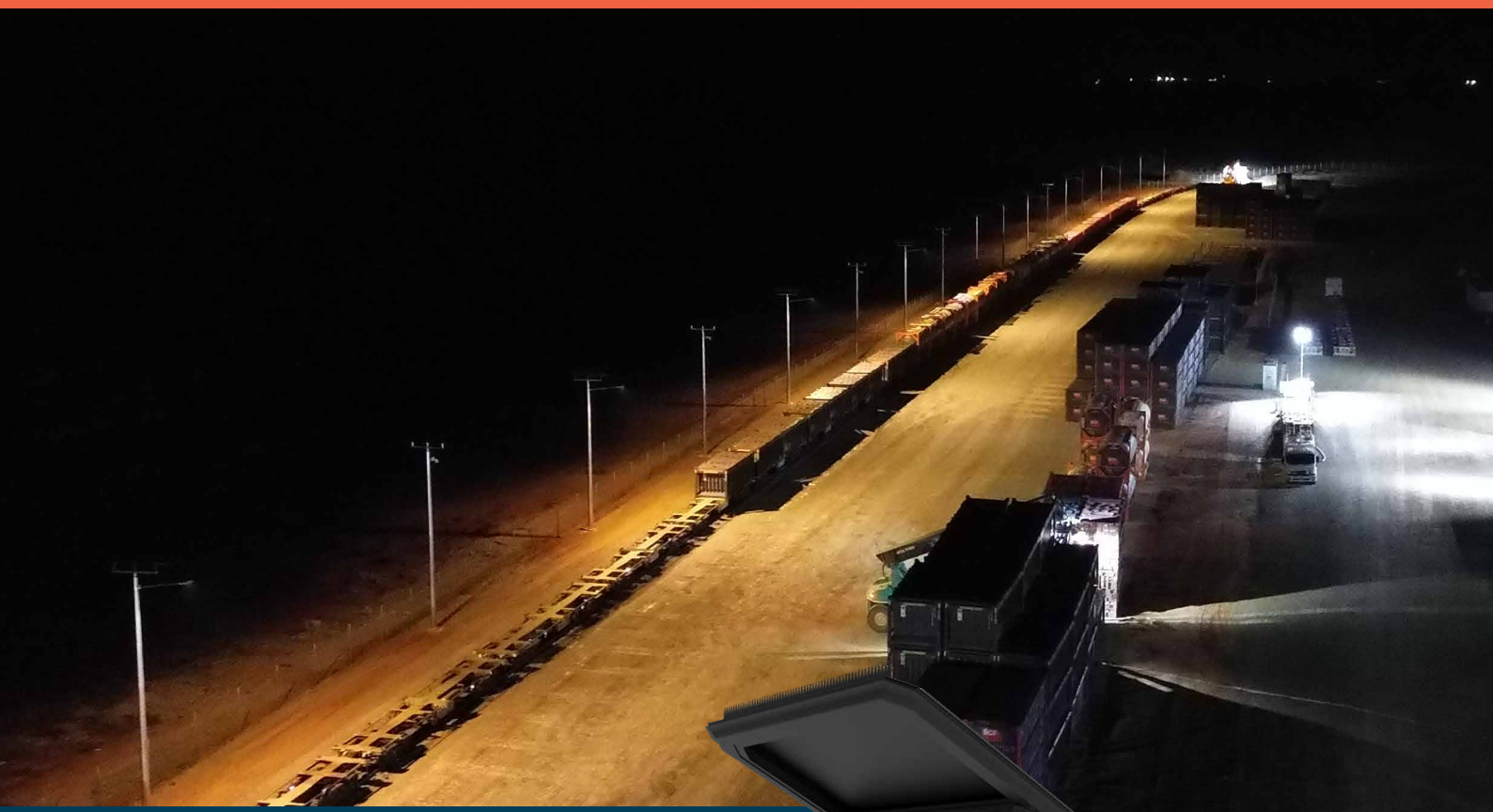
tigerlight | HIGH-PERFORMANCE INDUSTRIAL LIGHTING



Case Study

Aurizon's Rail Hub at Pimba, SA, required a robust, self-sufficient power supply to deliver reliable operational lighting and CCTV security, with minimal environmental impact. Tigerlight's CORSO solar engine platform met all operational requirements while maintaining natural dark-sky conditions for the surrounding landscape.

AURIZON

Introduction

Aurizon moves 1.3 million tons of BHP's copper concentrate annually by rail over 500km to Port Adelaide. The new intermodal terminal at Pimba is a vital part of this major carbon reduction initiative.

Tigerlight utilised 175W CORSO solar engines as a carbon-neutral platform to power safe lighting levels and CCTV security cameras.

Project Details

Stable, dependable dusk to dawn operation was vitally important in this remote desert environment. Similarly, uninterrupted 24/7 operation of CCTV system cameras was an essential part of the brief.

As the installation was completely new, our team of lighting engineers constructed a lighting plan with new infrastructure. The lighting plan called for zero upward light-spill to preserve the dark-sky environment, as well as low glare and high uniformity along the tracks, in accordance with AS 4282:2019.

Solution

A total of 24 x 12m poles were installed along the siding. All poles carried 3 x 175W CORSO Solar Engines with integrated 1,690Wh LiFePO4 batteries.

