

140W LED. Replacement for  
Watchman HID up to 400W.



 COOLON

# WARDEN LED

140W LED Flood Light

Robust and efficient flood light designed for retrofit applications

The Warden LED was designed and developed to replace existing halogen/xenon work lights fitted on mining and industrial equipment. The high power LED luminaire provides superior luminous output in a compact size enclosure.

Every component of the Warden LED luminaire has been carefully engineered to provide the most reliable performance and bring across many benefits of utilizing solid state lighting technology in industrial applications.

#### Designed for use in:

- Area Lighting
- Flood Light
- Retrofit for Watchman Light
- Security Lighting
- Workshop Lighting



DESIGNED &  
MANUFACTURED  
IN AUSTRALIA

## Multi-purpose Floodlight for the Harshest Environments

The Warden 140 has been designed to replace traditional Watchman's found in various industrial applications. Warden 140 is a reliable product suited for use in areas where lamp replacement is near impossible or where harsh conditions shorten the life of your traditional HID lamps.

## Built to Last

Unlike conventional LED floodlights, the Warden LED was designed to withstand constant abuse.

- Resistant to Vibration
- Impact/Shock Proof
- Chemical Resistant
- High Pressure Washable
- Unaffected by Severe Temperature Variations



### 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.



### 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.



### 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.

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.



### UNRESTRICTED BURNING POSITION

Coolon's LED luminaires can be positioned and oriented in any desired way without affecting the lifespan of the product. This gives greater flexibility when it comes to aiming angles and orientation.



### EXTRA LOW VOLTAGE OPERATION

Our products operate on extra low voltage DC power. It is substantially safer to work with than conventional mains powered light sources.

3  
YEARS

### 3 YEARS FACTORY WARRANTY

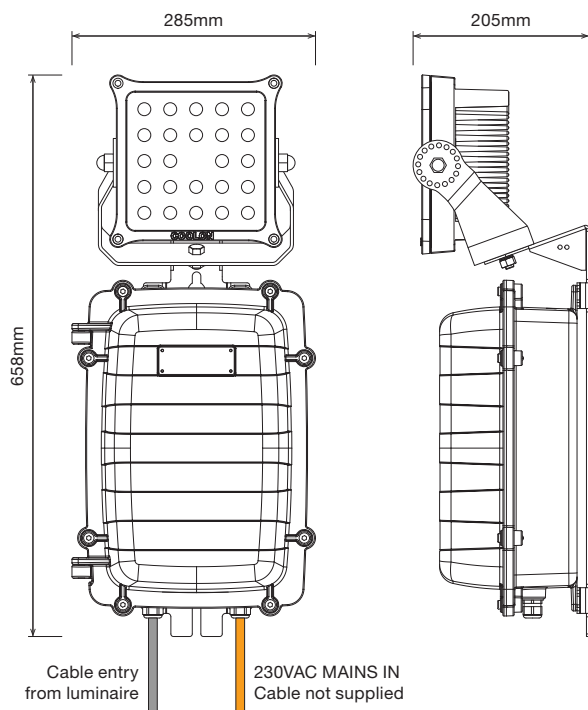
Coolon Luminaires are covered by a solid comprehensible manufacturer's warranty that covers a range of possible defects and performance parameters throughout the duration of the warranty period.



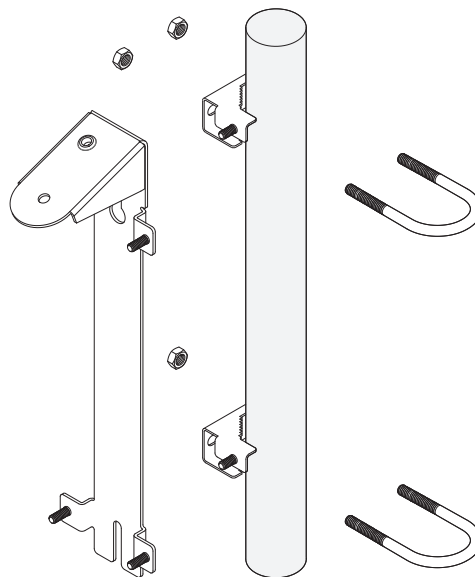
### PROUDLY MADE IN AUSTRALIA

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.

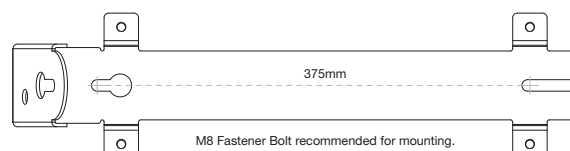
## DIMENSIONS



## EASY POLE INSTALLATION (USING U-BOLT MOUNTING KIT<sup>3</sup>)



## MOUNTING BRACKET (INCLUDED)



## TECHNICAL SPECIFICATIONS

<b>Make/Model</b>	WARDEN LED Flood Light
<b>Model</b>	WDN-140
<b>Optical Characteristics</b>	
Luminous Flux (Photometered)	12,931 – 18,053 lm
CCT	CWT / WWT
CRI	> 70
<b>Electrical Characteristics (Luminaire &amp; Power Supply)</b>	
Model Part Number	PWR-CLN-150-42-036AL
Power Consumption	~139.5W @ 230VAC 145W Start Up
Nominal Voltage	230VAC
Voltage Range	100 – 277VAC / 127 – 350VDC
Frequency Range	47 – 63Hz
Power Factor	>0.95 / 230VAC
AC Current	~1.36A / 115VAC ~0.70A / 230VAC ~0.60A / 277VAC
Withstand Voltage	I/P-O/P:3.75KVAC I/P-FG:2KVAC O/P-FG: 1.5KVAC
Isolation Resistance	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH
Cable Gland Diameter	M20
Cable Gland Opening	7 – 13mm

