



## NaviLED®360 International Approvals

Hella Marine 2 Nautical Mile NaviLED®360 Anchor / All Round Lamps are tested and type approved to comply with international maritime regulations.

Approval Type	ABYC and NMMA
Length (LOA)	Powerboats and Sailboats up to 20 meters in length.
Additional Approval	USCG / IMO COL REG
Length (LOA)	Powerboats and Sailboats up to 50 meters in length.
Approval Type	RINA (TA No. ELE69605CS)
Length (LOA)	Powerboats and Sailboats up to 50 meters in length. Please refer to <a href="http://www.hellamarine.com">www.hellamarine.com</a> to view the RINA certificate.

### Electromagnetic Compatibility (EMC)

This LED lamp is an electronic device. The electrical circuits contain components that suppress possible interference, both emission as well as susceptibility, to the limits prescribed in EN 60945.



### Protection against damage due to voltage spikes

This lamp is protected against reverse polarity connection and negative voltage spikes of up to 700 volts.

Housing Description	UV resistant acrylic lens and housing
Light source	Single LED
Operating Voltage	Multivolt™ 9-33 volts DC
Power Consumption	Less than 2W
Protective System	Completely sealed

## Wiring Colour Coding

LED modules are polarity conscious.

Reverse polarity will not damage this product but will inhibit its function.

Hella recommends wire connections be soldered, and heat shrink tubing applied to seal the joint.

Colour	Connect to	Power
Black	Negative (-ve)	
Red	Signal (+ve)	Less than 2W

**NB:** Lamp must be protected by a fuse rated at 5 amperes maximum.

## Warranty Statement

**Congratulations! The product you have selected comes from Hella Marine - one of the world's leading manufacturers marine lighting products.**

Hella Marine branded products are covered by a warranty against manufacturing or material defects. (For further details please check the terms of trade with your Hella Marine agent).

The lamp module is sealed and does not have any serviceable parts inside; opening the module will invalidate warranty.

In the unlikely event that you should experience a problem with your purchase, please contact your Hella Marine agent where you purchased the product.



For general comments about Hella's products please contact us on E-mail at [techfeedback@hellamarine.com](mailto:techfeedback@hellamarine.com)

### INSTRUCTION SHEET

## NaviLED®360 Anchor / All Round Lamps

### Introduction

Hella Marine LED Navigation Lamps offer many advantages over conventional bulb lamps. Significantly reduced power consumption, ultra long life and high tolerance to shock and vibration make the LED lamps the ideal choice for the harsh marine environment.

Hella Marine NaviLED®360 Anchor / All Round Lamps are 'Precision Optical Instruments', tested and type approved to comply with international maritime regulations.

### Correct Positioning

#### **NaviLED®360 Anchor / All Round Lamps must be installed as follows;**

When the lamp(s) operate, the light should not be obstructed or concealed by masts, topmasts or structures, (i.e. installed on the highest point of a vessel so the light output is unbroken)

All Round lamps must be positioned as close as practicable to the fore and aft centre line of a vessel (see Fig.1)

The All Round white lamp on a power driven vessel less than 12 meters in length shall be installed at least one meter higher than the sidelights.

Lamp must be installed so the horizontal surface of the base is parallel with the vessel's water line. (see Fig.2)

Fig. 1 On the fore and aft centre line.

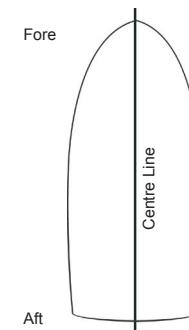
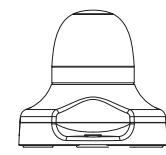


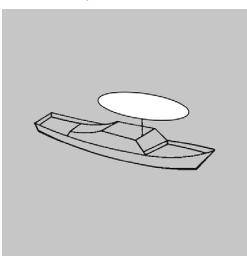
Fig. 2 Installed so base is parallel to vessel's water line.



Vessel's water Line

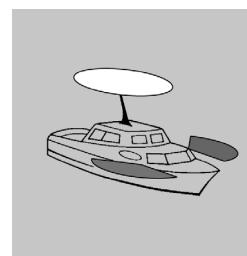
Common applications for All Round White signal lamps.  
according to ABYC and NMMA requirements.

Vessels up to 7M in length.  
Maximum speed of 7 knots.



1 White All Round Lamp

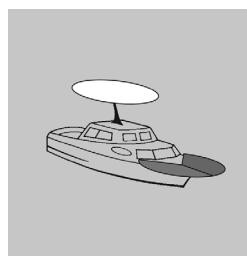
Powerboats up to 12M in length.



1 All Round Lamp  
1 Port Lamp  
1 Starboard Lamp

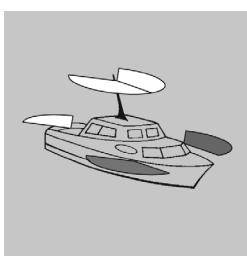
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Powerboats up to 12M in length.



