underwater lights limited

The art of superyacht lighting



- * The QT-75 LED underwater light features the smallest and brightest weld-in LED fixtures on the market with flush and 50 degree inserts for angled hull adjustment.
- * Never feel trapped by this weld-in fixture the LED projector can be easily removed for servicing and upgrades without the hassle of hauling your boat.
- * With a maximum 25,000 lumens of light power and its' 90 or 120 degree beam angle provides a perfect spread of light.
- * The QT-75 LED is recommended for Steel and Aluminium hull yachts of 30 meter+.
- * Distance between lights can vary from 1.5 (transom) to 5 meters (port & starboard) apart for the best illumination.-
- * With complete Lloyd's Register Approval, GL and ABS Design Appraisal on all components, the **QT-75** has been installed on some of the largest and most prestigious Superyachts in the world.
- * The QT-75 is a completely customisable underwater lighting solution for larger yachts. We offer a bespoke design service tailored for each individual hull.



The QT-led range is designed and manufactured by underwater lights Ltd in the $\ensuremath{\text{U.K.}}$

Type-75, Issue 'A', Date-1-08-2017



QT- 75

Weld-in For - Aluminium & Stainless Steel hulls

Mounting

Hull Material	Aluminium & Steel			
Boat size	30 meters + (90+ Feet			
Spacing	1.5meter (5ft) for Transom &	5meters (14ft) for P & S)		
Beam Angle	90° 120°			
Installation Angles	Flush+ and 50°			6.10″(155m
Technical			4.7	
Lumens	25,000	- unit	2"(12	_
Kelvin	6,500		20mm)	
Typical LED Life Expectancy	40,000 hrs		n)	
Min-Max Operating Voltage	110 - 240V AC			

Insert Part Number

QT-75-00300 -HP3W / 00600-HP3W

8.26" (210mm)

Physical

Bonding

Driver Type

Driver Output

Control Options

Current / Amp draw

Length of fixture	155mm - 210mm (6.10" - 8.26")
Diameter of fixture	120mm - 140mm (4.72″ - 5.51″)
Profile (height) of fixture	N/A
Removal Space Required	100mm4")
Total weight	SS: 9.5 - 12.7kg (21 - 28lbs) ALU: 8.2-9.1kg (18 - 20llbs
Driver Dimensions (L x W x H)	8.7″ x 4.7″ x 3.5″ (220 x 120 x 90mm)
Cable Length	3meters (13ft)
Hole Cut-out	N/A
Material	5083 Aluminium / 316L Stainless Steel

1.4A - 0.7A

2.8 amps @ 55v

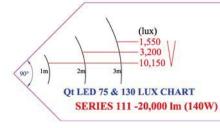
On / Off Switch Welded

Borosilicate Glass

Local Deal

External

Growth Resistant Lens



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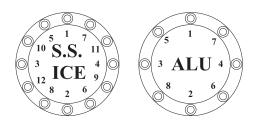
*DESCRIPTION - This is a submersible through hull marine light which uses our existing standard FLUSH +, 30 degree and 50 degree insert (1) part numbers for 5083 ALU and 316 S.S inserts are below. The insert is welded into the hull. Removal of the led light is done from inside the hull by unscrewing the LED heat sink body (8).

* LENS FITTING INSTRUCTIONS-Remove the blanking plate and check the insert (1) lens landing surfaces are clean and apply a suitable silicone grease to the gaskets (2). Fit the lens (3), gaskets (2) and lens retaining ring (4). Hand tighten the cap head bolts (6) and spring washer (5)making sure the lens retaining ring (4) is square. Torque the bolts to 7 Nm (5.1ft/lbs) in the sequence shown below, check the ring again and re-torque the screws again to the same setting.

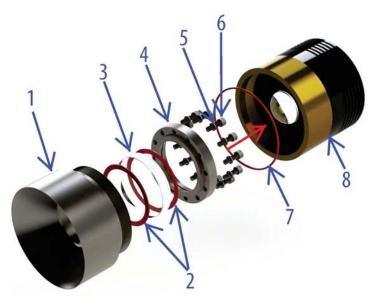
* LED PROJECTOR FITTING INSTRUCTIONS-The LED heat sink body (8) and the 'O'ring (7) are fully

assembled with three meters of cable connected to a IP 68 plug which plugs directly into the driver enclosure socket. These parts form one unit that maintains the second containment space should the lens (3) sealing fail. Before screwing the LED projector onto the insert (1) check that the 'O' ring (7) is in place and that the threads are coated with the silicone grease. The front face of the aluminium bronze connecting ring must make contact with the insert face.

***DRIVER INSTALLATION INSTRUCTION** - The driver must be located at least 60 cm above tank top with good ventilation and the maximum ambient temperature should not exceed 40C. The underwater light is fitted with three meters of cable and a IP 68 plug that fits into the driver enclosure socket. For cabinet installation see separate sheets.



LENS RETAINING RING (4)



MODEL NUMBER	LUMEN OUTPUT	COLOUR	120 VAC SUPPLY POWER & DRAW CURRENT	230 VAC SUPPLY POWER & DRAW CURRENT	DMX CONTROLLER REQUIRED
QT-75-B	XXX	BLUE	120 WATTS - 1.1 AMPS	120 WATTS - 0.6 AMPS	NO
QT-75-HP3	20,000	6,500K	130 WATTS - 1.4 AMPS	130 WATTS - 0.7 AMPS	NO
QT-75-RGB-W	XXX	RGB-W	130 WATTS - 1.3 AMPS	130 WATTS - 0.7 AMPS	YES



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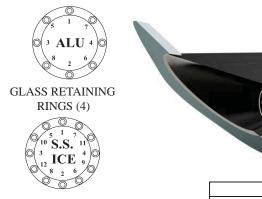
THE QT-LED RANGE IS DESIGNED AND MANUFACTURED BY UNDERWATER LIGHTS LTD IN THE U.K.

