



Case Study

Australian Container Freight Services in Port Botany found the advantages of upgrading their lighting to Primo LED PowerFloods really stacked up.



Summary

High power and maintenance costs lead Australian Container Freight Services to replace their existing 1000W metal halide floods with Primo 400W LED PowerFloods on a one-for-one basis.

Challenge Faced

High corrosion and vibration damage to the existing HID floodlighting at the ACFS freight operation at Port Botany, were adding an unacceptable burden to their operating costs, with relamping occurring every 2 years and fittings needing to be replaced every 4 years.

Rather than renewing their HID fittings again, management explored the savings emanating from an upgrade to LED floods, provided that the light output met their strict standards and that the proposed LED fittings were of sufficient quality to survive the challenging environment at the Port.

Solution

The 25 existing 1000W metal halide floodlights were on 25m poles, some as single fittings, and some two per pole.

Primo 400W PowerFloods were recommended on the basis of:

- energy efficiency, using only 35% of the power
- high 40,000 lumens output at over 100 lm/watt
- IP67 rating and low weight
- impressive Korean design and build quality
- 5 year warranty backed by Posco LED, a major subsidiary of Posco, one of the world's largest industrial and technology companies.

The 25 LED fittings each consume only 385W, amounting to a saving of 65% in power compared to the 1100W consumed by the 1000W HID fittings and their ballasts.



Bright, uniform light levels across the busy 24/7 freight terminal.



Primo 400W LED PowerFloods, pole-mounted at Port Botany.

Solution – continued

The yard lighting runs approximately 12 hours per day, 7 days per week, and therefore the expected L70 service life of the Primo Floods was approximately 11.4 years.

Over that time, the ROI is expected to reach over \$400,000, which includes savings in power, and also replacement metal halide globes, and importantly, \$11,000 per year in labour to maintain the HID fittings.

The team at the freight terminal have been impressed by the improved light quality and increased light levels.



primo
PowerFlood
400W LED



- 40,000 lm output
- Lamp power of 385W replacing 1000W HID
- Height 12-25m+ metres, on poles or ceilings
- Area lens and 45 degree round lens options
- IP67 rating. Anti-corrosion polyester coating
- 5 year warranty.

Primo LED Highbays are designed and manufactured in Korea to the exacting standards of Posco LED, which is accredited to ISO9001:2008 Quality Management System.

Posco LED is a joint venture by Posco, one of the largest steelmakers in the world, and Seoul Semiconductor, one of the world's leading LED research and manufacturing companies.

Upgrade Summary

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|-------------------------------------|------------|
| Quantity of 400W fittings installed | 25 |
| Replacing 1000W HID fittings | 25 |
| Power saving | 65% |
| Breakeven period | 7 months |
| Projected service life | 11.4 years |
| Total ROI over product life | \$400,000 |

