QtLED QT-80-Ti

*The **QT-80-Ti** LED underwater light is a through hole fitting and has a flat lens for a 120 degree wide beam. It has a Titanium face and an integral driver and is the brightest fixture for its size on the market.

*Never feel trapped by this fixture as the LED projector is designed for Blue or White and can be removed for servicing or exchanged without the hassle of hauling your boat.

*The cool white LED 40 watt has 7000 lumens and the 20 watt 3,500 lumen. The LEDs are available in white and blue and have a 70 -120 Degree beam through a flat glass lens providing a perfect spread of light.

*With ABS Design Appraisal and Lloyds Approvals on all components.
Using the latest technology allows our underwater lights to perform well in the harshest environment.

*The **QT-80-Ti** is made from Titanium front face and anodized 5083 aluminium for the body.

Maintenance
Inside the hull

Control Option
On/Off switch

Driver
Internal

Growth Resistant Lens
Borosilicate Glass

Power
20w 12-24 VDC
40w 12-24 VDC

Installation
Thru- Hull

AVAILABLE YES

AVAILABLE YES

Pressure test
Glass and sealing-20 bar

Hull Material
Carbon/GRP/Metal

Boat Size
Up to 20 meter

Lumens
3500 & 7000

Kelvin
6,500

Beam Angle
70 - 120 degree

IPX8
Underwater

www.underwaterlights.com

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

QT- 80-Ti

Thru-Hull - Led serviced From inside

Color	Part Number
White	QT-80-Ti-20-W & QT-80-Ti-40-W
Blue	QT-80-Ti-20-B & QT-80-Ti-40-B

Mounting

Hull Material	GRP / Fiberglass/Carbon/Metal
Boat size	Up to 20meters (90 ft)
Spacing	1-1.5m & 1-3m port& starboard
Beam Angle	70 - 120 ^{O}
Installation Angles	Flush

Technical

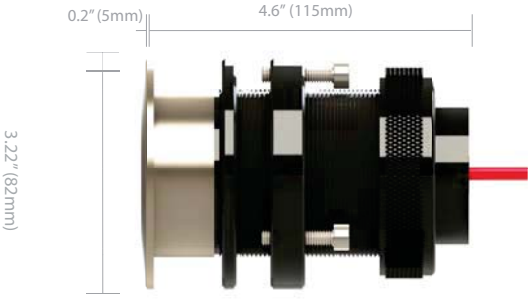
Lumens	40 watt =7,000 and 20 watt =3,500 for white
Kelvin	6,000
Typical LED Life Expectancy	20,000 hrs
Min-Max Operating Voltage	11 - 28V DC
Current / Amp draw at 11 vdc	4.0 - 2.0 amps
Driver Type	Integral
Driver Protection	Reverse Polarity Thermal Protected
Control Options	On / Off switch
Bonding	Securing Ring

Physical

Hole Cut-out	61mm (2.5")
Length of fixture	105mm (4.13")
Diameter of fixture	82mm (3.22")
Profile (height) of fixture	5mm (0/2")
Removal Space Required	160mm (6.5")
Total weight	1kg (2.2 lb)
Cable Length	3meters (10ft)
Max Hull thickness	62mm (2.5")
Face Material	Titanium
Growth Resistant flat Lens	Borosilicate Glass

QT-80-Ti-20

QT-80-Ti-40



Your Local Dealer

The Great Dunton Forge, London Road
Dunton Green, Sevenoaks, Kent TN13 2TD UK
T: +44 (0) 1732 455753 • F: +44 (0) 1732 743233
E: uwl@underwaterlights.com
www.underwaterlights.com

