

Ta=-40°C to +70°C

11 Description

The Spartan High Power Flood / Bay is a hazardous area luminaire. It is rated at a voltage of 110 – 277V or 110 – 254V model dependent. Optionally these models may be operated in a dim mode with a reduced or low power.

It briefly comprises a rectangular aluminium enclosure with a bolted cover. The cover houses a toughened glass window. The front of the enclosure has a separate cover fixed with 4 M6 bolts which houses increased safety terminals. The rear of the enclosure has two separate covers each fixed with 4 M6 bolts; this house encapsulated drivers. All covers are sealed with silicone gaskets.

Beneath the glass window are 4 encapsulated light engines, each light engine consisting of 96 LEDs arranged in groups of 16. Each group of 16 LEDs are covered by a polycarbonate cover secured to the PCB with silicone adhesive. The light engine PCB is supplied in 4 strings of 24LEDs.

Each luminaire is supplied by encapsulated drivers, they are encapsulated into the rear of the luminaire via 2 driver housings. Optionally the drivers may be mounted remotely via a separate aluminium enclosure. There are 4 different driver models permitted (Universal, Dali, Extended and MP). Each luminaire is supplied by either 2 drivers (MP) or 4 drivers, 2 in each enclosure (Universal, Dali, Extended).

Connection to the luminaire is made via separately certified increased safety terminals, housed within the terminal enclosure at the front of the luminaire. Entry into the terminal enclosure is made via separately certified cable glands.

The luminaire is offered as High Power Flood (HPFL) and High Power Bay (HPBY). The difference in models being the mounting bracket it is supplied with.

Equipment	Type	Model	Light type	Optical Beam Angle	Optional	
					Dali PSU	Remote Mount of PSU
SPX	HPFL	300 (Full Power)	W * More options available	AAA	-DA	-RM
		200 (Reduced Power)				
	HPBY	100 (Low Power)				

12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	06 Aug 2026	R18810A/00	Issue of Prime Certification

Note: Drawings that describe the equipment or component are listed in the Annex.

13 Conditions of Manufacture

The following conditions are required of the manufacturing process for compliance with the certification.

- i. Where the product incorporates certified parts or safety critical components, the manufacturer of the product defined on this certificate shall continually monitor these parts/components for any modifications introduced by the manufacturer(s) of these constituent parts. If the manufacturer of any constituent part introduces any changes which affect the compliance of the certified product that is the subject of this certificate, the manufacturer is required to have this certificate updated.
- ii. The equipment shall be subject to a dielectric strength test in accordance with EN IEC 60079-7 clause 7.1 and EN IEC 60079-18 clause 9.2 at a test voltage of 1,554 V ac for a minimum of 1 second or 2,100 V DC (Ex m) or 2176 V DC (Ex e) for 1 second.
- iii. The driver and encapsulated LED assembly shall each be visually inspected. No damage shall be evident, such as cracks in the compound, exposure of encapsulated parts, flaking, inadmissible shrinkage, swelling, decomposition, failure of adhesion, or softening.
- iv. All unused terminals must be tightened.

14 Specific Conditions of Use (Special Conditions)

None.

Certificate Annex

Certificate Number CML 25ATEX3449
Equipment Spartan High Power Flood / Bay
Manufacturer Raytec Limited



The following documents describe the equipment or component defined in this certificate:

Issue 0

Drawing No	Sheets	Rev	Approved date	Title
1050-SD-00007	1 to 3	A	06 Aug 2026	Spartan High Power Flood Gen 2
1250-SD-0002	1 to 3	A	06 Aug 2026	PCB Schematic Spartan MPFL Power Supply
	1 to 1	A	06 Aug 2026	
1250-SD-0003	1 to 5	A	06 Aug 2026	FMEA - Spartan MPFL Power Supply
1250-SD-0004	1 to 1	A	06 Aug 2026	Parts List Spartan MPFL Power Supply
1250-SD-0005	1 to 1	A	06 Aug 2026	Thermal fuse positions
SB SD 4 C 145 75 0 R00	1 to 10	0	06 Aug 2026	Safety assessment for LED ECG 4 C 145 75 0
70.03	1 to 7	0	06 Aug 2026	Test Report, Part List No. 4 C 145 75 0, LED Control Gear 7000mA 45 W, 110-254 V
4C 145 75 0 R00	1 to 2	0	06 Aug 2026	LED Control Gear 7000mA 45 W, 110-254 V Bill of Materials
4 S 002 88 0	1 to 3	0	06 Aug 2026	SMD LED Control Gear 700 mA, 45 W, 110-245 V, Bill of Materials
5 a 003 44 1	1 of 1	0	06 Aug 2026	Leitung, Z-Nr.: 7 E 00 187 01 0 Bill of Materials
5 a 003 44 2	1 of 1	0	06 Aug 2026	Leitung, Z-Nr.: 7 E 00 187 01 0 Bill of Materials
5 a 003 44 3	1 of 1	0	06 Aug 2026	Leitung, Z-Nr.: 7 E 00 187 01 0 Bill of Materials
5 a 003 44 4	1 of 1	0	06 Aug 2026	Leitung, Z-Nr.: 7 E 00 187 01 0 Bill of Materials
5 a 003 44 5	1 of 1	0	06 Aug 2026	Leitung, Z-Nr.: 7 E 00 187 01 0 Bill of Materials
1G22020	1 to 3	G	06 Aug 2026	EFD25/16/9 X'Fmer Product Specifications
LED ECG 4 C 145 75 6	1 to 12	E01.6	06 Aug 2026	Safety assessment for LED ECG 4 C 145 75 6
BOM 4C 145 75 6	1 of 1	0	06 Aug 2026	LED Control Gear 7000mA 45 W, 110-277 V DALI Bill of Materials
BOM 4B 145 75 6	1 of 1	0	06 Aug 2026	LED Control Gear 7000mA 45 W, 110-277 V DALI Bill of Materials

Certificate Annex

Certificate Number CML 25ATEX3449
Equipment Spartan High Power Flood / Bay
Manufacturer Raytec Limited



Drawing No	Sheets	Rev	Approved date	Title
4 S 003 53 0	1 to 3 of 4	0	06 Aug 2026	SMD LED Control Gear 700 mA, 45 W, 110-277 V DALI Bill of Materials
LED ECG 4 C 145 75 1	1 to 11	E01.4	06 Aug 2026	Safety assessment for LED ECG 4 C 145 75 1
4C 145 75 1	1 to 2	E01.4	06 Aug 2026	LED Control Gear 700 mA, 45 W, 110-277 V Bill of Materials
4 S 002 88 1	1 to 3	E01.4	06 Aug 2026	SMD LED Control Gear 700 mA, 45 W, 10- 277V Bill of Materials