



 COOLON

# DLK3 / TNR3

60W LED Conveyor/Area Light

BRILLIANT • CONNECTED

This is not about lighting

DLK3 / TNR3 is a robust, reliable, highest quality fitting that was born out of 30 years of experience in electrical engineering and mining. But it is so much more than that.

Effortless deployment of a complex mesh network. Access to hundreds of innovative IoT technologies. One-step hassle-free site digitisation.

DLK3 / TNR3 is not a revolution. It's a leap to the future of mining.

#### Designed for use in:

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

 Wirepas



 DESIGNED &  
MANUFACTURED  
IN AUSTRALIA





## Every light is an emergency light



Every single fitting is equipped with a robust emergency battery, ensuring a safe and smooth evacuation process in case of a power outage. Superior illumination uniformity and a reduction in shadowing also enhance hazard perception and visibility. Never worry about emergency lighting again – DLK3 / TNR3 has got you covered.

**TRADITIONAL EMERGENCY LIGHTING**  
Only every third light fitting is illuminated

Every light fitting is illuminated  
**COOLON EMERGENCY LIGHTING**



## Increased situational awareness

Ensure no one is caught unaware by propagating emergency alerts visually through the built-in RGBW indicator.

Lightning IMMINENT <16km  
All personnel to remain in cover until threat has passed

Lightning NEARBY 16km - 30km

Lightning MAY EXIST 30km - 60km

ALL CLEAR

## Enables digitisation

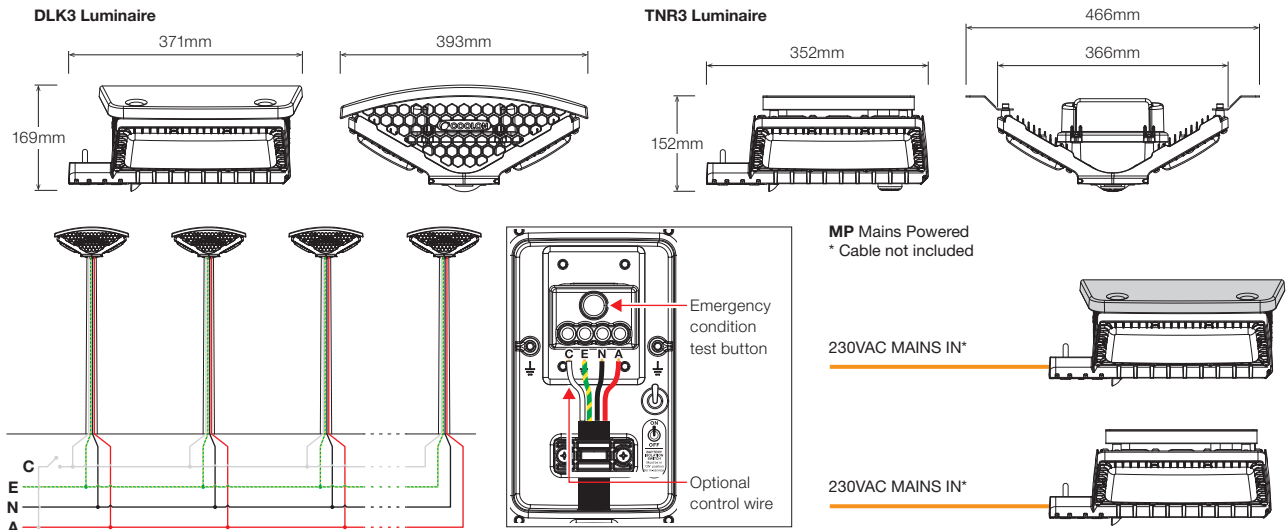


Lights automatically mesh together forming a site-wide wireless network enabling the effortless deployment of a wide range of IoT based sensors and services from compatible third-party providers:

- Asset Tracking
- Personnel Locating
- Machine Condition Monitoring
- ... and many more!



