LOPOLIGHT®

THE ULTIMATE NAVIGATION LIGHT SOLUTION

ALL VESSEL TYPES AND SIZES

SUPER YACHTS | COMMERCIAL | TRANSPORT | NAVY & MILLITARY | SAILBOATS | POWERBOATS

DNV

ABS

ISO

Ex Zone 1

Jan Møller, Managing Director, Partner

Peter Hancke, R&D, Partner

Welcome to the world of Lopolight

This publication is the second iteration of our attempt to show what Lopolight is and does - a presentation of the broad facetted and sometimes quite advanced applications of something that is in essence quite simple – a navigation light which has the sole purpose of preventing collisions at sea.
Our vision is to improve safety onboard. By providing functional lighting solutions in exposed and challenged locations. The Lopolight LED navigation light system is a result of this. Consistent and managed high quality is a necessity for safety products, we are proud to have both the maritime MED module B – the quality part of the 'wheelmark' and now also ISO 9001.

Recently we have received approvals for ATEX/Ex Zone 1 navigation lights and passed rigorous military standards 461G, 901E and 167-1A.

At the same time we have launched the Lopolight White Series and the much anticipated Lopolight Control Hub. So never a dull moment!

Kind Regards

Lopolight

DNV

ABS

ISO

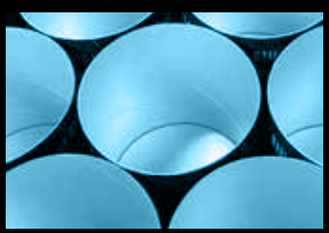
Zone 1

WE ARE PASSIONATE ABOUT IMPROVING SAFETY AT SEA - ESPECIALLY YOURS!

We see ourselves as more than a manufacturer of lights, we are life-long sailors with combined several hundred thousand nautical miles in our wakes, we are passionate about improving safety at sea - especially yours!

It therefore comes naturally to us to provide free-of-charge advice to create the best light plan for your vessel. If you provide us with a GA drawing, some information where and under which flag it will sail – we will supply you with a light plan.

Our deep knowledge and range of lights will ensure that even the most difficult installations are solved in a elegant and cost-effective manner.



When we are delivering complete nav light systems with lights and a navigation light controller we will set-up and test the complete system together for more than 24 hours. We even offer a commissioning service.

Should you face difficulties with a Lopolight product rest assured that we will take good care of you. We offer a 5-year warranty and even after that has expired we will continue to take good care of you by offering significant discounts for replacements.

The Lights for Life is a program that extends our warranty to – life, including an onboard spare parts package.

FACTS

The team at Lopolight has accumulated more than 200.000 nautical miles under sail.

WE DARE TO SAY WE ARE EXPERTS WHEN IT COMES TO NAVIGATION LIGHT SOLUTIONS

One of the benefits of Lopolight focusing only on functional lighting in challenged locations with a strong emphasis on Navigation lights - is that it makes it easy to become an expert.

Our sales and support team sleeps with the COLREGS under their pillows, we really are here to help you solve your lighting challenges

This also means that we will sometimes give advice that is contrary to what you hoped for! But as everything we do is about improving safety at sea, we feel obliged to propose the best solution - not the easiest or the cheapest.

THE LOPOLIGHT SPECIALISTS
Sales managers and technical support team member are regularly receiving formal training in the COLREGs and the associated IMO conventions such as MSC 253(83).

Add to this the local rules that we work with daily, like inland waterways in the USA and in Europe, the Suez Canal and the Panama Canal. Or the Malacca Strait lights, the list is long.

It is mandatory to keep the European 'Wheelmark' to ensure that the whole organization is aware of the important role navigation lights play for safety at sea – and with this comes a strong focus throughout the whole team on producing at the highest quality.

The result is that the whole Lopolight Team are experts in their own right!

YOU AND YOUR PROJECT ARE IMPORTANT TO US
To give you to the best service when you are specifying a navigation light system either for a new vessel or refitting an existing vessel the information we need is:

Vessel size; Type; Flag; Class; Operation area: Inland waterways or offshore.
Will the vessel be transiting Panama; Suez or crossing the Malacca Strait;

We need to know the temperature range the vessel will be operating in - to determine if the lights should have defrosters built in; Finally if there is a need for obstruction lights, fueling lights or other specials.

All this information is found in the vessels GA drawings and the build specifications – so instead of you answering all the above questions, you can send this to us. If you need assurance that we will handle your information confidentially, we have no problem of entering into a NDA with you.

Another alternative to get this service from Lopolight is to use the request form found on our website.

STRONG SALES TEAM
Your first contact with Lopolight is likely with one of our Sales Managers located in key markets around the world, our team of sales representatives in the USA or the strong range of distributors worldwide - rest assured they have all been trained in the COLREGs and the Lopolight product range, and most importantly they know how to use the internal of specialists – to get the very best solution for you!

Find the worldwide contact details on lopolight.com

CERTIFICATION AND APPROVALS

To give you the best assurance of functionality of the essential safety item a navigation light is, several performance standards have been established from authorities around the world.

The most important is the Convention on the International Regulations for Preventing Collisions at Sea, 1972 also known as the COLREGs – here the function of the navigation lights is precisely described. For vessels over 20 meters the MSC 253(83) is an essential supplement as it describes in more detail how the navigation light system must be arranged and controlled.

For European vessels the MED, also known as the Wheelmark, is a mandatory certification, the underlying standard EN14744 is most comprehensive and modern in the world, so many countries choose to accept this.

When you see a product with the Wheelmark mark it implies that there are 2 certificates behind it, a product compliance certificate (Module B), also known as a 'type approval', and a production compliance which means that you have shown the capability and capacity to reliably produce the type approved light, the certificate chosen by professional manufacturers is the Module D.

In the USA the 1988 issued UL1104 standard prevails, a recent guidance from the US Coast Guard (MTN 01-18) has allowed for LED navigation lights to be accepted.

Lopolight holds Wheelmark certificates issued by DNV for all our navigation lights and have successfully tested and shown compliance to UL 1104.
Class Societies are concerned about the navigation light system functionality from the bridge to the lights.

Lopolight holds certification from ABS that demonstrates compliance with MSC 253(83) for both the Lopolight navigation light controller (NLC) and the navigation lights.

CERTIFICATION FOR NAVY
In addition to the civilian regulations the navies around the world are interested in the electromagnetic compatibility (EMC) of the system. The MIL-STD-461F sets the norm over a broader spectrum and allows less noise than the civilian standard IEC 60945.
Regarding radar immunity Lopolight has been successfully tested to endure a radar field of 1500 V/m!
Another central Navy requirement is the ability to endure shock and vibration, Lopolight has been tested to endure 50G of shock and the MIL standard 167 1A for vibration.

CERTIFICATION FOR YACHTS AND SUPERYACHTS
For yachts the esthetics is important and Lopolight delivers, both with the inherent compact size but also the ability to combine lights – whilst retaining the approvals of both.
Examples of combined lights are masthead light with anchor light or stern light with anchor.

CERTIFICATION FOR COMMERCIAL VESSELS
The lights and the NLC are certified. Period. You can rely on this.

Should your copy of the certificates be mislaid then you can always find your copy of the declaration of conformity here: **www.lopolight.com/download-area#certificatesPDF**

Recently we have added ATEX and IEC Ex to the certificates at hand.

DNV

ABS

UNITED STATES COAST GUARD 1790

Ex

Zone 1

SUPERYACHTS

Elegant design, high quality materials and worldwide approvals – your yacht deserves nothing less!

EXTREMELY LONG LIFETIME
Lopolight offers a full range of navigation lights dedicated for superyachts of all sizes, resulting in a compact and precise solution in many combinations that allows for elegant installations. Available as both single and double lights for redundancy.

The range is complete with combination lights, such as a masthead with anchor or innovative 180° lights that mounts very discreetly on your mast to form Not Under Command lights or other signal light tasks.

Should you wish to explore the high latitudes, the Lopolight super yacht range also includes ice-class lights with a built-in defroster – while maintaining the small form factor.

SERVICE, END-TO-END
The famous Lopolight service is not only a 5 year warranty but also an offer of assistance for creating the best solution precisely for your yacht.

All our lights are documented in 2D and 3D to give the naval architect the perfect platform to work from, go to the products page, here the drawings will be waiting for you.

You are also invited to share the details of your vessel with us, including special requests for customized installation - and we will revert with a proposal. If you cannot wait for this, we have created a few popular selections for you available below.

ALL OVER THE WORLD
Navigating the straits and canals of the world requires a number of special lights – the good news is that we have them all ready for you. From hoistable Suez Canal “Christmas-tree lights” and red stern light to dimmable Panama steering light. Even Malacca Strait crossing lights and Kiel Canal green stern lights are available.

Options for interfacing and integration into the bridge system

THE PERFECT SUPERYACHT NAVIGATION LIGHT SYSTEM
Navigation light control and monitoring is important. Lopolight offers many options for interfacing and integration into the bridge system – whilst remaining quite compact – and type approved!

For more information read the section about NLC and Control Hub monitoring and Control system. *Page 28*.

MOUNTING
HORIZONTAL

MOUNTING
VERTICAL

Elegant design,
high quality materials
and worldwide approvals
– your yacht deserves
nothing less!

LEISURE YACHTS

Perfect functionality, iconic design and high quality manufacture – just fitting for your yacht.

YACHTS UNDER 20 METERS

This is where Lopolight started out back in 2004, so we have many solutions and neat combinations for this size bracket of boats and yachts. The COLREGs (Convention on the International Regulation for Preventing Collisions at Sea) provides some flexibility in combinations and installations – and we have used them all to get the best solution for your yacht!

But, please, do remember that the COLREGs and national rules for approvals ALSO applies for this size bracket, regardless of what some manufacturers claim – you need type-approved navigation lights, nothing else should be considered for the safety of you and your passengers.

Lopolight offers combined sidelights in various forms, combination steaming light, stern, and anchor to avoid the proverbial 'Christmas Tree' of lights on flybridge power boats.

All our navigation lights are available in silver or black anodized aluminium, with various mounting bases and options. We have put together some packages based on experience, please see below for inspiration – or go direct to the products section.

YACHTS OVER 20 METERS

Lopolight offers a full range of navigation lights dedicated for yachts between 20 and 50 meters, resulting in a compact and precise solution with good value for money. Both as single and double lights for redundancy. Navigation light control and monitoring is important, with many options for interfacing and integration into the bridge system – whilst remaining quite compact.

The range is complete with combination lights, such a masthead with anchor and with innovative lights such as a masthead with anchor or innovative 180° lights that mounts very discreetly on your mast to form Not Under Command lights or other signal light tasks.

The famous Lopolight service is not only a 5 year warranty but also an offer of assistance to create the best solution precisely for your yacht.

COMPLETE LED NAVIGATION LIGHT CONTROL & MONITORING SOLUTIONS

FOR ALL MARITIME PROFESSIONALS
FOR ANY VESSEL OF ANY SIZE

COMPLETE LED NAVIGATION LIGHT CONTROL & MONITORING SOLUTIONS

Reliable and precise monitoring of your navigation lights is needed both for safety - and it is required by the authorities, such as Class, Flag, Maritime authorities and IMO.

Lopolight offers a broad range of navigation light control and monitoring (NLC) solutions that satisfies the needs of any maritime professional, any vessel of any size.

The system is modular, allowing you to select required modules, while maintaining the safety of the ship and compliance with the relevant rules and standards. For simplicity we have grouped the elements into modules. So you really need only to make 3 choices to get to your solution.

FACTS

Over 400 vessels are sailing with control and monitoring systems from Lopolight

NAVIGATION LIGHT CONTROLLER

This is the core of the system for controlling and monitoring your navigation lights – with the unique Lopolight monitor relay, one for each light. The system is scalable from 4 up to 60 lights.

FULL SIZE
Required for the Phoenix® power supplies. Each full size system holds up to 28 relays, several systems can be combined up to 60 outputs

COMPACT
Ideal for installations where space is at a premium and power supply is DC. Each compact system holds up to 14 relays, several systems can be combined up to 60 outputs.

CABINET OPTION
The cabinet is an optional IP66 enclosure. Available in 2 sizes.

