

COOLON

DLK3 / TNR3

60W LED Conveyor/Area Light

BRILLIANT • CONNECTED

This isn't just about lighting

DLK3 / TNR3 is a robust, reliable, highest quality fitting, forged from over 30 years of expertise in electrical engineering and mining. Built to endure, designed to perform and offers so much more.

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

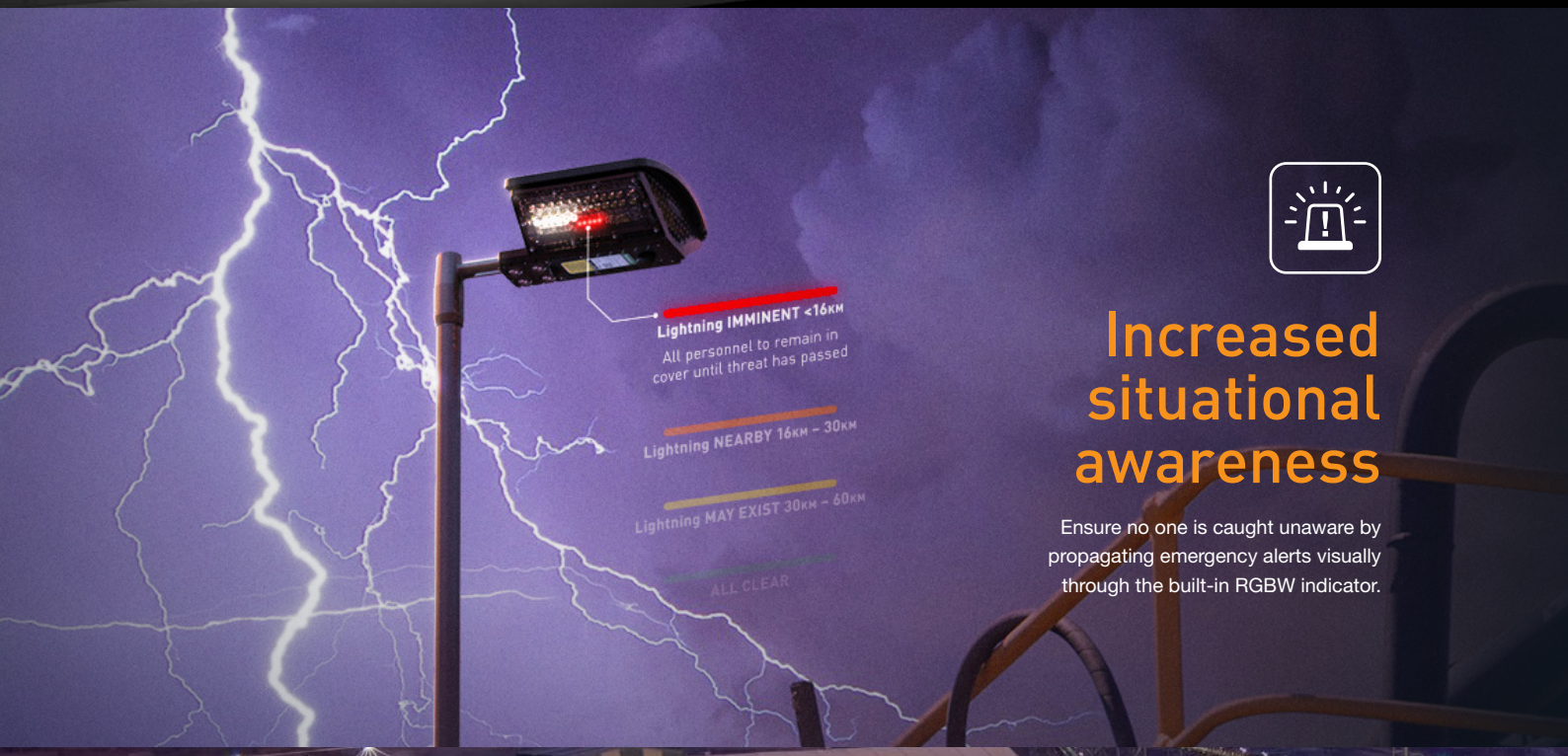
DESIGNED & MANUFACTURED IN AUSTRALIA

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.

Enables digitisation

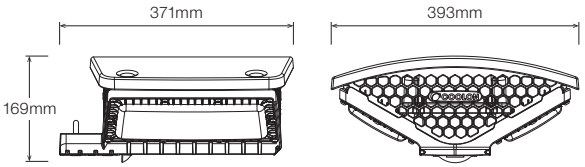
Lights automatically mesh together forming a site-wide wireless network enabling the effortless deployment of a wide range of IoT based sensors and services from compatible third-party providers:

- Asset Tracking
- Personnel Locating
- Machine Condition Monitoring

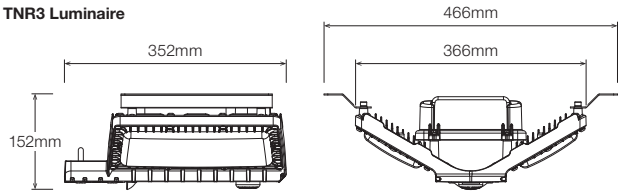
... and many more!

