







EC Type Examination Certificate CML 14ATEX3119 Issue 1

- 1 Equipment intended for use in Potentially Explosive Atmospheres Directive 94/9/EC
- 2 Equipment **Spartan LED Linear Luminaire**
- 3 Manufacturer **Raytec Ltd.**
- 4 Address Unit 3 Wansbeck Business Park,
Rotary Parkway,
Ashington,
Northumberland,
NE63 8QW,
UK
- 5 The equipment is specified in the schedule of this certificate and the documents to which it refers.
- 6 Certification Management Limited, Unit 1 Newport Business Park, New Port Road, Ellesmere Port CH65 4LZ, UK, Notified Body Number 2503, in accordance with Article 9 of Directive 94/9/EC, 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 to the Directive.

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 EC Type Examination certificate relates only to the design and construction of the specified equipment or component. Further requirements of Directive 94/9/EC Article 8 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 60079-0:2012+A11:2013 EN 60079-7:2007
EN 60079-18:2009 EN 60079-31:2014
- 10 The equipment shall be marked with the following:

Standard		Emergency	
 II 2 G D	 II 2 G D	 II 2 G D	 II 2 G D
Ex e mb IIC T5 Gb	Ex e mb IIC T6 Gb	Ex e mb IIC T5 Gb	Ex e mb IIC T6 Gb
Ex tb IIIC T75°C Db	Ex tb IIIC T65°C Db	Ex tb IIIC T76°C Db	Ex tb IIIC T66°C Db
Ta= -40°C to +55°C	Ta= -40°C to +45°C	Ta= -20°C to +50°C	Ta= -20°C to +40°C



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11 Description

The Spartan LED Linear Luminaires are a range of LED luminaires. There are two size luminaires available WL84 (small) and WL168 (large). All variants are offered as LV (Low Voltage); rated at 18V to 30V AC / 18V to 40V DC or HV (High Voltage); rated at 110V to 254V AC. The HV luminaires may also be supplied with a battery pack and inverter to enable operation in 'emergency' mode.

The Spartan LED linear Luminaire enclosure is made from extruded aluminium with a transparent polycarbonate lens. The aluminium enclosure has cast aluminium end sections fitted with cast aluminium covers. The equipment utilises silicone sponge gaskets to seal the external lens and end covers to the main enclosure and maintain the IP65 rating. Samples of the luminaire have also been independently tested against the requirements of IEC 60529 Ed 2.1 and have passed IPX6 and IPX7.

The end sections house separately certified terminals and a maximum of two separately certified cable entries per end. The end covers house either the encapsulated power supply or the optional emergency mode battery. The covers are fixed to the end sections using two M6 bolts per cover.

The main section of the luminaire is fitted with an encapsulated light engine. This light engine is an extruded aluminium frame fitted with a PCB containing 84 surface mounted LED's. These LED's are fitted with transparent polycarbonate lenses, each lens covering 12 LED's. The PCB; complete with fitted lenses, is encapsulated securing the lenses in place and coating the PCB up to the walls of the light engine.

The WL84 variant is fitted with one light engine and one external lens The WL168 variant is fitted with two light engines and two external lenses.

The LED's are available in white, coloured or infra-red. The enclosure has fixing holes to the rear, the size, pitch and quantity can be customised to suit customer needs. All enclosures offer internal and external earthing facilities.

Variation 1

The following modifications to the original assessment have been addressed:

- i. Standard variant only now offered at lower ambient of -40°C
- ii. New lower ambient amended on label drawing

12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	25 Feb 2015	R325A/00	Certificate release
1	20 Mar 2015	R325A/01 R501A/00	To recognise report R325A/01 which was amended. To include R501A/00 for Variation 1

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



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13 Conditions of manufacture

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

- 13.1 Where the product incorporates certified parts or safety critical components the manufacturer shall ensure that any changes to those parts or components do not affect the compliance of the certified product that is the subject of this certificate.
- 13.2 A dielectric strength test shall be carried out on all units manufactured in accordance with EN 60079-7:2007 clause 7.1 and EN 60079-18:2009, clause 9.2, at 1508 V for 1 minute, or alternatively at 1.2 times this test voltage for 100 ms. No breakdown shall occur. Tests shall be carried out between each circuit and earth
- 13.3 A visual inspection shall be carried out on the encapsulated parts to check for damage, in accordance with EN 60079-18:2009, clause 9.1.

14 Special Conditions for Safe Use (Conditions of Certification)

None

Certificate Annex



Certificate Number CML 14ATEX3119
Equipment Spartan LED Linear Luminaire
Manufacturer Raytec Ltd.

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

Issue 0

Drawing No	Sheets	Rev	Approved Date	Title
920-SD-0007	1 to 3	A	25 Feb 2015	Spartan Linear Assembly Drawing
910-SD-0002	1 of 2	B	25 Feb 2015	HV & HV Emergency PSU Schematics
910-SD-0003	1 to 5	A	25 Feb 2015	HV PSU Fault Assy
910-SD-0004	1 of 5	B	25 Feb 2015	HV Emergency PSU Fault Assy
910-SD-0004	2 of 5	A	25 Feb 2015	HV Emergency PSU Fault Assy
910-SD-0004	3 of 5	B	25 Feb 2015	HV Emergency PSU Fault Assy
910-SD-0004	4 of 5	A	25 Feb 2015	HV Emergency PSU Fault Assy
910-SD-0004	5 of 5	B	25 Feb 2015	HV Emergency PSU Fault Assy
910-SD-0005	1 of 2	A	25 Feb 2015	HV & Emergency PSU Component Tolerance List
910-SD-0005	2 of 2	B	25 Feb 2015	HV & Emergency PSU Component Tolerance List
910-SD-0009	1 of 1	A	25 Feb 2015	LV PSU Schematics
910-SD-0010	1 to 5	A	25 Feb 2015	LV PSU Fault Assy
910-SD-0011	1 of 1	A	25 Feb 2015	LV PSU Component Tolerance List
910-SD-0001	2 of 4	C	25 Feb 2015	Spartan SPX FL assy Dwg

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Drawing No	Sheets	Rev	Approved Date	Title
920-SD-0007	1 of 3	B	20/03/15	Spartan Linear Assembly Drawing
920-SD-0007	2 of 3	B	20/03/15	Spartan Linear Assembly Drawing