### Inrush and Leakage Currents <sup>2 4 5</sup>

Peak Inrush Current (A) @230V	45.2
Duration - twitdth (ms)	1.8
I <sup>2</sup> t (A <sup>2</sup> S)	4.14
Leakage Current (mA)	<0.75mA @ 230V / 60Hz

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

B16	1
C16	2
D16	5

### Environmental

IP Rating	IP66
Impact Rating	IK09
Expected Lifespan	50,000 Hours to 70% Brightness
Operating Temp. Range	-20 to +50°C
Material Composition (Body)	Aluminium Alloy (Anodised and E-Coated)
Material Composition (Bracket)	Stainless Steel 304
Material Composition (Optics)	PC
Material Composition (Cover)	Tempered Glass
Mounting/Bracket Type	Wall / Surface Mount

### Weight/Packaging

Unit Weight	10.5kg
Packaging Dimensions	460 x 450 x 260mm
Packaged Weight	12.4kg

### Warranty

Warranty	3 years warranty as standard 5 years extended warranty optional
----------	--

<sup>1</sup> Optical and electrical characteristics are measured using Cool White LEDs (CWT)

<sup>2</sup> 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.

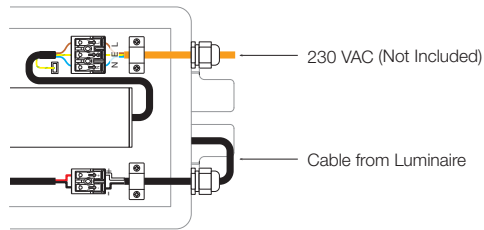
<sup>3</sup> Sold separately as an optional extra.

<sup>4</sup> Note: At 230VAC input, 25°C cold start, 10%Ipk-10%Ipk.

<sup>5</sup> 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 respectively.



## WIRING DIAGRAM

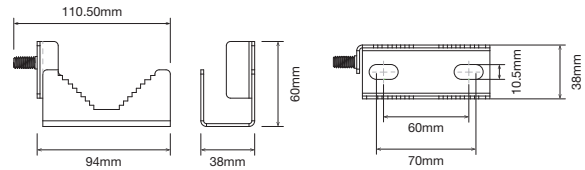


## U-BOLT MOUNTING KIT<sup>3</sup> (OPTIONAL EXTRA)

### Optional U-Bolt Pole Mounting Kit x 2

#### ACC-PMB-XXXX-BOLT-SS

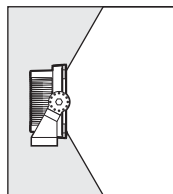
Available to fit DN40 or DN50 pipe. Please refer to industrial accessories brochure for more details. visit [coolon.com.au](http://coolon.com.au) to download



## WDN-140 ILLUMINANCE AT DISTANCE

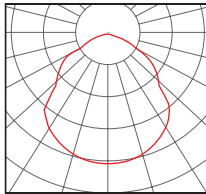
### NOP Extra Wide Optics

\*Generally used for illumination below 3m



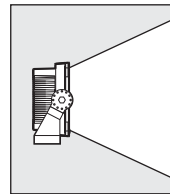
	WDN
5m	210
10m	52
15m	23
20m	13
25m	8

E<sub>c</sub> at Centre (Lux)



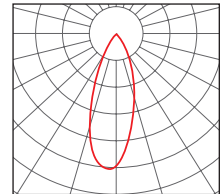
Polar Distribution

### MEDIUM Beam Optics 36°



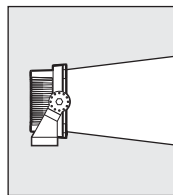
	WDN
5m	1265
10m	316
15m	141
20m	79
25m	51

E<sub>c</sub> at Centre (Lux)



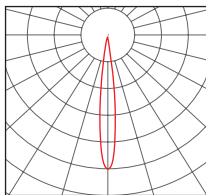
Polar Distribution

### NARROW Beam Optics 12°



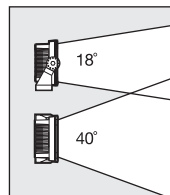
	WDN
5m	10280
10m	2570
15m	1142
20m	643
25m	411

E<sub>c</sub> at Centre (Lux)



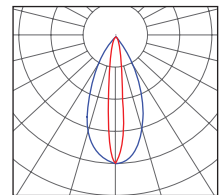
Polar Distribution

### OVAL Beam Optics 40° x 18°



	WDN
5m	1958
10m	489
15m	218
20m	122
25m	78

E<sub>c</sub> at Centre (Lux)



Polar Distribution

## ORDERING EXAMPLE

**WDN - 140 - CWT - MEDIUM - MP**

PRODUCT

TYPE

COLOUR TEMP

OPTICS

SUPPLY OPTION

PRODUCT	TYPE	COLOUR TEMP	OPTICS	SUPPLY OPTION
WDN	140	140W	NOP	MP
		CWT	Extra Wide Optics	Mains Powered
		WWT	Medium Optics	
			NARROW	Narrow Optics
			OVAL	Oval Optics