



TYPE APPROVAL CERTIFICATE

Certificate No:
TAF00001FM
Revision No:
1

This is to certify:

That the Class B Recesses for Light Fittings, Ventilation Units and similar

with type designation(s)
LED CD210N, LED CD220N, LED CF210N, LED CF220N, LED CF210S, LED CF220S, LED CW210N, LED CW220N, LED DL, LED CF120N and LED CF140N

Issued to

SUNIL ELECOMM CO., LTD.
Gyeongsangbuk-do, Korea, Republic of

is found to comply with

DNV statutory interpretations DNV-SI-0364 – SOLAS interpretations, Edition July 2021
DNV rules for classification – Ships
DNV offshore standards

Application :

Approved as light fixtures for use in B-0 class ceilings.

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

Issued at **Høvik** on **2021-12-13**

for **DNV**

This Certificate is valid until **2025-11-01**.

DNV local station: **Ulsan**

Approval Engineer: **Marcin Tobiasz**

Helene David-Andersen
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.



Product description

LED210N, LED220N, LEDCF120N, LEDCF140N LEDCF210N, LEDCF220N, LEDCF210S, LEDCF220S, LEDCW210N, LEDCW220N and LEDDL

Light fixtures installed in cut-outs in B-0 ceilings. The light fixtures are composed of 0.8 mm galvanized steel body fastened to the ceilings by means of bolting and insert between ceiling panel.

For further details, see drawings listed under Type Approval documentation below.

Application/Limitation

Type	Max size (L x W x H) [mm]	Max weight
LED210N	775 x 324 x 125	8 kg
LED220N	1400 x 324 x 125	15 kg
LEDCF120N	681 x 180 x 62	5 kg
LEDCF140N	1291 x 180 x 62	12 kg
LEDCF210N	681 x 180 x 62	5 kg
LEDCF220N	1291 x 180 x 62	12 kg
LEDCF210S	742 x 226 x 109	8 kg
LEDCF220S	1322 x 226 x 109	15 kg
LEDCW210N	695 x 282 x 104	8 kg
LEDCW220N	1292 x 282 x 104	15 kg
LEDDL	Ø176 x 97 (H)	2.5 kg

The light fixtures are approved for use in approved B-0 class ceilings consisting of panels constructed by not less than 0.8 mm thick galvanized steel sheets covered by minimum 25 mm thickness insulation (density 80 kg/m³) on unexposed side.

Maximum width of panels: 300 mm

Minimum distance between the recesses should not be less than 200 mm.

The manufacturer of ceiling is responsible to document that the structural and thermal integrity is maintained after fitting the light fixtures into the ceiling. The arrangement is subject for approval in each case.

Each product is to be supplied with its manual for installation, use and maintenance.

Type Approval documentation

Certification in accordance with Class Programme DNV-CP-0338, September 2021.

Test report No. KOMERI-0402-19T5255(E) dated 24 June 2020 from KOMERI, Pusan, Korea.

Test report No. KOMERI-0402-19T5254(E) dated 26 June 2020 from KOMERI, Pusan, Korea.

Test report No. KOMERI-0402-21T2935(E) dated 25 October 2021 from KOMERI, Pusan, Korea.

Drawing No. LEDCF120N-005 (1 sheet) dated 21 July 2021 from manufacturer.

Drawing No. LEDCF140N-005 (1 sheet) dated 21 July 2021 from manufacturer.

Drawing No. LEDCF210N-005 (1 sheet) dated 13 February 2020 from manufacturer.

Drawing No. LEDCF220N-005 (1 sheet) dated 13 February 2020 from manufacturer.

Drawing No. LED210N-005 (1 sheet) dated 13 February 2020 from manufacturer.

Drawing No. LED220N-005 (1 sheet) dated 13 February 2020 from manufacturer.

Drawing No. LEDDL-005 (1 sheet) dated 13 February 2020 from manufacturer.

Drawing No. LEDCW210N-005 (1 sheet) dated 13 February 2020 from manufacturer.

Drawing No. LEDCW220N-005 (1 sheet) dated 13 February 2020 from manufacturer.

Drawing No. LEDCF210S-005 (1 sheet) dated 13 February 2020 from manufacturer.

Drawing No. LEDCF220S-005 (1 sheet) dated 13 February 2020 from manufacturer.

Tests carried out

Tested according to IMO 2010 FTP Code part 3.



Job Id: **262.1-033514-2**
Certificate No: **TAF00001FM**
Revision No: **1**

Marking of product

The product or packing is to be marked with name of manufacturer, type designation, fire-technical rating.

Periodical assessment

DNV's surveyor is to be given permission to perform Periodical Assessments at any time during the validity of this certificate and at least every second year. The arrangement is to be in accordance with procedure described in Class Programme DNV-CP-0338, Section 4.