

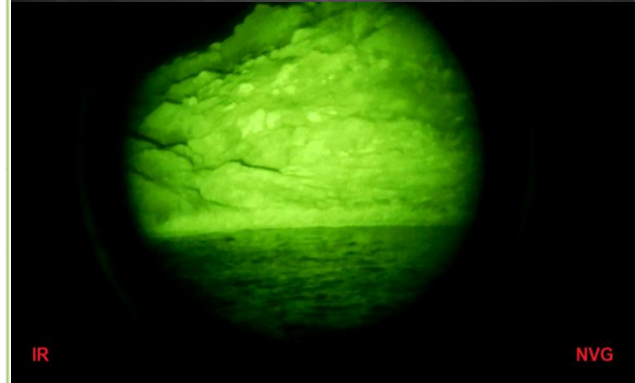
LAMPSEA innovative marine spotlights

2015



LAMPSEA™

expanding your vision underwater





LampSea is an innovative, private equity investment, Greek company which manufactures patented and handcrafted High Performance marine LED spotlights for under or above water (amphibious series) applications at visible or IR wavelengths which are addressed but not limited to the following categories:

- a) Leisure vessels of any size**
- b) Coast guard missions**
- c) Long range aggressive LED illumination**
- d) Naval or police patrol forces**
- e) Special warfare forces**
- f) Self defense against piracy**
- g) Special-task rescue forces and fire brigade units**
- h) Fishing vessels of any size**
- i) Underwater scientific seabed research or seabed excavations**
- j) Fixed underwater visible or IR wavelength installations for seaplanes runways**
- k) Fixed underwater cave lighting**
- l) Marinas underwater illumination**
- m) Decorative underwater bridge lights**
- n) Architectural lights**
- o) Industrial High Power LED illumination**
- p) Water-jet fountains, swimming pools illumination and many more...**

Our products have been installed in a variety of vessels such as the warfare RHIB NEMESIS designed and manufactured by ELMON of Greece, many fishing and leisure vessels as well in Greece and abroad with impressive results.

LampSea's LED spotlights can be installed in new GFRP or Wooden Hull vessels as well as old ones (i.e. during maintenance, modernization or mid-life upgrade plan).

LampSea's LED handcrafted spotlights include unique competitive advantages as below:

- 1. Stainless Steel aisi316L inclined 45° molded body alloy offering various deflection beams depending on initial installation.**
- 2. Innovative Waterproofing & Sealing.**
- 3. ASTM B117, IP66 & IP68 up to 100meters depth certified.**

4. **Negligible Size and Weight on transom installations, claiming to be world's smallest, lightest, brightest, toughest stainless steel spotlights ever built.**
5. **Weight to lumens ratio as low as 0.09gr/lumen the least globally known.**
6. **Single High Power LED Emitter (visible or IR wavelength) for greater penetration.**
7. **Pure 99.96% Nitrogen Gas charged LED chamber contributing to absolutely Zero internal Lens Fog boosting performance and discrete devices' life as well.**
8. **Total Internal Reflection 40° converging or 110° flooding Lens made from borosilicate glass delivering outstanding transparency at 95%.**
9. **Innovative, Patented Convectional or Liquid Super Cooling Heat Exchangers extending LED emitter's life.**
10. **Sea-Growth Elimination Technique from body and lens as well.**
11. **Embedded Self Recovering Overheat Protection.**
12. **Long Life and Low Power Consumption exceeding 40K service hours.**
13. **Easy to Install.**
14. **Evolutionary easy to maintain (can also be upgraded or serviced exclusively to Lampsea labs).**
15. **Wireless or wired dimmable DC to DC Precision PWM Power Supplies.**
16. **Z series spotlights are sold in pairs or can be tailored to multi-unit combinations.**



Certificates - Approvals:

ASTM B117 Salt Spray Fog / I-V potensionstatic approved test @ NTUA University of Athens

IP66 / IP68₁₀ 10m Waterproof (according to: EN60529:1991 / A1:2000 / EN60598 -1:2008 / A11:2009)

IP68₁₀₀ 100m Waterproof conditionally* (according to: EN60529:1991 / A1:2000 / EN60598 -1:2008 / A11:2009)

Conditionally* means that use of special cable is considered mandatory. Optional.