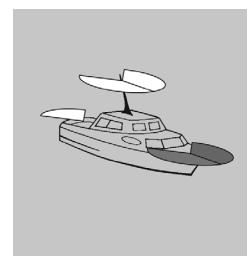
1 All Round Lamp  
1 Bi-colour Lamp

Powerboats up to 20M in length.



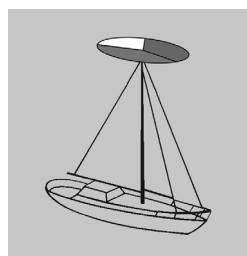
1 Masthead Lamp  
1 Port Lamp  
1 Starboard Lamp  
1 Stern Lamp

Powerboats up to 20M in length.



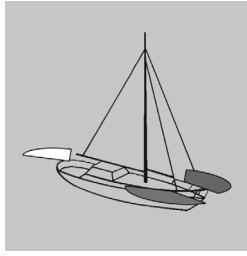
1 Masthead Lamp  
1 Bi-colour Lamp  
1 Stern Lamp

Yachts up to 20M in length sailing.



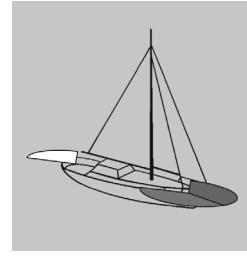
1 Tri-colour Lamp  
When motoring, yachts must adopt the navigation lamp requirements for powerboats.

Yachts up to 20M in length sailing.



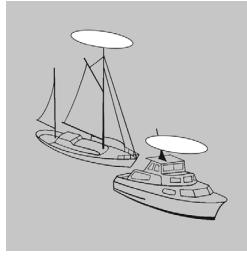
1 Port Lamp  
1 Starboard Lamp  
1 Stern Lamp

Yachts up to 20M in length sailing.



1 Bi-colour Lamp  
1 Stern Lamp

Power boats and yachts up to 20M in length at anchor.



1 White All Round Lamp

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Common applications for All Round White, Red and Green signal lamps.

#### Sailing vessels under sail.

**RED**  In addition to lower port, starboard and stern lamps, a sailing vessel may exhibit at or near the top of the mast, where they can best be seen, two all round lamps in a vertical line. The upper must be red and the lower green.  
**GREEN**  These lamps must not be exhibited in conjunction with the tri-colour lamp.

#### **RED** Vessels aground,

**RED**  must exhibit the white light for a vessel at anchor, and two all round red lights in a vertical line where they can best be seen.

#### **RED** Vessels not under command,

**RED**  must exhibit two all round red lights in a vertical line where they can best be seen.

#### **RED** Vessels restricted in their ability to manoeuvre,

**WHITE**  must exhibit three all round lights in a vertical line where they can best be seen, the highest and lowest being red and the middle white.  
**RED** 

#### **RED** Vessels constrained by their draught,

**RED**  may, in addition to the port, starboard, and stern and masthead lights required, exhibit three all round red lights in a vertical line.  
**RED** 

#### **GREEN** Vessels engaged in fishing, whether underway or at anchor.

**WHITE**  A vessel trawling, by which is meant the dragging through the water of a dredge net or other apparatus used as a fishing appliance, must exhibit -  
Two all round lights in a vertical line, the upper being green and the lower white.

#### **RED** Vessels engaged in fishing, other than trawling must exhibit -

**WHITE**  Two all round lights in a vertical line, the upper being red and the lower white.

#### **WHITE** Pilot vessels.

**RED**  A vessel engaged in pilotage duties must exhibit at or near the masthead, two all round lights in a vertical line, the upper being white and the lower red.

#### **RED** Vessel engaged in diving operations,

**WHITE**  must exhibit three all-round lights in a vertical line where they can best be seen.  
The highest and lowest being red and the middle white.

#### Definitions -

**"Not under command"** means a vessel which through some exceptional circumstance is unable to manoeuvre as required by the collision prevention rules and is therefore unable to keep out of the way of another vessel.

**"Restricted in their ability to manoeuvre"** means a vessel which from the nature of her work is restricted in her ability to manoeuvre as required by the collision prevention rules and is therefore unable to keep out of the way of another vessel.  
This shall include but not be limited to a vessel engaged in:

- laying, servicing or picking up a navigation mark, submarine cable or pipeline;
- dredging, surveying or underwater operations;
- replenishment or transferring persons, provisions or cargo while underway;
- mine clearance operations;
- a towing operation that severely restricts the towing vessel and her tow in their ability to deviate from their course.

**"Constrained by her draught"** means a power-driven vessel which, because of her draught in relation to the available depth and width of navigable water, is severely restricted in her ability to deviate from the course she is following.