INTERFACING AND INTEGRATION OPTIONS
The webserver driving the MIMIC panel can be integrated in your system in several ways, from the simple fact that the video signal can go directly to your glass bridge screens, controls can happen either from a touchscreen or a keyboard.
For deeper integration we offer a MODBUS TCP/IP interface, that has been successfully employed on super yachts, work boats and Navy vessels.

THE PUSH BUTTON PANEL
The classic robust panel is available in 3 sizes depending on the number of lights to control 14, 21 and 28. Each panel has 4 group functions for single operation of light configurations such as Running, Anchor, R.A.M. and N.U.C. Lights can be paired automatic backup and both light light failure or power failure is constantly monitored with both audible and visible warning. You can pair the lights and any alarms are both visible and audible.

The panel has a RS-232 port that can be used for remote output/input. A NMEA 0183 interface is built-in offering status output for alarm handling systems, VDR and AMS.

More than one panel can be connected to a system allowing easy control for a double bridge installation on vessels such as double ended ferries.
Remote control can easily be established via the Remote Relay Control Module, or if a classic mimic is required the Smart Controller is available.
For Navy and SAR vessels special versions of these panels with nav light dimming function are available. The panels can be waterproofed to IP67. Each panel is engraved to customer specification in language of choice.

THE MIMIC PANEL
The latest addition to our range is the interactive MIMIC panel. As the name indicates it presents a mimic of your vessel and through the touch interface is directly controllable from the screen.

With an unlimited number of light groups, possibility of creating group interactions such as when the anchor lights are activated, the running light will turn off, this mimic panel is extremely versatile.
A comprehensive alarm log is readily accessible for the oncoming watch.

The mimic panel is powered by a compact Linux computer sitting at the NLC core. It works as a local webserver (TCP/IP).

If more than one screen(client) is needed, then you just add a client computer that will connect to the web-server, and provide relevant alarm functions. The mimic panel system is also an excellent choice for autonomous vessels.

The computer (either webserver or dedicated client) connects to the monitor via DP or DVI and USB for touch. Lopolight can supply the monitor or we can connect to an already existing monitor.
Based on a line drawing (side view) of your vessel we will create a mimic, set-up your lights - and the system will be ready to go!

LOPOLIGHT
NAVIGATION LIGHT CONTROL & MONITORING
Under Way
Anchor
N.U.C.
Alarm Reset
All off
PANEL
DIMMING
Stb Primary
Stb Second
N.U.C. Upper
Stb Primary
N.U.C. Upper
Stb Second
Port Primary
Port Second
N.U.C. Upper
Port Primary
N.U.C. Upper
Port Second
Stern Primary
Stern Second
R.A.M.
Stb Primary
R.A.M.
Stb Second
Masthead
Main Primary
Masthead
Main Second
R.A.M.
Port Primary
R.A.M.
Port Second
Masthead
Fwd Primary
Masthead
Fwd Second
N.U.C Lower
Stb Primary
N.U.C Lower
Stb Second
Anchor
Aft Primary
Anchor
Aft Second
N.U.C Lower
Port Primary
N.U.C Lower
Port Second
Anchor
Fwd Primary
Anchor
Fwd Second
Suez
Stern
Panama
Steering
LOPOLIGHT - P/N 500-110-28 S/N 000XX

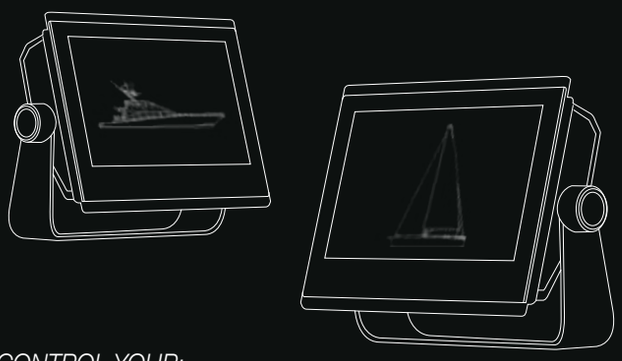
LOPOLIGHT
UNDER WAY
ANCHOR
COCKPIT
SPREADER

LOPOLIGHT CONTROL HUB

MONITOR & CONTROL LIGHTS PLUS OTHER EQUIPMENT - USING YOUR EXISTING MFD DISPLAY.

We are proud to present a new way to monitor and control your lights – and other equipment.

The Lopolight Control Hub gives you 16 channels to operate your nav lights, deck lights, boom lights, docking lights, wipers, fans and monitors your bilge – via your existing MFD display(s). We have collaborated with some of the leading instrumentation brands to give an uncomplicated yet sophisticated touch screen interface, right where you need it.



CONTROL YOUR:

NAV LIGHTS, BOOM LIGHTS, COCKPIT LIGHTS, SPREADER LIGHTS, DOCKING LIGHTS, PUMPS, BILGE SENSOR, HATCH MONITORING, GAS SYSTEM MONITORING AND MORE ...

TECH. INFORMATION:

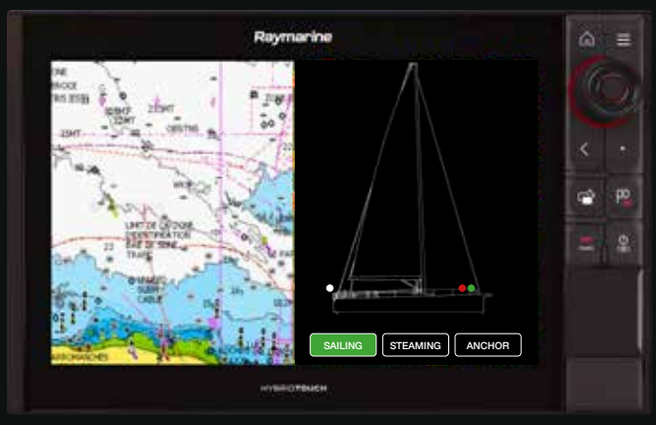
- 16 monitored* outputs, monitoring is optional.
- MFD partners: Garmin, Raymarine, Furuno
- Suitable for modern MFD's with TCP/IP connection.
- Plug´n play connection to MFD
- Mimic graphic can be customised
- Max power output 2A per channel (max 10A total)
- 4 input channels, to operate the hub without the MFD

** Monitored enables alarms and automatic switchover in case of light failure.*

Specification is subject to change without notice.

INTERFACE ON THE SCREEN

The Lopolight Control Hub appears as an app on your MFD display – the actual control hub is a device to which the individual nav lights and other equipment are connected and powered, this device has an Ethernet connection to the MFD's onboard.



THE CONTROL HUB PRODUKT

The hub is compact (approx. 150 x 150 x 40mm), it does not have to be installed visibly in the chart table, but as it has a basic emergency operation function, it must be easily accessible.

