



EC TYPE EXAMINATION (MODULE B) CERTIFICATE

This is to certify that:

LLOYD'S REGISTER VERIFICATION LIMITED (LRV), designated as a "notified body" under the terms of the Merchant Shipping (Marine Equipment) Regulations 2016 (S.I. 2016 No.1025), did undertake the relevant type approval procedures for the equipment identified below which was found to be in compliance with the essential Navigation equipment requirements of Marine Equipment Directive (MED) 2014/90/EU and Commission Implementing Regulation (EU) 2018/773 indicating design, construction and performance requirements and testing standards for marine equipment, subject to any conditions in the Design Appraisal Document attached hereto.

Manufacturer (Applicant)	Lopolight ApS
Address	Bakkegaardsvej 513 Humblebaek DK-3050 Denmark
Reference	Regulation 2018/773
Regulation Item	MED/6.1 NAVIGATION LIGHTS
Product Type	NAVIGATION LIGHTS
Product Description	200-064 5nm 360° manoeuvring light, single 300-113 3nm yellow towing light, single
Specified Standard	72 COLREGs - International Regulations for Preventing Collisions at Sea amended by IMO Resolution A.1004 (25) Annex I/14. EN60945 (2002) including Corrigendum 1 (2008) and EN14744 (2005) including AC (2006)

The attached Design Appraisal Document (schedule) forms part of this certificate.

This certificate remains valid unless cancelled or revoked, provided the conditions in the attached schedule are complied with and the equipment remains satisfactory in service.

Date of issue 25 October 2018 Expiry date 24 October 2023

Certificate No. MED 1850189

Signed



Sheet No. 1 of 4

Name

L. Thomas
For and on behalf of Lloyd's Register Verification
LRV EC Distinguishing No. 0038

Note:

This certificate is issued under the authority of the MCA.

This certificate is not valid for equipment; the design or manufacture of which has been varied or modified from the specimen tested. The manufacturer should notify the notified body named on this certificate of any modification or changes to the equipment in order to obtain a valid Certificate.

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DESIGN APPRAISAL DOCUMENT

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The undernoted documents have been appraised for compliance with the relevant requirements of International Conventions and European Union legislation for the EC Type Examination of Marine Equipment for use on Merchant Ships Registered in the European Economic Area.

This Design Appraisal Document (schedule) forms part of the Certificate.

EXAMINED DOCUMENTATION

Design Appraisal Document No UKITSO/TASS/ETS/MJH/WP33074865

Installation instructions for Lopolight navigation lights Part No : 300-113 and 200-064, Rev 1.2 , dated 16th October 2018.

DRAWINGS

<u>Drawing No.</u>	<u>Drawing Title</u>	<u>Revision</u>	<u>Date</u>
200-064AA	Round Housing, PE Base.	0	02-02-2017
200-064BA	Round Housing, Promount 400-034. Cable Down.	0	02-02-2017
200-064CA	Round Housing, Promount 400-034. Cable Side.	0	02-02-2017
200-064DA	Round housing, Promount 400-034. 400-404 PE Base Plate, Cable down.	0	02-02-2017
200-064EA	Round Housing, Promount 400-034. 400-404 PE Base Plate, Cabel Side.	0	02-02-2017
200-064FA	Round Housing, Promount 400-035. Cable Down.	1	02-02-2017
200-064GA	Round Housing, Promount 400-035. 400-401 Alu Base Plate, Cable Down.	1	02-02-2017
200-064HA	Low profile base	0	02-02-2017
300-113AC	Towing Light for vessels over 50 Meters w/PE Base	0	29-03-2017
300-113BC	Towing Light for vessels over 50 meters, Promount 400-034, Cable Side	0	29-03-2017
300-113CC	Towing Light for vessels over 50 meters, Promount 400-034, Cable Down	0	29-03-2017
300-113DC	Towing Light for vessels over 50 meters, Promount 400-034, 400-404 Base Plate, Cable Side	0	29-03-2017
300-113EC	Towing Light for vessels over 50 meters, Promount 400-034, 400-404 Base Plate, Cable Down	0	29-03-2017
300-113GC	Towing Light for vessels over 50 meters, Promount 400-035, 400-401Base Plate, Cable Down	0	29-03-2017
300-113HD	Towing Light for vessels over 50 meters on a Low Profile Base	0	29-03-2017

TEST REPORTS

- Test Report performed at Delta Danak, Doc. No DANAK -19/12702 Rev.1 Delta-T203286 and dated 21st December 2012.



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- Determination of the luminous intensity distribution and colour coordinates from navigation light model 300-138, Test Report performed at Delta Danak, Doc. No Delta-L102542-3909 and dated 6th July 2012.
- Test Report performed at Delta Danak, Report No:118-323-121, dated 12th October 2018 for determination of colour coordinates and luminous intensity of 3nm 135 degree yellow towing light.
- Test Report performed on model 300-106 at QinetiQ, Doc. No QinetiQ/MS/EES/TSTR0801218/1 dated 4th July 2008
- CB Svendsen A/S report Revision 1, dated 4th June 2013 for the bespoke software in accordance with EN60945.
- Assessment sheet no. 1713, for the acceptance of navigation lights 200-064 and 300-113 based on comparative assessment against model 300-138 by Force Technology, dated 07/05/2018.

LIGHT DETAILS:

<u>No.</u>	<u>Product Name</u>	<u>Model</u>	<u>Visibility Sector</u>	<u>Visibility</u>	<u>LED colour</u>	<u>Software Type</u>
1	Manoeuvring Light	200-064	360°	5NM	White	1.50
2	Towing Light	300-113	135°	3NM	Yellow	1.50

CONDITIONS OF CERTIFICATION

1. The LED Towing Light 300-113 may only be fitted to vessels of 50 metres or more in length as per 72 COLREG's Rule 22 as amended and IMO Res.MSC.253 (83)
2. The LED navigation light types "P/N 300-113 and 200-064" range have been appraised against applicable sections of the standards mentioned under;
 - 2.1 IMO Resolution A.694 (17) - General Requirements for Shipborne Radio Equipment Forming Part of the Global Maritime Distress and Safety System (GMDSS) and for Electronic Navigational Aids
 - 2.2 IMO Resolution MSC.253 (83) - Adoption of the Performance Standards for Navigation Lights, Navigation Light Controllers and Associated Equipment
3. **Installation on board:** The arrangements and installation of the light on board the vessel are not part of this design appraisal or certificate. All such arrangements are to be to the satisfaction of the Surveyors attending on board; the fitting of the light to be in accordance with the manufacturer's instructions and the requirements of COLREGs 72, as amended, and any additional requirement of the State whose flag the vessel is entitled to fly
4. The LED navigation light shall be marked externally accordingly to the requirements of Resolution A.694 (17) and Resolution MSC.253 (83)
5. The LED navigation light shall be delivered complete with their technical documentation and User's manual accordingly to the requirements of Resolution A.694 (17) and Resolution MSC.253 (83)
6. The navigational light controller does not form a part of this design appraisal document. The lights certified herein are to be used in conjunction with an appropriate navigation light controller approved in accordance with MSC.253 (83)
7. An installed software version for each type of lights should be included on the document and the data is to be advised by Lopolight if it is not declared in the manuals that have been examined



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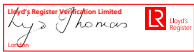
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8. Instructions for installation, use and maintenance of the product are to be supplied to each purchaser
9. LEDs should only be used within the lifespan specified by the manufacturer to maintain the necessary luminous intensity of LEDs. The lifespan of LEDs should be determined and clearly notified to the manufacturer based on the appropriate test results on the decrease of luminous intensity of the LEDs under various temperature conditions of LEDs in the light during operation, taking the appropriate margin into the account
10. If the specified standards are amended during the validity of this certificate, this product type is to be re-approved prior to it being supplied to vessels to which the amended standards apply
11. Production items are to be manufactured in accordance with either an approved Production Quality Assurance system (Module D) or product Quality Assurance (Module E) or Product Verification (Module F) of the Marine Equipment Directive
12. Production tests are to be conducted in accordance with the applicable requirements of IMO Resolution MSC.81 (70), Part 2 and be recorded by the manufacturer in accordance with either the approved Production Quality Assurance system (Module D) or Product Quality Assurance (Module E) or witnessed by the Notified Body as required by the Product Verification (Module F) of the Marine Equipment Directive. This does not preclude any further testing to additional requirements of the Marine Administration of the country where the ship is registered (i.e. the flag state) or those acting on behalf of that Administration
13. Each item, batch or lot of the equipment is to have the "Mark of Conformity" affixed and be issued with a "Declaration of Conformity"
14. Should a change of Place of Production from that stated below be required, i.e. where the final stages of manufacture/assembly/testing of this product take place, the new Place of Production is to be advised to us prior to the change taking place. This Certificate will require to be updated for Approval to be maintained

PLACE OF PRODUCTION

Lopolight ApS
Bakkegaardsvej 513
Humlebaek
DK-3050
Denmark



Lijo Thomas
Senior Specialist
Fire & Safety, Statutory Discipline Team
UK&I Technical Support Office, Marine & Offshore
For and on behalf of Lloyd's Register Verification
LRV EC Distinguishing No. 0038