

CERTIFICATE NUMBER EFFECTIVE DATE EXPIRY DATE ABS TECHNICAL OFFICE 24-00T2546154-PDA 10-Jul-2024 09-Jul-2029 London Engineering Department

CERTIFICATE OF

Product Design Assessment

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

LUMISHORE LIMITED

UNIT D12, ASHMOUNT BUSINESS PARK, UPPER FFOREST WAY, SWANSEA ENTERPRISE PARK, SWANSEA, United Kingdom, SA6

8QR

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, Underwater
Model:	SY Series (SY22x, SY25x, SY30x and SY31x)
Endorsements:	See Contraction of the State
Tier:	2 - PDA Issued

This Product Design Assessment (PDA) Certificate remains valid until 09/Jul/2029 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, 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)

LUMISHORE LIMITED

UNIT D12, ASHMOUNT BUSINESS PARK UPPER FFOREST WAY SWANSEA ENTERPRISE PARK SWANSEA United Kingdom SA6 8QR Telephone: 01792 398500 Fax: Email: info@lumishore.com Web: www.lumishore.com

Tier: 2 - PDA Issued

Product:Lighting, UnderwaterModel:SY Series (SY22x, SY25x, SY30x and SY31x)Endorsements:SY Series (SY22x, SY25x, SY30x and SY31x)

Intended Service: Boat Lighting.

Description: Weld-in Underwater Lights.

Rating:

SY 22x - Single Color or Full Color Change SY 25x, SY 30x & SY31x - Single Color, Dual Color or Full Color Change 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. The scope of type approval is to comply with MSC.1/Circ.1221 of 11 Dec, 2006.

Comments:

The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.
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 Instllation 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

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

Terms of Validity:

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STANDARDS

ABS Rules:

Rules for Conditions of Classification (2024) – 1-1-4/7.7, 1-1-A3, 1-1-A4, which covers the following: 2024 Rules for Building and Classing Marine Vessels: 4-8-3/1.11.1,4-8-3/1A & 1B, 4-8-3/Table 2;

ABS Rules for Conditions of Classification (2024) – High Speed Craft 1-1-4/11.9, 1-1-A2, 1-1-A3, which covers the following:

2024 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