



Type Examination Certificate

CML 21ATEX3320

Issue 1

- 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 CML B.V., Chamber of Commerce No 6738671, 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:



II 3 G D

Ex ec mc IIC T4 Gc

Ex tc IIIC T90°C Dc

Ta= -40°C to +60°C





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11 Description

The Spartan Mid Power Floodlight/Highbay are suitable for installation 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.

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 of 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.

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.

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

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. 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.
- ii. 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.



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- iii. 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

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

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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