

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Light Fitting**

with type designation(s)
CDLL

Issued to

Cooper Electronic Technologies (Shanghai) Co., Ltd.
Shanghai, China

is found to comply with
DNV GL rules for classification – Ships and offshore units

Application :

Products approved by this certificate are accepted for installation on all vessels classed by DNV GL.

Vibration class **A**
Enclosure class **IP 20 & 44**
Class **I**
Temp. class **A**
Voltage class **220-240V 50/60 Hz**
Ex class **NA**

This Certificate is valid until **2022-04-24**.

Issued at **Høvik** on **2017-04-25**

DNV GL local station: **Shanghai CMC**

for **DNV GL**

Approval Engineer: **Marta Alonso Pontes**

.....
Andreas Kristoffersen
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.

Job Id:
Certificate No: **TAE00001A3**

Name and address of manufacturer

Cooper Electric (Changzhou) Co., Ltd.
Changzhou, Jiangsu, China.

Cooper Korea Ltd.
Gyeonggi-Do, Korea

Product description

Recessed marine / offshore Living Quarter lighting.

Application	Marine & offshore accommodation dry space use, including passageway, office, meeting room, entertaining room, state room, galley, etc. Recessed mounting
Housing material	Galvanized Steel/SS316L
Ingress protection	IP20*/44

Type	Output (W)	Voltage (V)	Frequency (Hz)
CDLL-XX-10-X-X	1X10	110-240V	50/60
CDLL-XX-20-X-X	1X20	110-240V	50/60

*See application/Limitation

Application/Limitation

End user is responsible for correct ingress protection wrt. location.
To be installed in climatic controlled areas.

Type Approval documentation

Tests carried out

Standard	Release	General description	Limitation
DNV GL class program CP-0398	2015	Luminaires	

Marking of product

Manufacturer – Type – Model number- Voltage – Output power – IP class.

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the Type approval are complied with and that no alterations are made to the product design or choice of materials.

The main elements of the periodical assessment are:

- Inspection on factory samples, selected at random from the production line (where practicable)
- Results from Routine tests (RT) checked (if not available tests according to RT to be carried out)
- Review of type approval documentation
- Review of possible change in design, materials and performance
- Ensuring traceability between manufacturer's product type marking and Type Approval Certificate.

Periodical assessment is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE