



 COOLON

# DLK2 / EMDLK2

62W LED Conveyor/Area Light

The most energy efficient way of illuminating industrial conveyors and walkways.

DLK2 is designed to provide the most energy efficient way of illuminating industrial conveyors and walkways, capable of delivering the required minimum of 40 lux with an average of 80 lux, when spaced as far as 12m apart with a typical installation height of 2.7m and a 5 degree tilt. The typical power consumption of less than 62W converts into a mere 5W per linear meter of conveyor line (White LEDs version), raising the bar of performance and efficiency for industrial conveyor and walkway lighting.

The robust unibody design is both lightweight and versatile with flexibility to fit many industry standard spigot mount installations. The DLK2 is also available in a Wildlife / Turtle Friendly Amber version and Dark Sky compliant version.



#### Designed for use in:

- Bulkheads
- Campsite Area Lighting
- Car Parks
- Conveyors
- General Area Lighting
- Pedestrian Access Road Ways
- Stacker / Reclaimers
- Stairwells
- Tunnels
- Walkways





## Lowest cost of installation

The DLK2 is so easy to install it can be done in minutes, without the need of any specialized tools. Simply open the hatch, connect the cable, tighten the gland, close the hatch.

The DLK2 is made to cut costs; even before it is ever switched on.



### 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.

**3**  
YEARS

### 3 YEARS FACTORY WARRANTY

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.



### 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

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.



### 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.

### DARK SKY COMPLIANCE



Lighting pollution is a negative of today's technology, disturbing nocturnal animals, affecting human circadian rhythms and severely impacting astronomy observatories.

The DLK2 is available in Dark Sky compliant configuration that features a specifically designed hood in a bid to reduce light pollution.



### EMERGENCY DLK2 (EMDLK2)



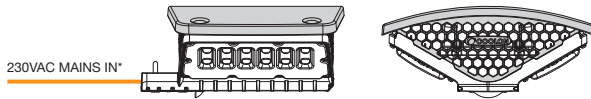
The EMDLK2 utilises a solid state integral emergency module. The emergency power is provided by safe LiFePO<sub>4</sub> cells with a host of intelligent management circuitry. The EMDLK2 performs constant operational readiness tests, ensuring reliable emergency lighting will be available when needed. The onboard processor will notify the user should the unit ever need attention allowing operators to better utilise their time.

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



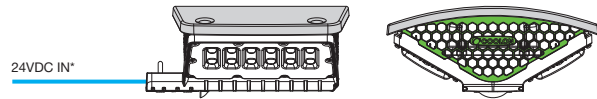
## WIRING CONFIGURATION

### DLK2 / EMDLK2 Luminaire - MP Grey Grill



\* Cable not included

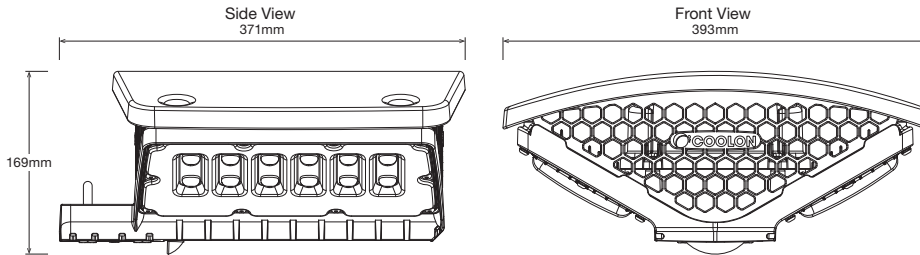
### DLK2 Luminaire - ELV Green Grill



\* Cable not included

## DIMENSIONS

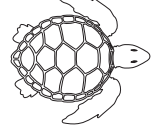
### DLK2 Luminaire



## TURTLE FRIENDLY OPTION

The DLK2 is available in turtle friendly Amber. In many coastal areas white light may not be permitted for use, as it is believed to be disrupting breeding cycles of certain species of sea turtles.

