Type Examination Certificate CML 21ATEX3320 Issue 4

1 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

2 Equipment **SPARTAN Mid Power Floodlight/Highbay**

3 Manufacturer **Raytec Ltd**

4 Address **Unit 15 Wansbeck Business Park,**
Rotary Parkway,
Ashington,
Northumberland, NE63 8QW,
United Kingdom

5 The equipment is specified in the description of this certificate and the documents to which it refers.

6 Eurofins CML B.V., Chamber of Commerce No 67386717, Koopvaardijweg 32, 4906CV Oosterhout, The Netherlands, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II of Directive 2014/34/EU.

The examination and test results are recorded in the confidential reports listed in Section 12.

7 If an 'X' suffix appears after the certificate number, it indicates that the equipment is subject to conditions of safe use (affecting correct installation or safe use). These are specified in Section 14.

8 This Type Examination certificate relates only to the design and construction of the specified equipment or component. Further requirements of Directive 2014/34/EU Annex VIII apply to the manufacture of the equipment or component and are separately certified.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the confidential report, has been demonstrated through compliance with the following documents:

EN IEC 60079-0:2018 EN IEC 60079-7:2015+A1:2018 EN 60079-18:2015+A1:2017

EN 60079-31:2014

10 The equipment shall be marked with the following:

Standard	**Emergency**
Ex II 3 G D	Ex II 3 G D
Ex ec mc IIC T4 Gc	Ex ec mc IIC T4 Gc
Ex tc IIIC T93°C Dc	Ex tc IIIC T93°C Dc
Ta= -40°C to +60°C	Ta= -20°C to +50°C

L A Brisk
Assistant Certification Manager

11 Description

The Spartan Mid Power Floodlight/Highbay are suitable for installation in Zone 2 and Zone 22 environments with different mounting arrangements and orientations.

The LED assembly contains up to 48 LED's, located behind a glass window. Alternatively, LED's may be mounted on two PCBs with 96 LED's (arranged in 6 x clusters of 16 LED's) that are either white, coloured or infra-red.

The main assembly consists of a single aluminium enclosure containing an encapsulated electronic power supply and suitably certified Ex Component terminals for connection of internal and field wiring using suitably certified cable glands. The window assembly consists of an aluminium casting and glass front.

The equipment will operate up to a maximum 125W over a 110 to 277V range. Various beam patterns are available, external mounting brackets will determine if it is a floodlight or Highbay luminaire.

The enclosures are also available with the following power supply:

Universal Power Supply	110V – 254V AC or DC
Extended Input Voltage Universal Power Supply	110 to 277 V AC or DC
DALI dimmable Universal Power Supply	110 to 277 V AC or DC

An intelligent emergency variant of the equipment is available. It is supplied with a rechargeable battery pack housed in a metallic enclosure mounted at the bottom of the luminaire enclosure. The battery compartment has an indication LED fitted through the enclosure wall.

Additional separately certified components:

Terminal Type	Manufacturer	Certificate No.	Temperature Range
MK6/MK3/BK	Weidmuller	TUV 18 ATEX 8209U	II 2 G Ex eb IIC Gb -60°C to +130°C
862 Series	Wago	PTB 03ATEX1189U	II 2 G Ex eb IIC Gb, Ex eb I Mb -55 °C to +105°C

Variation 1

This variation introduces the following modifications:

i. To implement changes to the electronics/wiring diagram and the addition of a corrected electronic component tolerance list.
ii. Introduction of dimensional changes to the encapsulated power supply.
iii. Introduction of an optional anti-static self-adhesive film.
iv. To implement changes to the condition of manufacture to standardise the routine dielectric strength test requirements.
v. The removal of drawing 1250-A-0003 from technical documents list
vi. To update the product description to clarify the internal connection facilities.

Variation 2
This variation introduces the following modifications:

i. Addition of intelligent emergency model.
ii. Marking and ambient is updated to include emergency model.
iii. Description updated to include emergency model.

Variation 3
This variation introduces the following modifications:

i. Introduction of an alternative light engine.
ii. To update the dust marking.

