-like" light reduced shadows and gave considerably better colour rendering, especially benefiting the quality control area during the pilot project.

BCT Savings

kWh Savings	75%
Annual CO ₂ Savings	467049 kg
Annual £ Savings	£87,163.00
Monthly £ Savings	£7,264.00
Monthly Cost of Eluma	£3,160.00
Immediate Positive Cashflow	£4,104.00

What are the benefits to BCT?

- Now saving over £7,500 per month
- Transformed working conditions dramatically
- Vastly improved colour perception



A simple illustration based on actual measurements taken on site at BCT



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Powerboss Eluma's qualification for the ETL means that 100% of the investment can be offset against tax in the first year of implementation

Other successful installations of Powerboss Eluma

