



 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

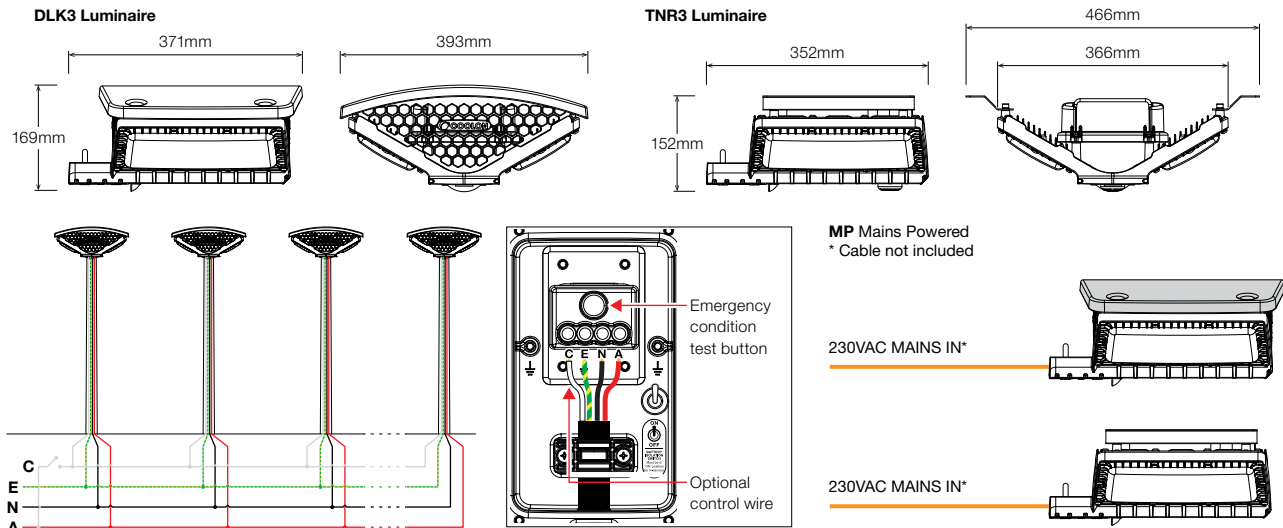
Enables digitisation



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 ¹

| | | |
|-------------------------------------|-----------------------|---|
| Luminous Flux (Photometered) | 6,550 lm & 4,800 lm | 834 lm 1,297 lm (MAX Variant) ² |
| CCT ³ | CWT & AMB / NWT & AMB | CWT / NWT |
| CRI | CWT / NWT 70 & AMB 57 | |

Electrical Characteristics ¹

| | | |
|-----------------------------------|---|--|
| Power Consumption | 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 | |
| Leakage Current | <0.70mA typical @ 277VAC | |
| 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 | |

Lighting Control ⁵

| | |
|----------------|-----------|
| Dimming | 10 – 100% |
|----------------|-----------|

Wireless Communication

| | |
|-----------------------------------|------------------------------------|
| Protocol | Wirepas |
| Operating Band | 2.4 GHz, 40 Channels |
| Typical Range ⁶ | 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 ⁷ | 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.

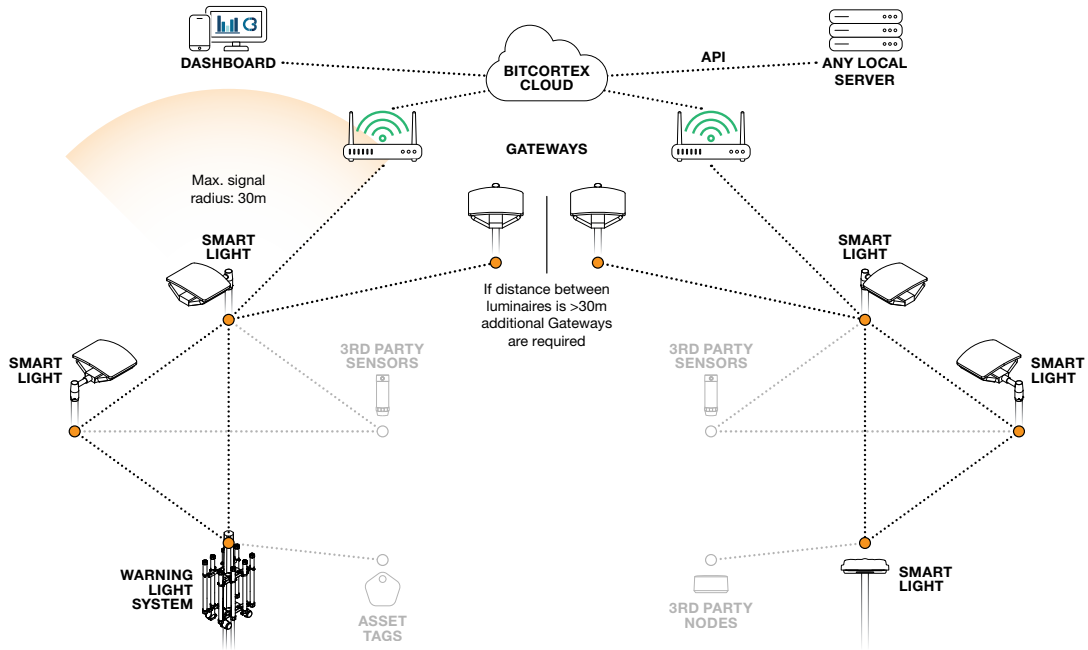
⁴ Certified voltage range : 200 – 240VAC, 190 – 250VDC @ 50/60Hz.

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

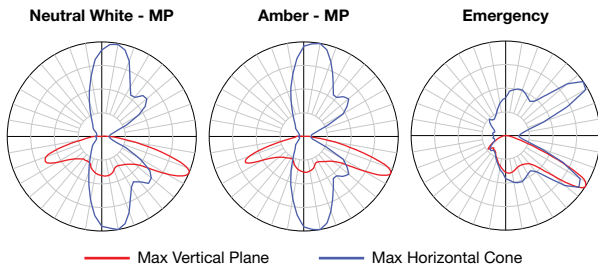
⁶ Wireless range might significantly vary depending on the type of antennas used, elevation above the ground, presence of metal obstacles and environmental conditions. Wireless coverage could be optimised with increased amount of devices forming mesh network.

⁷ 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.

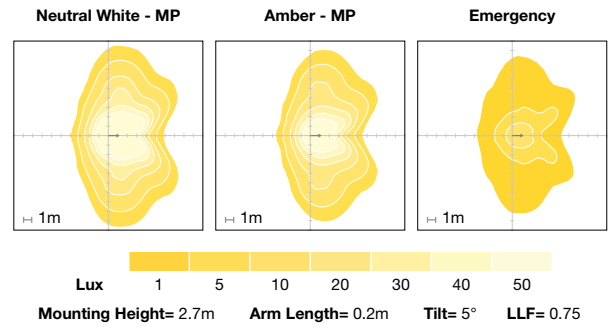
MESH NETWORK



POLAR DISTRIBUTION



ISOLUX PLOTS



A web based platform to manage and control smart wireless devices. Accessible anywhere through an internet connected browser.

For more information on Coolon smart lighting range please visit: 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 | | | |