

SEALED®

FY / SERIES



FIBERGLASS HULLS VERSION

HIGH EFFICIENCY AND LONG LIFESPAN



“The SEALED® FY is a very low profile stainless steel AISI 316L flush-mount light specifically designed for fiberglass hulls. All SEALED® lights are serviceable from inside the yacht for a quick and easy inspection of the light body.

SEALED® FY lights are very powerful to create a beautiful halo effect around the yacht. High efficiency light is the result of the design of the reflector and the guaranteed quality of each LED.

SEALED® FY are also available in RGB+W with Bus multimedia control to offer the most versatile and easy-to-use experience through a variety of standards and devices of the latest generation smartphones and tablets.”

EXPLODED VIEW DRAWING

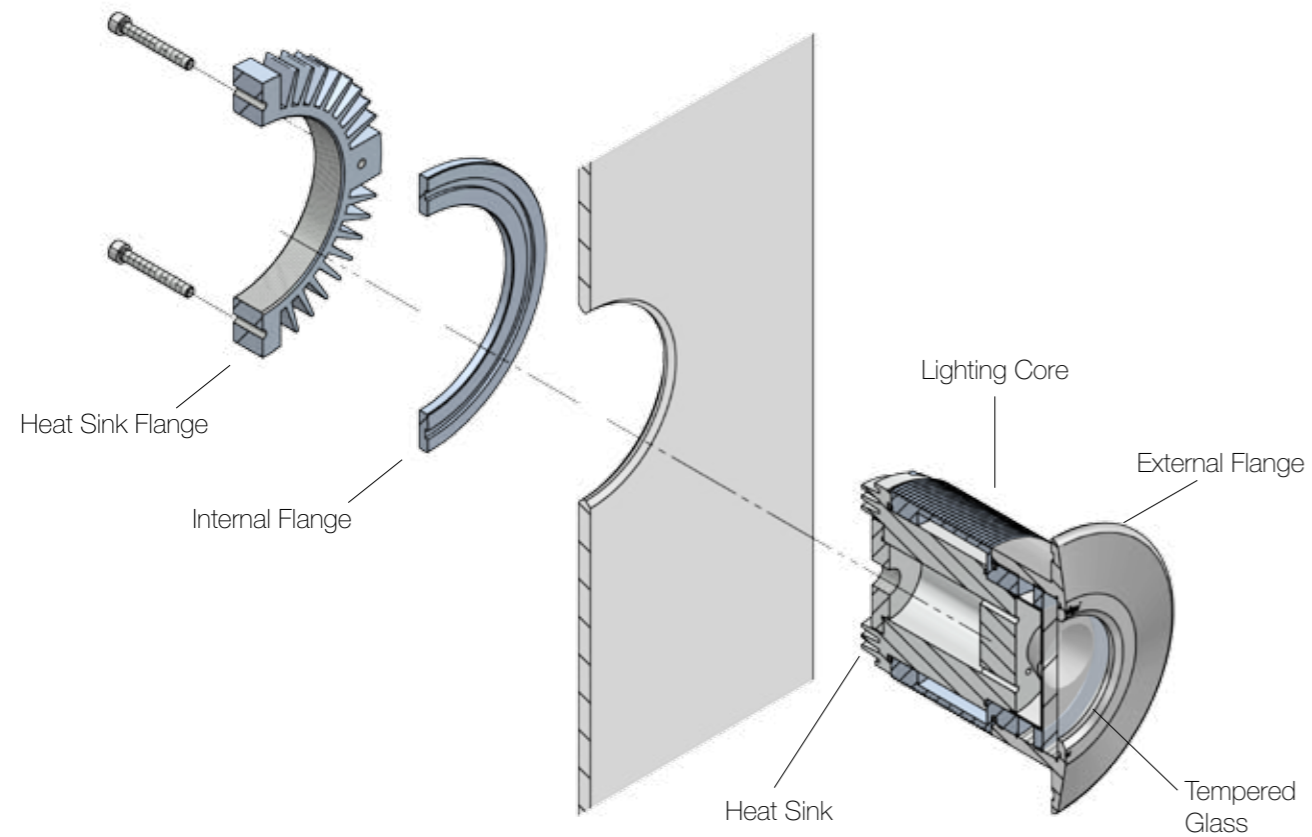


Fig.1

TECHNICAL DESCRIPTION

The care for the details guarantees the extreme reliability and safety of the SEALED® SY.

