



 COOLON

# EMDLK2/EMTNR2

60W LED Conveyor/Area Light

A highly reliable conveyor/tunnel light with an inbuilt smart battery backup for emergency escape compliance to AS/NZS2293

The EMDLK2/EMTNR2 is both a highly reliable conveyor/tunnel light and smart backup emergency light compliant to AS/NZS2293 in a single unit. The smart battery backup system provides continuous self-monitoring which can be accessed using our Coolon mobile app.

The EMDLK2/EMTNR2 utilises a solid-state integral emergency module. The emergency power is provided by safe LiFePO<sub>4</sub> cells with a host of intelligent management circuitry. The EMDLK2/EMTNR2 performs constant operational readiness tests, ensuring reliable emergency lighting will be available when needed.

With a balance between performance, intelligence and reliability, the EMDLK2/EMTNR2 is the ultimate industrial integral emergency luminaire.

#### Designed for use in:

- Emergency Lighting
- Stairwells
- Conveyors
- Tunnels
- Walkways
- Stacker / Reclaimer
- Bulkheads
- General Area Lighting
- Pedestrian Access Ways



 DESIGNED &  
MANUFACTURED  
IN AUSTRALIA

## Smarter Emergency Operation

Coolon's range of emergency lights are built around latest technology, ultra-safe, high power density batteries. Controlled by Coolon's own purpose developed smart controller that constantly monitors charge levels and ensures operational readiness in the toughest mining environment.



## Time saving reporting

Shorten inspection times using Coolon's smart phone app. The EMDLK2 / EMTNR2 internal intelligent charger system wirelessly keeps track and is able to provide reports on:

- Power outages experienced by the battery
- Charge rates
- Charge capacity
- Battery health



### COOL SURFACE TEMPERATURE

Coolon's Industrial LED fittings have a much lower surface temperature than traditional HID equivalents which prevents dirt from baking onto the luminaire. This allows for easier cleaning and will prolong the lifespan of the luminaire.



### NO FLICKERING

LED luminaires run on constant low voltage DC power and do not produce any visible stroboscopic effects, thus reducing the strain on eyes and significantly improving safety in areas where moving machinery is present.



### LOW SUSCEPTIBILITY TO VIBRATION

This luminaire is designed to handle continuous exposure to vibration. A typically critical issue affecting the life and operation of most common gas discharge lamp based light sources is mechanical shock and vibration.

**5**  
YEARS

### 5 YEARS FACTORY WARRANTY

Coolon luminaires are covered by a solid comprehensive manufacturer's warranty that covers a range of possible defects and performance parameters throughout the duration of the warranty period.



### INSTANT ON/OFF

LEDs do not require warm up. Instant on to 100% output translates to no downtime, improved safety and the ability to utilize sensor switching to significantly save energy.

**IP66**

### HIGH IP RATING - IP66

Coolon's Industrial LEDs are designed specifically to withstand the harsh conditions in mining environments. The robust design allows our LED products to be used in many different applications and are high pressure washable.

**L70**

### LONG USEFUL OPERATING LIFE

At Coolon we believe the lifetime of a luminaire is so much more than just the LED's. Coolon product lifetime takes the entire luminaire into consideration and each product is backed by a comprehensive warranty – that's the Coolon confidence.

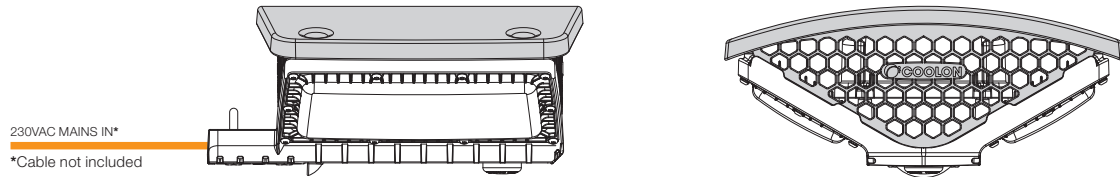


### PROUDLY MADE IN AUSTRALIA

Our products are designed and manufactured in Australia. Engineered to perfection, using only the highest quality components and highly skilled labour, each luminaire is assembled and thoroughly tested to ensure that it exceeds the highest standards.

