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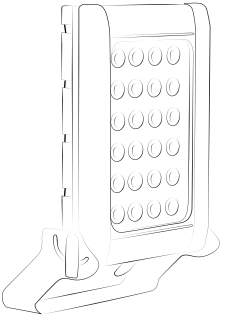
SPI WARRIOR

High Power Luminaire Range - Installation Guide

This installation guide provides instructions for installing the WARRIOR HP Highbay/ Floodlight series of industrial floodlights.

Overview



Important information

The WARRIOR HP series of industrial floodlights/highbay are for use only in industrial environments.

The units must be installed by suitably qualified personnel.

If you have any queries about the installation or the certification of the unit – please contact Raytec for immediate assistance and advice.

1050-M-00052 Rev C

1. Safety instructions

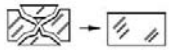
1. Read this leaflet carefully before commencing to install the WARRIOR unit and retain it for future use. Installation can only be carried out by suitably qualified personnel.
2. Check the label to ensure that the mains supply and the ambient temperature present is suitable for the unit being installed.
3. If the WARRIOR unit is to be installed in areas of high vibration, please consult with Raytec.
4. Externally the WARRIOR unit housing is constructed from marine grade aluminium, and toughened glass, stainless steel brackets/fasteners and silicone gaskets, internally there are many non metallic components. The end user must ensure that these materials are suitable for the environment the WARRIOR unit will be installed in; Zone 1 and Zone 2 Hazardous areas.
5. WARRIOR units are designed to withstand marine environments and are tested in accordance with IEC60068-2-52. However if the WARRIOR unit is to be installed in a very high corrosive environment such as coastal and offshore the following good practice should be followed:

   During installing ensure there are no scratches, chips or defects in external paint surface that would allow ingress of water to bare aluminium. If so touch up with suitable paint

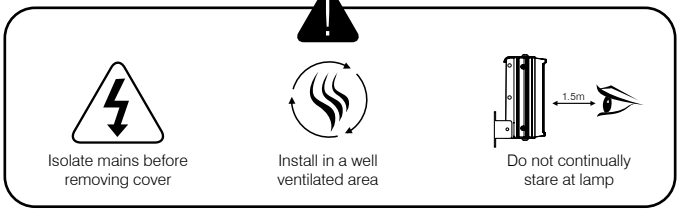
   During installation apply an anti corrosive jointing compound to screw threads such as PSU cover and external earth points.

   During installation ensure exterior surface of the product is not in direct contact with a dissimilar metal such as galvanised steel. If so fit a nylon barrier to prevent galvanic corrosion.

   During maintenance regularly wash down external surface of fitting with clean, fresh water to remove any deposits of mineral salts on the exterior surface.
6. Check label of product to ascertain type of threaded cable entry on the luminaire. Select suitable cable glands and stopper plugs, these must be parallel thread, have a minimum of 5 full thread engagement and be of a medium/fine tolerance to ISO965-1 and ISO965-3. The cable entry devices selected must maintain the IP rating of the luminaire.
7. The incoming mains cable should not exceed a temperature rise of 20°C above the ambient conditions; select suitable cable.
8. When the unit is installed correctly and in accordance with these installation instructions it will not harm humans or animals.
9. The light source contained in this luminaire shall only be replaced by the manufacturer or his service agent or a similar qualified person.



Replace any cracked protective shield
Order SPX-BKT-HPFL-RL from Raytec Ltd



Isolate mains before removing cover

Install in a well ventilated area

Do not continually stare at lamp

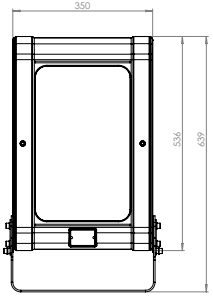
2. Installation

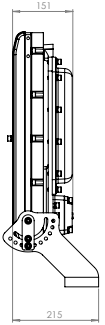
Mounting WARRIOR Unit

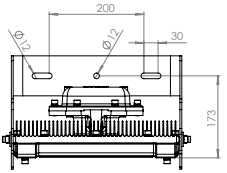
1. For good engineering practice a minimum of 2 fixing points must be used, the fixing points must be suitable for the conditions of use.

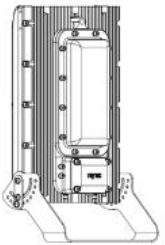
2. The line diagrams below are for guidance only - units may be mounted in any orientation.

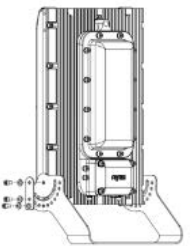
Mounting HP WARRIOR Unit – Floodlight Application











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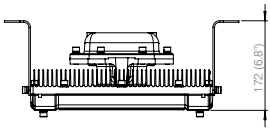
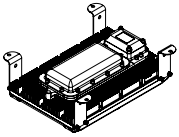
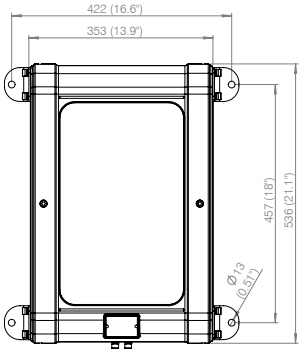
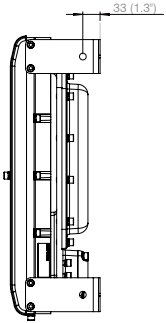
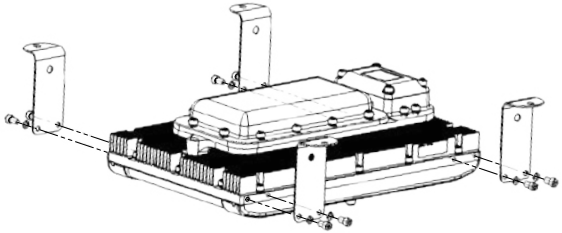
Mounting WARRIOR Unit – Highbay Application