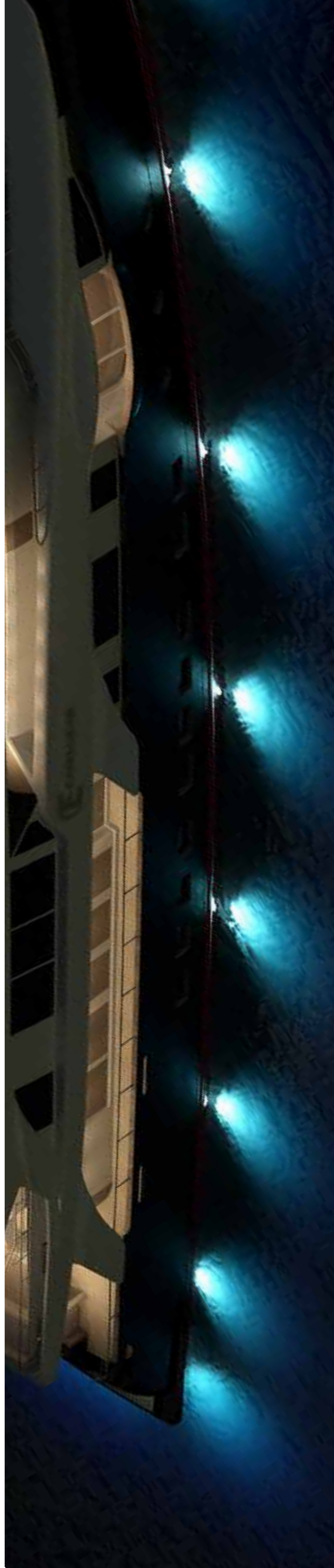
The exploded view drawing (fig.1) shows a dedicated design focused on the simplicity for an easy installation and inspection of the light.

The assembly is accurately designed to create the most resistant and safest barrier between the submerged hull and the yacht.

The aluminum reflector applied to the Lighting Core gives a wide beam angle for the best halo effect around the yacht.

The rear cap with two O-Rings is bolted to the Lighting Core granting the perfect watertight protection to the light body.

The quality of the materials used and the design of the Heat Sink are unique points of strength for the light efficiency.



FIXTURE COMPOSITIONING

SEALED® SY are designed and manufactured to perform at the highest levels. The materials used are of the best quality to work in the harshest environments. The Light Body (fig.1) is assembled and sealed in one piece in the factory to grant the highest watertight protection. The Tempered Glass is 10mm thick and highly resistant to the impacts.

The aluminum reflector, protected from the environment by a film of sprayed metallic paint, offers the widest beam angle for the maximum light efficiency. The Light Body guarantees, through screws and O-Rings, the perfect mechanical holding. Everything has been tested in compliance with the highest standard and regulations.

Figure 2 shows how easy is to remove the Lighting Core from inside the hull without hauling the yacht should servicing ever be required.

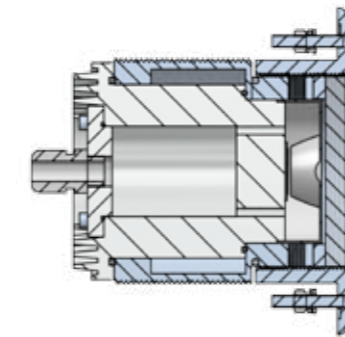


Fig.1

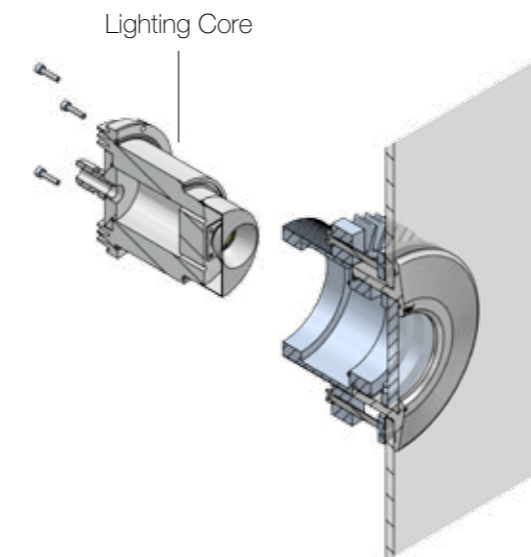


Fig.2

WATERTIGHT PROTECTION

The SEALED® SY are designed to offer two protection barriers (fig.3) against the external water pressure. Each barrier is tested through dedicated procedures in compliance with the naval certifications.

1st Barrier:

This is first and most important protection against the water pressure. The External Flange, the Tempered Glass and the Heatsink Flange bolted against the hull form a single body that guarantees the perfect watertight protection.

In the lab a 320 kPa pressure is applied to this part to pass the tests.

2nd Barrier: Lighting Core.

The Lighting Core, factory sealed, makes the second barrier.

3rd Barrier: Rear Cap.

The Rear Cap bolted to the Lighting Core closes it making the fixture completely watertight.

This is the last and ultimate barrier against the accidental water ingress. It grants the maximum safety level to the SEALED® SY. The Power Cable goes from the Lighting Core to the DC line through an IP68 Cable Gland.

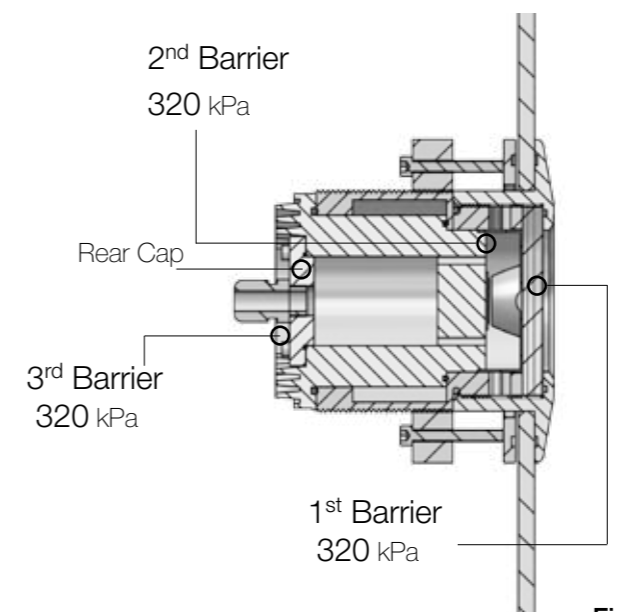


Fig.3



STANDARD INSTALLATION

The SEALED® FY are the most innovative underwater lights present in the market place. The standard installation considers the secure fixing of the light body with six allen screws tightly bolted onto the inside of the hull.

With the built-in driver the power cable goes through an IP68 Cable Gland and connects directly to the 24V DC line guaranteeing the safest installation onboard.

The closure of the Rear Cap completes the installation to assure a perfect watertight protection in respect of the marine certifications.

SAFETY REGULATIONS

SEALED® FY lights are all certified by the most important survey and certification authorities.

The standards for the design, construction and installation are compliant with the rules and regulations required for the classification.

We recommend to apply an additional watertight protection case around the Light Body to perfectly protect the yacht against accidental water ingress.

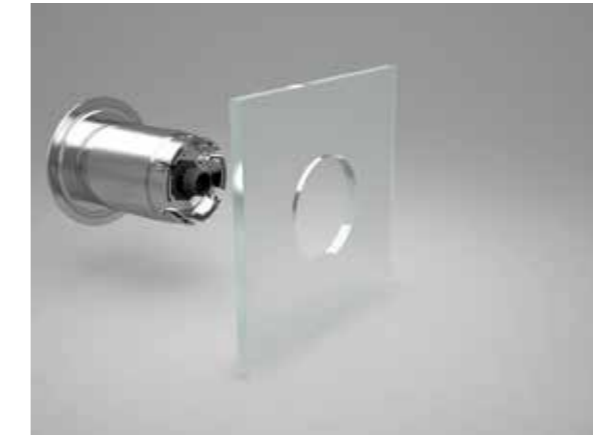
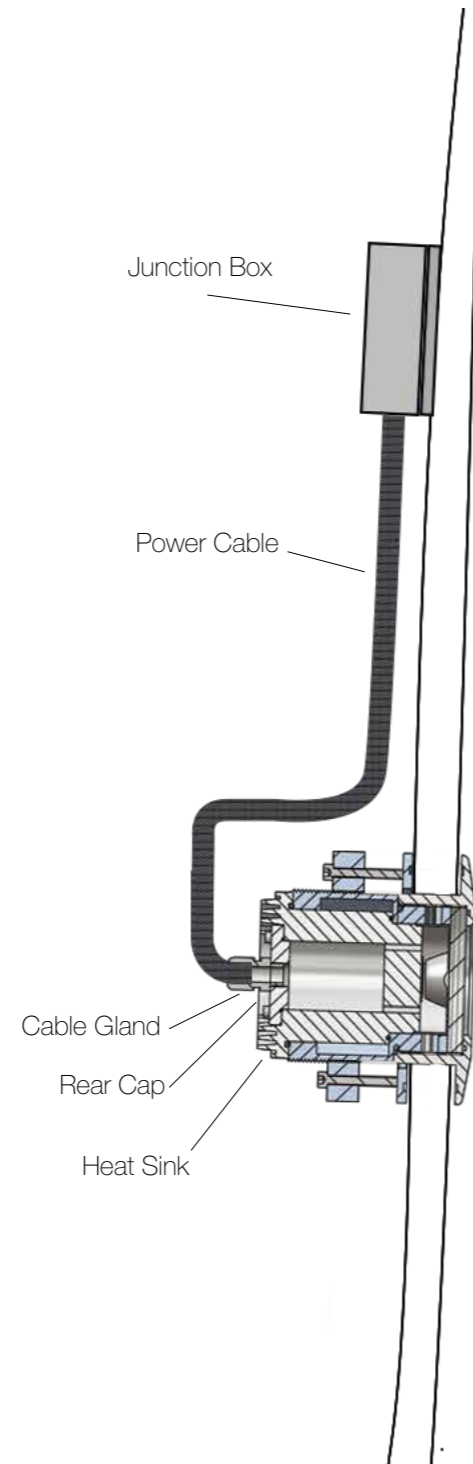


Fig.1



Fig.2



Fig.3



Fig.4

MOUNTING SYSTEM

SEALED® FY are designed and manufactured to perform at the highest levels. The materials used are of the best quality to work in the harshest environments.

The Light Body is assembled and sealed in one piece in the factory to grant the highest watertight protection. The Glass is made of Tempered Glass 10mm thick highly resistant to the impacts.

The aluminum reflector, protected from the environment by a film of sprayed metallic paint, offers the widest beam angle for the maximum light efficiency. All has been tested in compliance with the highest standards and regulations.

The use of the a specific sealant on both sides of the flange is recommended for a watertight protection.

Fig. 1 and 2 show the insertion of the Light Body through the hole. The light is then coupled with the Internal Flange.

FINAL INSTALLATION STAGE

In Fig. 3 and 4 the Heatsink Flange is tightly pressed on the surface of the hull by mean of four bolts to guarantee the maximum watertight protection and solidity of the structure.

Thanks to the built-in driver the Lighting Core is easily removable from inside the hull without hauling the yacht should servicing ever be required.

BUILT-IN DRIVER

In the SEALED® SY the driver is integrated in the Lighting Core offering the maximum protection against electrical spikes, interferences and overheating.

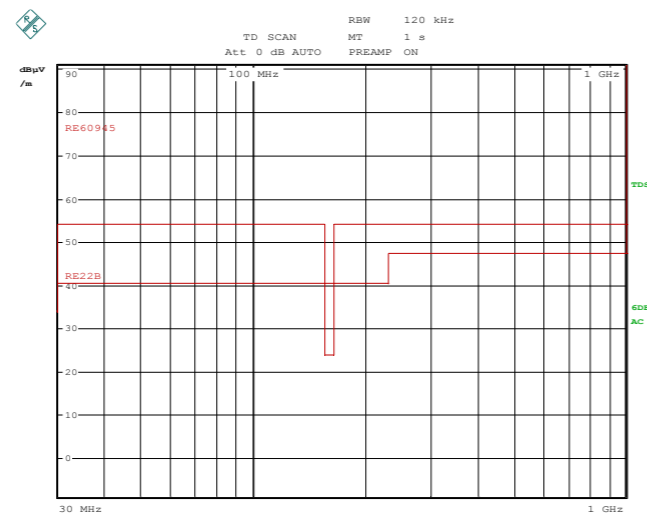
Thanks to the built-in driver the light operates at 24V DC and can be connected to the DC line for the safest installation onboard.



EMC / RADIO MARINE TEST

Electromagnetic Compatibility:

1. Radiated Radio Frequency emission test
2. Immunity to conducted disturbance, induced by radio frequency fields.



FY9

ORDER CODE: 90SEALES160240SSN2030

LUMENS: 9.000 WATTS: 80 W

In the SEALED® FY9 light the driver is built in the Lighting Core.

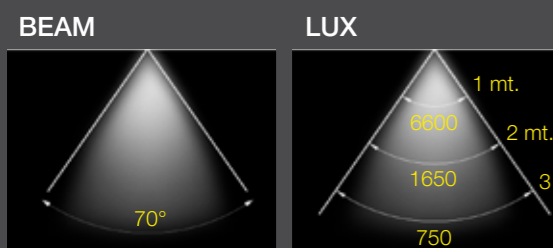
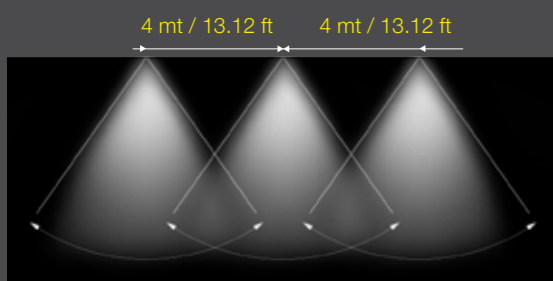
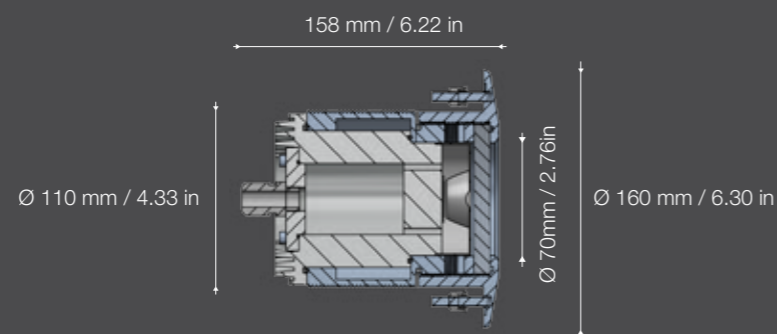
Technical Data:

- Power: 80 W
- Power Supply: 24 V DC
- Current / Amp draw: 3,5 A @ 24 V DC
- Efficiency: 97 Lm/W
- Color Temperature: 5000 K
- Optional Power Supply: 110 - 220 V AC
- Also available in Blue colour

LIGHT POSITIONING

In order to create the best lighting effect around the yacht, we will provide advice about quantity, depth of fixture and spacing between each SEALED®.