VAT NO: 556 4425 31
Registered in England No: 2348038

QT-80-Ti Install

***QT- 80-Ti LED Range Installation** (Maximum hull thickness 62mm) and Operation instructions.
The QT-80-Ti is a "through- hull" submersible marine light and is delivered ready for installation. Maintenance of the LED is carried out from inside the hull. The light is suitable for installation into GRP-fiberglass, timber and carbon hulls. The 20 & 40 watt led is driven by an integral DC driver (11-28vdc). The White LED produces 7,000 lumens for the 40 watt and 3,500 lumens for the 20 watt.
*Qualified/Approved personnel must be used to carry out installation
Before cutting a 61mm hole in the hull, check the hull wall thickness is not greater than 62mm. The location of the holes must be below the waterline. After finishing the hole surface, check the Body (1) can be inserted.
*Note for cored hulls - After cutting, the exposed surfaces of the hole must be finished to form a solid surface through it. Thus protecting the internal core of the hull. The wall thickness of the hole should not to less than 5mm-0.25inch. Apply 3M-4200FC sealant to the 'Body' (1) flange. Slide the body into the hole and from inside the hull put the 'compensating ring' (3) on and screw the securing ring' (4) up hand tight. Gently tighten the adjustment screws (7) so the compensating ring is flush to the hull and the sealant has flowed completely around the flange and hull.
*Do NOT overtighten the bolts as this will squeeze the sealant from the surfaces. Allow the sealant to solidify and remove surplus. Finally tighten the bolts to 4Nm. / 3ft. lbs.
*It is not necessary to remove the heat sink (2) when carrying out installation.
*To remove the heat sink (2) unscrew the clamp ring (5). There two M5 tapped holes to use if the heat sink is difficult to remove.
*Before fitting the new LED heat sink (2) ensure the barrel part of the body (1) and the lens is clean. Use silicone grease to lightly coat the heat sink (2), clamp ring (5) and sealing 'O' rings (6). Slide the heat sink (2) into the barrel and tighten the knurled securing clamp ring (5) to secure the heat sink (2) into the body. When the heat sink (2) cannot be rotated the clamp ring (5) has secured all in place. If this is not done it will cause overheating of the LED and the LED could fail.
*Caution: do not operate lights unless totally submerged.
After completing the installation procedure it is highly recommended to coat the BODY (1) face with antifouling and bond the lights to the anodes or a cathodic protection system as shown below.
*EARTHING LIGHT FOR CATHODIC PROTECTION-tighten the earth screw (8) on the securing ring (4) so that it bites into the screwed barrel. Check there is continuity to the front face. This prevents galvanic corrosion.

Description Qt 80	Qnty
1:Body/Face	1
2:Led Heat Sink	1
3:Compensating Ring	1
4:Securing Ring	1
5:Clamp ring	1
6:'O' Rings	2
7:Adustment screws	3
8:Earth screw	1

TECHNICAL SPECIFICATION

***Supply Voltage** 11-28vdc
***Power** 40 watts Maximum current at 11 vdc = 4 amps
***Power** 20 watts Maximum current at 11 vdc = 2 amps
***LED Driver** - Integral- **YES**
***LED** Cool white (6,000 lm) or Blue
***BODY Material -** Titanium Face and black anodized 5083 ALU.
***LED lamp life -** 20,000 hours @ 60° C

