



 **COOLON**

# EMBH3

40W Bulkhead Light

BRILLIANT • CONNECTED

Versatile. High-performing. Smart.

Our classic Bulkhead is now fitted with BitCortex wireless networking nodes, combining the original high performance and versatility with cutting-edge technologies and digitisation capabilities.

#### Designed for use in:

- Exit Routes
- Platforms
- Walkways
- Stairwells
- Substation
- Tunnels
- Conveyors

 **Wirepas**



 **DESIGNED & MANUFACTURED IN AUSTRALIA**



# Optimal for wildlife & humans

EMBH3 can be switched between wildlife friendly Amber and White for maximum alertness.



## TURTLE FRIENDLY

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 the EMBH3 to have the ability to switch in 591nm (nanometres) Amber that is in the region of their lowest visual sensitivity.



## Better over time

Over-the-air updates add functionality, enhancing the utility of lighting and the network. The only light that gets better over time.

## Enables digitisation

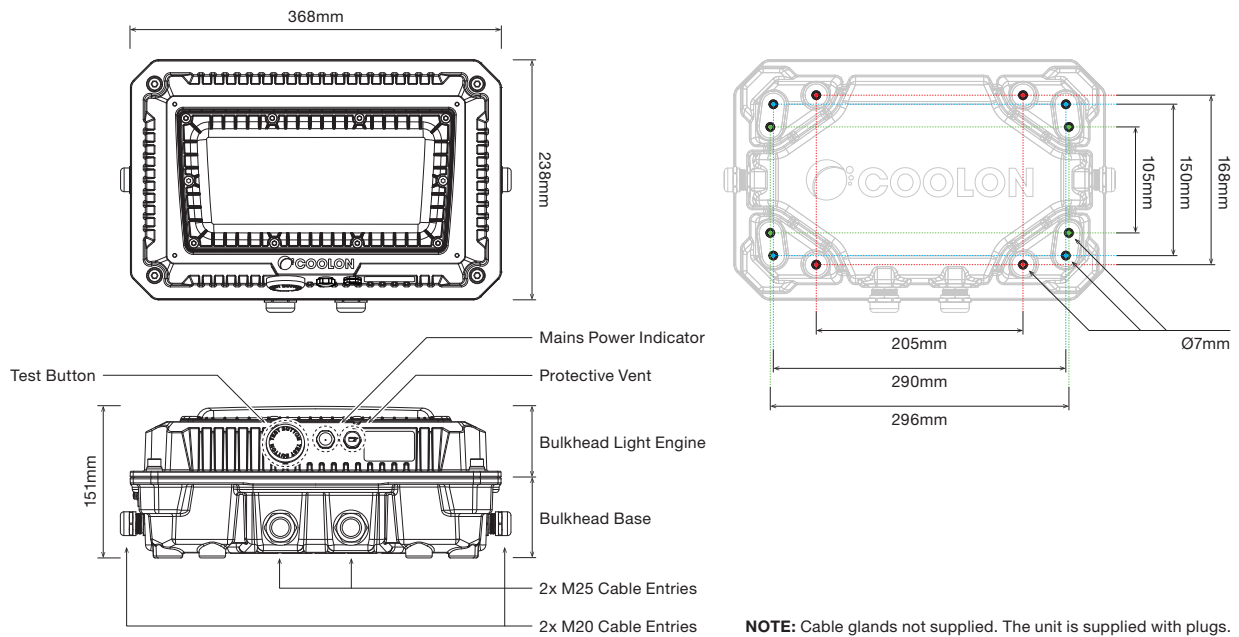


Lights automatically mesh together forming a site-wide wireless network enabling the effortless deployment of a wide range of IoT based sensors and services from compatible third-party providers:

- Asset Tracking
- Personnel Location Tracking
- ... and many more!



