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 LiFePO4 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

COOLON
EMDLK2/EMTNR2
60W LED Conveyor/Area Light

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

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.

COOL SURFACE TEMPERATURE

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.

NO FLICKERING

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.

LOW SUSCEPTIBILITY TO VIBRATION

Coolon Luminaires are covered by a solid comprehensible manufacturer’s warranty that covers a range of possible defects and performance parameters throughout the duration of the warranty period.

3 YEARS FACTORY WARRANTY

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.

INSTANT ON/OFF

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.

HIGH IP RATING - IP66

Currently available specification from world’s most reputable LED manufacturers states 50,000 hours of continuous operation at the rated current within the operating temperature range to 70% residual light output.

LONG USEFUL OPERATING LIFE

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.

PROUDLY MADE IN AUSTRALIA
EMDLK2 / EMTNR2 Industrial LED Luminaire

**Version 1.04**
sales@coolon.com.au  
1300 287 533  
+613 8681 3633  
+613 9703 2408  

All documentation is subject to change without notice. Refer to our website for the latest information.

**www.coolon.com.au**

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**WIRING CONFIGURATION**

EMDLK2 / EMTNR2 Luminaire - MP

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**DIMENSIONS**

EMDLK2 Luminaire  
Side View  
371mm  

EMTNR2 Luminaire  
Front View  
393mm  

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**TECHNICAL SPECIFICATIONS**

**Product**  
Emergency LED Conveyor / Area Light

**Model**  
EMDLK2 / EMTNR2

**Optical Characteristics**

- Luminous Flux (Photometered): 4,436 – 5,509 lm (MP mode)
- CCT: CWT / WWT / GRN
- CRI: >70 excluding Green

**Electrical Characteristics (Luminaire)**

- Power Consumption: 62W MP Mode
- Nominal Voltage: 230VAC
- Voltage Range: 176 – 265VAC, 190 – 250VDC
- Frequency Range: 47 – 63Hz
- Power Factor: >0.95 / 230VAC
- Inrush Current ($I_{2t}$): 0.016 A
- Leakage Current: <0.75mA / 240VAC / 60Hz
- Charge Time: 16 hours
- Battery Type: LiFePO4
- 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 BS3316

**Cable Ø Entry Range**

- 7 – 13mm

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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 60598.2.1 Luminaires - Particular requirements - Fixed general purpose luminaires
- 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

**Warranty**

- Warranty: 3 years warranty as standard  
5 years extended warranty optional

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

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

3 Reading taken while test unit operating in steady state. Ambient temperature during testing is typically 25°C. 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.
**COLOUR TEMPERATURES**

![Temperature Chart]

All colour temperatures are indicative. Some variation can occur.

**MINIMAL RADIATED EMI**

![EMI Chart]

**INRUSH CURRENT WAVEFORM**

![Inrush Current Chart]

**POLAR DISTRIBUTION**

![Polar Distribution Chart]

**EMDLK2 ORDERING EXAMPLE**

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>COLOUR TEMP</th>
<th>OPTICS</th>
<th>SUPPLY OPTION</th>
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<tbody>
<tr>
<td>EMDLK2</td>
<td>CWT</td>
<td>BW3</td>
<td>MP</td>
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<td>MP</td>
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**EMDLK2 - CWT - BW3 - MP**

- **PRODUCT**
- **COLOUR TEMP**
- **OPTICS**
- **SUPPLY OPTION**

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**COLOUR TEMPERATURES**

- **AMBER** 1800K
- **WARM WHITE** < 3250K
- **NEUTRAL WHITE** 3251K – 5250K
- **COOL WHITE** ≥ 4251K

**COLOUR TEMPERATURES**

- **1000K**
- **2000K**
- **3000K**
- **4000K**
- **5000K**
- **6000K**
- **7000K**
- **8000K**

All colour temperatures are indicative. Some variation can occur.

**MINIMAL RADIATED EMI**

![EMI Chart]

**INRUSH CURRENT WAVEFORM**

![Inrush Current Chart]

**POLAR DISTRIBUTION**

![Polar Distribution Chart]

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**EMDLK2 - CWT - BW3 - MP**

- **PRODUCT**
- **COLOUR TEMP**
- **OPTICS**
- **SUPPLY OPTION**

- **EMDLK2**
- **EMTNR2**
- **GRN**

**COLOUR TEMPERATURES**

- **NEUTRAL WHITE** 3251K – 4250K
- **WARM WHITE** ≤ 3250K
- **AMBER** ≥ 1800K

All colour temperatures are indicative. Some variation can occur.