EARTH SCREW ITEM 8

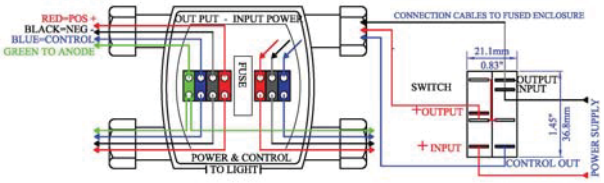
www.underwaterlights.com

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

QtLED DC POWER CONNECTIONS

POWER AND CONNECTION INFORMATION FOR -
QT-80-Ti, QTS-100, QTS-100 DUAL, AND QTS-100-RGB+W

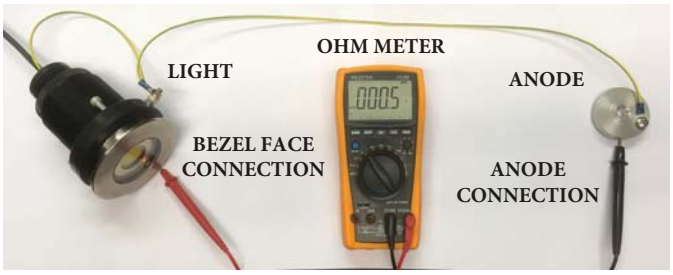
FOUR WAY FUSED AND SURGED
PROTECTED PLUG AND PLAY ENCLOSURE



BLUE CONNECTIONS FOR DUAL LIGHTS ONLY DO NOT USE THE BLUE FOR SINGLE COLOUR OR RGB+W LIGHTS

TWO WAY FUSED ENCLOSURE POWER FROM EITHER SIDE - EARTH CONNECTED TO ANODE

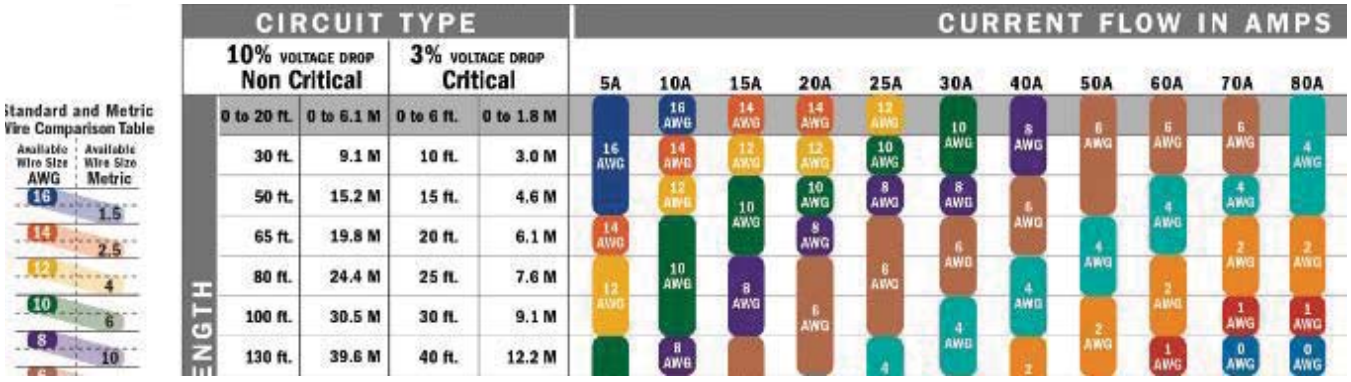
***The picture opposite shows a very important procedure in checking that the light is connected to the insert.**
***Using an ohm meter connect the light bezel to the anode. The ohm value should be less than 1 ohm.**



***The four way fused/surged protected and the two way fused only enclosure protects the power cable to the lights only. The lights are supplied with cable and plug for easy connection. The earth cable has to be connected to the anode. You are responsible to fuse the power supply cable.**

***Lights supplied with no plug will require connection inside the two way connector as shown in the diagram above.**
***The table below shows the lumen, power, current draw for each light at 12 and 24 volts and the fuse rating for each light when not using our enclosures It also shows the supply amperage for each enclosure with the maximum amount of lights connected.**
*** We do not supply the input power cable. Please use the cable size list to select the correct cable. This supply cable must be fused for protection and the recommended SUPPLY CABLE FUSE is in the list below.**

MODEL NUMBER	LUMEN OUTPUT	11 VDC SUPPLY POWER, DRAW CURRENT & FUSE RATING	24 VDC SUPPLY POWER, DRAW CURRENT & FUSE RATING	TWO WAY ENCLOSURE WITH TWO LIGHTS DRAW AMPS 12 - 24VDC - SUPPLY CABLE FUSE	FOUR WAY ENCLOSURE WITH FOUR LIGHTS DRAW AMPS 12 - 24VDC - SUPPLY CABLE FUSE
QT-80-Ti-40	7,000	40 WATTS - 4.0 AMPS - 10 AMP	40 WATTS - 2.0 AMPS - 10 AMP	8.0 A - 4.0 AMPS - 10 AMP	16.0 AMP- 8.0 AMPS - 20 AMP
QT-80-Ti-20	3,500	20 WATTS - 2.0 AMPS - 10 AMP	20 WATTS - 1.0 AMPS - 10 AMP	4.0 A - 2.0 AMPS - 10 AMP	8.0 AMP- 4.0 AMPS - 20 AMP
QTS-100	14,000	N/A	96 WATTS - 4 AMPS - 10 AMP	N/A - 8.0 AMPS - 10 AMP	N/A - 16.0 AMPS - 20 AMP
QTS-100 RGB+W	ALL ON	N.A	144 WATTS - 6 AMPS - 10 AMP	N/A -	24VDC - 24 AMPS - 30 AMP



*** If a second Hub is requested for installing more lights, please make sure you are using the correct cable suitable for the Amps drawn**