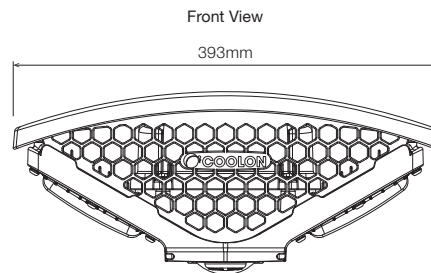
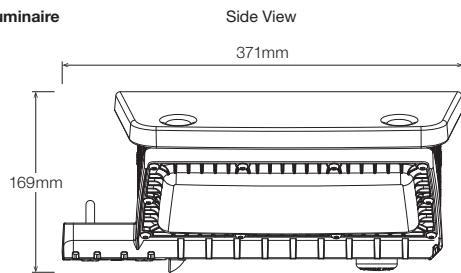
## WIRING CONFIGURATION

### EMDLK2 / EMTNR2 Luminaire - MP

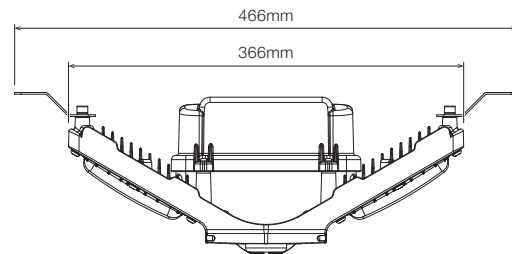
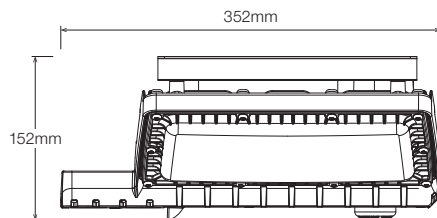


## DIMENSIONS

### EMDLK2 Luminaire



### EMTNR2 Luminaire



## TECHNICAL SPECIFICATIONS

<b>Product</b>	Emergency LED Conveyor / Area Light
<b>Model</b>	EMDLK2 / EMTNR2

### Optical Characteristics

Luminous Flux (Photometered)	4,436 – 5,509 lm (MP mode)
CCT	CWT / WWT / AMB / GRN
CRI	>70 excluding amber and green

### Electrical Characteristics (Luminaire)

Power Consumption	62W MP Mode
Nominal Voltage	230VAC
Voltage Range	176 – 305 VAC, 190 – 250VDC
Frequency Range	47 – 63Hz
Power Factor	>0.95 / 230VAC
Inrush Current (I <sup>2</sup> t) <sup>1</sup>	0.016 A <sup>2</sup> s
Leakage Current	<0.75mA / 240VAC / 60Hz
Charge Time	16 hours
Battery Type	LiFePO <sub>4</sub>
EM Discharge Time	120 minutes initial / 90 minutes in service

### Environmental

IP Rating	IP66
Impact Rating	IK09
Salt Spray Tested	Yes
Operating Temp. Range	0 to +50°C
Thermal Management Type	Active / Continuous
Expected Lifespan	50,000 Hours to 70% Brightness
Material Composition (Body)	LM6 Aluminium Alloy (<0.1% copper content)
Material Composition (Optics)	Polycarbonate
Material Composition (Cover)	Polycarbonate
Mounting/Bracket Type	U-Bolt Spigot Mount OD 32 – 44 mm
Cable Gland	M20 x 1.5 SS316
Cable Ø Entry Range	7 – 13mm

### Sail Area

Horizontal Orientation	0.048m <sup>2</sup>
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### Weight/Packaging

Luminaire Weight	7kg
Packaging Dimensions	560 x 470 x 230mm
Packaged Weight	9.4kg

### Compliance (Safety Standards)

AS/NZS 60598.1	Luminaires - General Requirements and Tests
AS/NZS 60598.2.3	Luminaires - Particular requirements - For road and street lighting
AS/NZS 2293	Emergency lighting and exit signs for buildings

### Compliance (EMC)

AS/NZS CISPR15	Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment
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### Warranty

Warranty	5 years warranty as standard
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### Storage

Temperature	0 to +45°C
Shelf Life	up to 12 months @ 20±5°C*

### Note

<sup>1</sup> At 220VAC input, 25° cold start, duration=112µs, 10%Ipk-10%Ipk. See Inrush Current Waveform for the details.