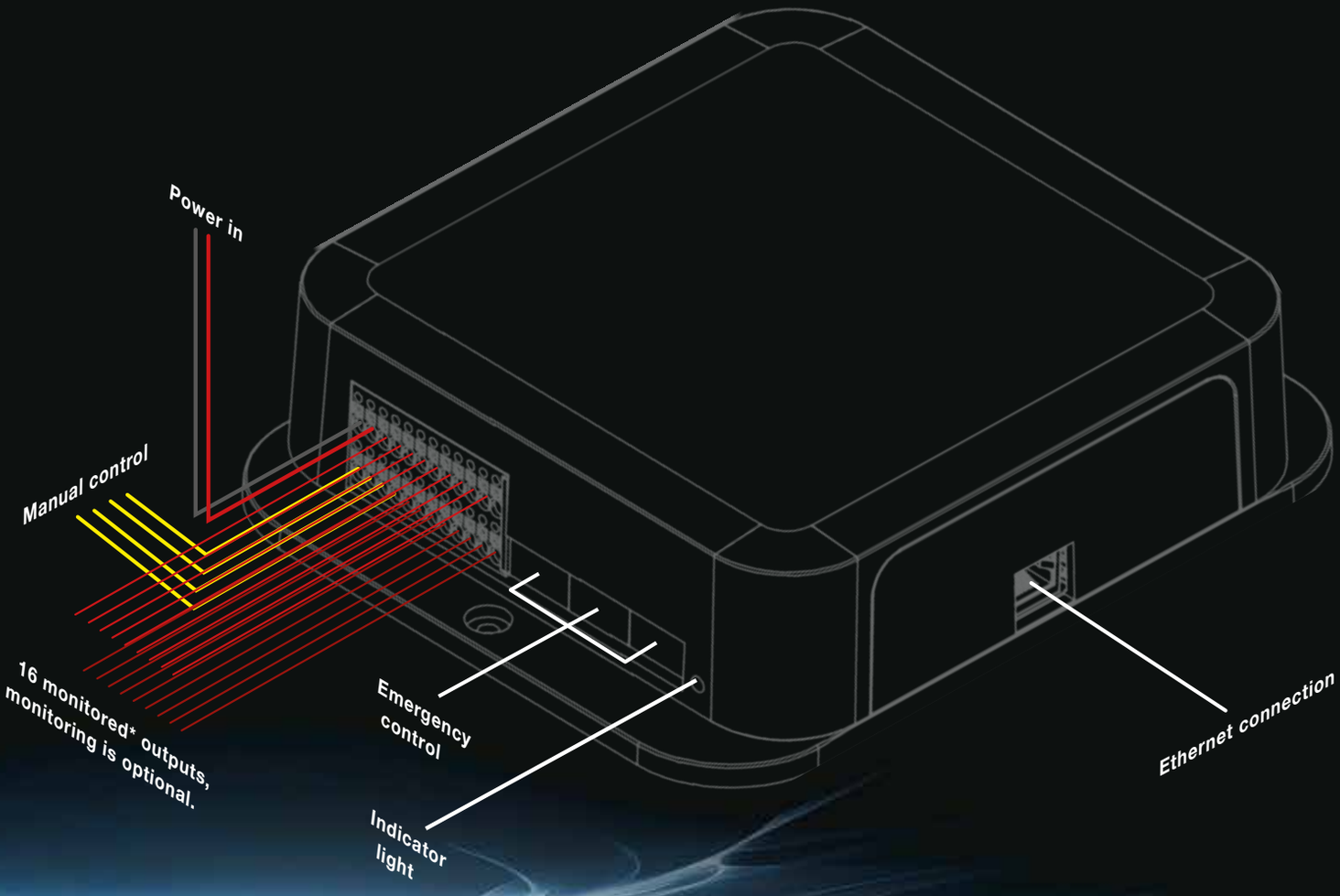
AN AUDIBLE ALARM

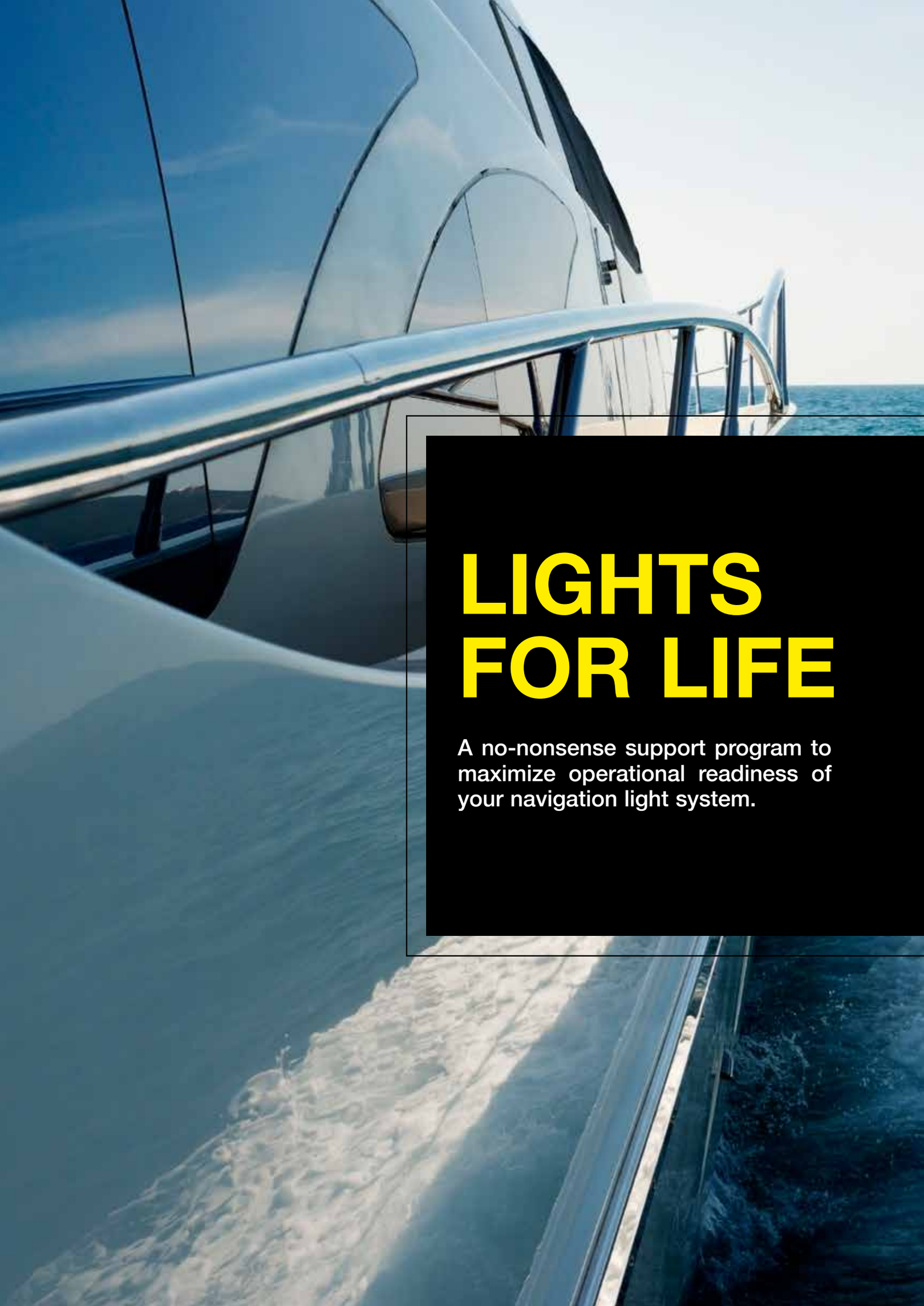
The monitoring is performed as a current monitoring, and an alarm is given in the event of a lack of power consumption. The unit has an output for an audible alarm, which can be placed freely and controlled via the MFD interface.

MONITORED OUTPUTS

There are 16 monitored outputs, these can be used for all types of power consumers such as nav lights, deck lights, boom lights, bilge alarm and more. The maximum load on each channel is 2A and the whole unit has a maximum load of 10A. The unit operates at 12 and 24 Volts.

In addition there are 4 input channels available, they can be used for operating lights directly without using the MFD, perhaps that is your decklights activated remotely





LIGHTS FOR LIFE

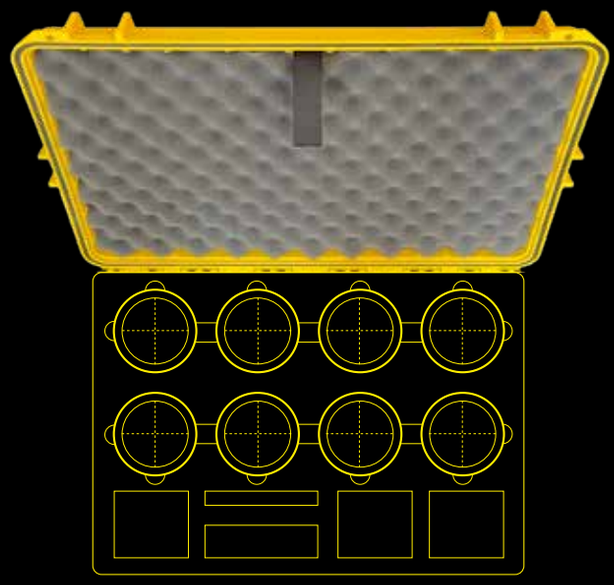
A no-nonsense support program to maximize operational readiness of your navigation light system.

LOPOLIGHT KEEPS YOU SAILING

- ALWAYS READY AND UPDATED!

Lopolight ensures that all spare parts for your navigation light solution, including installation guides are on board your vessel. The spare parts are replenished automatically as long as the subscription is kept – truly lights for life.

Lopolight will make a high quality yellow pelicase available with spare parts for all lights onboard, and spare parts for the NLC together with a troubleshooting guide and installation instructions. The pelicase will be kept always updated, with Lopolight shipping replenishment items free of charge.

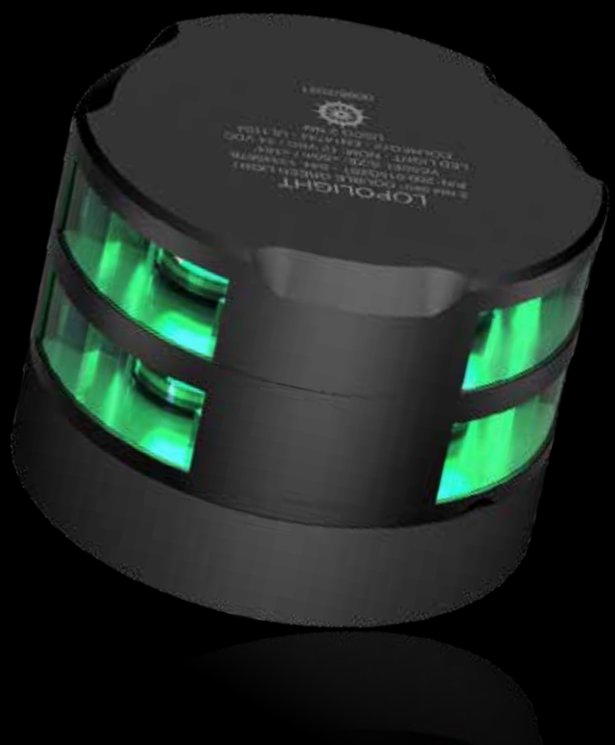


A SIMPLE PROGRAM
The Lights for Life (L-4-L) program is offered for installations with Lopolight Navigation Lights and Lopolight Navigation Light Controller only.

DETAILS:
L-4-L is a Subscription based service; monthly subscription fee based on the system list price. When items from case is used, the crew fills out an online warranty claim form and we will free of charge send a replacement part to the address specified. Subscription minimum length is 36 months, there is no maximum length. Subscription is vessel specific.

A support program to maximize operational readiness and to comply with IMO Resolution MSC.253(83) spare lamp requirement.

If you are interested in this please fill out the form on our website www.lopolight.com/solutions/lights-for-life and we will get back to you with information. Thanks



REFIT

THERE IS AN EASY-TO-INSTALL LOPOLIGHT RETROFIT OPTION FOR YOUR VESSEL!

Yes! **you can re-use the existing cabling onboard, the power draw from Lopolight is always smaller than what you had previously.**

And if you want to (or are asked to by authorities) upgrade from single lights to double lights, we are most likely able to help – again without pulling new cables. With the experience from numerous re-fits Lopolight today has adaptors for most competitors' products, so no new holes need to be drilled.

The re-fit can be performed by the crew, with no outside assistance.

The Lopolight team helps in the specification, fabricating custom parts, delivering a complete system that has been bench tested together before shipment – and we are available via video during the install.

The time required for the re-fit can be condensed down to 6 hours, this is not recommended, we propose to create a 2-3 day window for the operation to allow for a stress free process.

Call us, or send the request form, we have adaptors and fittings for all types of installations – and Lopolight is more affordable than most sailors are led to believe.

The request form:
www.lopolight.com/vessels/commercial-vessels#refit

PORTABLE NAVIGATION LIGHT

RUGGED, MAGNETIC MOUNTED, BATTERY POWERED.

For use in applications where ships power is not available and navigation lights are required for safety. Such as barges and unmanned vessels.

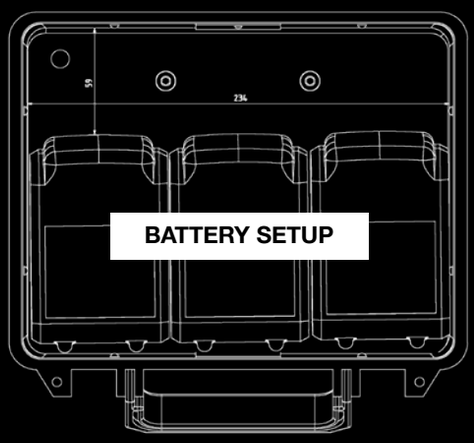
The unit is powered by 3 Pcs. of standard DeWalt 18/20V batteries allowing a working time of up to 200 hours.

The daylight switch function maximises battery life. increasing the interval between rechanging. The battery pack is based on well-known power-tool batteries from DeWalt. (Batteries to be sourced locally.)

The K-lock system enables you to change the navigation light function in seconds. Any standard (circular) Lopolight navigation light can be fitted.
The daylight switch function is calibrated to switch the navigation light on/off at 100/200Lux – as specified by rules and regulations. Typical battery lifetime is 25 days.

The portable navigation light box is designed to “take the beating” presented by the harsh environment in daily heavy-industrial use. Waterproof to IP-67, and will withstand most common mechanical impacts.

The box is equipped with three powerful magnets that will hold the unit in place under most circumstances, reducing the installation time to a few seconds. The magnets are placed in a triangular pattern for optimal hull-contact, and still enabling easy retrieval.



COMMERCIAL VESSELS

PROFESSIONAL SOLUTIONS

We know that you are dependent on your navigation lights, and we have pulled out all stops to make the ultimate reliable and maintenance free navigation light solution for the professional mariner.

TECHNICALLY FURTHER DEVELOPED PRODUCT
The process started with improving the already rugged Lopolight navigation lights for super yachts and leisure vessels by toughening the outer shell with a hard coat anodizing in black. The professional series includes a IP68 waterproof aluminium base – that allows termination of the ships cable inside the light. We even add various sizes of high-quality cable glands to allow for perfect installation from 19mm (3/4") to 5mm (3/16").

The light installs on a composite (HDPE) base plate, that allows for easy installation and isolates the light from the ship.

CONTROL AND MONITORING SYSTEM
Perhaps the most interesting aspect of the Lopolight Professional Series is that it comes as a system, incorporating our Control and Monitoring. We will also assist with specifying the best solution for you.

Please send us details of the vessel you want to equip or upgrade, and we will reply with a quotation.

WE HAVE SOLUTIONS FOR ALL TYPES OF COMMERCIAL VESSELS

WORK BOATS
Lopolight LED Navigation lights are a perfect fit for work boats, being rugged and robust and will take a knock or an immersion without notice. The lights are smaller in height and diameter making them just perfect for all types of work boats - without compromising performance.

FERRIES
Vibration and 24/7 service are just given factors for most ferries. It is no coincidence that Lopolight is a popular choice with a construction that is vibration proof. We offer a complete solution with all the lights required and a control and monitoring system that can be molded to your exact needs. – up to 50G shock!

CARGO SHIPS
Reliability and low maintenance are key benefits that comes with installing a Lopolight Navigation Light system on board. The system comes pre-configured for integration to VDR and central alarm controls. All special lights such as Suez Canal, Malacca Strait, Panama are available.

TUGS
Robust construction, vibration safe and absence of noise on the VHF – that's the feedback tug captains give us when we ask why they have chosen Lopolight.