Lampsea™ reserves the right to change specifications and improve its products without any prior notification.

LED life expectancy is calculated through manufacturers' datasheets/LEDs maintain a tolerance up to ± 10% on flux measurements

WARNING 1: Do not stare at exposed high power LED luminaire/s when in operation. Eye injury can result.

WARNING 2: LED luminaire/s operating out of water may get hot, avoid touching. Observe exclusive underwater operation.

Lampsea™ 8, Agiou Georgiou P. Iraklio/Athens 14122 Greece / <http://www.lampsea.com> / Producer Reg. No: 01594

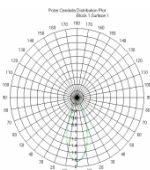
For orders please call or email us: Tel:+30 210 2847981/cell +30 690 6871020/e-mail: sales@lampsea.com / info@lampsea.com

All spotlights except Z19 are equipped by a single High Power LED emitter for maximum light penetration. Patented product. All rights reserved.



High Performance Nitrogen Gas Charged Submersible Marine LED Spotlights

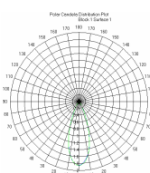
Models: Z10/24



Lens: Ø 26.0mm BC3.3.

	Z10CRC/XL	Z10CRW/XL	Z24CRW
Power	10Watts	10Watts	25Watts
Lumens max	1050lm	900lm	2400lm
Power Supply DC/DC	12-24VDC	12-24VDC	12-24VDC
Wireless Dimming	433MHz	433MHz	433MHz
LED chamber	N ₂ Gas Charged	N ₂ Gas Charged	N ₂ Gas Charged
Overheat protection	65°C/149°F	65°C/149°F	65°C/149°F
LED life expectancy	40Khrs	40Khrs	40Khrs
Beam Dispersion	40° degrees	40° degrees	40° degrees
Body Alloy (inox)	AISI 316L	AISI 316L	AISI 316L
Color temp (white)	5700-6500K	3000-3200K	3000-3200K
LxWxH	83x49x60mm	83x49x60mm	83x49x60mm
Weight	460gr	460gr	460gr
Tinned Cu Cable 80cm	Ø 6.5mm	Ø 6.5mm	Ø 6.5mm

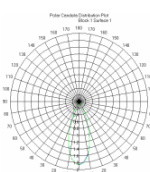
Models: Z14/15/17



Lens: Ø 26.0mm BC3.3.

	Z14LTW/XL	Z15LTN/XL	Z17LTC/XL
Power	15Watts	15Watts	15Watts
Lumens max	1440lm	1500lm	1800lm
Power Supply DC/DC	12-24VDC	12-24VDC	12-24VDC
Wireless Dimming	433MHz	433MHz	433MHz
LED chamber	N ₂ Gas Charged	N ₂ Gas Charged	N ₂ Gas Charged
Overheat protection	65°C/149°F	65°C/149°F	65°C/149°F
LED life expectancy	40Khrs	40Khrs	40Khrs
Beam Dispersion	40° degrees	40° degrees	40° degrees
Body Alloy (inox)	AISI 316L	AISI 316L	AISI 316L
Color temp (white)	2700-2900K	4000-4300K	6000-6500K
LxWxH	83x49x60mm	83x49x60mm	83x49x60mm
Weight	460gr	460gr	460gr
Tinned Cu Cable 80cm	Ø 6.5mm	Ø 6.5mm	Ø 6.5mm

Models: Z32/35/40



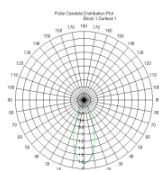
Lens: Ø 26.0mm BC3.3.

