

LUMISHORE



Superyacht Underwater LED Lighting

Lighting your superyacht!

Our passion for designing beautiful underwater lighting effects and our desire to share our mechanical, electrical and electronics expertise is the inspiration that drives us to create the most brilliant underwater lighting systems for superyachts.

Underwater lighting has seen dramatic changes in recent years with the coming of age of LED technology as the clear choice for superyacht underwater lighting systems. This shift has driven a fundamental rethink: today's LEDs are not only far more powerful and efficient than previous traditional 'bulb' technologies, they can also offer a vast array of exciting new and innovative functions and capabilities.

Beautiful, well designed, superyacht underwater lighting systems create nights as beautiful as days, personalizing your superyacht and providing owners and their guests the ultimate ambiance, whether for a special event or an intimate occasion.

Whether the yacht is in build or retro-fit, we're positioned to help you design the highest performing and most functionally advanced underwater lighting system for your yacht. The innovative solutions and advanced features of Lumishore lighting systems have been developed in collaboration with owners, designers, and shipyards to the highest technical and aesthetic standards.

Each project is individual, and our professional team will work with you to help you create your desired underwater lighting effects. We will advise and recommend the correct Lumishore underwater light models, lenses and flanges according to the hull design and in line with your particular requirements. Working with the shipyard, and using hull drawings, we will recommend the optimum light placements, according to your brief.



Why Lumishore superyacht lighting systems?

Lumishore Superyacht Lighting systems have significant advantages over competing lights:

Superior design – engineering excellence is in our company's DNA and at the core of Lumishore's entire product range. Efficient, patented, electro-mechanical designs ensure optimal heat management, ease of installation, efficiency and in-service durability.

Brighter in every individual color – and at least double the brightness of competing underwater lights.

Product portfolio – Lumishore provides the right product for every superyacht application from 24 meter yachts to the worlds largest superyachts, from new build to refit, from weld-in for metal hulls to thru-hull for GRP hulls and tenders. Lumishore also provides underwater HD cameras for both security and entertainment.

Advanced communication protocols – to optimize performance and output and to control individual lights.

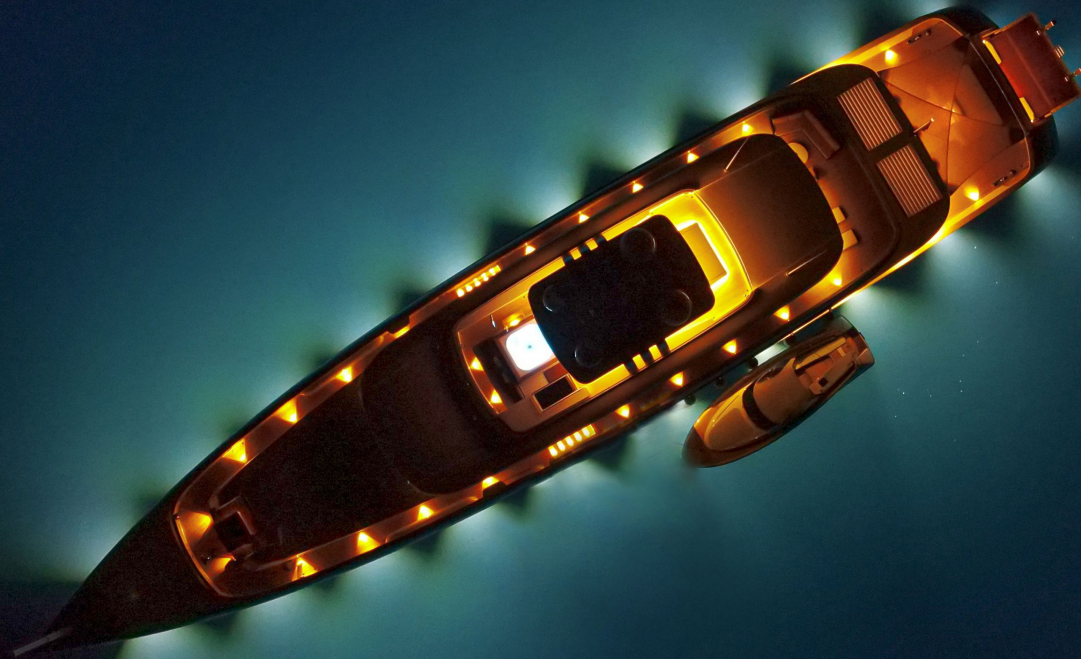
Lumishore quality guarantee – Our UK based manufacturing facility is ISO9001 certified. Our superyacht products are in-house designed, developed and manufactured in our UK facility, and are backed by a 2 or 3-year guarantee and full support.

