

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Underwater Lights**with type designation(s)
SY 22x, SY 25x, SY 30x, SY 31x

Issued to

Lumishore Ltd.
Swansea Swansea, United Kingdomis found to comply with
DNV GL rules for classification – Yachts
IEC 60529 Ed. 2.2 (2013-08) Degrees of protection provided by enclosures (IP Code)**Application :****Product approved by this certificate are accepted for installation on all vessels classed by DNV GL.**Issued at **Hamburg** on **2017-05-29**for **DNV GL**This Certificate is valid until **2022-05-28**.DNV GL local station: **Southampton**Approval Engineer: **Inga-Kristin Schröder**.....
Boris Altmayer
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.



Product description

These Underwater Lights are certified as watertight appliances for use in the hull of vessels classed by DNV GL, covering pressure resistance of the Underwater Light body for installation in aluminium and steel structures in marine and offshore use.

Application/Limitation

- 1) The present certificate is based on the documentation listed below and is valid only for a construction and material as specified in the approved drawings and the given instructions.
- 2) Inspections and survey procedures are to be performed as required by the Rules and Regulations of DNV GL.
- 3) The mounting location and details remain subject to examination and approval for each individual project and are to be submitted by the yard or design office to DNV GL prior to installation on board.
- 4) The degree of protection provided by enclosure is IP X8, as tested.
- 5) The manufacturer's recommendations and instructions regarding location and operation must be observed. The operation of the light is limited to the (permanently) submerged condition of the lens.
- 6) The materials as given in the drawings are acceptable for use in DNV GL vessels, provided the material is suitable for the hull in which the appliance is fitted. Aluminium materials must be coated with corrosion protection in addition.
- 7) IP 68 Cable Glands are acceptable if tested along with the appliance. Cable Glands not tested in combination with the appliance shall be certified and tested to withstand a minimum hydrostatic pressure of 5bar for at least 30 Minutes. Certification must be presented to DNV GL along with the installation documentation.

Type Approval documentation

47-0013 Rev.A	SY 22x – Dimensions
47-0014 Rev.A	SY 22x – Exploded View
47-0015 Rev.A	SY 25x – Dimensions
47-0016 Rev.A	SY 25x – Exploded View
47-0017 Rev.A	SY 30x – Dimensions
47-0018 Rev.A	SY 30x – Exploded View
47-0020 Rev.B	SY 31x – Exploded View & Dimensions

Tests carried out

Test Report dated 2017-03-17, witnessed by a DNV GL Southampton.

Marking of product

n/a

Periodical assessment

DNV GL's surveyor is to be given permission to carry out an audit at any time during the validity period of this certificate. For appliances installed on DNV GL vessels, the appliances should be checked (visual check) by a DNV GL surveyor before being dispatched.