## DIMENSIONS



## TECHNICAL SPECIFICATIONS

<b>Product</b>	Emergency Bulkhead 3 Smart Industrial LED EMBH3	
<b>Mode</b>	Mains Powered (MP)	Emergency (EM)

### Optical Characteristics <sup>1</sup>

Luminous Flux (Photometered)	4,291 – 4,617 lm (CWT / NWT) 3,219 – 3,545 lm (AMB)	1,541 lm
CCT <sup>5</sup>	CWT & AMB / NWT & AMB	CWT
CRI	>72 (CWT / NWT) >58 (AMB)	>70

### Electrical Characteristics <sup>1</sup>

Power Consumption (Typical)	34.5W (Typ) @ 220-240VAC, 50-60Hz, full load
Power Consumption (Charging)	40.0W (Typ) @ 220-240VAC, 50-60Hz, full load
Nominal Voltage	230VAC
Voltage Range <sup>6</sup>	176 – 305VAC, 190 – 250VDC
Frequency Range	50 / 60Hz
Power Factor	>0.90 @ 220-240VAC, 50-60Hz, 60%-100% load
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

### Inrush and Leakage Currents <sup>1 3 4</sup>

Peak Inrush Current (A) @230V	3.9
Duration - twidth (ms)	0.18
I <sup>2</sup> t (A <sup>2</sup> S)	0.01
Leakage Current (mA)	0.70mA IEC60598-1; 240VAC / 60Hz

### Maximum number of luminaires per RCBO @ 230V

B16	40
C16	40
D16	40

<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> Certified voltage range : 100 – 240VAC @ 50/60Hz.

<sup>3</sup> Note: At 230VAC input, 25°C cold start, 10%lpk-10%lpk.

<sup>4</sup> Number of Luminaires is subject to relative RCBO properties, assuming a 30mA leakage current limit and RCBO steady state current load not exceeding 60%, 70% and 80% for the B, C, D type RCBO respectively.

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

<sup>6</sup> Certified voltage range : 200 – 240VAC, 190 – 250VDC @ 50/60Hz.

<sup>7</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>8</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.

### Lighting Control <sup>5</sup>

Dimming	15 – 100%
Lighting Control	CWT / NWT or AMB

### Wireless Communication

Protocol	Wirepas
Operating Band	2.4 GHz, 40 Channels
Typical Range <sup>7</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

### 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 <sup>8</sup>	50,000 Hours to 70% Brightness
Material Composition (Body)	ADC12 Aluminium Alloy Polyester Powder Coated
Material Composition (Cover)	Polycarbonate
Cable Ø Entry Range	M20 10 – 13mm, M25 13 – 15.5mm

### Storage

Temperature	0 to +45°C
Shelf Life <sup>8</sup>	Up to 12 months @ 20±5°C

### Weight/Packaging

Luminaire Weight	6.6kg
Packaging Dimensions	380 x 250 x 210mm
Packaged Weight	7.3kg

### Compliance (Safety Standards)

AS/NZS 60598.1	Luminaires - General Requirements and Tests
AS/NZS 2293	Emergency lighting and exit signs for buildings
AS/NZS 60598.2.3	Luminaires - Particular requirements - For road and street lighting