Type approvals – Lloyd's, ABS and DNV-GL; Lumishore is the only underwater LED lighting provider with full Lloyd's Type Approval including the safety-critical EMC/EMI testing and compliance.

Industry recognized – recipient of multiple awards for product excellence, innovation, and business achievement.

Professional and commercial integrity – is also part of Lumishore's DNA. All technical data, including Fixture Lumens is actual and factual. Lumishore use independently tested integrating spheres, EVERY individual light supplied is measured and tested to exact tolerances. Lumishore is an established, customer-focused and financially sound organization.

Insist on Lumishore - the global leader in design and manufacture of the world's leading high-performance underwater LED lighting systems!



Weld-in lights for aluminum & steel hulls

Lumishore weld-in fixtures provide a perfect flush mount for steel and aluminum hull superyachts. Their ultra-slim internal profile enables easier installation in areas with difficult or restricted access, together with internally or externally accessible light units, to create even hull spacing regardless of tanks or other obstacles inside the vessel. The 'Louvre Lens' weld-in model requires only a standard flange regardless of hull angle. Since the LED array itself is adjusted to optimize light output, there is no need for angled flanges. For all other weld-in models, a range of flange angles are readily available.

Unique benefits to Lumishore systems include the highest light output of any lighting system currently available, for any lighting technology. Accurate, independently ratified test results prove fixture lumens for our superyacht range of between 8,400 and 20,000 fixture lumens.

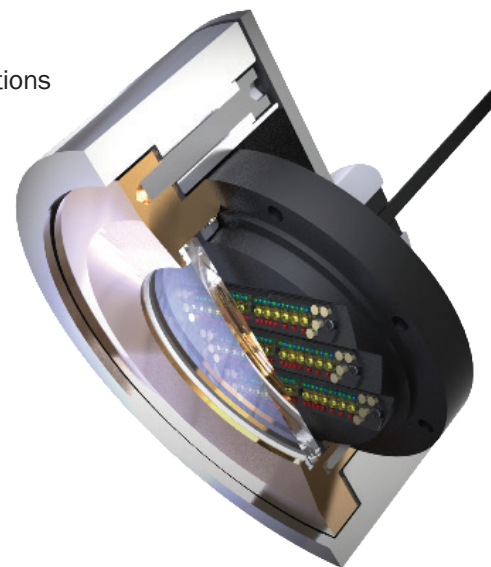
A choice of beam angles – our unique ultra-wide 110° degree or focused 60° degree beam angles are available, to create the desired underwater lighting effects. Our ultra-wide angle is ideal for creating the popular 'Halo Effect' around the hull. Most importantly this combination of vastly superior light outputs and widest beam angles mean Lumishore can recommend wider spacing between lights (3.5 - 4 meters), which allow fewer Lumishore light fixtures to be installed, while still achieving the ultimate underwater illumination.

Lumishore superyacht lights are available in single color (blue, white or warm white), dual-color (blue *and* white/ white and warm white), as well as the award-winning EOS full color change system, which is designed to deliver the very highest standards and color control capabilities.



Features & benefits of weld-in models

- » Patented adjustable Louvre lens eliminates the need for long, angled flanges
- » Interchangeable/accessible from inside or outside the vessel
- » Slim-fit internal profile enables easier installation in awkward, restricted-access locations
- » Choice of beam angles including 110° ultra-wide angle for the perfect halo effect
- » Available in ORA single color (blue, white or warm white), SUPRA dual color (blue and white/ white and warm white) and EOS full color change
- » High-power RGBW lighting system controllable via standard communication protocols for easy integration with on-board entertainment systems
- » Advanced Thermal Management, giving greater reliability and longer life
- » Over voltage/current, reverse polarity, and thermal rollback protection
- » Life expectancy of 50,000+ hours
- » ABS and DNV-GL Classification Approvals and the only underwater LED lighting provider with full Lloyd's Register Type Approval including the safety-critical EMC/EMI testing and compliance
- » External driver may be placed away from light and grouped in one enclosure
- » Simple plug-and-play connectors
- » Diagnostic LED's on all drivers