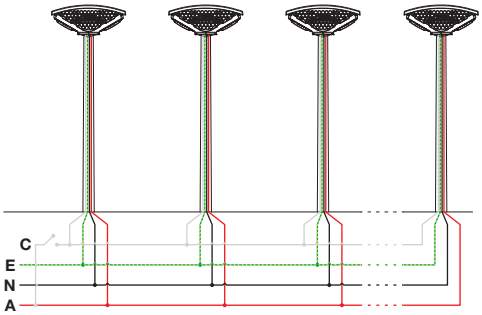
DIMENSIONS / WIRING CONFIGURATION

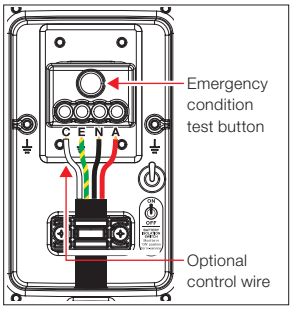
DLK3 Luminaire



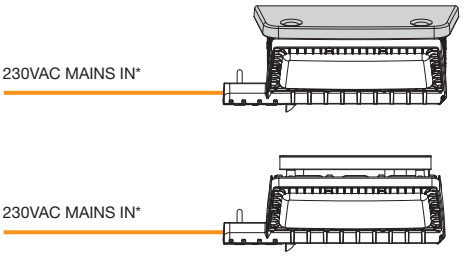
TNR3 Luminaire







MP Mains Powered
* Cable not included



TECHNICAL SPECIFICATIONS

Product	DLK3 / TNR3 LED Conveyor / Area Light	
Mode	Mains Powered (MP)	Emergency (EM)

Optical Characteristics [1]		
Luminous Flux (Photometered)	6,550 lm / 4,800 lm	1,297 lm [2]
CCT [3]	CWT & AMB / NWT & AMB	CWT / NWT
CRI	CWT / NWT 70 & AMB 57	

Electrical Characteristics [1]	
Power Consumption	45W nominal, 60W max
Nominal Voltage	230VAC
Rated Voltage	200 – 240VAC, 190 – 250VDC
Voltage Range [4]	176 – 305VAC, 190 – 250VDC
Frequency Range	50 / 60Hz
Power Factor	>0.95 typical @ 230VAC
Charge Time	≤16 hours
Battery Type	$LiFePO_4$
Battery Lifetime	2,000 cycles to 70% SOC
EM Discharge Time	120 minutes initial / 90 minutes in service

Inrush and Leakage Currents [5] [6]	
Peak Inrush Current (A) @230V	12
Duration - twitdth (ms)	0.04
I^2t (A^2S)	0.01
Leakage Current (mA)	<0.75mA @ 230V / 60Hz

Maximum number of luminaires per MCB @ 230V	
B16	34
C16	40
D16	40

Lighting Control [7]	
Dimming	15 – 100%

Wireless Communication	
Protocol	Wirepas
Operating Band	2.4 GHz, 40 Channels
Typical Range [8]	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^2

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) 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

Storage	
Temperature	0 to +45°C
Shelf Life [9]	Up to 12 months @ 20±5°C

Weight/Packaging	
Luminaire Weight	7kg
Packaging Dimensions (DLK3)	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
AS/NZS 4268	Radio equipment and systems - Short range devices - Limits and methods of measurement

Warranty	
Warranty	5 years warranty as standard

[1] 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.

[2] Emergency Output of the MAX variant (DLK3-XXXXXX-BW3-MP-**MAX**).

[3] Wirelessly selectable or event triggered.

[4] Certified voltage range : 200 – 240VAC, 190 – 250VDC @ 50/60Hz.

[5] Note: At 230VAC input, 25°C cold start, 10%Ipk-10%Ipk.