Coolon has specifically designed a variation of the DLK2 in 595nm (nanometers) Amber that is in the region of their lowest visual sensitivity.



## TECHNICAL SPECIFICATIONS

Product	DLK2 LED Conveyor / Area Light		
Model	DLK2 Mains Powered (MP)	DLK2 Low Voltage (ELV)	EMDLK2
<b>Optical Characteristics</b>			
Luminous Flux (Photometered) *	3,020 – 5,000 lm	3,632 – 6,612 lm	1,324 – 2,180 lm
CCT	CWT / WWT / AMB / GRN		
CRI	>70 excluding amber		
<b>Electrical Characteristics (Luminaire)</b>			
Power Consumption	62W Typical	62W Typical	62W MP Mode 17.4W EM Mode
Nominal Voltage	230VAC	24VDC	230VAC
Voltage Range	90 – 305VAC, 127 – 431VDC	23 – 27VDC	90 – 305VAC, 127 – 431VDC
Frequency Range	47 – 63Hz	N/A	47 – 63Hz
Power Factor	>0.95 / 230VAC	N/A	>0.95 / 230VAC
Leakage Current	<0.75mA / 277VAC	N/A	<0.75mA / 277VAC
<b>Electrical Characteristics (EMDLK2 Emergency)</b>			
Charge Time	16 hours		
Battery Type	LiFePO <sub>4</sub>		
EM Discharge Time	120 minutes initial / 90 minutes in service		
<b>Environmental</b>			
IP Rating	IP66		
Impact Rating	IK09		
Salt Spray Tested	Yes		
Operating Temp. Range	-10 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	10 – 14mm		

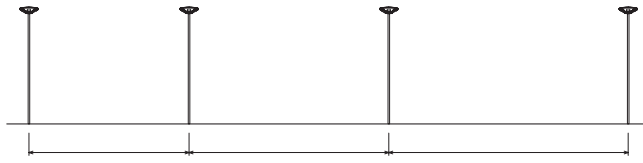
<b>Weight/Packaging</b>	
Luminaire Weight	5.9kg
Packaging Dimensions (DLK2)	460 x 440 x 180mm
Packaged Weight (DLK2)	6.96kg (Standard)
<b>Compliance (Safety Standards)</b>	
AS/NZS 60598.1	Luminaires - General Requirements and Tests
AS/NZS 60598.2.1	Luminaires - Particular requirements - Fixed general purpose luminaires
UL 1598 and CSA C22.2 No. 250.0-08 **	Luminaires
UL 8750 **	Standard for Light Emitting Diode (LED) Equipment for use in Lighting Products
CSA C22.2 No. 250.13-14 **	Power Supplies with Extra-Low-Voltage Class 2 Outputs
AS/NZS 2293	Emergency escape lighting and exit signs for buildings
<b>Compliance (EMC)</b>	
AS/NZS CISPR15	Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment
FCC Part 15 Subpart B	
Industry Canada ICES-005 **	Interference - Causing Equipment Standard, Issue 4 Lighting Equipment, Dec 2015
ANSI C63.4-2014 **	American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9kHz to 40 GHz
<b>Warranty</b>	
Warranty	3 years warranty as standard 5 years extended warranty optional

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

\*\* UL / cUL listing only applies to MP version

## SPACINGS

Simulation Based on DLK2- 60 -CWT -BW1 -MP \* Drawing not to scale  
 Mounting Height: 2.7m Spigot Length: 0.2m  
 Maintenance Factor: 0.7 Walkway Width: 1m