Meet the new SY225 Louvre Compact

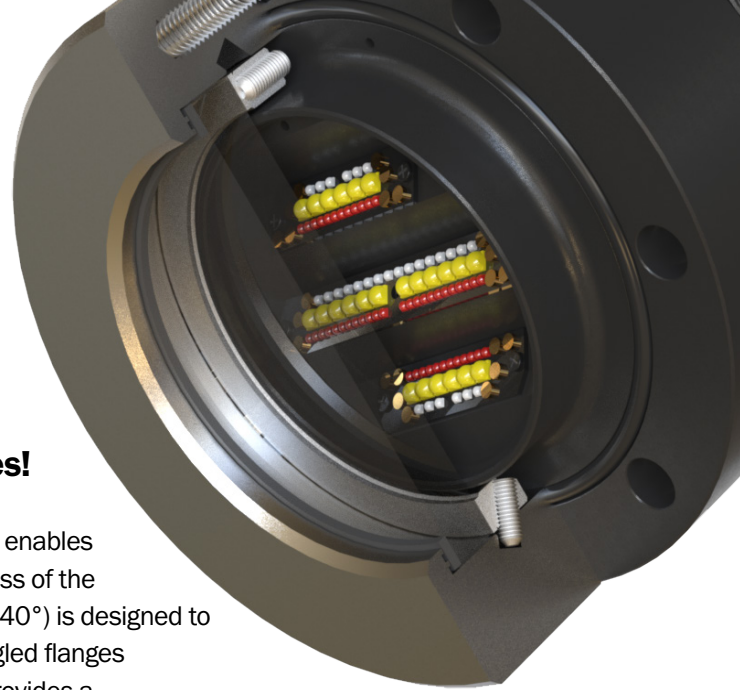
The latest concept in weld-in underwater light fixtures!

Making use of a patented internally adjustable 'Louvre' lens system, this enables a flush-fit, weld-in flange for each and every underwater location regardless of the hull shape. The louvered LED array of each light (available from -10° to $+40^{\circ}$) is designed to account for all hull angles, eliminating the light lost in traditional long, angled flanges and units designed with angled or reflector optics. This new innovation provides a significantly easier installation with multiple benefits to the installer.

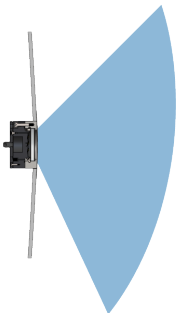
The SY225 Louvre Compact delivers the infamous 'Halo Effect' around the entire hull of the yacht. Easily achieved with a consistent, evenly-spaced pattern, and with fewer lights due to an ultra-wide 110° beam angle.

Available in Lumishore's award winning EOS Full Color Change, SUPRA Dual Color (white and warm white) and ORA Single Color (white or warm white) Series. Each offering 11,000 verified fixture lumens, 24,750 lumens and an optional 3 year warranty.

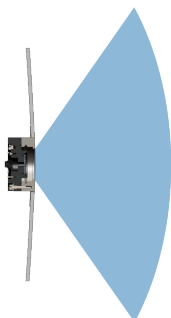
Lumishore has full Type Approval from Lloyds, with unique safety-critical EMC/EMI compliance, as well as approval from ABS and DNV-GL for superyacht underwater LED lighting.



SY225 VS TRADITIONAL VERTICAL HULL ANGLE

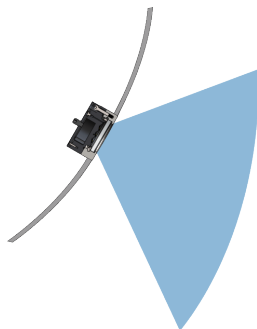


SY225 - FLUSH FLANGE WITH -10° HEATBASE

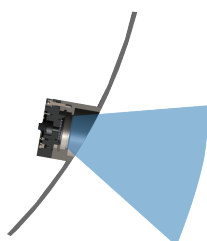


TRADITIONAL FLUSH FLANGE

SY225 VS TRADITIONAL 30° HULL ANGLE

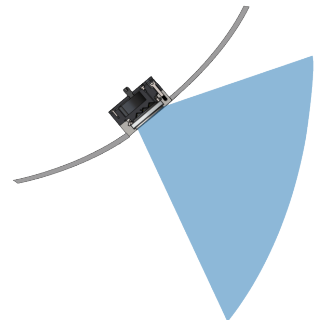


SY225 - FLUSH FLANGE WITH 20° HEATBASE

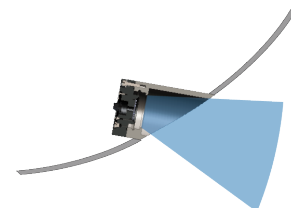


TRADITIONAL 30° FLANGE

SY225 VS TRADITIONAL 50° HULL ANGLE

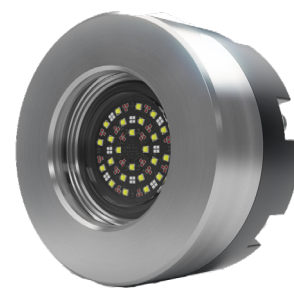
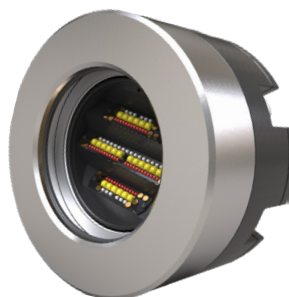
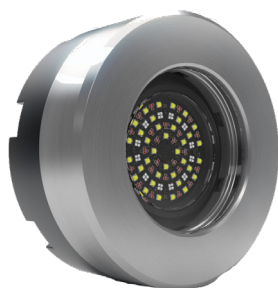
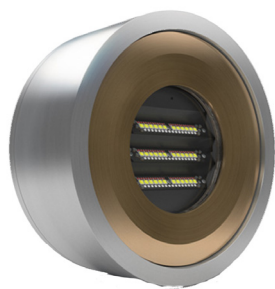


SY225 - FLUSH FLANGE WITH 40° HEATBASE



TRADITIONAL 50° FLANGE

Lumishore Superyacht Lighting Weld-in Models



SY300/310 LOUVRE	SY250 STANDARD	NEW SY225 LOUVRE COMPACT	SY220 COMPACT
GUIDE : > 25 METERS The brightest superyacht light on the market, in every color Ultra-wide 110° beam angle 16,600 - 20,000 fixture lumens	GUIDE : > 25 METERS Compatible with earlier SY150/180 models Ultra-wide 110° or focused 60° beam angle 12,400 -15,500 fixture lumens	GUIDE : > 25 METERS The latest concept in weld-in underwater light fixtures Ultra-wide 110° beam angle 11,000 fixture lumens beam angle	GUIDE : < 50 METERS Installed using traditional angled flanges Ultra-wide 110° or focused 60° beam angle 8,400 -10,000 fixture lumens
KEY FEATURES & BENEFITS			
<ul style="list-style-type: none"> »Internal LED Louvre array angle adjusts to produce a consistent beam from within the light regardless of hull shape »Suitable for all hull shapes, especially shallow angles »Optimizes light output and eliminates the need for long, angled flanges »Consistent light output at every location »Flush weld-in flange may be used for each and every underwater location »Easy installation procedure »Slimmest internal profile »SY300 - internally maintained »SY310 - externally maintained, suitable for tank installations »Available in 2 series: SUPRA - white and blue EOS- RGBW full color change 	<ul style="list-style-type: none"> »Direct, bolt-on upgrade to Lumishore existing SY models: SYX150/180 weld-in underwater lights »Improved light outputs – superior to any competing underwater light supplier »Sealed inner LED array - can be accessed from inside the vessel »Available in 2 series: SUPRA – white and blue EOS – RGBW full color change 	<ul style="list-style-type: none"> »Making use of Lumishore's patented 'Louvre' lens system »A flush-fit, weld-in flange for each and every underwater light location »No loss of light, regardless of hull shape »Simplified installation procedure, saving both time and cost »LED array (available from -10 to +40°) is designed to account for all hull angles »Eliminating light lost in traditional long, angled tube flanges or angled internal components »Achieve ultimate halo effect »Internally maintained »Available in 3 series: ORA – white or warm white SUPRA –white and warm white EOS – RGBW full color change 	<ul style="list-style-type: none"> »Ultra-slim internal profile of just 139mm »Ideal for confined hull locations or where access is restricted (i.e. water tanks and bulbous bow) »LED array may be accessed from inside the vessel »Range of flange angles available »Available in 2 series: ORA – white or blue EOS – RGBW full color change



Retro-fit LED lights for metal halide/HID/LED replacement

Lumishore Retro-fit fixtures have been designed for very quick and easy installation – the Retro-fit light simply screws into the existing weld-in flanges. Now, almost all existing HID/metal halide bulb fixtures and older-generation LED fixtures can easily be replaced with Lumishore Retro-fit lights without having to haul or lift the vessel.

Dual-colored SUPRA lights deliver 8,000 fixture lumens in white mode, making them more powerful than competing lights.

The stunning EOS full color change Retro-fit lights are now available to the refit market for the first time offering even more extraordinary effects. Built-in Wi-Fi, Sound-to-Light, Color Sweep, Color Cycle, Brightness Adjust functions, and much more are easily available and controlled with Lumishore's EOS STV2203-i or STV2204-i.

It has never been easier to take advantage of Lumishore's unrivalled LED lighting systems - retro-fit your existing underwater lights now or during your next refit.

Key features & benefits

For the replacement of existing weld-in Metal Halide/HID and older-generation LED lighting systems

- » Interchangeable/LED array can be accessed from inside the vessel
- » Ultra-wide 110° beam angle (restricted by existing flanges only)
- » Highest output of any competing underwater retro-fit unit available
- » Available in SUPRA dual color (white and blue) and EOS full color change
- » Fully integrated 2-way DMX-512 and RDMX compatible*
- » Automatic light discovery and installation*
- » Individual light operation and diagnostics*
- » Built-in Wi-Fi and 'Sound-to-Light' functionality*
- » Pre-programmed and customizable color modes, strobes, cycles, and sweeps with speed adjust*
- » High-power RGBW lighting system controllable via standard communication protocols for easy integration with on-board entertainment systems*
- » Over voltage/current, reverse polarity, and thermal rollback protection
- » Life expectancy of 50,000+ hours

*EOS Series compatible with Lumi-Link Command Center





Thru-hull lights for GRP superyachts

Lumishore Thru-Hull fixtures for GRP hulls are specifically designed for owners who demand underwater lights with the highest light output and widest beam housed in a durable fixture.

Lumishore engineers have perfected a proprietary thermal management technique to ensure the most powerful, most efficient, and most cost effective Thru-Hull underwater lights on the market.

Our unique ultra-wide 110° degree beam is especially ideal for creating the popular 'Halo Effect' around the hull. Lights with an ultra-wide light beam allow wider spacing between lights (3 - 4 meters – depending on model), meaning fewer fixtures are needed to achieve a superior effect.

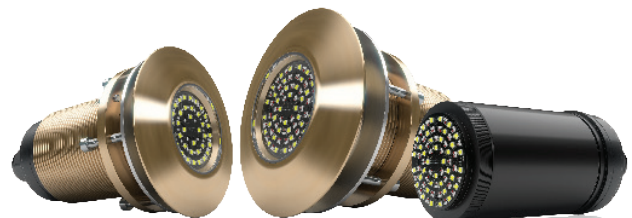
Manufactured from machined aluminum bronze, our Thru-Hull lights adhere to the highest tolerances to withstand the harsh marine environment providing owners peace of mind.

Available in Dual-color (blue and white), as well as our exclusive EOS full color change system which takes color change lighting to a new level with vivid RGBW, industry leading light output, and never-seen-before control of individual lights.

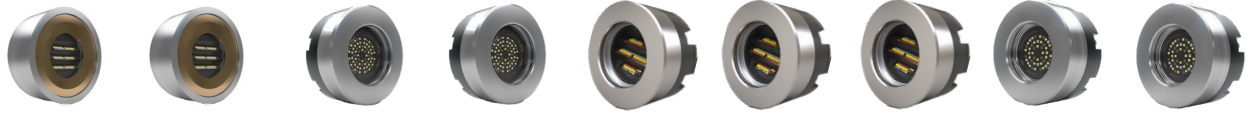
Don't be fooled by imitators, Lumishore is the true leader in high-powered color changing underwater lighting systems.

