

Case Study

Peabody Energy was quick to recognise the potential of the Mako LED area light to illuminate its conveyor system at its Wambo Coal Mine in NSW.



MAKO
by tigerlight

Peabody
ENERGY

Summary

Peabody Energy needed lighting that was robust and energy efficient to light its conveyor system and transfer point at its Wambo coal mine.

60 x 40W Mako LED area lights replaced existing 70 and 100W HPS and MH fittings in the first two stages.

Challenge Faced

The vibrations on the conveyor platform led to a shorter life span of traditional lighting and increased maintenance costs in replacing globes.

In addition, Australian lighting standards call for minimum lux levels to be met.

Solution

A total of 60 x 40W Mako fittings were installed in the first two stages, with more to follow.

Mounting height was 2.4m, on existing poles with the same 30mm spigot-size.

Spacings were 14-16m apart. The target lux level was 40 lux.

This 40 lux target was met, as predicted in the preliminary lighting design produced by Tigerlight.

The build quality, light output and extra-wide side-to-side light distribution impressed the Peabody Energy management team.

Also important was the ease of mounting the Mako fittings onto the existing 30mm spigots.



Mako 40W area lights over the conveyor at Peabody Energy's Wambo Coal Mine, Warkworth, NSW.

Photometrics

The extra-wide light distribution stems from the IESNA Type T2M lenses.

GANTRY /CONVEYOR LIGHTING		Requirement 40 lux ave. LLF 0.7		
Mounting height	Ave lux	Max Lux	Min lux	Spacing
2.4m	60	138	19	14m
2.7m	46	109	14	16m
3.0m	41	88	5	16m

AREA LIGHTING - GENERAL		Beam area >1 lux. LLF 0.8	
Mounting height	Ave lux	Max lux	Beam area
4m	7	55	32m x 13m
5m	5	36	37m x 16m
6m	4	25	41m x 18m

Mako 40W LED Area Light

- 4,250 lumens at over 100 lumens per watt
- Replaces up to 150W HID
- 40W LED module with quality Lumiled chips
- North American-made Philips Xitanium driver
- Marine grade stainless steel fascia
- Polycarbonate lenses
- Corrosion-resistant polyester coating
- Sleek, rounded shape reduces material build-up
- IP67 rating.



Versatile go-anywhere area light fitting

- Apart from its applications over gantries and conveyors, the Mako is proving to be useful as an all-purpose streetlight and area light
- Its sleek appearance and choice of grey or black polyester coating make it an ideal choice for streets and roadways, walkways, entrances, and carparks
- Suitable for commercial, government, industrial sites as well as residential developments, retirement villages and caravan parks.

