

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED), issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Authority. This Certificate is issued by DNV GL AS under the authority of the Government of Norway.

This is to certify:

That the Navigation lights

with type designation(s)

NAVIGATION SINGLE & DOUBLE LIGHT - SIE0309N NLED-S / NLED-D

Issued to

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

is found to comply with the requirements in the following Regulations/Standards:

Regulation **(EU) 2019/1397,**

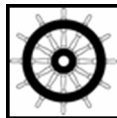
item No. MED/6.1. COLREG 72 as amended, Annex I/14, IMO Res. A.694(17), IMO Res. MSC.253(83)

Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2025-05-05.**

Issued at **Høvik** on **2020-05-06**

DNV GL local station:
Ulsan



for **DNV GL AS**

Approval Engineer:
Frederik Tore Elter

Notified Body
No.: **0575**

.....
Roald Vårheim
Head of Notified Body



The mark of conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-surveillance module (D, E or F) of Annex B of the MED is fully complied with and controlled by a written inspection agreement with a Notified Body. The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU.

This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV GL AS of any changes to the approved equipment. This certificate remains valid unless suspended, withdrawn, recalled or cancelled.

Should the specified regulations or standards be amended during the validity of this certificate, the product is to be re-approved before being placed on board a vessel to which the amended regulations or standards apply.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV GL AS, its parent companies and subsidiaries as well as their officers, directors and employees ("DNV GL") 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

COLREG LED navigation lights for vessels over 50m.

Model	Description	Range
SIE 0309N NLED-DM	MAST HEAD LIGHT (DUAL)	6NM
SIE 0309N NLED-SM	MAST HEAD LIGHT (SINGLE)	6NM
SIE 0309N NLED-DP	PORT SIDE LIGHT (DUAL)	3NM
SIE 0309N NLED-SP	PORT SIDE LIGHT (SINGLE)	3NM
SIE 0309N NLED-DT	STBD SIDE LIGHT (DUAL)	3NM
SIE 0309N NLED-ST	STBD SIDE LIGHT (SINGLE)	3NM
SIE 0309N NLED-DS	STERN LIGHT (DUAL)	3NM
SIE 0309N NLED-SS	STERN LIGHT (SINGLE)	3NM
SIE 0309N NLED-DY	TOWING LIGHT (DUAL)	3NM
SIE 0309N NLED-SY	TOWING LIGHT (SINGLE)	3NM
SIE 0309N NLED-DF-HS	GREEN LIGHT (HALF SCREEN, DUAL)	3NM
SIE 0309N NLED-SF-HS	GREEN LIGHT (HALF SCREEN, SINGLE)	3NM
SIE 0309N NLED-DYA-HS	YELLOW LIGHT (HALF SCREEN, DUAL)	3NM
SIE 0309N NLED-SYA-HS	YELLOW LIGHT (HALF SCREEN, SINGLE)	3NM
SIE 0309N NLED-DA-HS	WHITE LIGHT (HALF SCREEN, DUAL)	3NM
SIE 0309N NLED-SA-HS	WHITE LIGHT (HALF SCREEN, SINGLE)	3NM
SIE 0309N NLED-DU-HS	RED LIGHT (HALF SCREEN, DUAL)	3NM
SIE 0309N NLED-SU-HS	RED LIGHT (HALF SCREEN, SINGLE)	3NM
SIE 0309N NLED-DU/A-HS	HS RED/WHITE LIGHT (HALF SCREEN, DUAL)	3NM
SIE 0309N NLED-DA/U-HS	WHITE/RED LIGHT (HALF SCREEN, DUAL)	3NM
SIE 0309N NLED-DU/F-HS	RED/GREEN LIGHT (HALF SCREEN, DUAL)	3NM
SIE 0309N NLED-DF/A-HS	GREEN/RED LIGHT (HALF SCREEN, DUAL)	3NM
SIE 0309N NLED-DA/A-HS	WHITE/GREEN LIGHT (HALF SCREEN, DUAL)	3NM
SIE 0309N NLED-DF/A-HS	GREEN/WHITE LIGHT (HALF SCREEN, DUAL)	3NM
SIE 0309N NLED-DF	GREEN LIGHT (DUAL)	3NM
SIE 0309N NLED-DYA	GREEN LIGHT (SINGLE)	3NM
SIE 0309N NLED-SYA	YELLOW LIGHT (DUAL)	3NM
SIE 0309N NLED-DA	YELLOW LIGHT (SINGLE)	3NM
SIE 0309N NLED-SA	WHITE LIGHT (DUAL)	3NM
SIE 0309N NLED-SA	WHITE LIGHT (SINGLE)	3NM
SIE 0309N NLED-DU	RED LIGHT (DUAL)	3NM
SIE 0309N NLED-SU	RED LIGHT (SINGLE)	3NM
SIE 0309N NLED-DU/A	RED/WHITE LIGHT (DUAL)	3NM
SIE 0309N NLED-DA/U	WHITE/RED LIGHT (DUAL)	3NM
SIE 0309N NLED-DA/U	RED/GREEN LIGHT (DUAL)	3NM
SIE 0309N NLED-DF/U	GREEN/RED LIGHT (DUAL)	3NM
SIE 0309N NLED-DA/F	WHITE/GREEN LIGHT (DUAL)	3NM
SIE 0309N NLED-DF/A	GREEN/WHITE LIGHT (DUAL)	3NM
SIE 0309N NLED-SV	MANOEUVRING LIGHT (SINGLE)	5NM
SIE 0309N NLED-DV	MANOEUVRING LIGHT (DOUBLE)	5NM

Note: Standard models listed below may be installed with additional -ICE at end of model code.

