



CERTIFICATE NUMBER 25-0220600-PDA  
EFFECTIVE DATE 26-Feb-2025  
EXPIRY DATE 25-Feb-2030  
ABS TECHNICAL OFFICE London Engineering Department

# CERTIFICATE OF Product Design Assessment

This is to certify that a representative of this Bureau did, at the request of

**RAYTEC LTD**

located at

**UNIT 15 WANSBECK BUSINESS PARK, ROTARY PARKWAY,  
ASHINGTON , NORTHUMBERLAND, United Kingdom, NE63 8QW**

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate.

**Product:** **Lighting Fixtures, LED, Hazardous Area**

**Model:** **Model(s): FL12, BL24, FL24, FL48, FL72, WL84, WL168, MP and HP (Standardand Emergency version),Spartan LED Recess**

**Endorsements:**

**Tier:** **2 - PDA Issued**

This Product Design Assessment (PDA) Certificate remains valid until 25/Feb/2030 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

American Bureau Of Shipping

*SBarua*

Siddharth Barua,Engineer/Consultant

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010)

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**Tier: 2 - PDA Issued**

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**Product:** **Lighting Fixtures, LED, Hazardous Area**  
**Model:** **Model(s): FL12, BL24, FL24, FL48, FL72, WL84, WL168, MP and HP (Standard and Emergency version), Spartan LED Recess**

**Endorsements:**

**Intended Service:**

For use on ABS classed Vessels and Offshore Facilities in accordance with the listed ABS Rules.

**Description:**

See attached documents for description and model information.

**Rating:**

LV (Low Voltage); rated at 18V to 30V AC / 18V to 40V  
DC HV (High Voltage); rated at 110V to 254V AC 110 v  
to 254 V Tamb up to -52°C to +55°C

-----New Models-----

RC Model:

Low voltage :18 to 84 V AC, 18 to 68V DC,  
Standard :110 to 280 V AC, 154 to 355 V DC,  
high output: 110 to 280 V AC, 154 to 355 V DC  
Emergency: 110 to 280 V AC, 154 to 355 V DC

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**Service Restriction:**

1. Unit Certification is not required for this product. If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.
2. Suitability for installation in hazardous areas is not covered by this PDA. Evidence of suitability for installation in such areas should be submitted for review in each case.

**Comments:**

1. The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.
2. Hazardous area installation to be in accordance with 4-8-4/27 of the Marine Vessels Rules or 4-3-3/9 of the Mobile Offshore Units Rules.
3. Product suitability to each installation location is to be verified per the certification label attached for the hazardous area classification and temperature code requirement.
4. Spartan LED Recess(new) models are not tested in accordance with IEC 60068-2-52 Ed. 3.0 b:2017 & IEC 60068-2-6 Ed. 7.0 b:2007.

**Notes/Drawing/Documentation:**

Drawing No. CML23ATEX5448X, CML 23ATEX5448X Iss. 0, Revision: 0, Pages:

Drawing No. R16298A\_00, R16298A\_00, Revision: 0, Pages:

Drawing No. 23-2432337, Declaration of no Change - 23-2432337, Revision: -, Pages:

Drawing No. Zone 1 Datasheet Plank, 1285-D-00006-SPARTAN-Recess-Family-Zone-1-Plank-Datasheet, Revision: 1, Pages:

Drawing No. Installation Guide, SPARTAN-Recess-Install-Guide-1285-D-00002-1 (1), Revision: 2, Pages:

Drawing No. Approved Drawings for Issue 0, Approved Drawings for Issue 0 of CML 23ATEX5448X, IECEx CML 23.0150X, CML 23UKEX5449X, CML 23ATEX5450X, IECEx CML 23.0150X and CML 23UKEX5451X,

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Revision: 0, Pages:

Drawing No. Zone 1 Datasheet Modular, SPARTAN-Recess-Family-Zone-1-Modular-Datasheet-1285-D-00005,

Revision: 1, Pages:

Drawing No. CML23UKEX5451X, CML 23UKEX5451X Iss. 0, Revision: 0, Pages:

Drawing No. Zone 2 Datasheet Plank, SPARTAN-Recess-Family-Zone-2-Plank-Datasheet-1285-D-00009, Revision: 1, Pages:

Drawing No. IECEx CML 23.0150X, IECEx CML 23.0150X Iss. 0- Signed, Revision: 0, Pages:

Drawing No. CML23ATEX5450X, CML 23ATEX5450X Iss. 0, Revision: 0, Pages:

Drawing No. Zone 2 Datasheet Modular, SPARTAN-Recess-Family-Zone-2-Modular-Datasheet-1285-D-00007-1, Revision: 1, Pages:

Drawing No. CML23UKEX5449X, CML 23UKEX5449X Iss. 0, Revision: 0, Pages:

**Terms of Validity:**

This Product Design Assessment (PDA) Certificate remains valid until 25/Feb/2030 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

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**STANDARDS**

**ABS Rules:**

- Rules for Condition of Classification (2025): 1-1-4/7.7, 1-1-A3 & A4
- Marine Vessel Rules (2025): 4-8-3/1.7, 4-8-3/1.9, 4-8-3/1.11.1, 4-8-3/1.17, 4-8-3/13.3.3
- Rules for Conditions of Classifications - Offshore Units and Structures (2025): 1-1-4/9.7, 1-1-A2 & A3
- Mobile Offshore Units Rules (2025): 6-1-1/9, 6-1-1/13; 4-3-1/9, 4.3.1/11, 4-3-1/15, 4-3-1/17.1
- Rules for Condition of Classification - High Speed Crafts (2025) 1-1-4/11.9, 1-1-A2 & A3
- High Speed Crafts Rules (2025): 4-6-1/9, 4-6-1/11, 4-8-1/13, 4-6-1/15, 4-6-1/17, 4-6-3/9

**National:**

NA

**International:**

IEC 60068-2-52:2017

IEC 60068-2-6:2007

**Government:**

NA

**EUMED:**

NA

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**OTHERS:**

NA