



CERTIFICATE NUMBER 19-LD1858685-PDA

EFFECTIVE DATE 10-Jun-2019

EXPIRATION DATE 09-Jun-2024

ABS TECHNICAL OFFICE London

## CERTIFICATE OF

# Product Design Assessment

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

**LUMISHORE LTD**

located at

**C.T.O AND FOUNDER, TECHNIUM 1, UNIT 11, SWANSEA  
WATERFRONT, KINGS ROAD, SWANSEA, UNITED KINGDOM-SA1  
8PH**

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** Underwater LED Lights

**Model** SY Series (SY22x, SY25x, SY30x and SY31x)

This Product Design Assessment (PDA) Certificate remains valid until 09-Jun-2024 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

Nitin Tyagi, Senior Engineer

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)



## LUMISHORE LTD

C.T.O. AND FOUNDER

TECHNIUM 1, UNIT 11

SWANSEA WATERFRONT, KINGS ROAD

SWANSEA

United Kingdom SA1 8PH

Telephone: 01792614625

Fax:

Email: Sales@lumishore.com

Web: www.lumishore.com

**Tier: 2 - PDA Issued**

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**Product:** Lighting, Underwater

**Model:** SY Series (SY22x, SY25x, SY30x and SY31x)

**Intended Service:**

Boat Lighting.

**Description:**

Weld-in Underwater Lights.

**Rating:**

SY 22x - Single Color: White, Blue or Green

SY 25x, SY 30x & SY31x - Dual Color: White and Blue, White and Green

Fixture Lumens: 10000, 15500 & 20000

Light source: LED

Driver: External

Flange Diameter: 140mm, 160mm, 180mm

Overall Length: 70mm, 78mm & 87mm

Flange Type: Stainless Steel (316L) or Aluminum (5083)

Ingress protection: IP68

**Service Restriction:**

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.

**Comments:**

- 1) The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.
- 2) Each particular application and installation is to be specifically approved in conjunction with the relevant system, locations and environmental conditions.

**Notes/Drawing/Documentation:**

Drawing No. 45-0074, SY2xx Series Flange Welding Instructions, Revision: 1, Pages: 1

Drawing No. 45-0075, SY2xx Series Lens Installation Instructions, Revision: 2, Pages: 1

Drawing No. 45-0076, SY220 - SY250 Series Light Module Installation Instructions, Revision: 1, Pages: 1

Drawing No. 45-0081, SY300 Series Flange Welding Instructions, Revision: 3, Pages: 1

Drawing No. 45-0082, SY300 Series Light Module Installation Instructions, Revision: 2, Pages: 1

Drawing No. 45-0094, SY310 Series Flange Welding Instructions, Revision: 2, Pages: 1

Drawing No. 47-0014, SY22x - Exploded View & Dims, Revision: B, Pages: 1

Drawing No. 47-0016, SY25x - Exploded View & Dims, Revision: B, Pages: 1

Drawing No. 47-0018, SY30x - Exploded View & Dims, Revision: B, Pages: 1

Drawing No. 47-0020, SY31x - Exploded View & Dims, Revision: B, Pages: 1

Test Report No: ARB0916-01 – "SY22x/SY25x/SY30x/SY31xIP rating test" conducted by Lumishore dated 16 September 2016

Drawing No. Lumishore-SY-WELD-IN-EOS-LOUVRE-Datasheet, 1, Revision: 1, Pages: 1

Drawing No. Lumishore-SY-WELD-IN-EOS-SY250-Datasheet, Lumishore-SY-WELD-IN-EOS-SY250-Datasheet, Revision: 1, Pages: 1

Drawing No. Lumishore-SY-WELD-IN-ORA-SY220-Datasheet, Lumishore-SY-WELD-IN-ORA-SY220-Datasheet, Revision: 1, Pages: 1

Drawing No. Lumishore-SY-WELD-IN-SUPRA-LOUVRE-Datasheet, Lumishore-SY-WELD-IN-SUPRA-LOUVRE-Datasheet, Revision: 1, Pages: 1

Drawing No. Lumishore-SY-WELD-IN-SUPRA-SY250-Datasheet, Lumishore-SY-WELD-IN-SUPRA-SY250-

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Datasheet, Revision: 1, Pages: 1

**Terms of Validity:**

This Product Design Assessment (PDA) Certificate 19-LD1858685-PDA, dated 10/Jun/2019 remains valid until 09/Jun/2024 or until the Rules or specifications used in the assessment are revised (whichever occurs first).

This PDA is intended for a product to be installed on an ABS classed vessel, MODU or facility which is in existence or under contract for construction on the date of the ABS Rules or specifications used to evaluate the Product.

Use of the Product on an ABS classed vessel, MODU or facility which is contracted after the validity date of the ABS Rules and specifications used to evaluate the Product, will require re-evaluation of the PDA.

Use of the Product for non ABS classed vessels, MODUs or facilities is to be to an agreement between the manufacturer and intended client.

**STANDARDS****ABS Rules:**

Rules for Conditions of Classification (2019) – 1-1-4/7.7, 1-1-A3, 1-1-A4, which covers the following:

2019 Rules for Building and Classing Marine Vessels: 4-8-3/1.11.1, 4-8-3/1A & 1B, 4-8-3/Table 2;

2019 Rules for Building and Classing Steel Vessels: 4-8-3/1.11.1, 4-8-3/1A & 1B, 4-8-3/Table 2;

2019 Rules for Building and Classing Offshore Support Vessels: 4-8-3/1.11.1, 4-8-3/1A & 1B, 4-8-3/Table 2;

2019 Rules for Building and Classing Steel Vessels Under 90 meters in Length: 4-6-1/15, 4-6-1/Table 2, 4-6-1/Table 3 & 4-6-3/Table 1;

ABS Rules for Conditions of Classification (2019) – High Speed Craft 1-1-4/11.9, 1-1-A2, 1-1-A3, which covers the following:

2019 Rules for Building and Classing High Speed Craft: 4-6-1/15, 4-6-1/Table 2, 4-6-1/Table 3 & 4-6-3/Table 1;

**National:**

NA

**International:**

NA

**Government:**

NA

**EUMED:**

NA

**OTHERS:**

NA