



DATE: _____

PROJECT: _____

FIRM: _____

INSTALLER: _____

NOTES: _____

High-output submersible luminaire with intelligent Full Spectrum RGBW LED's

The F-Series line of underwater marine lighting fixtures is designed to mounted a depth of up to 4.6 m (15 ft) below the water's surface to provide vibrant color and color-changing light in the water. With watertight aluminum bronze housings and silicon bronze hardware, Metro Marine's F-Series luminaires are perfect for marine-based applications such as mounting to yachts, docks, sea walls, as well as for use in fountains and theme park installations. . Leveraging Metro's rich legacy of innovation and leadership in optics & LED control technology, the F-Series underwater lighting fixtures introduce a unique LED array to the market with 72 H.O. LEDs per fixture, allowing close adjacent fixture placement where fully-mixed, uniform light is important. Our F-Series RGBW Luminaires also integrate a separate white LED in each of the 18 individually optically lensed RGBW LED configurations, creating higher-quality whites and richer color blends than possible with traditional RGB+White fixtures.

The F-BMR1-FS-90 is a superior underwater RGBW LED luminaire with 90° optical lensing for lighting mid- to large-scale structures and yachts ranging from 10 m (32 ft) to 30 m (100 ft), with uniform color control, and high efficiency.

- Rugged and watertight: aluminum bronze housing with silicon bronze hardware is designed for submersion in water to a depth of 4.6 m (15 ft).
- Close mixing distance: F-Series luminaires feature 90° beam angle with 72 LEDs, utilizing custom optical lenses. This unique design virtually eliminates pixilation and shortens mixing distance dramatically, providing beautiful consistent light, even at close range.
- Unified power and data cable: Each F-Series RGBW luminaire comes with a 3m (9.84 ft.) unified power and data cable to minimize wiring. Our F-Series RGBW luminaires are designed for use with Metro Marine's F-HB-2-FS5 power/data distribution Hubs.
- Temperature monitoring: The F-Series Luminaires have an internal temperature monitoring system that automatically reduces operation to protect the fixtures from damage in extreme operating temperatures.
- High output, underwater: This submersible luminaire offers a full range of 22 million RGBW variations of colors with an output of over 4200 lumens. Long-life state-of-the-art Nichia LEDs significantly reduce or eliminate required maintenance, a major advantage for underwater installations.
- Easily controlled: Metro Marine's F-Series luminaires work seamlessly with Metro's full range of controllers as well as third-party controllers.

For detailed product information, please refer to the F-Series Product Guide at www.Metro-Marine.com/support

SPECIFICATIONS*

*Due to continuous improvements and innovations, specifications may change without notice.

Output

Beam Angle: 90°

Lumens per channel: R: 292 lm / G: 1940 lm / B: 245 lm / W: 2227 lm

Lumens (Maximum): 3836 lm

Efficiency (lm/W): Maximum 46 lm/W

LED Channels: Red/Green/Blue/6500K

Electrical

Input Voltage: 10VDC - 30VDC

Power Consumption: 86 W (Maximum at full output, steady state)

For additional Surge Protection Requirements for LED Lighting Systems, please refer to www.Metro-Marine.com/support

Control

Interface: Control Center MM-CC-V1

To see the full range of controllers or third-party controllers available, please visit www.Metro-Marine.com/products

Lumen Maintenance

Threshold Ambient Temperature Reported Calculated

L50 25 °C > 66,000 > 100,000 50 °C > 66,000 > 100,000

Physical

Dimensions: Ø: 139.13mm(5.47") D: 28.60mm(1.12")

Net Weight: 1.61 kg (3.54 lb)

Housing Material: Die-cast marine aluminum bronze, polished finish

Lens: Clear Quartz

Luminaire Connections: Integral male/female IP68 connectors.

Temperature Ranges

-40 to 50 °C (-40 to 122 °F) Operating

-20 to 50 °C (-4 to 122 °F) Startup

-40 to 80 °C (-40 to 176 °F) Storage

Corrosion Resistance

Complies with ASTM B117 standard for > 1,500 hours
Humidity 0 to 95%, non-condensing.

Luminaire Run Lengths

To calculate luminaire run lengths and total power consumption for your specific installation, contact www.metro-marine.com/support

Certification and Safety

Approbation, Lloyd's Register(Pending), ABS(Pending) , ABYC Compliant.
Environment Wet Location, IP68 Submersible up to 4.6 m (15 ft)

LUMINAIRE and ACCESSORIES

Use Item Number when ordering in North America

Luminaire Item Number

F-Series RGBW, ITEM#: F-BMR1-FS-90, Luminaire only. Accessories sold separately.

Accessories

F-Series Full Spectrum Hub: F-HB-2-FS5

Full Spectrum, 3 Meter, Jumper Cable: F-FS-3M-EX