### 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
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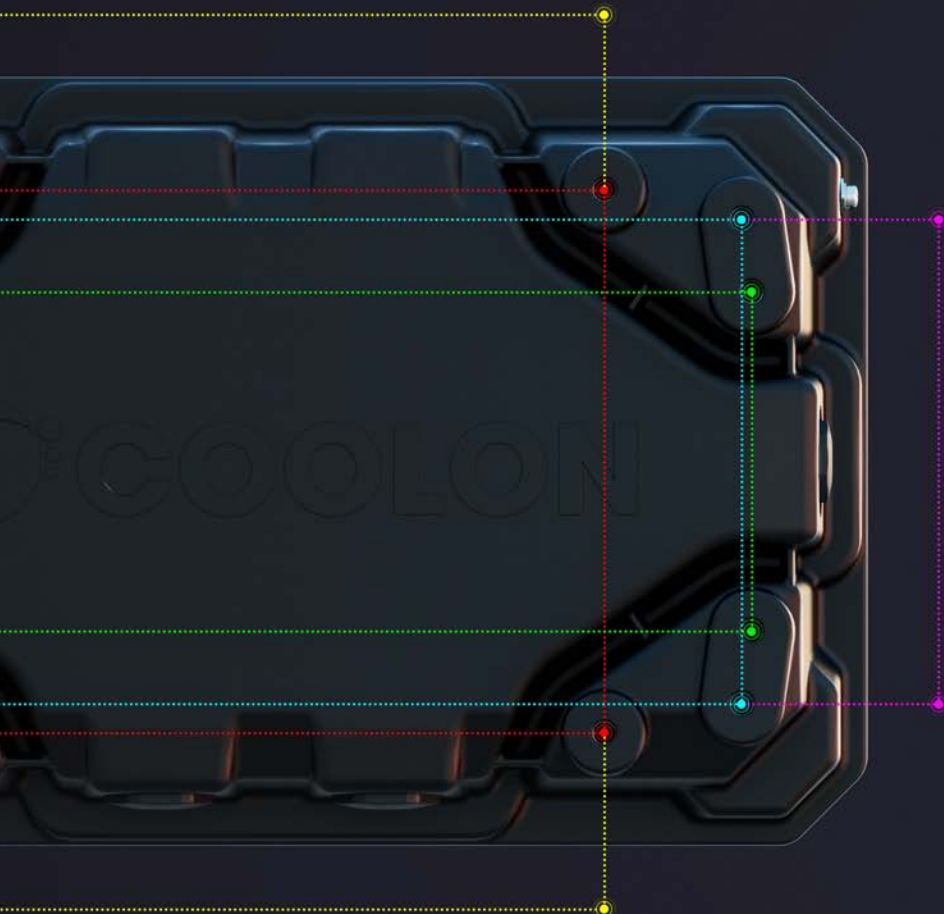




## Designed with the installer in mind

Multiple entry points, easily-accessible terminal block, and removable body. All these aspects make installation a breeze.

"Straight off, straight on!"



## Universal mount design

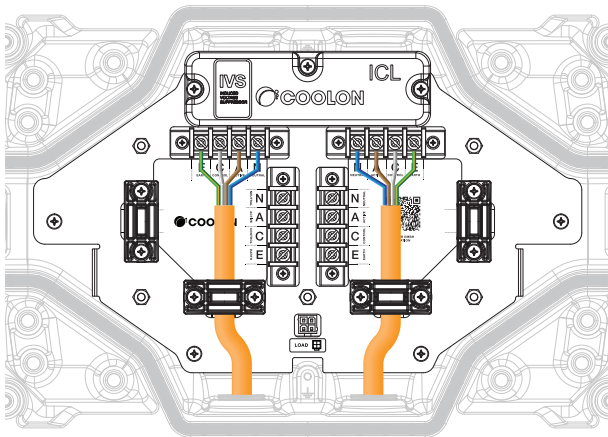
Designed with a universal mount to retrofit the hole patterns of most common bulkhead lights on the market, the EMBH3 is an easy and quick to install.

## WIRING CONFIGURATION

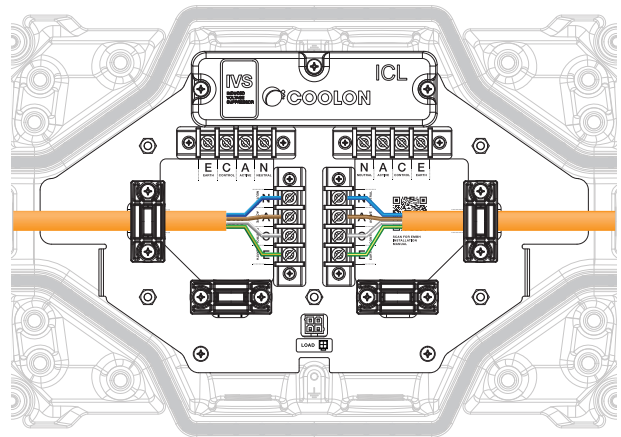
### EMBH3 - MP

230VAC MAINS IN (Cable not included)

