



Certificate No:
TAS000037U

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Underwater Lights

with type designation(s)

Explore E8 Series Lights

Explore E9 Series Lights

E8 Series Cofferdam S/S 316 L

E8 Series Cofferdam Aluminium 6082

E8 Series Rear Cofferdam

E9 Series Cofferdam S/S 316L

E9 Series Cofferdam Aluminium 6082

Issued to

OceanLED marine Ltd.

Hinckley, United Kingdom

is found to comply with

IEC 60529 Ed. 2.2 (2013-08) Degrees of protection provided by enclosures (IP Code)

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.

Issued at **Hamburg** on **2021-10-27**

This Certificate is valid until **2026-10-26**.

for **DNV**

DNV local station: **Manchester**

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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Form code: TA 251

Revision: 2021-03

www.dnv.com

Page 1 of 2

Product description

These Underwater Lights are certified as watertight appliances for use in the hull of vessels classed by DNV, covering pressure resistance of the Underwater Light body for installation in aluminium and steel structures in marine and offshore use.
The design pressure is 1.5 bar (15m installation depth) which has been proven by testing to a pressure of 6 bar.

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.
- 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 prior to installation on board.
- 4) The degree of protection provided by enclosure is IP 68, 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 vessels, provided the material is suitable for the hull in which the appliance is fitted. Aluminium materials are coated with corrosion protection by the manufacturer.

Type Approval documentation

TA-20-00910 Rev. A – E8 drawings
TA-20-00963 Rev. B – E9 drawings

Tests carried out

L18766 Amd 1 Report, issued 2nd October 2019 by LIA Laboratory Ltd for IP68 rating
L19344 Amd 1 Report, issued 9th November 2020
Testing according procedures TCD-000028 (E8) and TCD-000047 (E9) has been completed 24th March 2020, as confirmed by DNV surveyor through Initial Report.
E12505 EMC Test Report_E8_E9_AC issued 24th May 2019 by Eurofins ETC Ltd.
E12504 EMC Test Report_E8_E9_DC issued 24th May 2019 by Eurofins ETC Ltd.

Marking of product

n/a

Periodical assessment

DNV surveyor is to be given permission to perform a Certification Retention Survey at any time during the validity period of this certificate.