



Case Study

An ongoing high-performance retrofit at Qantas Jet Base at Mascot airport involves more than 500 Primo 40K high-output high-bays to-date, at up to 30m mounting height to deliver more than 400 lux at ground level.

Summary

Qantas Airways engaged Tigerlight to deliver a high-performance retrofit across multiple aircraft maintenance hangars at Mascot. Existing lighting no longer met the operational requirements necessary for safe, efficient aircraft maintenance activities.

Qantas engineering teams provided strict lighting design parameters to ensure the upgraded system would support compliant, safe, and highly visible working conditions for aircraft engineers operating beneath high-bay structures.

Challenge Faced

The lighting solution needed to meet a number of well-defined parameters, including:

- critical lux levels of 400 lux minimum from very significant heights of 30m
- strong colour rendering performance (CRI >80)
- compliance with AS1680.2.4 and align with CASA operational expectations
- Retrofit efficiently within a fully operational maintenance facility with minimal disruption.



Solution

The upgrade program is being rolled out across multiple maintenance hangars, while in full operational mode.

To-date, over 500 Primo 40K highbays have been installed.

The high output of 40,000 lumens, coupled with the beam angle of 60 degrees allowed for a uniform light distribution at floor level from mounting positions of 30m.

AS1680.2.4 and CASA operational guidelines call for a minimum of 400 lux and high CRI values. Primo 40K highbays exceeded these requirements.

The CCT of 4000K and CRI above 80 were well suited to the vitally important and complex tasks undertaken by the Qantas Airways maintenance team at their Jet Base at Mascot.



Primo 40K Highbays at Qantas Maintenance hangars at Mascot. The 60 degree lenses are well suited to mounting heights of 30m+, delivering a low glare, highly uniform light across the hangar floor. The Primo 40K delivers 40,000 lumens at CCT of 4000K and CRI >80. Lux levels exceed 400 lux at floor level, in accordance with AS1680.2.4 and align with CASA operational expectations for the aviation industry.



Primo 40K 260W Highbay

- Exceptional output at 160 lm/W efficacy
- 40K Highbay: 40000 lm - 260W. 55K Highbay: 55000 lm - 350W
- 60 degree beam angle to suit high mounting positions
- CCT 4000K. CRI >80
- Superb design and quality control
- Inventronics EUM dimmable driver
- Dimmable output to 10% with light and occupancy sensors
- Rated IP66, IK10 and for operating temps of -30 to +50°C
- 5 year warranty.



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