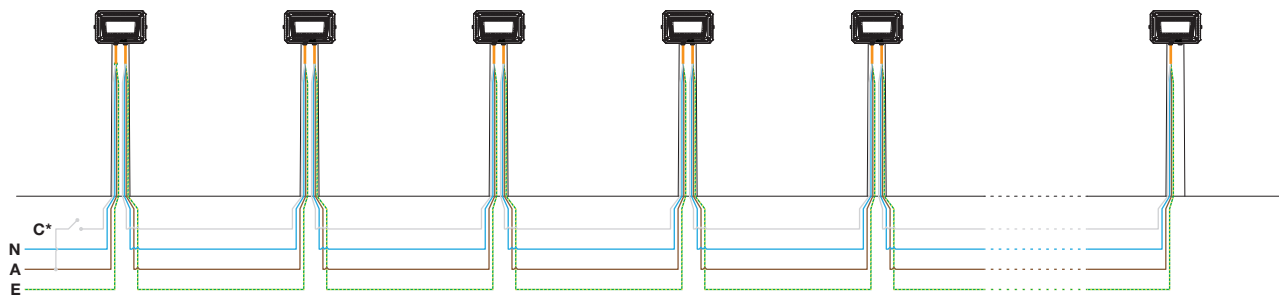
#### VERTICAL FEED



#### HORIZONTAL FEED

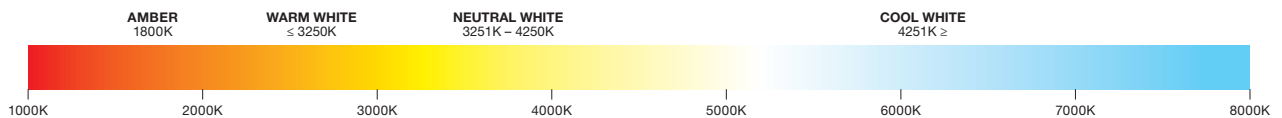


N Neutral    A Active (Constant Active)    C Control    E Earth



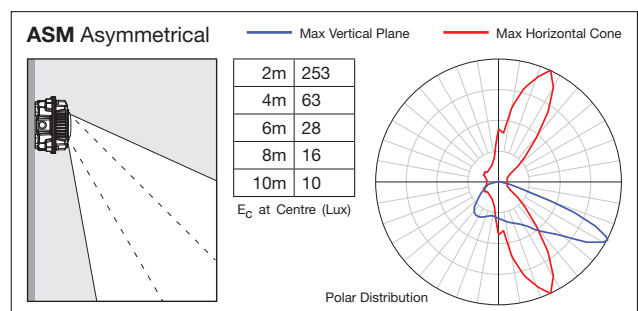
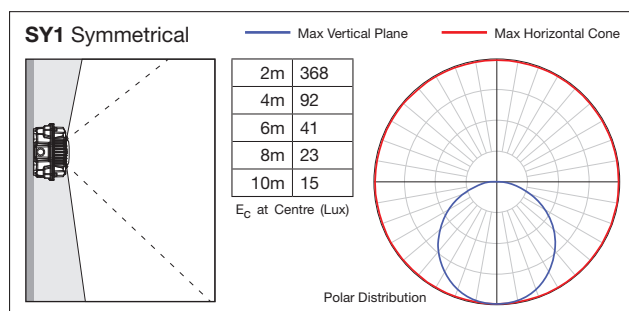
\* Optional Control Wire - luminaire can be digitally switched via BitCortex