The effect in the water can vary from straight spears of light to a nice and relaxing halo around the hull simply positioning the lights at the desired distance one from the other. As a general rule we advise to place the lights at a maximum distance of 4mt one from the other.



FY5

ORDER CODE: 90SEALES160140SSN2030

LUMENS: 5.000 WATTS: 40 W

In the SEALED® FY5 light the driver is built in the Lighting Core.

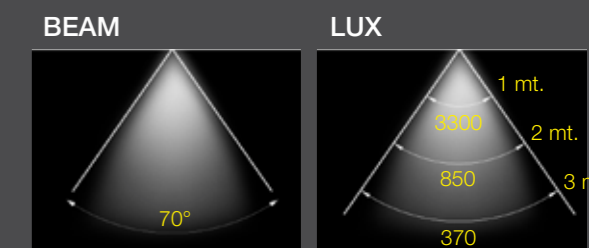
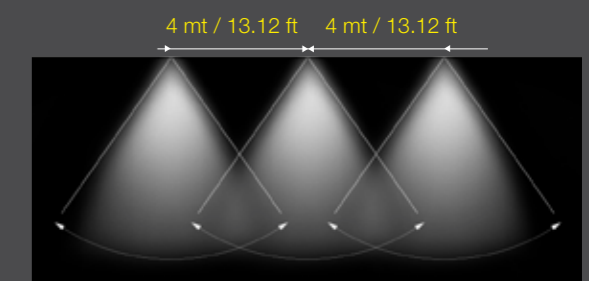
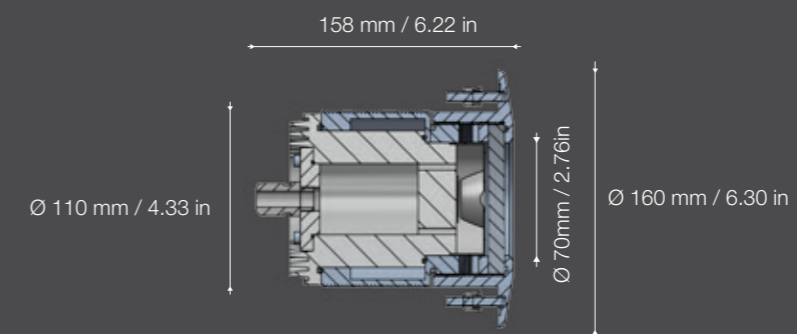
Technical Data:

- Power: 40 W
- Power Supply: 24 V DC
- Current / Amp draw: 1,7 A @ 24 V DC
- Efficiency: 106 Lm/W
- Color Temperature: 5000 K
- Optional Power Supply: 110 - 220 V AC
- Also available in Blue colour

LIGHT POSITIONING

In order to create the best lighting effect around the yacht, we will provide advice about quantity, depth of fixture and spacing between each SEALED®.

The effect in the water can vary from straight spears of light to a nice and relaxing halo around the hull simply positioning the lights at the desired distance one from the other. As a general rule we advise to place the lights at a maximum distance of 4mt one from the other.



FYR2

ORDER CODE: 90SEALES16013SSRGBW

WATTS: 130 W

The SEALED® FYR2 brings millions of colours into your life. Any colour can be selected to best suit your personal taste or to maximize the effect in the water in every condition. Colours can be controlled via any devices with a colour palette through a third party interface.

The most advanced LEDs can combine up to 16 million shades of colours for a superior effect in the water.