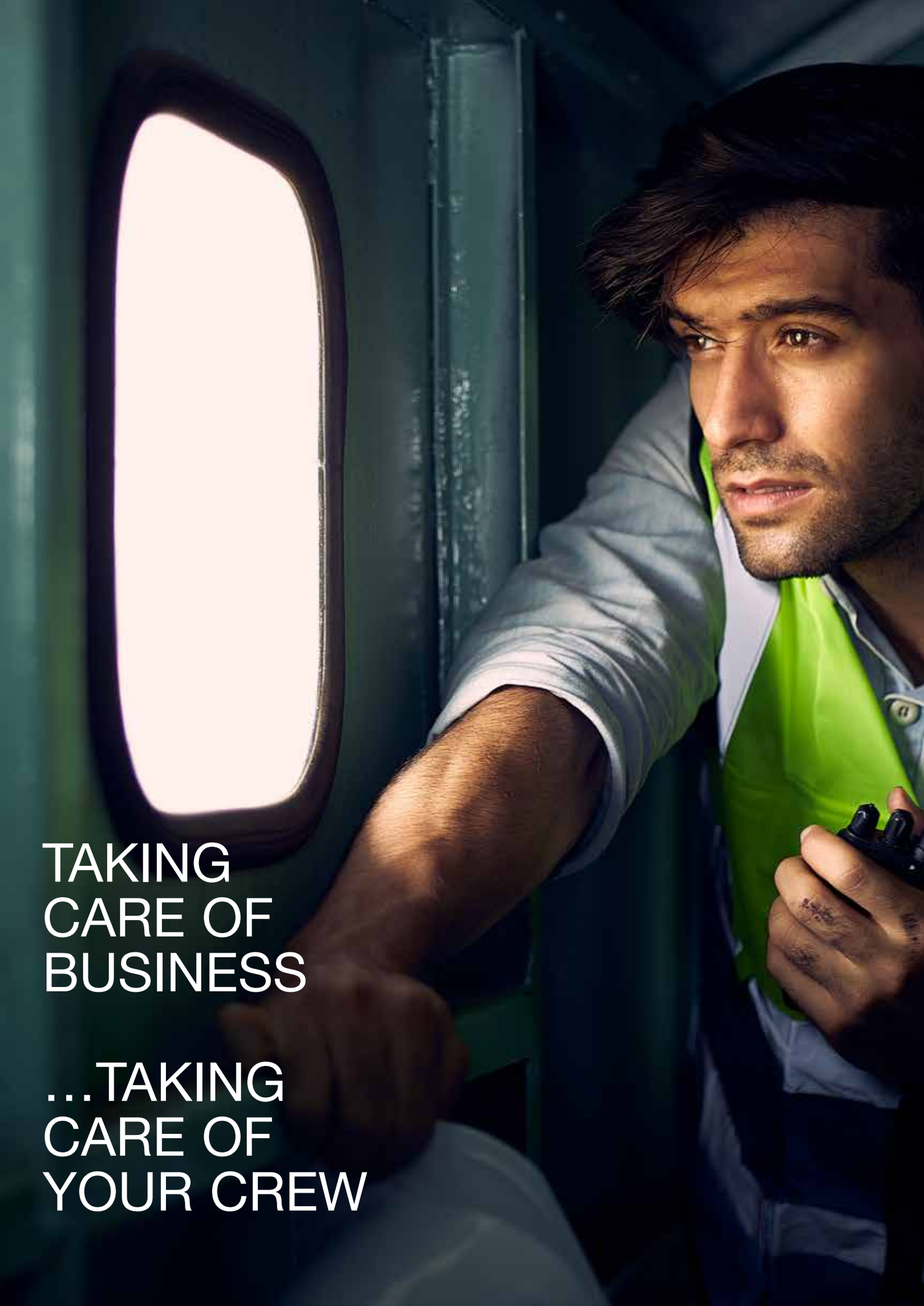
HEAVY LIFT CRANE "BALDER"
With 36 navigation and signal lights together with 2 bridges the "Balder" was a nice challenge for us when they wanted a complete re-fit in 2016.

PUSHERS AND ATB's
The special rules for inland waterways is normal practice for the Lopolight team when advising on what configuration is required. We have many unique ways of making life onboard easier, most recently we introduced remote monitoring and control of the barge lights from the bridge of the tug.

THE LOPOLIGHT PROFESSIONAL NAVIGATION LIGHT SERIES

PRO|ICE|EX|EX-ICE

DESIGNED AND BUILT FOR YEARS OF USE IN A ROUGH ENVIRONMENT


TAKING
CARE OF
BUSINESS
…TAKING
CARE OF
YOUR CREW

SAFE WORK – HAPPY CREW
Imagine the relief not to have to climb the mast to change light bulbs, the Lopolight LED Navigation lights are double, so if something should fail, the back-up is always there – and the crew can stay safe.

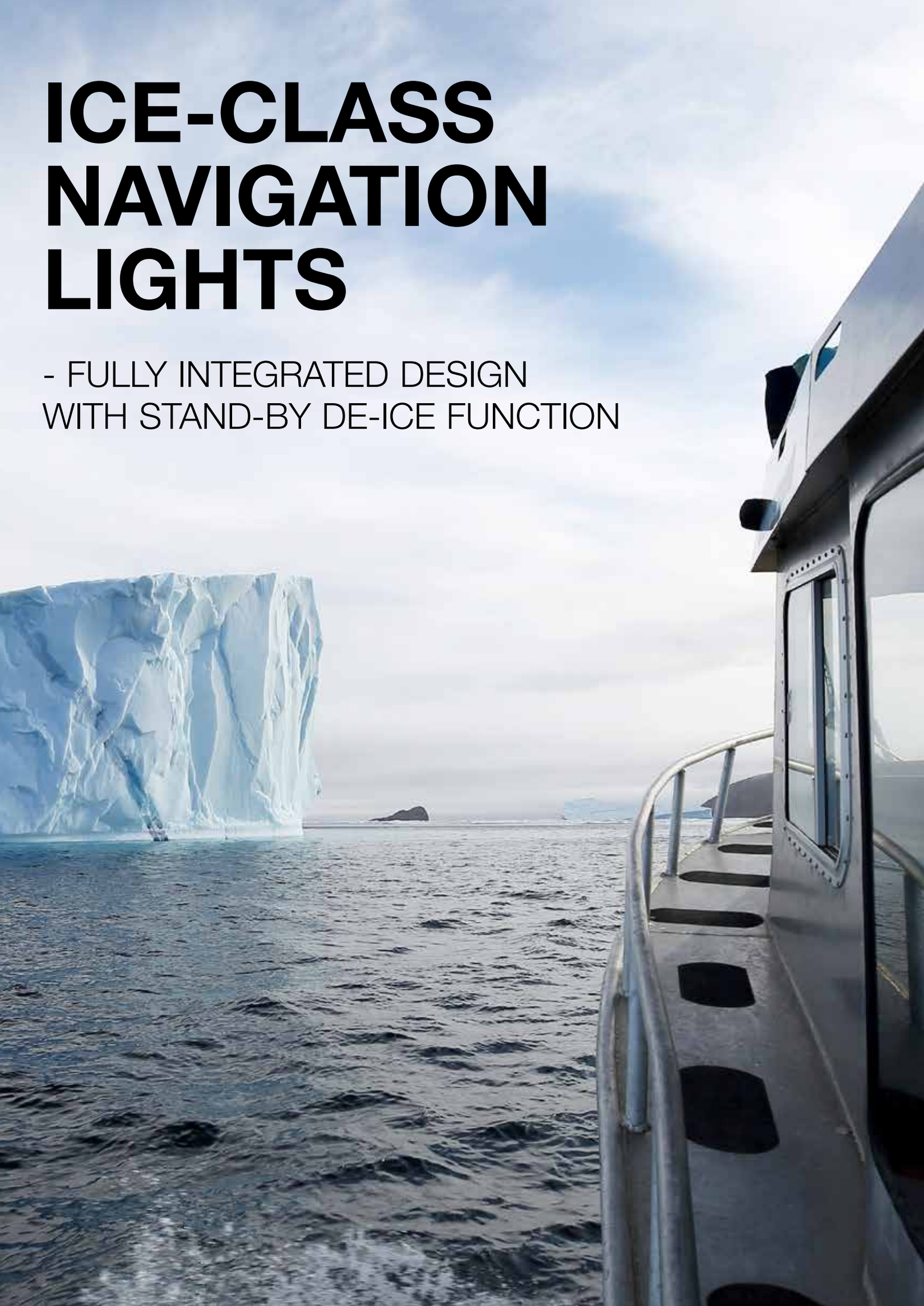
STAY IN CONTROL
Knowing that your Navigation lights are fully monitored, even for complex installations with ice-class heaters or dimmable SAR/Navy lights, gives the cool feeling of being in control!

LESS TO WORRY ABOUT
There are always many things to do, fish to catch or people to transport, you don't want to worry about not being seen at night. Lopolight has your back!

ONE LESS HOT SPOT
The ATEX certified Lopolights ensures better safety even in areas where flammable gasses are occasionally present

ICE-CLASS NAVIGATION LIGHTS

- FULLY INTEGRATED DESIGN
WITH STAND-BY DE-ICE FUNCTION



DE-ICING LED NAVIGATION LIGHTS - THAT YOU CAN DEPEND ON!

The ice-class functionality has been integrated from the early design phase; this gives a number of advantages that you can read about below. The ability to truly monitor the light, that the light can be thawed when in the 'off' position, only needing 1 cable for both light and heating and that we only use a fraction of the energy that our competition needs all comes together in a unique product. Did we say that there is no problem in mixing ice-class lights with regular Lopolight nav lights in a installation?

STAND-BY DE-ICE FUNCTION
Activate the stand-by de-ice function and keep all relevant Lopolight´s ready for use in an ice free condition. Even when light is switched off. This exclusive feature installs in the same 2-wire cabling that is powering the light.

FULLY INTEGRATED DESIGN
– plug & play, ABS, DNV & USGC approved

The Ice-class feature has no impact to the weight, size, mounting configuration, IP-rating, electrical connections or approvals of the standard Lopolight Navigation Lights.

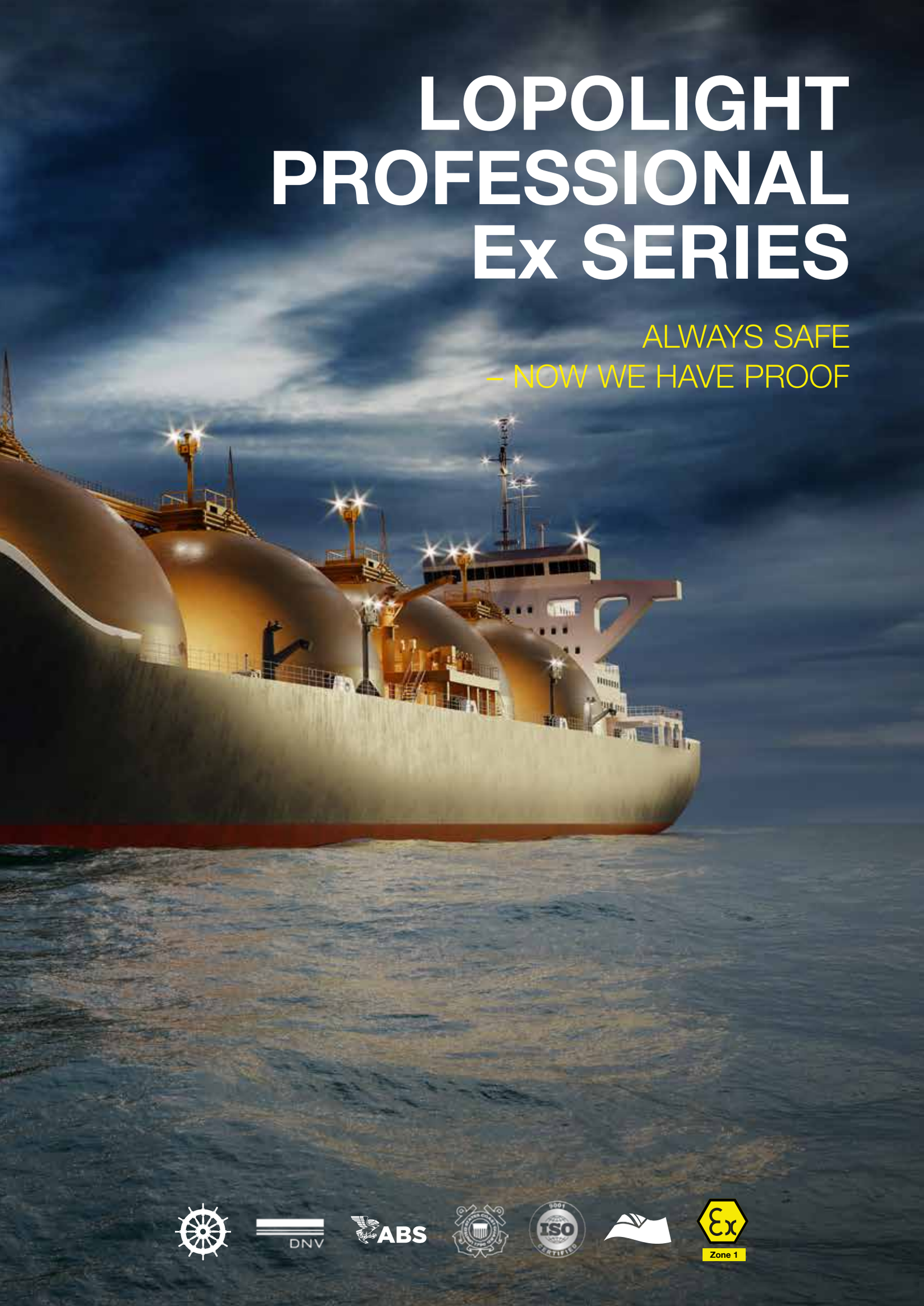
All Lopolight ice class lights are available in a dimmable Navy/SAR version.