## DIMENSIONS / WIRING CONFIGURATION



## TECHNICAL SPECIFICATIONS

Product	DLK3 / TNR3 LED Conveyor / Area Light	
Mode	Mains Powered (MP)	Emergency (EM)
Optical Characteristics <sup>1</sup>		
Luminous Flux (Photometered)	6,550 lm & 4,800 lm	834 lm 1,297 lm (MAX Variant) <sup>2</sup>
CCT <sup>3</sup>	CWT & AMB / NWT & AMB	CWT / NWT
CRI	CWT / NWT 70 & AMB 57	
Electrical Characteristics <sup>1</sup>		
Power Consumption	60W Max	
Nominal Voltage	230VAC	
Rated Voltage	200 – 240VAC, 190 – 250VDC	
Voltage Range <sup>4</sup>	176 – 305VAC, 190 – 250VDC	
Frequency Range	50 / 60Hz	
Power Factor	>0.95 typical @ 230VAC	
Leakage Current	<0.70mA typical @ 277VAC	
Charge Time	≤16 hours	
Battery Type	LiFePO <sub>4</sub>	
Battery Lifetime	2,000 cycles to 70% SOC	
EM Discharge Time	120 minutes initial / 90 minutes in service	
Lighting Control <sup>5</sup>		
Dimming	10 – 100%	
Wireless Communication		
Protocol	Wirepas	
Operating Band	2.4 GHz, 40 Channels	
Typical Range <sup>6</sup>	15 – 30 metres line of sight	
Data Encryption	AES-128	
Network Standby Time	Up to 24 hours during power outage	
Wirepas Mode	Router, low latency	
Sail Area		
Horizontal Orientation	0.048m <sup>2</sup>	

<b>Environmental</b>	
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) Polyester powder coated
Material Composition (Optics)	Polycarbonate
Material Composition (Cover)	Polycarbonate
Max. Mounting Height	<8m above ground level
Mounting/Bracket Type	Spigot Mount OD 32 – 44 mm (NB25 – NB32)
Cable Gland	M20 x 1.5 SS316
Cable Ø Entry Range	7 – 13mm

<b>Storage</b>	
Temperature	0 to +45°C
Shelf Life <sup>7</sup>	Up to 12 months @ 20±5°C

<b>Weight/Packaging</b>	
Luminaire Weight	7kg
Packaging Dimensions (DLK3)	560 x 470 x 230mm
Packaged Weight	9.4kg

<b>Compliance (Safety Standards)</b>	
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

<b>Compliance (EMC)</b>	
AS/NZS CISPR15	Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment
AS/NZS 4268	Radio equipment and systems - Short range devices - Limits and methods of measurement

<b>Warranty</b>	
Warranty	5 years warranty as standard

<sup>1</sup> Optical and electrical characteristics are measured using Neutral White LEDs (NWT). 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.

<sup>2</sup> Emergency Output of the MAX variant (DLK3-XXXXXX-BW3-MP-MAX).

<sup>3</sup> Wirelessly selectable or event triggered.

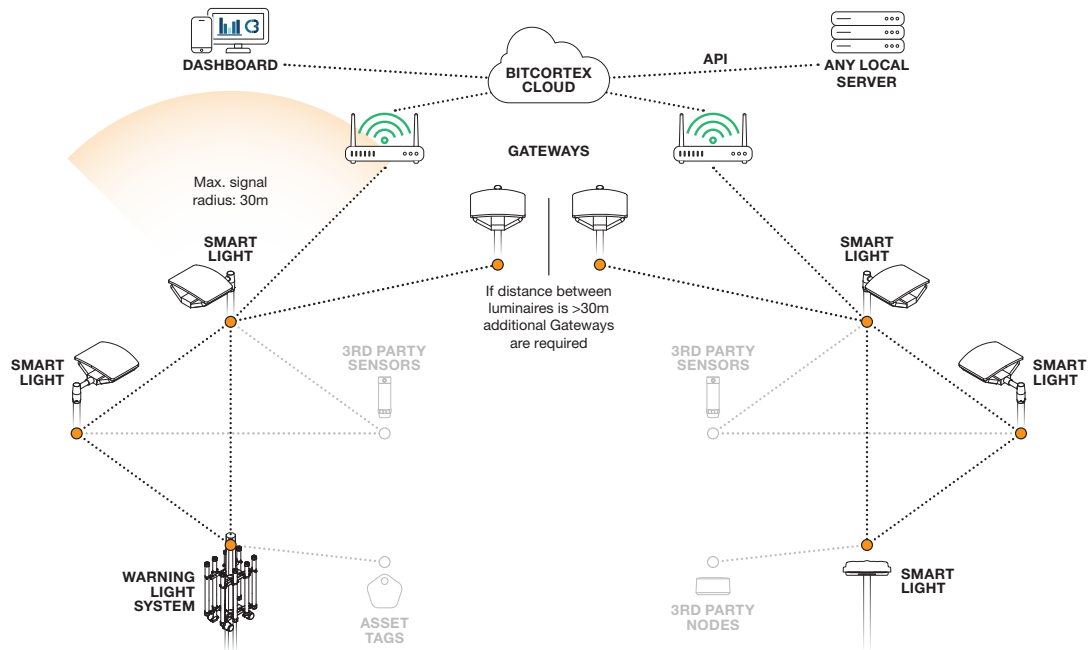
<sup>4</sup> Certified voltage range : 200 – 240VAC, 190 – 250VDC @ 50/60Hz.