Variation 4
This variation introduces the following modifications:

i. To assess and permit an alternative non-metallic paint layer (applied externally to the equipment).
ii. To update the label details to remove the UKEX markings.
iii. To remove the reference to WAGO 262 & 264 terminal blocks
iv. To introduce additional PSU options (UNIVERSAL OUTPUT HV UNIT, DALI DIMMABLE UNIVERSAL PSU, EXTENDED INPUT VOLTAGE UNIVERSAL PSU, INTELLIGENT EMERGENCY UNITS (HV))

12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	20 Oct 2021	R13715A/00	Issue of Prime Certificate.
1	25 Feb 2022	R15020A/00	Introduction of Variation 1.
2	30 Apr 2024	R16593A/00	Introduction of Variation 2.
3	17 Oct 2024	R19036A/00	Introduction of Variation 3.
4	13 Aug 2026	R21580A/00	Introduction of Variation 4.

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 completed equipment, the LED driver and encapsulated LED assembly shall each be subjected to an electric strength test in accordance with EN/IEC 60079-7, Clause 7.1 and IEC/EN60079-18 Clause 9.2 (as applicable). The tests shall be made using a test voltage of 1554 Vac applied between the supply terminals and the surface of the encapsulant for a minimum duration of 61 seconds. Alternatively, an electric strength test at 1.2 times the test voltage for a minimum duration of 100 ms. No breakdown shall occur.

iii. The LED 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. The manufacturer shall ensure that requirements for suitable glands for use with this equipment are included in the instructions supplied with all equipment.

14 Specific Conditions of Use (Special Conditions)

None.

Certificate Annex

Certificate Number	CML 21ATEX3320
Equipment	SPARTAN Mid Power Floodlight/Highbay
Manufacturer	Raytec Ltd

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

Issue 0

Drawing No	Sheets	Rev	Approved Date	Title
1250-SD-0001	1 to 2	A	20 Oct 2021	Spartan Mid Power LED Floodlight/Highbay
1250-SD-0002	1 to 3	A	20 Oct 2021	PCB Schematic SPARTAN MPFL Power Supply
1250-SD-0003	1 to 5	A	20 Oct 2021	FMEA-Resistors-Spartan MPFL Power Supply
1250-SD-0004	1 of 1	A	20 Oct 2021	Parts List Spartan MPFL power Supply
1250-SD-0005	1 of 1	A	20 Oct 2021	Thermal Fuse Conditions

Issue 1

Document No	Sheets	Rev	Approved Date	Title
1250-SD.0001	1 to 2	B	25 Feb 2022	Spartan Mid Power LED Floodlight/ Highbay
1250-SD-0002	1 to 4	B	25 Feb 2022	PCB Schematic SPARTAN MPFL Power Supply
1250-SD-0004	1 of 1	B	25 Feb 2022	Parts List Spartan MPFL power Supply

Issue 2

Document No	Sheets	Rev	Approved Date	Title
1250-SD-0001	1 to 3	D	30 Apr 2024	Spartan Mid Power LED Floodlight/High Bay
1250-SD-0008	1 to 3	A	30 Apr 2024	PCB Schematic – Spartan EMX MPFL Power supply
1250-SD-0009	1 to 6	B	30 Apr 2024	Emergency PCB PSU FMEA Analysis
1250-SD-0010	1 of 1	B	30 Apr 2024	Parts list Spartan EMX MPFL power supply
1250-SD-0011	1 of 1	A	30 Apr 2024	Thermal fuse location – Spartan EMX MPFL power supply

Certificate Annex

Certificate Number	CML 21ATEX3320
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Manufacturer	Raytec Ltd

Issue 3

Drawing No	Sheets	Rev	Approved Date	Title
1250-SD-0001	1 of 4	E	17 Oct 2025	Spartan Mid Power LED Floodlight/High Bay
1250-SD-0001	2 of 4	C	17 Oct 2025	Spartan Mid Power LED Floodlight/High Bay
1250-SD-0001	3 of 4	F	17 Oct 2025	Spartan Mid Power LED Floodlight/High Bay
1250-SD-0001	4 of 4	A	17 Oct 2025	Spartan Mid Power LED Floodlight/High Bay

Issue 4

Drawing No	Sheets	Rev	Approved date	Title
1250-SD-0001	1 of 4	F	13 Aug 2026	Spartan Mid Power LED Floodlight/High Bay
1250-SD-0001	2 of 4	D	13 Aug 2026	Spartan Mid Power LED Floodlight/High Bay
1250-SD-0001	3 of 4	G	13 Aug 2026	Spartan Mid Power LED Floodlight/High Bay
1250-SD-0001	4 of 4	B	13 Aug 2026	Spartan Mid Power LED Floodlight/High Bay