SEAMLESS INTEGRATION WITH LOPOLIGHT CONTROL & MONITORING SYSTEMS
The built-in logic- and power control allows full and detailed monitoring of the basic navigation light function, also when full de-icing is active. All functions controlled via 2-wire cabling! - all functions controlled via a correctly configured Lopolight NLC system.

NO ADDITIONAL CABLING REQUIRED
– less cost and easier to install or re-fit

Lopolight's low power consumption, combined with the efficient de-ice control, works seamlessly using simple 2-wire cabling. Even dimmable navy installations can be integrated in the same simple cable systems.

LOW POWER CONSUMPTION FOR HEATING
The low profile of the lights in combination with heat conducting aluminium, allows for efficient de-icing at low energy usage. Testing to -60°C /-76°F proves full de-icing ability, even under extreme arctic conditions.



LOPOLIGHT PROFESSIONAL Ex SERIES

ALWAYS SAFE
– NOW WE HAVE PROOF

DNV ABS ISO 9001 CERTIFIED Ex Zone 1

ATEX/IEC Ex LIGHTS

ZONE 1
NAVIGATION LIGHTS

WHY EXPLOSION PROOF NAVIGATION LIGHTS?

The location of the Navigation lights onboard leaves little room for flexibility. It is important that your vessel is displaying the correct lights at the correct position demanded by the COLREGS – this enhances safety at sea by lowering the risk for misunderstandings.

The number of vessels with an ATEX/IEC Ex zone is increasing rapidly. Consider the growing fleet of NLG tankers and the associated infrastructure such as tugs, pilot boats and service vessels, or the hundreds of vessels in build now using NLG, Methanol, Ammonia, and others – all with ATEX/IEC Ex zones. And then we have all the oil rigs, with their signal lights.

All in need for no-compromise, rugged, fit 'n forget light solution.

ALWAYS SAFE – NOW WE HAVE PROOF
From the first designs 20 years ago – where the electronics of the lights was fully encapsulated in epoxy, power consumption was 1/10 of the comparable incandescent lights, we had a feeling that the product was safe to use in areas where flammable gases could be present.

Immediately after receiving our ISO 9001, quality management certification, which is a pre-requisite for any ATEX certification we went to work on getting the Lopolight Professional Series certified for ATEX and IEC Ex

APPROVED FOR BOTH ATEX/IEC Ex ZONE 1 AND 2
The Lopolight Professional EX Series is formally approved for use in ATEX/IEC Ex equipment group II, Category 2, Zone 1 (and therefore also Zone 2).

The difference between the mentioned zones can be described like this: Zone 1 is an area that is classified 'as a place in which an explosive atmosphere consisting of a mixture with air or flammable substances in the form of gas, vapours and mists is likely to occur occasionally during normal operation', whereas Zone 2 is an area that is classified 'as a place in which an explosive atmosphere consisting of a mixture with air or flammable substances in the form of gas, vapours and mists is not likely to occur in normal operation but if it does occur, it

THE LOPOLIGHT ATEX/IEC EX SOLUTION
The Professional EX Series lights are kept in the exact same form factor as the regular Professional Series, the difference is in the manufacturing; the use of ATEX/IECEx certified components such as connectors and cable glands. The marking is ATEX/IEC Ex specific and there is a grounding strap.

The full range of the Professional Series are available in the EX configuration – including the ice-class lights!

The EX Series lights are fully compatible with the Lopolight Navigation Light Control & Monitoring system.

TECHNICAL DETAILS.
Design, dimensions and quality as the Lopolight Professional series navigation lights: Hard coat anodized aluminium housings, PMMA optics, fully encapsulated, all upgraded to ATEX/IEC Ex

APPROVED TO:
COLREG72, MED (Wheelmark), UL1104, DNV, ABS
ATEX/IEC Ex equipment group II, Category 2, Zone 1.

STANDARDS:
ISO/IEC 80079-34:2020, IEC 60079-18:2015, IEC 60079-7:2015

Ex eb mb IIB T5 Gb

Ex = Explosion protected
eb = Increased safety
mb = Encapsulation zone 1
IIB = Gas group marking = Ethylene
T5 = Max surface temp 100 °C
Gb = Equipment protection level

Ex-equipment is traditionally used in places like:

- The chemical industry
- Oil refineries
- Off shore installations (platforms)
- Filling stations
- Tunnels/ sewers/ drains
- Milling industry / printing-house / painting industry
- Farmer's installations
- Mining industry

The maritime industry is increasingly requesting Ex lights for:

- LNG transports
- Gas/oil terminals operations such as tugs, pilot boats and service vessels
- Alternative fueled vessels (using methanol, hydrogen or ammonia)

DESIGNED FOR CONTINUOUS USE
IN CHALLENGING ENVIRONMENTS

NAVY AND MILITARY PROJECTS

OUR TEAM OF EXPERIENCED SPECIALISTS ARE STANDING BY TO ASSIST

NAVY AND MILITARY PROJECTS

Over the years the Lopolight team has worked with a large number of Navy, Military and SAR projects, each with their own set of requirements and challenges.

Extreme environmental demands, such as immunity to 1500V/m Radar, 50G shock, 65 bar pressure, stealth design or just tamper proof are features that we master.

We take the otherwise illegal dimmable navigation light as for granted in this field – but add that we still can monitor it in its dimmed state – even with the ice-class defroster active!

FROM THE BEGINNING

Lopolight has been supplying Navies with rugged navigation lights, starting with very fast small craft for special forces, that were in need for something that can take the extreme vibration and water pressure from high speed close to the water.

All special Navy lights are in our product range, such as Deceptive lighting, IR follow-me lights, Blue Convoy lights, Wake lights, MOB signaling systems, Obstruction lights, Waterline security lights, Perimeter lights plus many unique fittings are available. That our lights are NVIS/NVG compatible is in the DNA of every product.

SPECIAL PROJECTS

Several projects with autonomous vessels allow us to add that we have that in hand. The only military field where we come up short is in the air.

With NATO/OTAN manufacturer registration, strong and surveyed quality management systems and with a good track record of honoring confidentiality and signed NDA's we are ready to accept your challenge.

Today we have proven navigation light solutions for ALL types and sizes of military craft

COMPLETE LED NAVIGATION LIGHT SYSTEMS FOR ALL TYPES AND SIZES OF NAVAL VESSELS_

COMPLIANCE AND CERTIFICATION IS PARAMOUNT

All our military lights are complying to the relevant civilian standards and are designed and built from the base of the professional series lights. Recently the Lopolight team have successfully concluded several military standards tests, demonstrating that the Lopolight systems are fit for purpose.

MIL-STD-461G
MIL-STD-461G is an important testing standard. It ensures that the Lopolight Navigation light systems will function properly within electromagnetic environments and avoid releasing energy that could potentially cause electromagnetic interference (EMI) with nearby devices. For those interested, we comply to sub-standards: CE101, CE102, CS101, CS106, CS114, CS116, RE101, RE102, RS101, RS103, RS105 – the last one is an EMP pulse of 50000 Volts/meter!

MIL-DTL-901E
MIL-DTL-901E is high-impact shock test standard. The tests were performed on a shock machine on land in the proverbial “hammer test” that involves a moving weight that is dropped from various heights, imparting high transient shock to the navigation light system that is affixed to an anvil plate. Amazing video footage came out of this test at E-Labs in the USA.

MIL-STD-167-1A
MIL-STD-167-1A is a military standard published by the U.S. Department of Defense and used by test engineers to assess the impact of mechanical vibrations on Navy shipboard equipment. This test is performed directly after the 901E shock test on the same equipment, it passed with flying colours.

MIL-STD 1399
MIL-STD 1399 is a military standard approved for use by the Naval Sea Systems Command, Department of the Navy. The purpose of MIL STD 1399 is to define the standard interface requirements and constraints applicable on the design of shipboard user equipment that will utilize shipboard alternating current electric power.
The Lopolight system has been tested to MIL-STD-1399 SECT300 PART1.

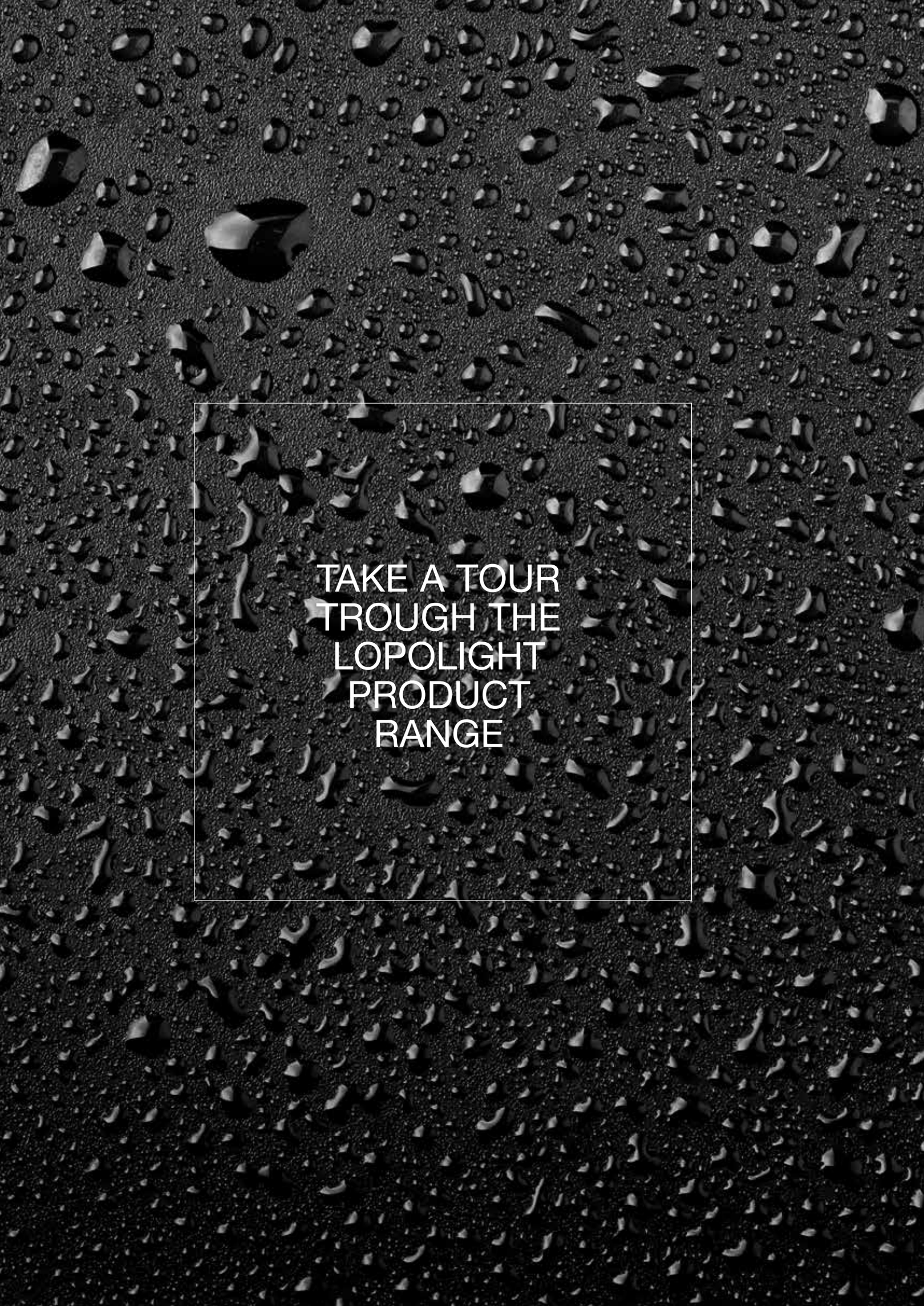
CONFIDENTIAL

WARSHIPS
Lopolight offers a complete tried and tested range of Navy lights, both navigation, task and special lights, all with dimming option, whilst maintaining a fully monitored status , with intelligent ice-class option. Rugged compact construction, good for stealth applications. Best in class EMI/EMC. We have a strong reference list.