Key features & benefits

- » Flush-fit Interchangeable Thru-Hull (TIX) models are interchangeable/accessible from inside the vessel without hauling or lifting the vessel
- » Recommended for all GRP vessels over 15m/50'
- » 12/24V DC standard, optional 110/240V AC
- » Available in SUPRA Series (dual color) or EOS Series (full spectrum RGBW color change)
- » EOS model compatible with STV2203-i /2204-i Display
- » SUPRA model compatible with Lumi-Switch
- » Proven fixture lumen range of 10,500 - 17,000
- » Ultra-wide 110° beam angle for the perfect halo effect
- » Over voltage/current, reverse polarity, and thermal rollback protection
- » Life expectancy of 50,000+ hours
- » Lloyd's and RINA Type Approved

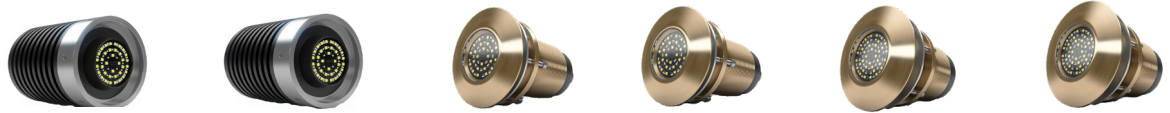


Weld-in lighting guide



WELD-IN									
	LOUVRE SY300/310	LOUVRE SY300/310	STANDARD SY250	STANDARD SY250	LOUVRE COMPACT SY225	LOUVRE COMPACT SY225	LOUVRE COMPACT SY225	COMPACT SY220	COMPACT SY220
SERIES	EOS	SUPRA	EOS	SUPRA	EOS	SUPRA	ORA	EOS	ORA
FIXTURE LUMENS	16,600	20,000	12,400	15,500	11,000	11,000	11,000	8,400	10,000
BEAM ANGLE	110°	110°	60° / 110°	60° / 110°	110°	110°	110°	60° / 110°	60° / 110°
SUPPLY VOLTAGE RANGE	Integrated AC Driver (90 - 240 V AC) 24V DC option available	Integrated AC Driver (90-240V AC)	Integrated AC Driver (90 - 240 V AC) 24V DC option available	Integrated AC Driver (90-240V AC)	90-240V AC 24 V DC option also available	90-240V AC	90-240V AC	Integrated AC Driver (90 - 240 V AC) 24V DC option available	Integrated AC Driver (90-240V AC)
MAX CURRENT DRAW (110V AC)	1.8A	1.8A	1.4A	1.4A	1.4 A	1.4 A	1.4 A	1.2A	1.2A
LIGHT ANGLE OPTIONS	-10° to 50°	-10° to 50°	n/a	n/a	-10° to 40°	-10° to 40°	-10° to 40°	n/a	n/a
FLANGE DIAMETER (MM/INCH)	180 mm (7.09")	180 mm (7.09")	160 mm (6.3")	160 mm (6.3")	139mm (5.47")	139mm (5.47")	139mm (5.47")	139mm (5.47")	139mm (5.47")
FLANGE ANGLE OPTIONS	0° (Flush) and 10°	0° (Flush) and 10°	0° (Flush), 10°, 20°, 30°, 40°, 50°	0° (Flush), 10°, 20°, 30°, 40°, 50°	0° (Flush)	0° (Flush)	0° (Flush)	0° (Flush), 10°, 20°, 30°, 40°, 50°	0° (Flush), 10°, 20°, 30°, 40°, 50°
FLANGE MATERIAL	5083L Aluminum (Lloyds 3.1 Certified) 316L Stainless Steel (Lloyds 3.2 Certified)								
INSTALLATION LOCATION	Transom, Side, Bulbous Bow, Water Tank, Fuel Tank (310 Only)	Transom, Side, Bulbous Bow, Water Tank, Fuel Tank (310 Only)	Transom, Side, Bulbous Bow, Water Tank	Transom, Side, Bulbous Bow, Water Tank	Transom and Side Hull	Transom and Side Hul	Transom and Side Hul	Transom, Side, Bulbous Bow, Water Tank	Transom, Side, Bulbous Bow, Water Tank
COLORS	Full Color Change (RGBW)	Dual Color (Blue & White)	Full Color Change (RGBW)	Dual Color (Blue & White)	Full Color Change (RGBW)	Dual Color (White & Warm White)	Single color (White or Warm White)	Full Color Change (RGBW)	Single Color (Blue or White)
TIMED COLOR CYCLE	Yes	n/a	Yes	n/a	Yes	n/a	n/a	Yes	n/a
STROBE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
FADE	Yes	n/a	Yes	n/a	Yes	n/a	n/a	Yes	n/a
CONTROLLER	STV2203-i, STV2204-i, DMX Controller (3rd Party)	Enquire	STV2203-i, STV2204-i, DMX Controller (3rd Party)	Enquire	STV2203-i, STV2204-i, DMX Controller (3rd Party)	On/Off/ Colorr Select Switch	On/Off Switch	STV2203-i, STV2204-i, DMX Controller (3rd Party)	Enquire