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- * **DESCRIPTION** This is a submersible through hull marine light which uses our existing standard FLUSH + , 30 degree and 50 degree inserts (1) which are generic for all light projectors. Below are the part numbers for 5083 ALU and 316 S.S.
- * Welding the inserts must carried out by an approved welder and to the attending surveyors satisfaction.inserts.
- * See guidance method of welding procedure sheet.
- * Note that the edge of the insert must protrude 5mm through the hull plate for welding.
- * All inserts are supplied with a thread protector cover. Do not remove the cover during welding and paint work finishing.
- * Removal of the led light is done from inside the hull by unscrewing the heat sink and connecting ring together.
- * LENS FITTING INSTRUCTIONS-Remove the blanking plate and check the insert (1) lens landing surfaces are clean and apply a suitable silicone grease to the gaskets (2). Fit the lens (3), gaskets (2) and lens retaining ring (4). Hand tighten the cap head bolts (6) and spring washers (5) making sure the lens retaining ring is square. Torque the bolts to 7 Nm (5.1ft/lbs) in the sequence shown below, check the ring again and re-torque the screws again to the same setting.



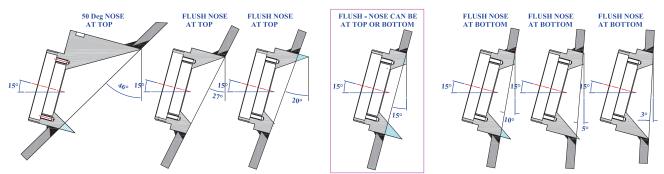
1	3 4	
V	x O	
		7

5

INSERT PART NUMBERS				
Material	Flush +	30 degree	50 degree	
316L S.S.	UWL-00300+	UWL-00330	UWL-00350	
5083 ALU	UWL-00600+	UWL-00630	UWL-00650	

SELECTION OF INSERT TYPE FOR DESIRED ENTRY ANGLE

- * The inserts must be 250mm below the water line with the vessel loaded with 50% fuel and water.
- * Advised entry angle is 15 degees. However around the beginning of the stern a 15 degree angle may not be possible. Using the 50 degree insert get the best possible entry angle. This could be 25 degrees. The next insert may be 20 degrees and the next 15 degrees. Achieve sweeping rise in entry angle and not a jump of 25 to 15 degrees.
- * Transom light spacing should be around 2 meters. Spacing going forward can vary. We can propose a free light location plan with the type of inserts provided we have transverse sections and a GA in Acad form. Please contact us at uwl@underwater lights.com



THE CENTER LINE OF THE BEAM/INSERT IS ANGLED DOWN 15 Deg TO THE HORIZONTAL BLUE SHADED AREAS OF THE INSERT TO BE REMOVED



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UWL - 75 INSTALL-01.08.17



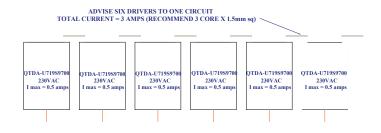
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ELECTRICAL INSTALLATION INSTRUCTIONS FOR 0T-75 & 130

Qualified/Approved personnel must be used to carry out electrical installation.

- POWER SUPPLY TO DRIVER 110-240 VAC 50/60 Hz
- RECOMMEND ONLY SIX LIGHTS PER CIRCUIT. SEE DIAGRAM BELOW.
- THE DRIVER ENCLOSURE MUST HAVE A MINIMUM DISTANCE OF 50 CM FROM THE LED PROJECTOR
- THE DRIVER ENCLOSURE MUST BE FITTED MIN 60CM ABOVE TANK TOP OR BILGE
- THE DRIVER ENCLOSURE MUST HAVE AIR FLOW ON ALL SURFACES. USE THE 2 CM SPACERS FOR THE
- BACK SURFACE WHEN SECURING.
- THE DRIVER ENCLOSURE MUST BE INSTALLED VERTICALLY AS SHOWN IN PICTURE BELOW.
- THE MAXIMUM AMBIENT TEMPERATURE OF 45C MUST NOT BE EXCEEDED
- THE LED PROJECTOR IS SUPPLIED WITH 3.0 METERS OF CABLE WITH THE PLUG AND SOCKET ALREADY CONNECTED. THIS CABLE CAN BE EXTENDED.
- THE POWER LED SHOWN ON THE STANDARD DRIVER PICTURE INDICATES WHEN LIT THAT THE DRIVER IS SUPPLYING POWER TO THE LED. IF THE LED IS OUT AND THERE IS POWER, THE DRIVER HAS FAILED.





DRIVER



POWER CONNECTION FOR DRIVER ENCLOSURE SPACE DISTANCE



DRIVER AND ENCLOSURE Part no QTDA-U719S9700

• QT 130 EARTH LIGHT INSTRUCTIONS FOR CATHODIC PROTECTION-Tighten the earth screw on the securing ring so that it bites into the screwed barrel. Connect this to the hull anode or cathodic protection system.Check there is continuity to the front face. This prevents galvanic corrosion.





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