AUTONOMOUS VESSELS
With installations on several autonomous Navy vessels around the world Lopolight is at the frontier of this field. The control and monitoring solutions we offer are flexible and can be configured to interface to the onboard systems in several ways such as over a serial communications interface or via Modbus TCP/IP.

ARMY TUGS & LANDING CRAFT
The small form factor and extreme ruggedness makes the Lopolight range a perfect fit for smaller vessels in the army and navy contingent. The requirement for ultra-compact control and monitoring equipment is something we master. Having equipped LCVP's, LCU's and even MWT's for multiple counties armies and navies we have all the lights you would need.

PATROL BOATS
We offer complete solutions for the smallest inflatable boat that needs correct and reliable nav lights, even with its own battery pack, all the way up to patrol vessels that have equipment requirement similar to a ship but limited space. The Navies in Sweden, Denmark, Norway, Finland, UK, USA, Singapore and many others are equipping their vessels with the robust Lopolight navigation lights.


TAKE A TOUR
TROUGH THE
LOPOLIGHT
PRODUCT
RANGE

PRODUCT RANGE:

- LEISURE AND SMALL CRAFT

- SUPER YACHTS

- PRO - ICE + EX

- NAVY/DIMMABLE

- DECK AND WHEELHOUSE LIGHTS

THE ORIGINAL SERIES

This is where Lopolight started out back in 2004, so we have many solutions and neat combinations for this size of boats and yachts. The COLREGs (Convention on the International Regulation for Preventing Collisions at Sea) provides some flexibility in combinations and installations – and we have used them all to get the best solution for your yacht!

But, please, do remember that the COLREGs and national rules for approvals ALSO applies for this vessel size, regardless of what some manufacturers claim – you need type-approved navigation lights, nothing else should be considered for the safety of you and your passengers.

Lopolight offers combined sidelights in various forms, combination steaming light, stern, and anchor to avoid the proverbial 'Christmas Tree' of lights on flybridge power boats.

LENGTH		
Mounting	**Vertical**	**Horizontal**
Starboard sidelight		
Port sidelight		
Combined sidelight		
Stern light		
Stern light w/decklight		-
Towing light		
Masthead		
Masthead w/decklight		-
Masthead/anchor/stern (power boats)	-	
Stern/anchor/masthead (sailing boats)	-	
Anchor light		
Tricolor light	-	
Tricolor w/Windex mount+light	-	
Tricolor w/anchor	-	
Tricolor w/anchor & Windex mount+light	-	
Tricolor w/anchor & strobe	-	
Signal Red 360°		
Signal Green 360°		
Signal Yellow 360° (add 'S' for strobe)	-	
Signal Blue 360° (add 'S' for strobe)	-	

- All lights available in Silver anodized or Black anodized (just add -B to part number)

- Some lights available in White ceramic coated finish, please check Lopolight website for details

- Some lights are available with longer cables, please check Lopolight website for details

**) 180° light, 2 pcs needed*

	LEISURE YACHTS					
	UNDER 39.4'/ 12M		UNDER 66'/ 20M		UNDER 164'/ 50M	
	Vertical	Horizontal	Vertical	Horizontal	Vertical	Horizontal
	101-001	301-008-FB	301-001	301-008-FB	301-001	301-008-CD
	101-002	301-009-FB	301-002	301-009-FB	301-002	301-009-CD
	101-003-FB	101-003-FB	201-004	201-003-FB	na	na
	301-006	301-005-FB	301-006	301-005-FB	301-006	301-005-CD
	301-006DLX	na	301-006DLX	na	301-006DLX	na
	201-013V	201-013-FB	201-013V	201-013-FB	201-013V	201-013-CD
	201-010	201-010KL-FB	201-011	201-011KL-FB	301-011	301-011KL-CD
	201-010DLX	na	201-011DLX	na	301-011DLX	na
	na	201-020-FB	na	201-021-FB	na	na
	na	201-030-FB	na	na	na	
	200-024G2*	200-012-FB	200-024G2	200-012-FB	200-024G2*	200-012-CD
	na	101-005-FB	na	201-005-TB	na	na
	na	101-005W-FB	na	201-005W-TB	na	na
	na	101-009-FB	na	201-007-TB	na	na
	na	101-009W-FB	na	201-007W-TB	na	na
	na	na	na	201-007S-B-TB	na	na
	200-016G2*	201-014-FB	200-016G2*	201-014-FB	200-016G2*	201-014-CD
	200-018G2*	200-015-FB	200-018G2*	200-015-FB	200-018G2*	200-015-CD
	na	201-023-FB	na	201-023-FB	na	201-023-CD
	na	201-022-FB	na	201-022-FB	na	201-022-CD

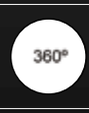
THE PERFECT SUPER YACHT NAVIGATION LIGHTS

Elegant design, high quality materials and worldwide approvals – your yacht deserves nothing less!

Lopolight offers a full range of navigation lights dedicated for super yachts of all sizes, resulting in a compact and precise solution in many combinations that allows for elegant installations. Available as both single and double lights for redundancy.

The range is complete with combination lights, such as a masthead with anchor or innovative 180° lights that mounts very discreetly on your mast to form Not Under Command lights or other signal light tasks.

Should you wish to explore the high latitudes, the Lopolight super yacht range also includes ice-class lights with a built-in defroster – whilst maintaining the small form factor.

LENGTH		
Mounting	**Vertical**	**Horizontal**
Starboard Sidelight		
Port Sidelight		
Stern light		
Masthead		
Masthead w/decklight		
Masthead + anchor	-	
Anchor	-	
Stern + anchor	-	
N.U.C.		
R.A.M.		
Maneuvering light	-	
Sailing vessel 'red over green'		
Obstruction light	-	

	CRUISER		SUPER YACHT				MEGA YACHT	
	UNDER 80'/ UNDER 24M		UNDER 164'/ UNDER 50M		OVER 140'/ OVER 40M		OVER 200'/ OVER 65M	
	Vertical	Horizontal	Vertical	Horizontal	Vertical	Horizontal	Vertical	Horizontal
	301-001	301-008-FB 301-008-CD	301-001ST	301-008ST	301-101ST	301-108ST	301-101ST	301-108ST
	301-002	301-009-FB 301-009-CD	301-002ST	301-009ST	301-102ST	301-109ST	301-102ST	301-109ST
	301-006	301-005-FB 301-005-CD	301-006ST	301-005ST	301-106ST	301-105ST	301-106ST	301-105ST
	301-011	301-011KL	301-011ST	301-011KLST	300-139	300-138	300-139	300-138
	301-011DLXi	na.	301-011DLXi	na.	na.	na.	300-116G2ST**	300-114G2ST
	na.	201-012-FB* 201-021-CD*	na.	301-011KLST+012G2		300-138+112G2		300-138+112G2ST
	na.	201-012-FB 201-012-CD		201-012-FB		300-112G2		300-112G2ST
	na.	na.	na.	na.	na.	na.	na.	301-105ST+112G2ST
	200-016G2**	201-014-FB	200-016G2**	201-014-CD	300-116G2**	300-114G2	300-116G2ST**	300-114G2ST
	na.	na.	200-024G2**	200-012G2	300-124G2**	300-112G2	300-124G2ST**	300-112G2ST
	na.	200-064	na.	200-064	na.	200-064	na.	200-064ST
	200-016G2**	201-014-FB	200-016G2**	201-014-FB	300-116G2**	300-114G2	300-116G2ST**	300-114G2ST
	200-018G2**	200-015G2-B	200-018G2**	200-015G2-B	300-118G2**	300-115G2	300-118G2ST**	300-115G2ST
	na.	301-411-B		301-411-B		301-411-B		301-411-B

- All lights available in Silver anodized or Black anodized (just add -B to part number)
- Most lights available in White ceramic coated finish, please check Lopolight website
- Suez lights available in all configurations, including hoistable 'Christmas trees'

**) approved for up to 66'*
***) 180° light, 2 pcs needed*

PROFESSIONAL SERIES.

Regular – Iceclass – Ex – Ex-iceclass

THE TRUSTED AND VERY POPULAR PROFESSIONAL SERIES HAS OVER THE YEARS EVOLVED INTO 4 GROUPS:

The regular pro-series,
the toughened and ruggedized choice for the professional mariner.

The ice-class series,
where in addition we have provided heating elements to ensure operational perfection for deep-freeze conditions.

The Ex-series,
for use in ATEX or ex zone 1 and 2 environaments
And finally the Ex-series with ice-class defrosters.

The Mounting options,
If you are re-fitting your vessel we have adaptor plates to ensure perfect and easy installation without the need for hot work or re cabling.

		UNDER 20 METERS		UNDER 50 METERS		OVER 50 METERS	
STARBOARD SIDELIGHT		**Single**	**Double**	**Single**	**Double**	**Single**	**Double**
	Regular	301-008-PRO	301-008ST-PRO	301-008-PRO	301-008ST-PRO	301-108-PRO	301-108ST-PRO
	Ice class	301-008-PRO-I	301-008ST-PRO-I	301-008-PRO-I	301-008ST-PRO-I	301-108-PRO-I	301-108ST-PRO-I
	Ex light	-	301-008ST-PRO-EX	-	301-008ST-PRO-EX	-	301-108ST-PRO-EX
	Ex light ice class	-	301-008ST-PRO-I-EX	-	301-008ST-PRO-I-EX	-	301-108ST-PRO-I-EX
	Dimensions	Single: 103,5 x Ø130mm (HxW) - 1,2kg - 4” x 5 1/8” (HxW) - 42 oz. Double: 125,5 x Ø130mm (HxW) - 1,7kg - 5” x 5 1/8” (HxW) - 59 oz					
PORT SIDELIGHT		**Single**	**Double**	**Single**	**Double**	**Single**	**Double**
	Regular	301-009-PRO	301-009ST-PRO	301-009-PRO	301-009ST-PRO	301-109-PRO	301-109ST-PRO
	Ice class	301-009-PRO-I	301-009ST-PRO-I	301-009-PRO-I	301-009ST-PRO-I	301-109-PRO-I	301-109ST-PRO-I
	Ex light	-	301-009ST-PRO-EX	-	301-009ST-PRO-EX	-	301-109ST-PRO-EX
	Ex light ice class	-	301-009ST-PRO-I-EX	-	301-009ST-PRO-I-EX	-	301-109ST-PRO-I-EX
	Dimensions	Single: 103,5 x Ø130mm (HxW) - 1,2kg - 4” x 5 1/8” (HxW) - 42 oz. Double: 125,5 x Ø130mm (HxW) - 1,7kg - 5” x 5 1/8” (HxW) - 59 oz					
STERN LIGHT		**Single**	**Double**	**Single**	**Double**	**Single**	**Double**
	Regular	301-005-PRO	301-005ST-PRO	301-005-PRO	301-005ST-PRO	301-105-PRO	301-105ST-PRO
	Ice class	301-005-PRO-I	301-005ST-PRO-I	301-005-PRO-I	301-005ST-PRO-I	301-105-PRO-I	301-105ST-PRO-I
	Ex light	-	301-005ST-PRO-EX	-	301-005ST-PRO-EX	-	301-105ST-PRO-EX
	Ex light ice class	-	301-005ST-PRO-I-EX	-	301-005ST-PRO-I-EX	-	301-105ST-PRO-I-EX
	Dimensions	Single: 103,5 x Ø130mm (HxW) - 1,2kg - 4” x 5 1/8” (HxW) - 42 oz. Double: 125,5 x Ø130mm (HxW) - 1,7kg - 5” x 5 1/8” (HxW) - 59 oz					
MASTHEAD		**Single**	**Double**	**Single**	**Double**	**Single**	**Double**
	Regular	201-011KL-PRO	201-011KLST-PRO	301-011KL-PRO	301-011KLST-PRO	300-136-PRO	300-138-PRO
	Ice class	201-011KL-PRO-I	201-011KLST-PRO-I	301-011KL-PRO-I	301-011KLST-PRO-I	300-136-PRO-I	300-138-PRO-I
	Ex light	-	201-011KLST-PRO-EX	-	301-011KLST-PRO-EX	-	300-138-PRO-EX
	Ex light ice class	-	201-011KLST-PRO-I-EX	-	301-011KLST-PRO-I-EX	-	300-138-PRO-I-EX
	Dimensions	Single: 125,8 x Ø130mm (HxW) - 1,3kg - 5” x 5 1/8” (HxW) - 46 oz. Double: 156,8 x Ø130mm (HxW) - 1,8kg - 6” x 5 1/8” (HxW) - 62 oz					
360° WHITE*		**Single**	**Double**	**Single**	**Double**	**Single**	**Double**
	Regular	200-012G2-PRO	200-012G2ST-PRO	200-012G2-PRO	200-012G2ST-PRO	300-112G2-PRO	300-112G2ST-PRO
	Ice class	200-012G2-PRO-I	200-012G2ST-PRO-I	200-012G2-PRO-I	200-012G2ST-PRO-I	300-112G2-PRO-I	300-112G2ST-PRO-I
	Ex light	201-012-PRO-EX	201-012ST-PRO-EX	201-012-PRO-EX	201-012ST-PRO-EX	301-112-PRO-EX	301-112ST-PRO-EX
	Ex light ice class	201-012-PRO-I-EX	201-012ST-PRO-I-EX	201-012-PRO-I-EX	201-012ST-PRO-I-EX	301-112-PRO-I-EX	301-112ST-PRO-I-EX
		*) This product series is also available in a 180° version - for ordering please add ’180’ to the part number (ex. 300-112G2-PRO 180)					
	Dimensions	Single: 103,5 x Ø130mm (HxW) - 1,2kg - 4” x 5 1/8” (HxW) - 42 oz. Double: 125,5 x Ø130mm (HxW) - 1,7kg - 5” x 5 1/8” (HxW) - 59 oz					