Application/Limitation

- Tested for COLREG, CCNR and CEVIN.
- Installation in accordance to manufacturers documentation.
- Lights may be installed as Standard or as ICE-Class Model – model code in above product description table ending with -ICE.
- Lights may be powered by following supply voltages: 24VDC/115VAC/230VAC

Type Examination documentation

DNV GL No	Document No	Title
73	KOMERI-0309-19T3449	Report: EN14744 Test Results Confirmation, KOMERI - SUNIL ELECOMM Navigation Light
69		Document: DRAWING FOR ICE TYPE (Navigation Light)
68		Document: DRAWING FOR STANDARD (Navigation Light)
48	KOMERI-0309-19T3449 (E)	Report: EN14744 Performance testing, KOMERI, All Navigation Light Samples
47	KOMERI-0101-19T3447 (E)	Report: EN14744 Structural requirements test, KOMERI, All Navigation Light Samples.
46	KOMERI-0307-19T3448 (E)	Report: IEC60529 IP67 testing KOMERI, White All-Round Navigation Light
45	KOMERI-0311-19T3443 (E)	Report: IEC60945 EMC KOMERI, SIE0309N NLED-DY-ICE - Towing navigation Light
44	KOMERI-0311-19T3446 (E)	Report: IEC60945 EMC KOMERI, SIE0309N NLED-DV-ICE - All Round Navigation Light
43	KOMERI-0311-19T3441 (E)	Report: IEC60945 EMC KOMERI, SIE0309N NLED-DM-ICE - Mast Head Navigation Light
42	KOMERI-0311-19T3444 (E)	Report: IEC60945 EMC KOMERI, SIE0309N NLED-DF-HS-ICE - Green Light Navigation Light (half screen)
41	KOMERI-0311-19T3445 (E)	Report: IEC60945 EMC KOMERI, SIE0309N NLED-DA-ICE - All Round Navigation Light
40	KOMERI-0311-19T3442 (E)	Report: IEC60945 EMC KOMERI, SIE0309N NLED-DP-ICE - Port Side Navigation Light
39	KOMERI-0309-19T3440 (E)	Report: IEC60945 Dry heat, Low temperature KOMERI, All light type samples
38	KOMERI-0602-19T3439(E)	Report: IEC60945 Vibration Shock KOMERI - SIE0309N NLED-DV-ICE - Manoeuvring Navigation Light
37	KOMERI-0602-19T3438 (E)	Report: IEC60945 Vibration Shock KOMERI - SIE0309N NLED-DA-LED - All Round navigation Light
36	KOMERI-0602-19T3437(E)	Report: IEC60945 Vibration Shock KOMERI - SIE0309N NLED-DF-HS-ICE - Green Navigation Light Half Screen
35	KOMERI-0602-19T3436(E)	Report: IEC60945 Vibration Shock KOMERI- SIE0309N NLED-DY-ICE - Towing Navigation Light
34	KOMERI-0602-19T3435(E)	Report: IEC60945 Vibration Shock KOMERI- SIE0309N NLED-DP-ICE - Port Side Navigation Light
33	KOMERI-0602-19T3434(E)	Report: IEC60945 Vibration Shock KOMERI - SIE0309N NLED-DM-ICE - Masthead Navigation Light

Job Id: **344.1-009411-1**
Certificate No: **MEDB00005FG**

DNV GL No	Document No	Title
32	KOMERI-0309-19T3452 (E)	Report: EN14744 Photometric colorimetric - different supply voltages pre-test, KOMERI SIE0309N NLED-DY-ICE Towing Navigation Light
31	KOMERI-0309-19T3453 (E)	Report: EN14744 Photometric colorimetric - different supply voltages pre-test, KOMERI SIE0309N NLED-DF-HS-ICE Green Light Navigation Light (half screen)
30	KOMERI-0309-19T3454 (E)	Report: EN14744 Photometric colorimetric - different supply voltages pre-test, KOMERI SIE0309N NLED-DA-ICE All Round Navigation Light
29	KOMERI-0309-19T3455 (E)	Report: EN14744 Photometric colorimetric- different supply voltages pre-test, KOMERI SIE0309N NLED-DV-ICE Manoeuvring Navigation Light
28	KOMERI-0309-19T3450 (E)	Report: EN14744 Photometric colorimetric - different supply voltages pre-test, KOMERI SIE0309N NLED-DM-ICE Masthead Navigation Light
27	KOMERI-0309-19T3451(E)	Report: EN14744 Photometric colorimetric, KOMERI SIE0309N NLED-DP-ICE Port Side Navigation Light
19		Manual: LED NAVIGATION INSATALLATION MANUAL

Tests carried out

Environmental testing: IEC 60945 (2002)
Performance testing: EN 14744 (2005)

Marking of product

In accordance to EN 14744 (2005)