## COLOUR TEMPERATURES

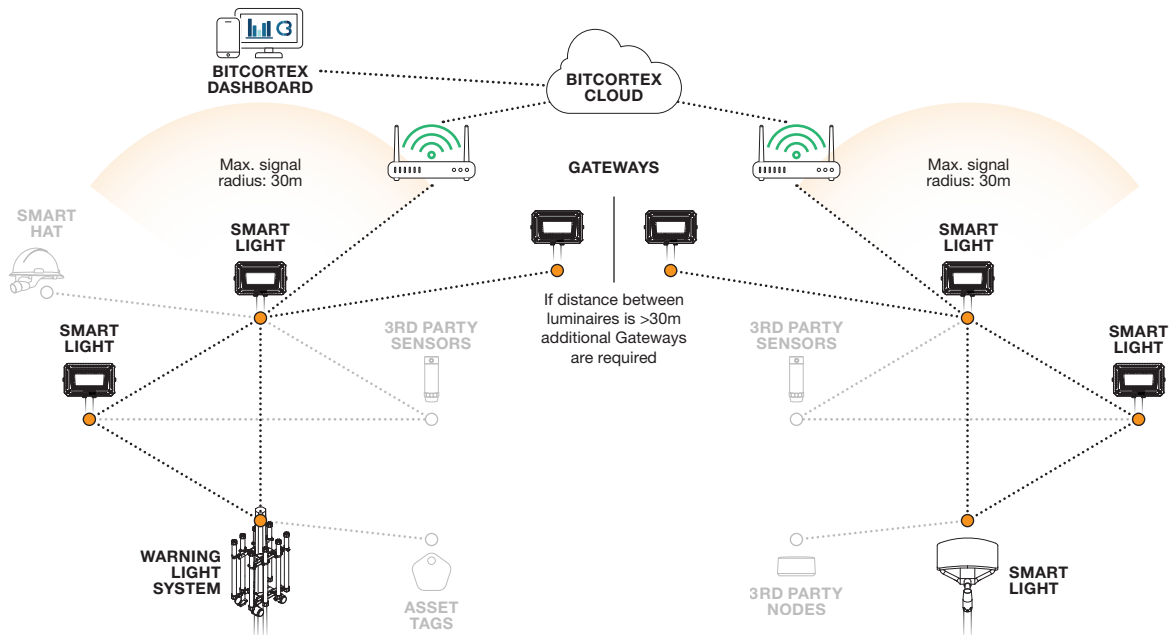


All colour temperatures are indicative. Some variation can occur.

## POLAR DISTRIBUTION



## MESH NETWORK



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: [coolon.com.au/industrial-led-lighting/smart-lighting](http://coolon.com.au/industrial-led-lighting/smart-lighting)



### 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.

## OPTIONAL ACCESSORIES

Optional accessories available separately. Refer to industrial accessories page:  
[coolon.com.au/industrial-led-lighting/accessories](http://coolon.com.au/industrial-led-lighting/accessories) or follow the links below to download now.



**Bulkhead Pole Mounting Bracket**  
[coolon.com.au/dl/ind-acc-pmb-bh](http://coolon.com.au/dl/ind-acc-pmb-bh)



**Versalux EBH Adapter Plate**  
[coolon.com.au/dl/ind-acc-ap-vebh](http://coolon.com.au/dl/ind-acc-ap-vebh)



**Bulkhead Handrail Mount**  
[coolon.com.au/dl/ind-acc-hmb-bh](http://coolon.com.au/dl/ind-acc-hmb-bh)



**Stainless Steel Wire Mesh Guard**  
[coolon.com.au/dl/ind-acc-bh-wmg](http://coolon.com.au/dl/ind-acc-bh-wmg)



**Stainless Steel Light Shield**  
[coolon.com.au/dl/ind-acc-bh-shield](http://coolon.com.au/dl/ind-acc-bh-shield)



**Bulkhead Adjustable Bracket**  
[coolon.com.au/dl/ind-acc-bhab](http://coolon.com.au/dl/ind-acc-bhab)

## ORDERING EXAMPLE

**EMB3 - NWTAMB - SY1 - MP**

PRODUCT

COLOUR TEMP

OPTICS

SUPPLY OPTION

PRODUCT	COLOUR TEMP	OPTICS	SUPPLY OPTION
EMB3 Emergency Bulkhead 3	CWTAMB Cool White / Amber	SY1 Symmetrical / Frosted Diffuser	MP Mains Powered
	NWTAMB Neutral White / Amber	ASM Asymmetrical	