		UNDER 20 METERS		UNDER 50 METERS		OVER 50 METERS	
360° RED*		**Single**	**Double**	**Single**	**Double**	**Single**	**Double**
360°	**Regular**	200-014G2-PRO	200-014G2ST-PRO	200-014G2-PRO	200-014G2ST-PRO	300-114G2-PRO	300-114G2ST-PRO
	Ice class	200-014G2-PRO-I	200-014G2ST-PRO-I	200-014G2-PRO-I	200-014G2ST-PRO-I	300-114G2-PRO-I	300-114G2ST-PRO-I
	Ex light	201-014-PRO-EX	201-014ST-PRO-EX	201-014-PRO-EX	201-014ST-PRO-EX	301-114-PRO-EX	301-114ST-PRO-EX
	Ex light ice class	201-014-PRO-I-EX	201-014ST-PRO-I-EX	201-014-PRO-I-EX	201-014ST-PRO-I-EX	301-114-PRO-I-EX	301-114ST-PRO-I-EX
		*) This product series is also available in a 180° version - for ordering please add '180' to the part number (ex. 300-114G2-PRO 180)					
	Dimensions	125,5 x Ø130mm (HxW) - 1,67kg - 5'' x 5 1/8'' (HxW) - 59 oz					
360° GREEN*		**Single**	**Double**	**Single**	**Double**	**Single**	**Double**
360°	**Regular**	200-015G2-PRO	200-015G2ST-PRO	200-015G2-PRO	200-015G2ST-PRO	300-115G2-PRO	300-115G2ST-PRO
	Ice class	200-015G2-PRO-I	200-015G2ST-PRO-I	200-015G2-PRO-I	200-015G2ST-PRO-I	300-115G2-PRO-I	300-115G2ST-PRO-I
	Ex light	201-015-PRO-EX	201-015ST-PRO-EX	201-015-PRO-EX	201-015ST-PRO-EX	301-115-PRO-EX	301-115ST-PRO-EX
	Ex light ice class	201-015-PRO-I-EX	201-015ST-PRO-I-EX	201-015-PRO-I-EX	201-015ST-PRO-I-EX	301-115-PRO-I-EX	301-115ST-PRO-I-EX
		***) This product series is also available in a 180° version - for ordering please add '180' to the part number (ex. 300-115G2-PRO 180)**					
	Dimensions	125,5 x Ø130mm (HxW) - 1,67kg - 5'' x 5 1/8'' (HxW) - 59 oz					
TOWING LIGHT		**Single**	**Double**	**Single**	**Double**	**Single**	**Double**
135°	**Regular**	201-013-PRO	201-013ST-PRO	201-013-PRO	201-013ST-PRO	301-113-PRO	301-113ST-PRO
	Ice class	201-013-PRO-I	201-013ST-PRO-I	201-013-PRO-I	201-013ST-PRO-I	301-113-PRO-I	301-113ST-PRO-I
	Ex light	-	201-013ST-PRO-EX	-	201-013ST-PRO-EX	-	301-113ST-PRO-EX
	Ex light ice class	-	201-013ST-PRO-I-EX	-	201-013ST-PRO-I-EX	-	301-113ST-PRO-I-EX
	Dimensions	Single: 103,5 x Ø130mm (HxW) - 1,2kg - 4" x 5 1/8" (HxW) - 42 oz. Double: 125,5 x Ø130mm (HxW) - 1,7kg - 5" x 5 1/8" (HxW) - 59 oz					
MANEUVERING		**Single**	**Double**	**Single**	**Double**	**Single**	**Double**
360°	**Regular**	-	-	-	-	200-064-PRO	-
	Ice class	-	-	-	-	200-064-PRO-I	-
	Ex light	-	-	-	-	200-064-PRO-EX	-
	Ex light ice class	-	-	-	-	200-064-PRO-I-EX	-
	Dimensions	153,5 x Ø130mm (HxW) - 1,3kg - 6" x 5 1/8" (HxW) - 46 oz. / 103,5 x Ø130mm (HxW) - 1,2kg - 4" x 5 1/8" (HxW) - 42 oz.					
MOUNTING OPTIONS		**Single**	**Double**	**Single**	**Double**	**Single**	**Double**
	Lopolight standard	-	-	HDPE	-	-	400-404
	Lopolight standard	-	-	Anodized aluminium	-	-	400-401-B
	Series 65/70/75 Adaptor	-	-	HDPE	-	-	400-403
	Series 55/ DHR 60/Perko Adaptor	-	-	HDPE	-	-	400-402

NAVY AND SAR PRODUCT RANGE

Over the years the Lopolight team has worked on a large number of Navy, Military and SAR projects, each with their own set of requirements and challenges.

Extreme environmental demands, such as immunity to 1500V/m Radar, 50G shock, 65 bar pressure, stealth design or just tamper proof are features that we master. We take the otherwise illegal dimmable navigation light as for granted in this field – but add that we still can monitor it in its dimmed state – even with the ice-class defroster active!

All special Navy lights are in our product range, such as Deceptive lighting, IR follow-me lights, Blue Convoy lights, Wake lights, MOB signaling systems, Obstruction lights, Waterline security lights, Perimeter lights plus many unique fittings are available. That our lights are NVIS/NVG compatible is in the DNA of every product.

The range you see here is indicative, we are confident that we can deliver the lights you need, just reach out to us.

	Single/Double	Mounting	
Starboard sidelight	**Single**	**Horizontal**	
	Double	**Horizontal**	
	Single	**Vertical**	
	Double	**Vertical**	
Port sidelight	**Single**	**Horizontal**	
	Double	**Horizontal**	
	Single	**Vertical**	
	Double	**Vertical**	
Stern light	**Single**	**Horizontal**	
	Double	**Horizontal**	
	Single	**Vertical**	
Towing light	**Single**	**Horizontal**	
	Double	**Horizontal**	
Masthead	**Single**	**Horizontal**	
	Double	**Horizontal**	
	Single	**Vertical**	
	Double	**Vertical**	
Anchor light	**Single**	**Horizontal**	
	Double	**Horizontal**	
Signal White 180°*	**Single**	**Horizontal**	
Signal Red 360°	Single	**Horizontal**	
	Double	**Horizontal**	
Signal Red 180°*	**Single**	**Horizontal**	
Signal Green 360°	**Single**	**Horizontal**	
	Double	**Horizontal**	
Signal Blue 360° (add 'S' for strobe)	**Single**	**Horizontal**	
Obstruction light, Hemispherical Red	**Single**		
Escort light, Blue	**Double**		
Wake light, White	**Single**		
	Single		
Wake light, Blue	**Single**		
Steering light, Blue	**Single**		
	Double		

	Under 20 meter		Under 50 meter		Over 50 meter	
	Regular	Ice-class	Regular	Ice-class	Regular	Ice-class
	301-008-B-RPM	301-008-B-RPM-I	301-008-RPM	301-008-B-RPM-I		301-108-B-RPM-I
	301-008ST-B-RPM	301-008ST-B-RPM-I	301-008ST-B-RPM	301-008ST-B-RPM-I	301-108ST-B-RPM	301-108ST-B-RPM-I
	301-001-RPM		301-001-RPM			
					301-101ST-B-RPM	
	301-009-B-RPM	301-009-B-RPM-I	301-009-RPM	301-009-B-RPM-I		301-109-B-RPM-I
	301-009ST-B-RPM	301-009ST-B-RPM-I	301-009ST-B-RPM	301-009ST-B-RPM-I	301-109ST-B-RPM	301-109ST-B-RPM-I
	301-002-RPM		301-002-RPM			
					301-102ST-B-RPM	
	301-005-B-RPM	301-005-B-RPM-I	301-005-B-RPM	301-005-B-RPM-I		301-105-B-RPM-I
	301-005ST-B-RPM	301-005ST-B-RPM-I	301-005ST-B-RPM	301-005ST-B-RPM-I	301-105ST-B-RPM	301-105ST-B-RPM-I
	301-006-RPM		301-006-RPM			
	201-013-B-RPM	201-013-B-RPM-I	201-013-B-RPM	201-013-B-RPM-I		301-113-B-RPM-I
	201-013ST-B-RPM		201-013ST-B-RPM		301-113ST-B-RPM	301-113ST-B-RPM-I
	201-011KL-B-RPM	201-011KL-B-RPM-I	301-011KL-B-RPM	301-011KL-B-RPM-I	300-136-B-RPM	300-136-B-RPM-I
			301-011KLST-B-RPM	301-011KLST-B-RPM-I	300-138-B-RPM	300-138-B-RPM-I
	201-011-RPM					
					300-139-RPM	
	200-012G2-B-RPM	200-012G2-B-RPM-I	200-012G2-B-RPM	200-012G2-B-RPM-I	300-112G2-B-RPM	300-112G2-B-RPM-I
					300-112G2ST-B-RPM	300-112G2ST-B-RPM-I
	201-012-B-RPM-180°		201-012-B-RPM-180°			300-112G2-B-RPM180-I
	200-014G2-B-RPM	200-014G2-B-RPM-I	200-014G2-B-RPM	200-014G2-B-RPM-I	300-114G2-B-RPM	300-114G2-B-RPM-I
					300-114G2ST-B-RPM	300-114G2ST-B-RPM-I
	200-014G2-B-RPM-180		200-014G2-B-RPM-180			300-114G2-B-RPM180-I
					300-115G2-B-RPM	300-115G2-B-RPM-I
						300-115G2ST-B-RPM-I
	200-022G2-B-RPM					
					301-411-B-RPM	301-411-B-RPM-I
						301-413ST-B-RPM-I
						301-416-B-RPM-I
					301-413-B-RPM	301-413-B-RPM-I
					301-417-B-RPM	301-417-B-RPM-I
					301-140-RPM	
					301-140ST-B-RPM	

- Signal IR. (850nm or 940nm wavelength)

- Several IR lights available upon request - for IFF or Morse signalling

DECK, SPREADER, INTERIOR & WHEELHOUSE LIGHTS

Waterproof, rugged, minimalistic, iconic design are the common denominators for the Lopolight range of lights for illumination.