SEALED® FYR2 includes the IP65 rated driver at 24V DC and 5 mt power cable with IP68 Souriau Plug & Play connectors



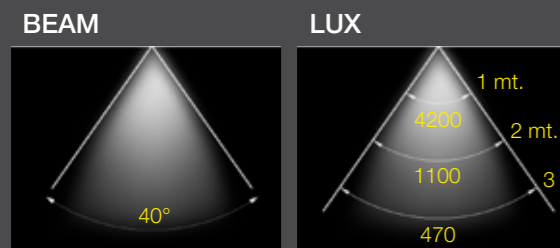
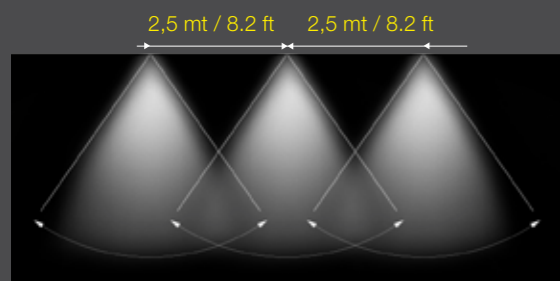
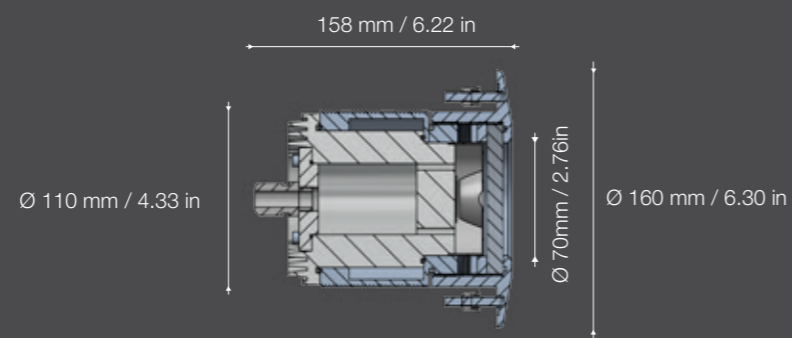
Technical Data:

- Power: 130 W
- Power Supply: 24 V DC
- Current / Amp draw: 5,5 A @ 24 V DC
- Efficiency: 22 Lm/W
- Color Temperature: RGB+W
- Optional Power Supply: 110 - 220 V AC

LIGHT POSITIONING

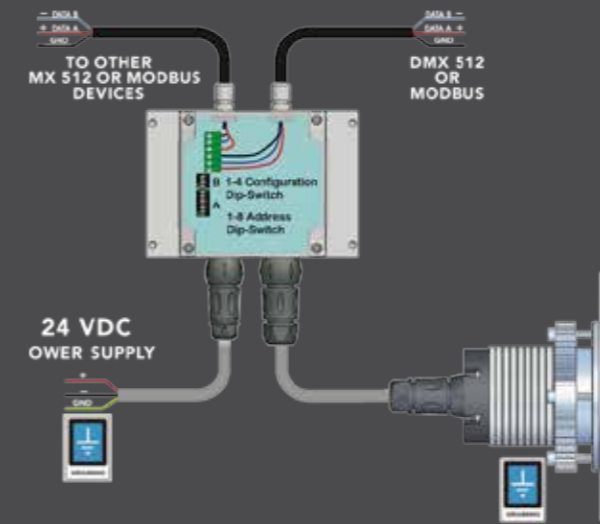
In order to create the best lighting effect around the yacht, we will provide advice about quantity, depth of fixture and spacing between each SEALED®.

The effect in the water can vary from straight spears of light to a nice and relaxing halo around the hull simply positioning the lights at the desired distance one from the other. As a general rule we advise to place the lights at a maximum distance of 2,5mt one from the other.



DRIVER SPECIFICATIONS

Input Voltage	24 V DC
Min / max operating voltage	20 - 32 V DC
Current / Amp Draw	5,5 A @ 24 V DC
Power consumption	130 watts
Width	165mm
Length	175mm
Height	80mm
Connector Type	IP68
DMX / Mod Bus Compatible	Yes
IP Rating of Unit	IP67
Over / Under voltage protection	Yes
Reverse polarity protection	Yes
Transient spike protection	Yes
EMC Compliant	Yes



DOMOTIC SPECIFICATIONS

Domotic interface enhances the options of the lighting project and make life easier and more functional thanks to the use of most advanced technologies like ModBus or DMX 512.

