



Case Study

Weet Bix is Australia's #1 breakfast cereal. Sanitarium chose another #1 performer in Primo Highbays for their recent Central Coast lighting upgrade.

primo
FIRST FOR HIGH PERFORMANCE
LED HIGHBAYS



Sanitarium
health & wellbeing

Summary

Sanitarium's plant at Berkeley Vale has undergone a substantial upgrade of its lowbay and highbay lighting in its packaging and warehousing areas.

A total of 173 Primo LED lowbays and highbays were installed together with daylight harvesting sensors under skylights. LED Panels are also replacing twin fluoro troffers in the office spaces.

Tigerlight assisted in project managing the process as well as fulfilling the requirements for a substantial ESS rebate.

Challenge Faced

Tigerlight devised an insert panel for the Wadco diffusers to allow the fittings to be replaced while retaining the integrity of the clean rooms.

In addition, daylight harvesting was employed in the warehouse to capitalise on the existence of skylights.

Solution

The upgrade program involved the replacement of 173 existing highbays with Korean-designed and made Primo LED Highbays.

- 60 x Primo 90W LED lowbays replaced 60 x 400W Wadco highbays, suspended over their existing diffusers throughout the lower ceilings.
- 104 x Primo 20K high output LED highbays in the high racking section of the warehouse with 10m ceilings, where higher lux levels were required.

The Primo 20K highbays were all fitted with daylight harvesting sensors.

A number of new Tiger IP69K Food Safe battens were also installed in the clean processing area.



Left: Primo 90W fittings retrofitted into Wadco ceiling diffusers at 6m height in Sanitarium's packaging areas. Centre: Primo 20K LED highbays with light sensors at 10m in the Distribution Centre. Right: The "Quarter mile" passageway where older 160W LED fittings were replaced with Primo 90W low bays.

Solution – continued

The benefit of the light sensors is that they work automatically, in tandem with the dimmable drivers on the highbays to gradually dim down in the presence of natural sunlight. When dimmed to only 10% of normal output, power consumption drops to just 14-15W per highbay - a very significant saving when additional light is not required.

Tiger LED Panels have been trialed in a few smaller areas on the site and will be installed throughout the adjacent head office building also generating a significant ESS rebate.

Overall, the ESS rebate represented two-thirds of the capital cost of the upgrade. The resulting payback period is less than 12 months.

Importantly, lux levels have been raised to well above the Australian Standard. Also, the quality and 5700K colour temperature of the light has made reading of pallet labels easier and work better with the cameras mounted on forklifts.

Feedback from Sanitarium management is extremely positive, especially with respect to the help provided in project managing the installation and the lodgement of the ESS rebate, as well as the minimal impact on production during the process.

Primo 90W LED Lowbay/Highbay

- 12,000 lumens
- Replaces 250-400W HID
- Height from 5+ metres
- 115 degree beam spread
- Polycarbonate lens.



Primo 20K Dimmable LED Highbay

- 20,000 lumens
- 138 lm/W output
- Dimmable 1-10VDC
- 115 degree beam spread
- Height 8m-18m+.



Tiger Eye - Daylight harvesting sensor

- Light sensor attached to each highbay
- Connects to 1-10VDC dimmable driver on Primo 145W & 20K highbays
- 90% power savings on fittings under skylights, or near roller doors or windows.



Tiger IP69K Food Safe Batten

- 20W - 3200 lm / 36W - 5700 lm
- Rated IP69K - for high pressure hot water and detergents
- Easily cleaned surfaces to meet food standards
- Microwave light/occupancy sensor option also available