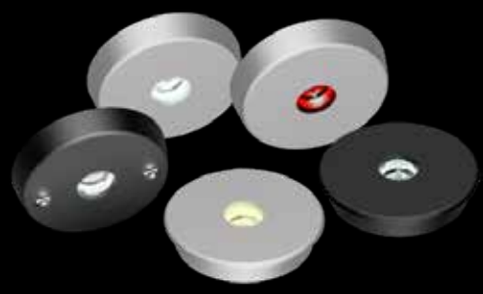
All the lights are potted out with epoxy/polyurethane and are vibration proof in addition to the IP68 water proofing.

The materials used are high quality LED's from Cree, Osram or Nichia set in silver or black anodized housings with solid driver electronics. Recently we have added a white ceramic based coating as a surface choice for some of the lights, please check our website.
As usual we are backing these promises with a strong 5 year warranty.

4W COMPACT WATERPROOF UTILITY LIGHTS
Colour selection enables red light for night use, warm white, medium white and cold white for evening/daytime use.

The flush mount version only requires 11mm space behind the light. The light fulfills the most demanding requirements for limitation of electrical noise (EMC) and will not disturb any other electronics – including all radio receiving equipment used in maritime environment.

This makes these dimmable 4W lights perfect for Illumination of wheelhouse and outdoor areas in harsh environments – IP68 waterproof.



SPREADER AND BOOM LIGHTS
In addition to these fine small lights we have a series of 6W deck, spreader and boom lights, the light is neutral white (4000K) and dimmable – the lights are very compact with a choice of 4 lenses giving a light cone from 6° to 74°
To top the range off - our largest 30W decklight gives an impressive amount of light, same light colour and lens options as the 6W version

Light	Mounting	Power (Watt)	Light beam (Degrees)	Intensity (Lumens)	Voltage (DC)	Dimensions (mm)	Housing colour (anodised)	Part number
THE LOW PROFILE SERIES								
White/red	**Surface mount**	4W	30°	300 lm	10-32	Ø65x13	Silver	400-220
White/red	**Surface mount**	4W	30°	300 lm	10-32	Ø65x13	Black	400-220-B
White/red	**Flush mount**	4W	30°	300 lm	10-32	Ø65x2 + 11	Silver	400-221
White/red	**Flush mount**	4W	30°	300 lm	10-32	Ø65x2 + 11	Black	400-221-B
Red	**Surface mount**	4W	30°	300 lm	10-32	Ø65x14	Silver	400-225 2.5M
THE LOW PROFILE SERIES - SPREADER LIGHT								
White/red	**Surface mount**	4W	30°	300 lm	10-32	Ø65x14	Silver	400-222-B
White/red	**Surface mount**	4W	30°	300 lm	10-32	Ø65x14	Black	400-222 2.5M
THE PERFECT SPREADER AND BOOM LIGHT								
White	**Surface mount**	6W	6°	1200im	10-32	Ø42x57*	Silver	400-082-06
White	**Surface mount**	6W	6°	1200im	10-32	Ø42x57*	Black-HC	400-082-06-B
White	**Surface mount**	6W	26°	1200im	10-32	Ø42x57*	Silver	400-082-26
White	**Surface mount**	6W	26°	1200im	10-32	Ø42x57*	Black-HC	400-082-26-B
White	**Surface mount**	6W	36°	1200im	10-32	Ø42x57*	Silver	400-082-36
White	**Surface mount**	6W	36°	1200im	10-32	Ø42x57*	Black-HC	400-082-36-B
White	**Surface mount**	6W	74°	1200im	10-32	Ø42x57*	Silver	400-082-74
White	**Surface mount**	6W	74°	1200im	10-32	Ø42x57*	Black-HC	400-082-74-B
White	**Flush mount**	6W	6°	1200im	10-32	Ø42x57*	Silver	400-083-06
White	**Flush mount**	6W	6°	1200im	10-32	Ø42x57*	Black-HC	400-083-06-B
White	**Flush mount**	6W	26°	1200im	10-32	Ø42x57*	Silver	400-083-26
White	**Flush mount**	6W	26°	1200im	10-32	Ø42x57*	Black-HC	400-083-26-B
White	**Flush mount**	6W	36°	1200im	10-32	Ø42x57*	Silver	400-083-36
White	**Flush mount**	6W	36°	1200im	10-32	Ø42x57*	Black-HC	400-083-36-B
White	**Flush mount**	6W	74°	1200im	10-32	Ø42x57*	Silver	400-083-74
White	**Flush mount**	6W	74°	1200im	10-32	Ø42x57*	Black-HC	400-083-74-B
THE ULTIMATIVE SPREADER LIGHT								
White	**Surface mount**	30W	6°	6000im	10-32	90 x 55*	Silver	400-080-06
White	**Surface mount**	30W	6°	6000im	10-32	90 x 55*	Black-HC	400-080-06-B
White	**Surface mount**	30W	26°	6000im	10-32	90 x 55*	Silver	400-080-26
White	**Surface mount**	30W	26°	6000im	10-32	90 x 55*	Black-HC	400-080-26-B
White	**Surface mount**	30W	36°	6000im	10-32	90 x 55*	Silver	400-080-36
White	**Surface mount**	30W	36°	6000im	10-32	90 x 55*	Black-HC	400-080-36-B
White	**Surface mount**	30W	74°	6000im	10-32	90 x 55*	Silver	400-080-74
White	**Surface mount**	30W	74°	6000im	10-32	90 x 55*	Black-HC	400-080-74-B

*) see drawing

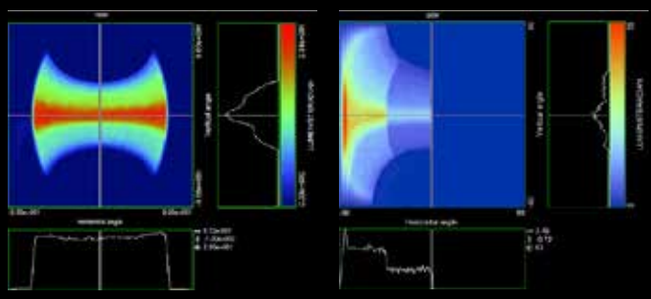
FORM AND FUNCTION

The best navigation lights comes from understanding the challenges of the sea combined with the latest technical innovation.

The Lopolight products are unique based on innovative use Light Emitting Diodes (LED) and very effective and sophisticated power electronics that delivers low power consumption and extremely long lifetime even in the harshest conditions. In addition, all lights are completely sealed to allow submersion. Actually Lopolight has found their way onto several submarines – where the lights are found to work flawlessly after being tested to immersion several hundred meters down.

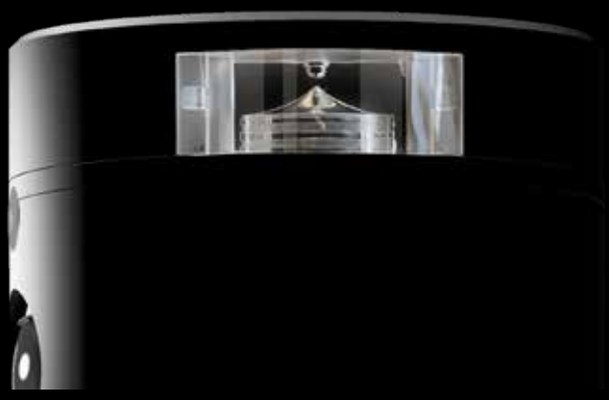
The design is 100% focused on the challenge of getting the best navigation lights, so there are no considerations to the classic way of constructing a navigation that was established when the primary light source was kerosene, we started with a clean sheet of paper.,

This clean sheet of paper can be said to have been quite salty, as the founders of Lopolight used their decades of sailing experience and thousands of miles on all oceans as platform for the engineering.

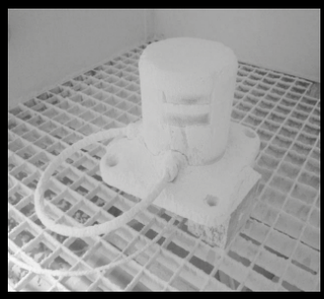


MECHANICAL CONSTRUCTION PRINCIPLES
The components we use are the latest generation ultra-robust LEDs, leading suppliers from US and Europe. These LEDs are made to our specifications with regards to intensity and colour, each LED is graded and tested at the factory. The LED is then mated to a lens - that technically speaking is a light guide that ensures the light is guided in the right direction.

The lens material is acrylic (PMMA) as it is the only 100%UV-stable transparent plastic in existence.



WATER AND PRESSURE RESISTANT
The lens sits inside seawater resistant anodized aluminium housing. The housings are CNC machined to exact dimensions. Inside this housing we hide the electronics – more on this later. The whole unit is then potted out with a polyurethane potting compound, leaving absolutely no air inside the light. This has enabled several submarines to be satisfied with standard Lopolight lights. Lopolight can stand being submerged down to 650 meters!



VIBRATION TEST
The above construction process also ensures that a Lopolight is absolutely vibration proof, there are no moving parts and the LEDs are in themselves fully vibration proofed. Lopolight has been tested to withstand acceleration forces up to 50G.

TRUSTED BY PROFESSIONALS WORLDWIDE

Several hundred vessels have trusted Lopolight to supply complete navigation light systems including the crucial monitoring and control.

M/Y SEALION

"During my tenure as Captain of Sealion, we had a full navigation light refit. We went with Lopolight; not only did the lights look good, but they had a much smaller, more modern profile. The operating computer touch screen was easy to use and displayed the functions and boat profile very nicely, with proper dimming for night navigation. The Lopolight support network and aftermarket sales were easy to deal with and always responded promptly.

I highly recommend Lopolight to other vessels.." Captain, Vorster

KING BABY

We upgraded our navigation light system, light controller and user interfaces with Lopolight ...The upgrade only required a change of lights themselves using existing cable runs which reduced labor and material costs significantly. .. The touch screen mimic display allows me to quickly change from running operations to anchoring, towing or NUC with one press on the interface. The display complements the look and feel of the bridge with upgraded systems and interfaces.

Shaun Falconer, Senior Captain

STATEN ISLAND FERRY

"One of our ferries recently suffered a major fire and was taken out of commission. It's during such crises that you truly learn about your suppliers.

From the very first phone call, Lopolight stepped up. Their team came on board to survey the damage, developed a step-by-step plan to manage the shifting timetable and access to the vessel, and delivered products on an aggressive schedule. They even showed up to assist with the work on-site. Great company, great people, and outstanding support."

R. Scamell, NYC, Department of Transportation

SUBSEA RESPONDER II

"I recently attended technical training at Lopolight's factory and was thoroughly impressed with their quality production line. The entire experience—from the training to interacting with the people and seeing the factory firsthand—was first class.

Each lighting system is pre-assembled and tested as a complete unit for twenty-four hours before shipping, which significantly reduces installation time. I appreciated that we could use the existing wiring, saving our customer money. Additionally, Lopolight provided transition plates, allowing us to reuse the existing mast without drilling any new holes to mount the lights.

Overall, both my customer and I were completely satisfied with the installation process and the finished results. I highly recommend Lopolight for their exceptional products and service."

Steve Burke, Wheelhouse Electronics

USV RANGER, GHOST FLEET OVERLORD, US NAVY

"Lopolight has helped my company with many projects by providing complete solutions for Navigation Lighting. The quality and redundancy built into Lopolight's design allow for efficient designs and provide solutions for even the most challenging of vessel designs. Lopolight's proactive approach to EMI mitigation, and use of their projects in extreme temperatures makes them a leading edge for navigation lighting in all environments. Lopolight can provide in house solutions, or easily be incorporated in a vessel's machine control system via their navigation lighting control systems as well. Our company has been using Lopolight for years, and on projects like NAVY Ranger USV, Lopolight supplied solutions to the challenges the navigation lighting challenges that came with this project."

Joseph C. Millard, Gibbs & Cox, A Leidos Company

LOPOLIGHT

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