The system can be applied in any living area onboard like the comfort, the safety, the energy saving, the multimedia and the control from remote.

The system is ready to integrate any application or device right from the beginning without limiting the future upgrades to new systems or communication standards.



FY3

ORDER CODE: 90SEALES120126SSN2030

LUMENS: 3.000 WATTS: 26 W

In the SEALED® SY FY3 light the driver is built in the Lighting Core.

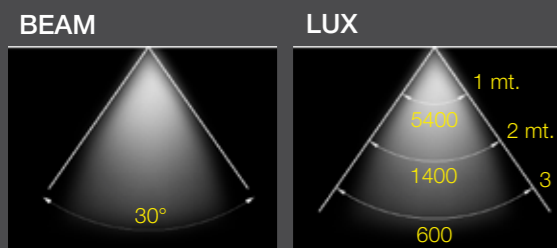
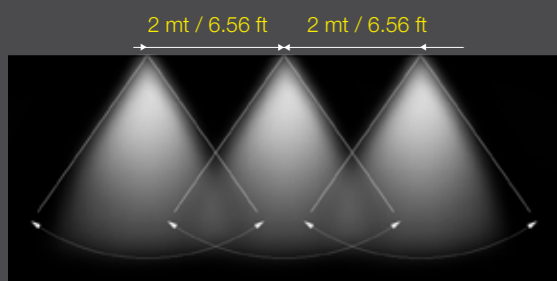
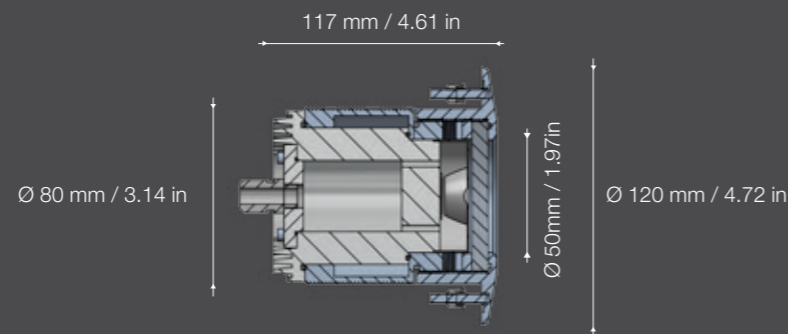
Technical Data:

- Power: 26 W
- Power Supply: 24 V DC
- Current / Amp draw: 1,2 A @ 24 V DC
- Efficiency: 74 Lm/W
- Color Temperature: 5000 K
- Optional Power Supply: 110 - 220 V AC
- Also available in Blue colour



LIGHT POSITIONING

In order to create the best lighting effect around the yacht, we will provide advice about quantity, depth of fixture and spacing between each SEALED®. The effect in the water can vary from straight spears of light to a nice and relaxing halo around the hull simply positioning the lights at the desired distance one from the other. As a general rule we advise to place the lights at a maximum distance of 2mt one from the other.



FY1

ORDER CODE: 90SEALES75113SSN2030

LUMENS: 1.100 WATTS: 13 W

In the SEALED® FY1 light the driver is built in the Lighting Core.

Technical Data:

- Power: 13 W
- Power Supply: 24 V DC
- Current / Amp draw: 0,6 A @ 24 V DC
- Efficiency: 68 Lm/W
- Color Temperature: 5000 K
- Optional Power Supply: 110 - 220 V AC
- Also available in Blue colour



LIGHT POSITIONING

In order to create the best lighting effect around the yacht, we will provide advice about quantity, depth of fixture and spacing between each SEALED®. The effect in the water can vary from straight spears of light to a nice and relaxing halo around the hull simply positioning the lights at the desired distance one from the other. As a general rule we advise to place the lights at a maximum distance of 2mt one from the other.