Optical and electrical characteristics are measured using Cool White LEDs (CWT).

Reading taken while test unit operating in steady state. Ambient temperature during testing is typically 25°C. Induced voltage on the Control wire should be no greater than 10V. Individual unit behaviour may differ due to electronic component tolerance and ambient conditions. Product parameters and application suitability shall be checked by the user prior to commissioning.

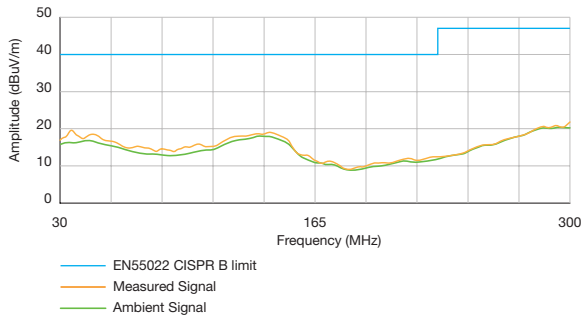
\* Shelf life time with Battery Switch in OFF position is defined as time since product dispatch from Coolon, or since last charge cycle.

## COLOUR TEMPERATURES

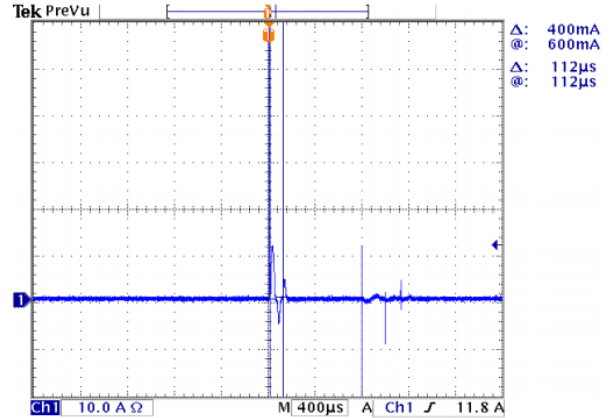


All colour temperatures are indicative. Some variation can occur.

## MINIMAL RADIATED EMI

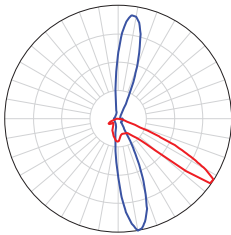


## INRUSH CURRENT WAVEFORM

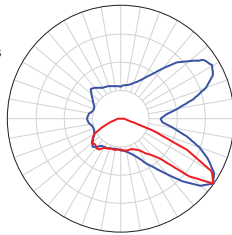


## POLAR DISTRIBUTION

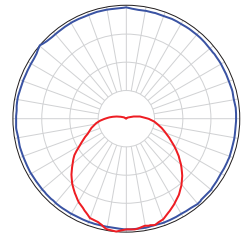
**BW1**  
Batwing  
Type 1 Optics



**BW3**  
Batwing  
Type 3 Optics



**SY1**  
Symmetrical  
Diffuser



## EMDLK2 ORDERING EXAMPLE

**EMDLK2 - CWT - BW3 - MP**

PRODUCT      COLOUR TEMP      OPTICS      SUPPLY OPTION

PRODUCT	COLOUR TEMP	OPTICS	SUPPLY OPTION
EMDLK2	CWT Cool White	BW1 Batwing Type 1	MP Mains Powered
EMTNR2	WWT Warm White	BW3 Batwing Type 3	
	AMB Amber	SY1 Symmetrical / Diffuser	
	GRN Green		