



Wiri Emu Maintenance Depot

LOW maintenance, HIGH quality equals 'fit and forget' lighting.

The Wiri EMU Maintenance Depot is the main maintenance and stabling facility for Auckland Transport's new Electric Multiple Units (EMUs). In an environment where accessibility becomes difficult, reliability and maintenance become the key drivers for any lighting application.

Challenge/Solutions

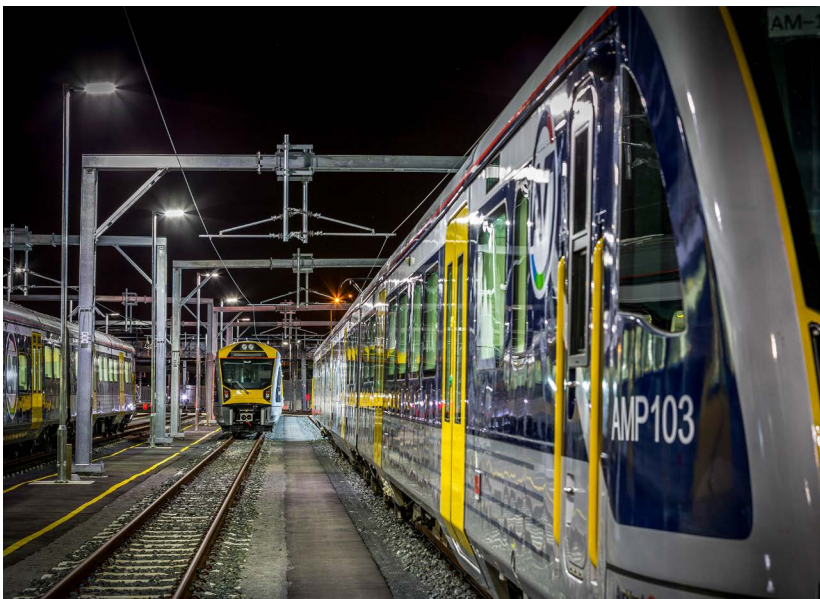
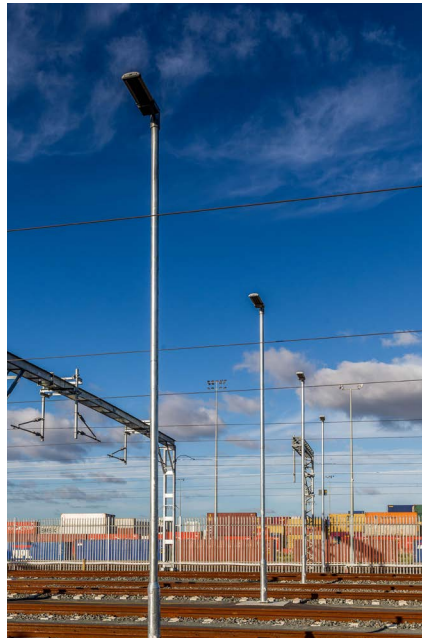
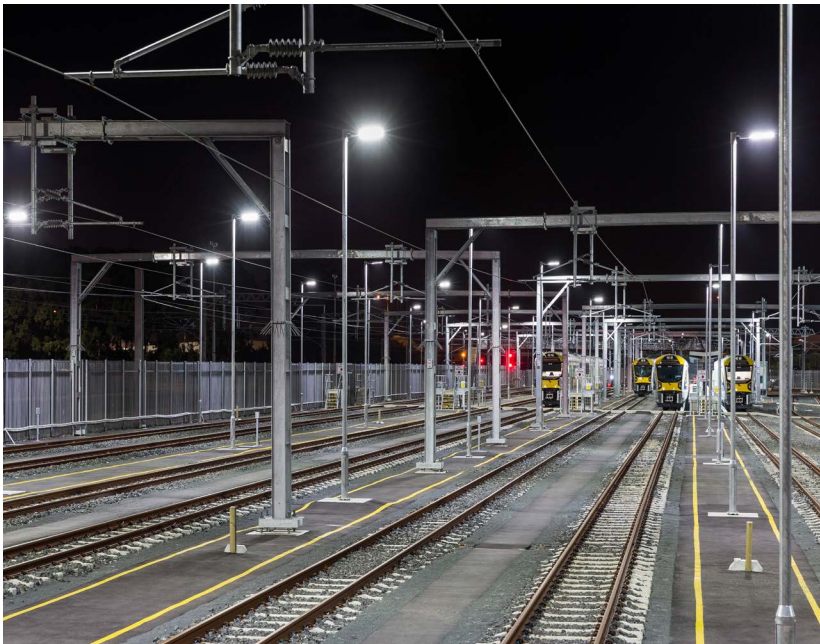
Luminaire placement was challenging due to the depot's operational needs, underground services, foundations and the 25KV a.c traction system. The overhead traction wires also meant there were restrictions regarding conventional maintenance methods. Specific lighting design levels, based on rail standards for similar depots overseas, needed to be attained in certain operational areas.

Additionally, there were requirements to have emergency egress lighting powered by an uninterrupted power supply (UPS). The preference was to incorporate this within the installed lighting system to minimize equipment and structures. The bi-level switching mechanism within selected luminaires provided functionality for a separate UPS circuit to run the light fittings in a reduced output mode for emergency egress purposes.

To address these challenges, the quality and performance of the Cree LEDway, type 2, full cut off side throw optics were selected to achieve the desired illuminance, control and longevity.

Key Benefits

- **Quality lighting with very low maintenance**
- **Luminaires configured to operate on the un-interrupted power supply**
- **Light Fittings – Application Life of 20 years**



Project Title

- Wiri EMU Maintenance Depot, Auckland, NZ

Client

- Auckland Transport

Advanced Lighting Specialist

- Antony Collett, MIES

Consultants

- Jody Martin - Opus International
Consultants

Project Completion Date

- August 2013

Applications

- Infrastructure

Services

- Product selection assistance
- Technical support

Product

Operational, Pathway and Security Lighting

- Cree LEDway luminaires, Type 2M side throw optics 53W-202W
- Back light shields utilised on critical boundaries

Back Up Lighting

- Dual out-put LEDway luminaires
- Dominant driver current (525mA) supplied from standard electrical supply
- Smaller driver current (175mA) supplied from dedicated emergency USP



Product Warranties

Light Fittings – Cree Manufacturer's
Warranty of 10 years

Light Fittings - Application Life of 20 years