Retro-fit and interchangeable thru-hull lighting guide

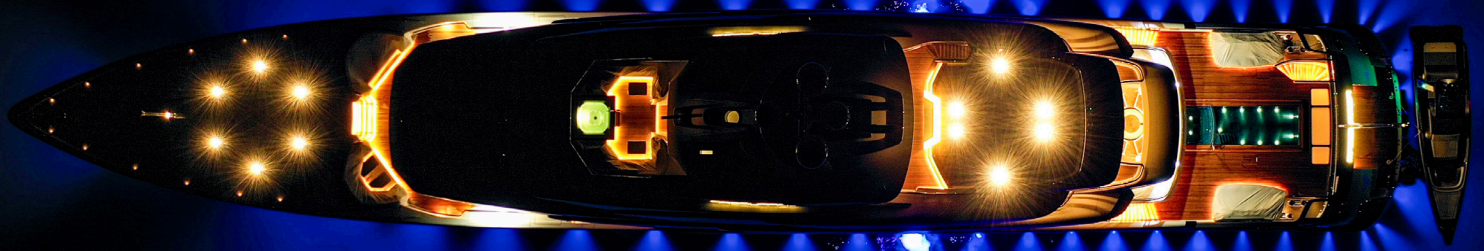


RETRO-FIT			INTERCHANGEABLE THRU-HULL			
	TRX802	TRX802	TIX802	TIX802	TIX1602	TIX1602
SERIES	EOS	SUPRA	EOS	SUPRA	EOS	SUPRA
FIXTURE LUMENS	8,000	8,000	10,500	12,000	15,500	17,000
BEAM ANGLE	110°	110°	110°	110°	110°	110°
SUPPLY VOLTAGE RANGE	90 - 250 V AC (12 or 24 V DC option available)	90 - 250 V AC (12 or 24 V DC option available)	AC (90 to 240V) 12 / 24 V DC option available	AC (90 to 240V) 12 / 24 V DC option available	AC (90 to 240V) 24 V DC option available	AC (90 to 240V) 24 V DC option available
MAX CURRENT DRAW (110V AC)	0.6A	0.6A	1.2A	1.2A	1.8A	1.8A
LIGHT DIAMETER (MM/INCH)	110mm (4.33")	110mm (4.33")	120 mm (4.72")	120 mm (4.72")	140 mm (5.51")	140 mm (5.51")
SHAFT LENGTH (MM/INCH)	n/a	n/a	184mm (7.24")	184mm (7.24")	184mm (7.24")	184mm (7.24")
CONSTRUCTION	Light Body: Anodized Aluminum (5083), Adaptor Ring: Stainless Steel (316L)	Light Body: Anodized Aluminum (5083), Adaptor Ring: Stainless Steel (316L)	Marine Grade Aluminum Bronze	Marine Grade Aluminum Bronze	Marine Grade Aluminum Bronze	Marine Grade Aluminum Bronze
INSTALLATION LOCATION	Transom, Side, Bottom	Transom, Side, Bottom	Transom, Side, Bottom	Transom, Side, Bottom	Transom, Side, Bottom	Transom, Side, Bottom
COLORS	Full Color Change (RGBW)	Dual Color (Blue & White)	Full Color Change (RGBW)	Dual Color (Blue & White)	Full Color Change (RGBW)	Dual Color (Blue & White)
TIMED COLOR CYCLE	Yes	n/a	Yes	n/a	Yes	n/a
STROBE	Yes	Yes	Yes	Yes	Yes	Yes
FADE	Yes	Yes	Yes	Yes	Yes	Yes
CONTROLLER	STV2203-i, STV2204-i, DMX Controller (3rd Party)	Enquire	STV2203-i, STV2204-i, DMX Controller (3rd Party)	Lumi-Switch or On/Off Switch	STV2203-i, STV2204-i, DMX Controller (3rd Party)	Lumi-Switch or On/Off Switch