<sup>5</sup> Lighting Control via BitCortex. Additional specification data will be available at a later date.

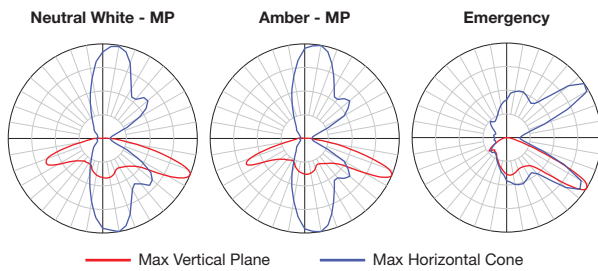
<sup>6</sup> Wireless range might significantly vary depending on the type of antennas used, elevation above the ground, presence of metal obstacles and environmental conditions. Wireless coverage could be optimised with increased amount of devices forming mesh network.

<sup>7</sup> Shelf life time with Battery Switch in OFF position is defined as time since product dispatch from Coolon, or since last charge cycle. The light source of this luminaire is not replaceable, when the light source reaches its end of life the whole luminaire shall be replaced.

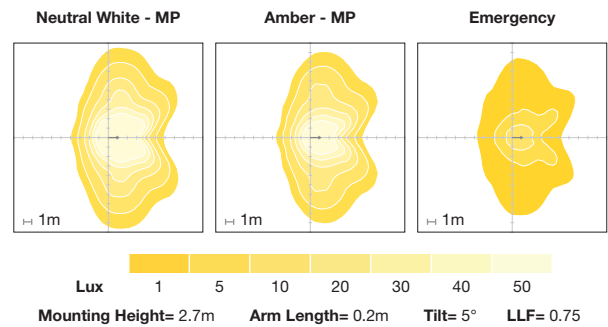
## MESH NETWORK



## POLAR DISTRIBUTION



## ISOLUX PLOTS



A web based platform to manage and control smart wireless devices.  
Accessible anywhere through an internet connected browser.  
For live up to date manuals, smart lighting set up and control please visit: [www.bitcortex.net](http://www.bitcortex.net)



### WIREPAS MASSIVE ENABLED

Wirepas is a leading IoT company on mission to democratise enterprise IoT. The Wirepas Massive self-healing network optimises itself by local decision-making to reach unlimited scalability, coverage and density while using the available radio spectrum as efficiently as possible.

## ORDERING EXAMPLE

**DLK3 - 60 - CWTAMB - BW3 - MP**

PRODUCT TYPE COLOUR TEMP OPTICS SUPPLY OPTION

PRODUCT	TYPE	COLOUR TEMP	OPTICS	SUPPLY OPTION	EMERGENCY OUTPUT
DLK3	60 60W	CWTAMB Cool White and Amber	BW3 BW3 Optics	MP Mains Powered	MAX
TNR3		NWTAMB Neutral White and Amber			