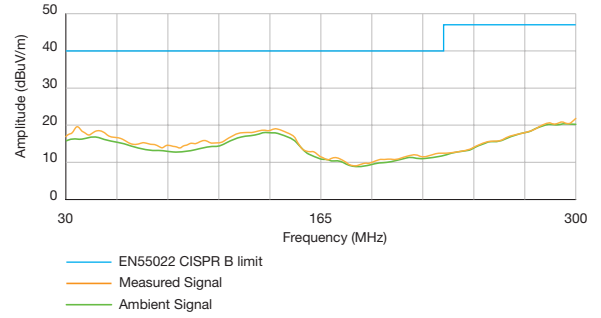


Spacing: 8 meters  
 Ave = 171 lux  
 Min = 97 lux  
 Min/Ave = 0.5

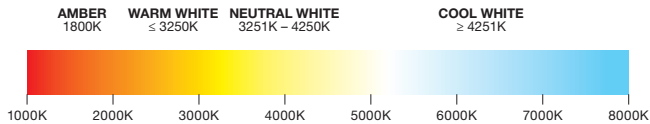
Spacing: 10 meters  
 Ave = 120 lux  
 Min = 75 lux  
 Min/Ave = 0.6

Spacing: 12 meters  
 Ave = 102 lux  
 Min = 43 lux  
 Min/Ave = 0.4

## MINIMAL RADIATED EMI

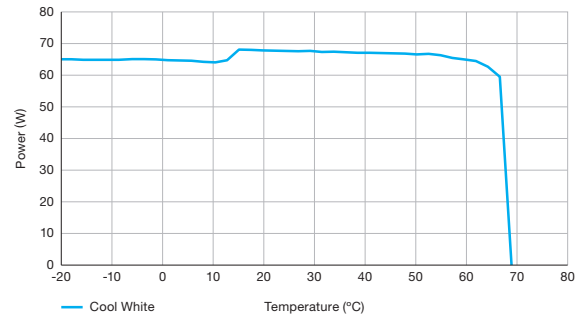


## COLOUR TEMPERATURES

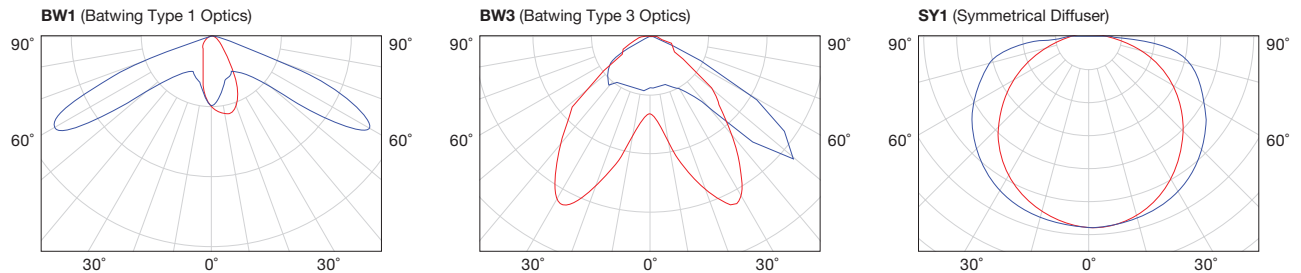


All colour temperatures are indicative. Some variation can occur.

## AMBIENT TEMPERATURE VS POWER



## POLAR DISTRIBUTION



## DLK2 ORDERING EXAMPLE

**DLK2 - 60 - CWT - BW3 - MP<sup>1</sup>**

PRODUCT      TYPE      COLOUR TEMP      OPTICS      SUPPLY OPTION

PRODUCT	TYPE	COLOUR TEMP	OPTICS	SUPPLY OPTION	HOOD OPTION
DLK2	60    60W	CWT    Cool White	BW1    Batwing Type 1	MP    Mains Powered	DS    Dark Sky Hood <sup>2</sup>
		WWT    Warm White	BW3    Batwing Type 3	ELV    Extra Low Voltage Luminaire	
		AMB    Amber	SY1    Symmetrical / Diffuser		
		GRN    Green			

<sup>1</sup> If SUPPLY OPTION is not specified, Standard Configuration Mains Powered will be supplied  
<sup>2</sup> Dark Sky Hood (DS) only available for Warm White LEDs (WWT)

## 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
		BW3    Batwing Type 3	
		SY1    Symmetrical / Diffuser	