12 poles also carried a single 80W Tiger streetlight, configured at 3000K and optical lenses with maximum lateral light projection and minimum front-to-back light spill. The Corso solar engines were programmed to operate at 100% output, from dusk to dawn nightly.

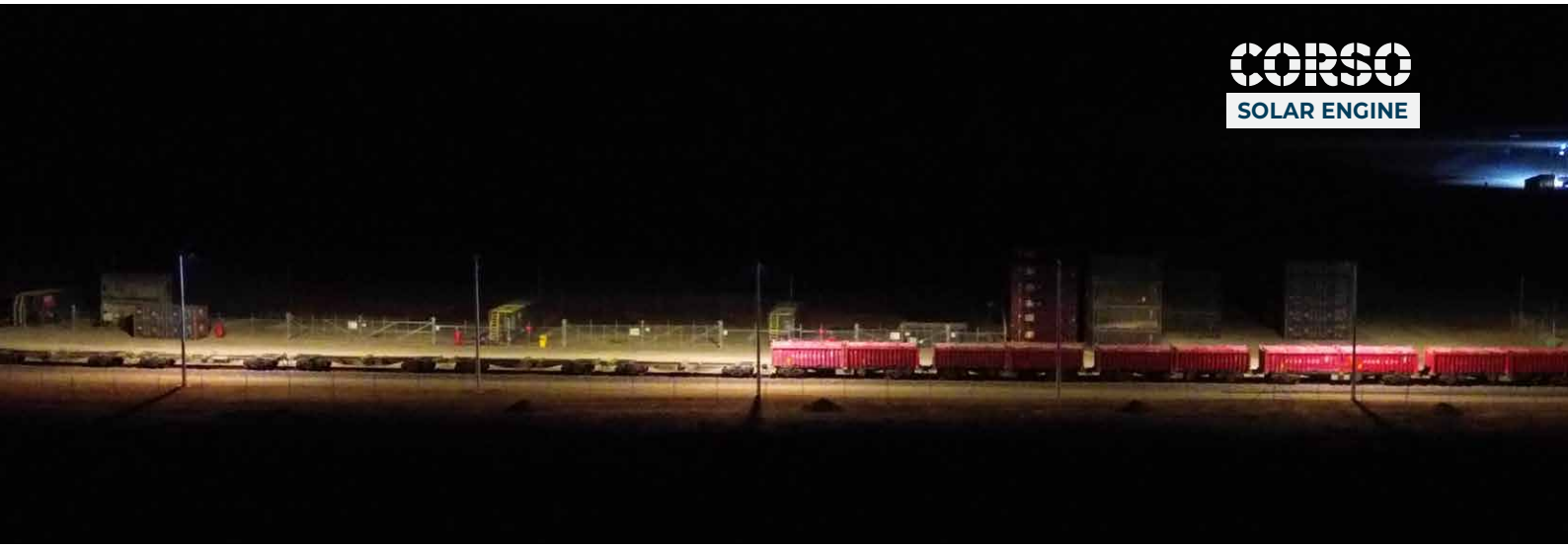
The 80W Tiger streetlight was matched to the power output of the 3 Corso solar engines to provide autonomy of 3 days.

Alternating with the light poles were 12 additional poles carrying CCTV equipment, drawing power 24 hours per day. Again, these were powered by 3 x 175W CORSO solar panels with 1,690Wh batteries.

Tigerlight engineers worked closely with the CCTV equipment suppliers and the electrical contractor to ensure compatibility between the two systems.

Above: Aurizon's intermodal terminal by day, showing one section of the 24 pole installation. 3 x 175W Corso Solar Engines are positioned atop each 12m pole, powering either 1 x 80W Tiger streetlight or CCTV security cameras, alternating along the length of the rail track.

Below and front page: Aurizon's secure rail terminal at Pimba, South Australia, by night. 80W Tiger streetlights on 12m poles project a warm 3000K with zero upward light and minimal light spill into the surrounding terrain.



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CORSO SOLAR ENGINE

CORSO SOLAR ENGINE SPECIFICATIONS

Solar panel	55W 110W 175W
Battery rating	380 1100 1690Wh
Battery type / Voltage	LiFePO4 / 12.8V
Operating temp	-10 to +70°C
Controller	MPPT Smart Controller
Sensor	Microwave Motion Sensor
Tiltable Panel	0, 15, 30, 45 degree settings
IP / IK Rating	IP65 / IK08.

FACTORY PROGRAMMABLE OUTPUTS

- 100% output dusk to dawn
- Programmable staged dimming options
- 100% for set period after sunset, then dim to a set dim mode
- Tailored programming to suit site specific needs.

COMPATIBLE TIGERLIGHT FITTINGS - PLUG & PLAY INSTALLATION

CORSO solar engines power each of these fittings on a simple plug & play basis with connector cabling supplied.

Lamp power is pre-set between 10W and 60W, during the programming process prior to delivery.

Options available include lensing, CCT, exterior colours.

MAKO

P/N: SLMAKOSOLO

MEGA FLOOD

FLSOLO

STREET LIGHT

SLSOLO

MAKO BULKHEAD

SLBULKSOLO

SENTRY WALLPACK

FLWPSOLO

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