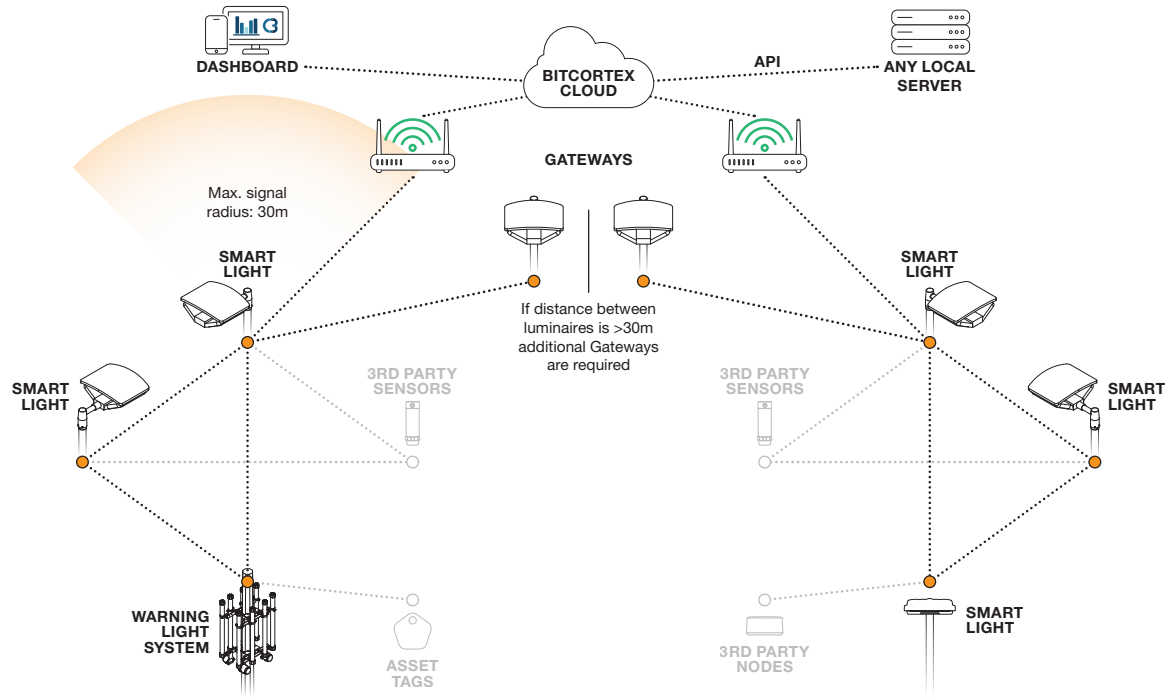
[6] Number of Luminaires is subject to relative MCB properties, assuming a 30mA leakage current limit and MCB steady state current load not exceeding 60%, 70% and 80% for the B, C, D type MCB respectfully.

[7] Lighting Control via BitCortex. Additional specification data will be available at a later date.

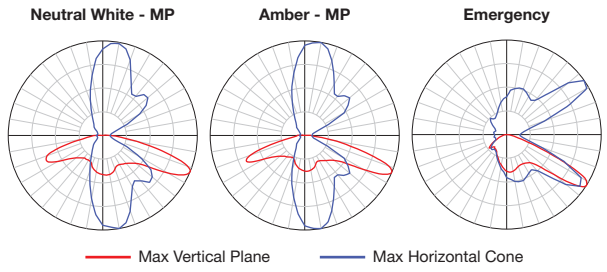
[8] Wireless range might significantly vary depending on the type of antennas used, elevation above the ground, presence of metal obstacles and environmental conditions. Wireless coverage could be optimised with increased amount of devices forming mesh network.

[9] 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.

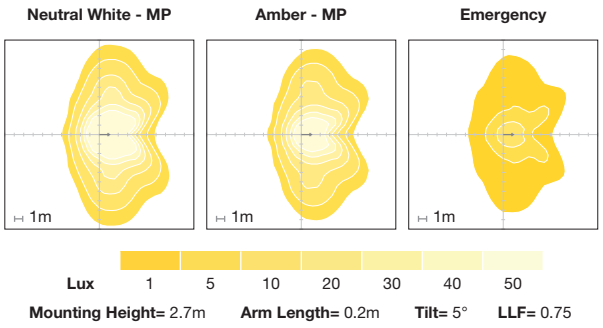
MESH NETWORK

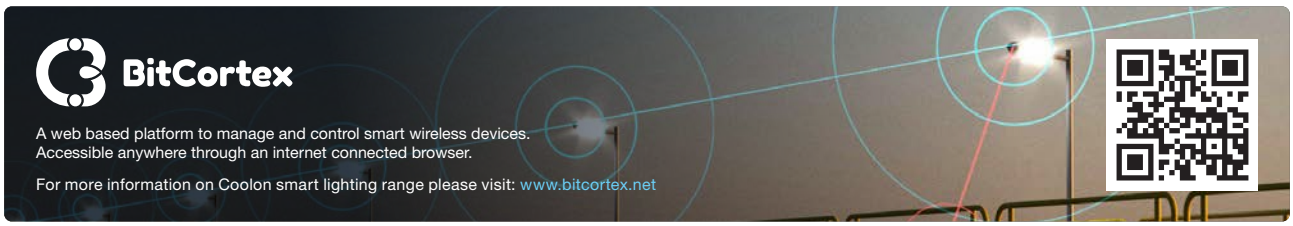


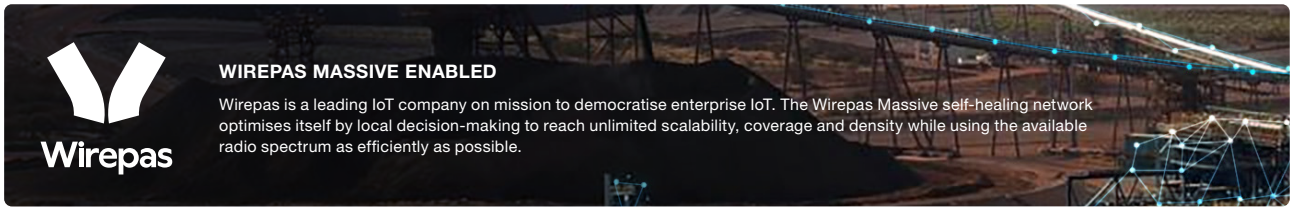
POLAR DISTRIBUTION



ISOLUX PLOTS







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					