Service & support from Lumishore

Superyacht new build and refit projects invariably have bespoke elements which require detailed planning. Lumishore has a dedicated Superyacht Service & Support team who is on hand to ensure immediate support during the entire process – from initial inquiry through installation, commissioning of the lights, and full after-sales support service through our internationally based engineers. This '10-step' process developed with our customers includes initial discussions with the client to determine the required underwater lighting effects, through to selection of the most appropriate Lumishore lighting system for the vessel.

Lumishore provides recommended light placement drawings, flanges size calculations (if required), full equipment listings, and commissioning of underwater lighting systems by Lumishore engineers upon request. Every Lumishore superyacht light is supplied with a standard 2 year warranty, with optional 3 year warranty, subject to inspection and signing off of the installation by a qualified Lumishore technician.



Superyacht Lighting Control Options

Lumi-Link Command Center



Used in conjunction with Lumishore's STV 2204-i Display, Lumishore's Lumi-Link is the world's best marine lighting control system. Take full control of your Lumishore lighting directly from your internet-compatible display device! Simply connect Lumi-Link to the ethernet backbone of the vessel with a single plug-&-play ethernet cable to create a centralized control platform for the entire vessel. Customer-managed "Zones", "Scenes" and "Triggers" can be used to give even greater safety, fun, flexibility and control options. The 3.5mm audio jack also offers our unique sound-to-light functionality.

EOS STV 2204-I Display



The EOS STV 2204-i is a dedicated touch screen glass-bridge full-screen display that can be located anywhere aboard the vessel when connected to the vessels ethernet backbone. Offering simple click-and-play functionality, with easy-to-navigate modern icons and optional full two-way DMX compatibility.

System Control Wherever You Are!



Installing both the Lumi-Link Command Center and STV 2204-i Display enables full connectivity to any Lumishore EOS full color change system, from anywhere aboard the vessel. Using the vessels ethernet and wi-fi network, Lumishore's HTML based control software can be accessed using any mobile device.

Added Value from Lumishore

Rigorous Quality Control - Each Lumishore light is tested four times during manufacture and soak-tested for 48 hours upon completion. The light output of each fixture is measured during the build using specialized Integrating Spheres and our exclusive, specialist-calibrated software, to obtain exact light measurements and accurate fixture lumen outputs. Should any light reading not meet our specified light output parameters, the light is discarded.

Pressure Testing - Every Lumishore superyacht light is equipped with a pressure valve on the rear of the light module. This enables the yard to carry out pressure test before launch to ensure the underwater lights are fully sealed and correctly installed.

Lloyd's 3.2 Certificates - All Lumishore stainless steel/aluminum flanges are supplied with fully-traceable material certificates to EN 10204 3.1 or 3.2.

Lloyd's – EMI/EMC Testing and Compliance - Lumishore is the only underwater LED lighting supplier with full Lloyd's Register Type Approval including EMI/EMC testing and compliance.

Lumishore LED underwater lights out-perform every competing light fixture available on the market today, in their class, in terms of light output, advanced technology, and reliability. We not only welcome side-by-side comparisons with competing light fixtures, we recommend them. This ensures that our customers will make the correct purchasing decision, based on best value.

Lumishore's R&D team are constantly improving our products - we will remain not just one step ahead of the rest, but years.

Every Lumishore superyacht light is supplied with a standard 2 year warranty, with optional 3 year warranty, subject to inspection and signing off of the installation by a qualified Lumishore technician.

Unit 2, Technium 1, Kings Road, Swansea, SA1 8PH, UK
+44(0)208 144 1694 | info@Lumishore.com

7137 24th Court East, Sarasota, FL 34243, USA
(941) 405-3302 | sales@LumishoreUSA.com

www.Lumishore.com