

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:	IECEX CML 15.0001		Issue No: 1	Certificate history: Issue No. 1 (2015-03-20)
Status:	Current		Page 1 of 5	Issue No. 0 (2015-02-25)
Date of Issue:	2015-03-20			
Applicant:	Raytec Ltd. Unit 3 Wansbeck Business Park, Rotary Parkway, Ashington, Northumberland, NE63 8QW, UK UK United Kingdom			
Electrical Apparatus: Optional accessory:	Spartan LED Linear Luminaire			
Type of Protection:	Ex e, mb, tb			
Marking:	Standard: Ex e mb IIC T5 Gb, Ex tb IIIC T75°C Db, Ta = $-40°$ C to $+55°$ C / Ex e mb IIC T6 Gb, Ex tb IIIC T65°C Db, Ta = $-40°$ C to $+45°$ C Emergency: Ex e mb IIC T5 Gb, Ex tb IIIC T76°C Db, Ta = $-20°$ C to $+50°$ C / Ex e mb IIC T6 Gb, Ex tb IIIC T66°C Db, Ta = $-20°$ C to $+40°$ C			
Approved for issue on behalf of the Certification Body:	e IECEx	D R Stubbings MIET		
Position:		Technical Director		
Signature: (for printed version)		7835-		
Date:		2015-03-20		
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Certificate issued by:

Certification Management Limited Unit 1, Newport Business Park New Port Road Ellesmere Port CH65 4LZ United Kingdom





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Manufacturer:	Raytec Ltd. Unit 3 Wansbeck Business Park, Rotary Parkway, Ashington, Northumberland, NE63 8QW, UK	
	United Kingdom	

Additional Manufacturing location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2011 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-18 : 2012 Edition:4.0	Explosive atmospheres – Part 18: Equipment protection by encapsulation "m"
IEC 60079-31 : 2013 Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
IEC 60079-7 : 2006-07 Edition:4	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

This Certificate does not indicate compliance with electrical safety and performance requirements other than those expressly included in the

Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report: GB/CML/ExTR15.0001/01 GB/CML/ExTR15.0023/00 Quality Assessment Report: GB/SIR/QAR13.0018/00 GB/SIR/QAR13.0018/01



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The Spartan LED Linear Luminaires are a range of LED luminaires. There are two luminaire 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.

Refer to Annex

CONDITIONS OF CERTIFICATION: NO



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

The following modifications to the original assessment have been addressed:

- 1. Standard variant only now offered at lower ambient of -40°C
- 2. N ew lower ambient amended on label drawing



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Additional information:

See Annex

Annex:

IECEx CML 15.0001 01 certificate annex.pdf

Annexe to:IECEx CML 15.0001 Issue 1Applicant:Raytec Ltd.Apparatus:Spartan LED Linear Luminaires



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 IP X6 and IP X7.

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.

Condition on 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 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.
- ii. A dielectric strength test shall be carried out on all units manufactured in accordance with IEC 60079-7:2007 clause 7.1 and IEC 60079-18:2012, 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
- iii. A visual inspection shall be carried out on the encapsulated parts to check for damage, in accordance with IEC 60079-18:2012, clause 9.1.

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