



LIGHTING
EFFICIENCY
UPGRADES

Warehouse Lighting Upgrade

Form 2000 factories Braeside, VIC

This Melbourne manufacturing facility spans a floorspace of over 3019m² across two factory sites and required a lighting retrofit solution which reduced overall energy consumption and costs while significantly improving the lighting quality.



*Continually improving
your lighting experience*



Factory 1 operates for 16 hours a day, 5 days a week and previously had 400W metal halide highbays installed. Factory 2 operates for 9 hours a day with the same 400W highbays.

LED vs Metal Halide Highbays

Versus traditional 400W metal halides fixtures, Aglo's 150W LED highbays reduce the electrical load by more than 50%. They have a higher efficiency – higher light output (lumens per watt), which means a brightly lit factory floor will use less electricity.

An LED lighting upgrade has reduced maintenance costs – LED fittings are rated to last 50,000hrs with 70% lumen maintenance, as compared to 12,000hrs for metal halide. This saves money by not having to hire an electrician to replace lamps every few years and the cost of the replacement lamps.

LED provides more directional lighting – a metal halide fitting uses a lamp which loses a lot of light into the fitting. An LED light fitting has a chip which is a flat pad, so more light comes out of the fitting and onto workplace. The light is directed to where it is actually needed.

Solution

Aglo Systems won the tender for this project over an Induction Lighting proposal and other LED suppliers. We carefully assessed the facility's requirements to make a detailed bottom line analysis and proposed 150W LED Highbay retrofit replacements with daylight harvesting sensors which would intelligently dim the light output for additional energy savings. Aglo also handled the full installation – with limited interruption to the factory workers by installing outside of business hours – and the VEET (Victorian Energy Efficiency Target) rebates which were supplied as an upfront discount.

The existing fluorescent tube lighting in the factory office was retrofit updated at the same time as the business' two factory sites. Aglo installed Auriga 20W LED Tube throughout the office floor space to provide energy savings of 15,016 kWh per annum when operated for 9 hours a day, 5 days a week.

To improve the quality of lighting, the position of several of the lighting fixtures were also relocated.



Products Used



Galaxy



Auriga



Lumo

Summary of Results

69,982
kWh
ANNUAL
SAVINGS

\$17,812
TOTAL ANNUAL
SAVINGS

53.3%
ROI

1.9
year
PAYBACK

59%
ENERGY USAGE
REDUCTION