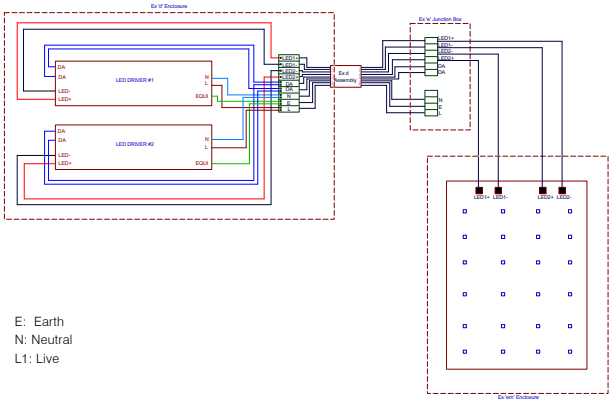








Typical wiring diagram



E: Earth
N: Neutral
L1: Live

1. Wire the Mains cable into the terminal block. Provision has been made for this and identified as the E (Earth), L (Live), Ls (Live switched) and N (Neutral) terminals. There are two pairs of contacts for each of these to facilitate a mains cable that can be looped in and out of the unit. The Ls terminals on a standard unit are not electrically connected but allows them to be used on the same circuits as *emergency floodlights*.

2. Installer should earth the unit separately – an internal and external earth point are provided as standard.

3. Connect wires to mains supply.

4. If the unit is opened for any reason, disconnect mains.

5. All WARRIOR floodlights/highbay have terminal blocks suitable for looping 4mm2 cable, only one cable should be connected to each terminal block connection.

6. To use DALI/Dimming interface, connect the DALI terminals on the terminal block ensuring the correct polarity of DA+ and DA-.

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3. Maintenance

1. It is essential that all WARRIOR units are maintained in accordance with national standards.

2. **IMPORTANT**. No modifications are permitted to the unit, all spare parts must be purchased from the manufacturer, unauthorized modifications or spare parts will make the equipment dangerous.

3. Isolate the WARRIOR unit from the mains supply and allow to cool before carrying out any maintenance work.

4. The unit has 2 independent power supplies; in the event that a power supply needs to be replaced remove the cover to get access to the power supply. Remove the power supply from the mains terminals then remove LED red and black wires.

5. Disposal of packaging, WARRIOR units and old LED assemblies/power supplies should be carried out in accordance with national regulations.

4. Technical Specification

	120W version	300W version
Input Voltage	150-264V AC/DC or 110-264V AC/DC see certification nameplate on product	
Input Current (230Vac, full load)	0.52A	1.4A
Consumption	120W	300W
Power Factor (230Vac, full load)	>0.97	
Mains Frequency	50/60Hz	
Inrush Current (I_{peak} @50%)	53A, $\Delta t < 300\mu s$	60A, $\Delta t < 300\mu s$
Total Harmonic Distortion (230Vac, full load)	≤3%	
IP Rating	IP66	
Weight (std)	22Kg	23Kg
Dimensions	See previous pages for line diagrams	

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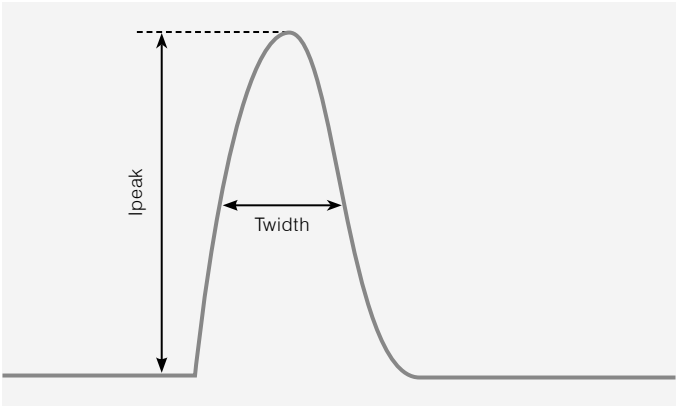
Inrush Current Typical Curve



		Max number of fittings allowed per MCB			
MCB Type	Rating	SPZ/SPX-HP10K (120W Version)	SPZ/SPX-HP15K (180W Version)	SPZ/SPX-HP20K (240W Version)	SPZ/SPX-HP25K (300W Version)
B	10A	4	3	2	1
B	16A	10	6	4	3
B	20A	12	7	5	4
B	25A	15	10	7	6
C	10A	8	5	4	3
C	16A	16	8	6	5
C	20A	20	10	8	6
C	25A	26	16	13	9

4.1 DALI Wiring Instructions

Table below shows the maximum cable length L between two units. Cable lengths of more than 300m are not recommended. The maximum allowed voltage drop on DALI bus system is 2,0V.

Cross section in mm²	Maximum cable length L in m		
	25°C	50°C	75°C
0.14	31	28	26
0.50	112	102	93
0.75	168	153	140
1.00	224	204	187
1.50	300	300	281
2.00	300	300	300
2.50	300	300	300

*IP66 150-264V AC/DC

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5. Troubleshooting

1. Ensure the two LED boards are correctly wired to terminal block. Red to Red : Black to Black – paired cables

2. Ensure Mains input is correctly connected.

3. Ensure Mains Input is turned on at the source.

4. If LED panel fails to light is it possible to identify if problem is with LED panel or power supply by swapping LED cables to opposite power supply to help identify problem.

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