



enLighten

Innovation in Lighting Solutions

Tauro Blu



Chamaeleon Original



Case Study: Trend Windows & Doors Warehouse & manufacturing lighting upgrade

Project Overview

Raising the ceiling of the Western Sydney manufacturer's aluminium powdercoating workshop to 12m to fit new state of the art machinery was the perfect time to upgrade from 400W metal halide to enLighten's Tauro Blu LED high bay luminaire.

With additional cabling for new areas added to the project scope, enLighten Australia was able to meet the client's specific demands for lighting levels that exceeded Australian Standards in areas requiring detailed quality assurance.

A detailed project financial analysis was prepared by enLighten Australia and incorporated electricity & maintenance savings over 10 years.

Trend Windows and Doors are a market leader in the aluminium and timber windows and door market. The Western Sydney site

houses head office as well as 4 workshops, operating 12 hours/day on average.

400W metal halide high bay luminaires were replaced by the full range of Tauro Blu LED luminaires: 2 module (90W), 3 module (135W), 4 module (180W) and 5 module (225W), installed in the aluminium powdercoating workshop, R&D, warehouse and stores areas.

The Chamaeleon LED bulkhead luminaire with microwave motion sensor replaced twin T8 fluorescent battens in the mezzanine connecting warehouses 2 and 3.

The project received \$46,160 in Energy Savings Certificate (ESC) rebates under the NSW Energy Savings Scheme, as the Tauro Blu is accredited for use under the scheme. Ecovantage was the ACP who managed the ESC process.

"We set enLighten the task of providing sufficient light to be able to see a finger print on our powder coated finished product. With the high bay lights at a hanging height of 14m, this was not a simple task and separated enLighten out from its competitors. Their ability to design & install a tailored solution included options of optical lensing per module, which gave us a lot more flexibility and reduced light wastage. In addition the PE sensors delivered greater efficiencies, as when daylight was detected via the skylights, the lights switched off."

Based on the success of warehouse 2 we rolled out the lighting upgrade across the entire site."

Glen Egan
General Manager Operations

FAST FACTS

Project Payback:

ROI: 3 years

Savings:

Energy Saved:

75%

Electricity Saved:

123,781 kWh pa

Total Energy & Maintenance Savings over 10 years:

\$1,328,856

Average Per Fitting Energy & Maintenance Savings over 10 years:

\$314.15 pa

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The Solution

A selection of lensing was installed according to the space requirements.

Within warehouse 1 the powdercoating line requirements were for 400 lux at a 1.2m workplane, which was well above the 250 lux requirements under Australian standards.

The multi-warehouse project also had a vast difference in ceiling and light hanging heights, which were addressed through optical lensing. Narrow beamed 40 degree lenses were used in areas of ceiling heights over 12m, with broader 60 and 120 degree lenses used via a variety of combinations for areas with ceiling heights of under 4m to 10m.

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A PE sensor system was installed in 2 of the 4 warehouses, which allowed for the Tauro Blu lights to switch off automatically on detection of the lux level set point of 1000 lux at 1m. On average the lights achieved additional energy savings by being switched for 5 hours per day.

About enLighten

Our passion is delivering energy savings through intelligent LED lighting solutions.

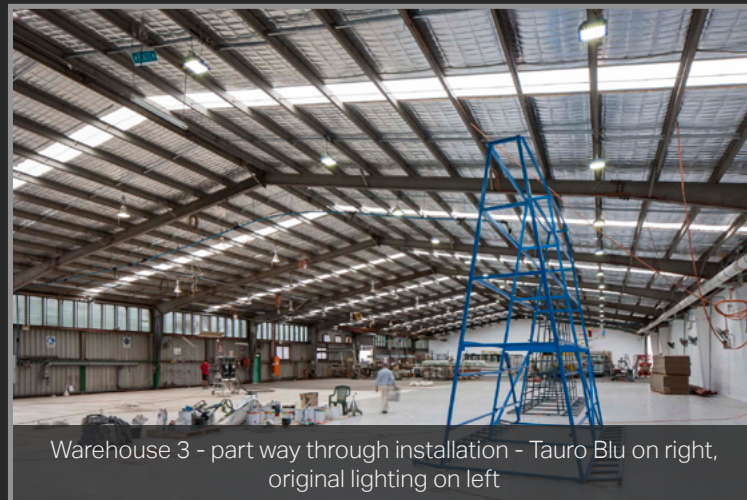
We are a privately owned Australian innovation company. The enLighten product range is designed by us and manufactured exclusively for us.



Warehouse 1 lighting achieves 400 lux at workplane



Warehouse 2 - plug & play installation



Warehouse 3 - part way through installation - Tauro Blu on right, original lighting on left



In with the new - 2 & 3 module Tauro Blu high bays (90W & 135W)

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Out with the old - 400W Metal halide high bays

