Certificate No:
TAF00001S7

TYPE APPROVAL CERTIFICATE

This is to certify:

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

with type designation(s)
Light and electrical fittings, models: TL11-R, GIM, AL40-R GP, AL60-SC, AL40-R, DL70-R, DL41-R and EB3

Issued to
Glamox AS
Molde, **Norway**

is found to comply with
DNV rules for classification – Ships
DNV offshore standards
DNV statutory interpretations DNV-SI-0364 – SOLAS interpretations, Edition July 2021

Application :

Approved for use in B-0 class ceiling.

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

Issued at **Høvik** on **2023-03-02**
This Certificate is valid until **2028-03-01**.
DNV local unit: **Norway NB**

Approval Engineer: **Karolina Kusmider**

for **DNV**

Jowita Permoda
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
"Light and electrical fittings, models: TL11-R, GIM, AL40-R GP, AL60-SC, AL40-R, DL70-R B0, DL41-R and EB3"

Light and electrical fixtures installed in cut-outs in approved B-0 ceilings.

AL40-R GP, AL60-SC, AL40-R, DL70-R B0, DL41-R and EB3 placed on top side of the ceiling is not covered by an insulation.

TL11-R and GIM must be covered on one side with 50mm insulation sheet type SeaRox SL 620 with density 100 kg/m^3 (manufactured by Rockwool).

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

Application/Limitation
Approved for use in B-0 class ceilings.

Table 1

Type	Max. Cut out size (W x L) [mm]	Max. Weight [kg]
TL11-R / GIM	330 x 1263	8,5
AL40-R GP	175 x 920	6,6
AL40-R	175 x 920	4,3
DL70-R B0	Ø155	2,1
AL60-SC	Ø45	0,9
DL41-R	Ø155	0,5
EB3	Ø128	1,4

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. 150070-28-T1 Rev. 1 dated 21 June 2022 from RISE Fire Research AS, Tiller, Norway
Test report No. 150070-28-T2 Rev. 1 dated 21 June 2022 from RISE Fire Research AS, Tiller, Norway

Drawings no. 11902145 Rev.0, 11902161 Rev.0 dated 19.01.2022 from manufacturer.
Drawings no. 11904322 Rev.0, 1904321 Rev.0, 11904231 Rev.0, 11904232 Rev.0, 11904234 Rev.0, 11904233 Rev.0, 11904236 Rev.1 dated 1.03.2022 from manufacturer.
Drawing no. 1003650011 dated 11.02.2022 from manufacturer.

Tests carried out
Tested according to IMO 2010 FTP Code part 3.

Marking of product
The product or packing is to be marked with name of manufacturer, type designation and 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.