	Z32CRW XL	Z35CRN XL	Z40CRC XL
Power	30Watts	30Watts	30Watts
Lumens max	3250lm	3480lm	4000lm
Power Supply DC/DC	12-24VDC	12-24VDC	12-24VDC
Wireless Dimming	433MHz	433MHz	433MHz
LED chamber	N ₂ Gas Charged	N ₂ Gas Charged	N ₂ Gas Charged
Overheat protection	65°C/149°F	65°C/149°F	65°C/149°F
LED life expectancy	40Khrs	40Khrs	40Khrs
Beam Dispersion	40° degrees	40° degrees	40° degrees
Body Alloy (inox)	AISI 316L	AISI 316L	AISI 316L
Color temp (white)	3000K	5000K	5700K
LxWxH	83x49x60mm	83x49x60mm	83x49x60mm
Weight	460gr	460gr	460gr
Tinned Cu Cable 80cm	Ø 6.5mm	Ø 6.5mm	Ø 6.5mm

Model: Z4750XL IR



Lens: Ø 26.0mm BC3.3.



	Z4750XL IR
Power	12Watts
Light wavelength	850nm
Optical Power max	3.5Watts
Power Supply DC/DC	12-24VDC
Wireless Dimming	433MHz
LED chamber	N ₂ Gas Charged
Overheat protection	65°C/149°F
LED life expectancy	40Khrs
Beam Dispersion	40° degrees
Body Alloy (inox)	AISI 316L
LxWxH	83x49x60mm
Weight	460gr
Tinned Cu Cable 80cm	Ø 6.5mm

Model: Z19



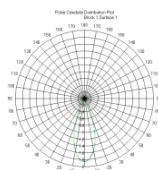
Lens: Ø 26.0mm BC3.3.

	Z19LTC
Power	20Watts
Lumens max	2000lm
Power Supply DC/DC	12-24VDC
Wireless Dimming	433MHz
LED chamber	N ₂ Gas Charged
Overheat protection	65°C/149°F
LED life expectancy	40Khrs
Beam Dispersion	15°/LED
Body Alloy (inox)	AISI 316L
Color temp (white)	5700-6500K
LxWxH	83x49x60mm
Weight	460gr
Tinned Cu Cable 80cm	Ø 6.5mm

Models: Z45/47/55



Lens: Ø 26.0mm BC3.3.



	Z45LEW XL	Z47LEN XL	Z55LEC XL
Power	50Watts	50Watts	50Watts
Lumens typical	4300lm	4900lm	5500lm
Power Supply DC/DC	12-24VDC	12-24VDC	12-24VDC
Wireless Dimming	433MHz	433MHz	433MHz
LED chamber	N ₂ Gas Charged	N ₂ Gas Charged	N ₂ Gas Charged
Overheat protection	70°C/158°F	70°C/158°F	70°C/158°F
LED life expectancy	40Khrs	40Khrs	40Khrs
Beam Dispersion	40°	40°	40°
Body Alloy (inox)	AISI 316L	AISI 316L	AISI 316L
Color temp (white)	3000-3200K	4000-4500K	5700-6500K
LxWxH	83x49x60mm	83x49x60mm	83x49x60mm
Weight	520gr	520gr	520gr
Tinned Cu Cable 80cm	Ø 6.5mm	Ø 6.5mm	Ø 6.5mm

Models: Z45/47/55



Lens: Ø 26.0mm BC3.3.

	Z45LEW XL	Z47LEN XL	Z55LEC XL
Power	50Watts	50Watts	50Watts
Lumens typical	4300lm	4900lm	5500lm
Power Supply DC/DC	12-24VDC	12-24VDC	12-24VDC
Wireless Dimming	433MHz	433MHz	433MHz
LED chamber	N ₂ Gas Charged	N ₂ Gas Charged	N ₂ Gas Charged
Overheat protection	70°C/158°F	70°C/158°F	70°C/158°F
LED life expectancy	40Khrs	40Khrs	40Khrs
Beam Dispersion	110°	110°	110°
Body Alloy (inox)	AISI 316L	AISI 316L	AISI 316L
Color temp (white)	3000-3200K	4000-4500K	5700-6500K
LxWxH	83x49x60mm	83x49x60mm	83x49x60mm
Weight	520gr	520gr	520gr
Tinned Cu Cable 80cm	Ø 6.5mm	Ø 6.5mm	Ø 6.5mm

Power Supply: DC/DC PWM



	LPS1212CCVRF	LPS1235CCVRF
Power max	80Watts	100Watts
VDC IN	12/24	12/24
DC Output current max	6A	5A
Voltage regulation	±0.5%	±0.5%
Wireless Dimming/range max	433MHz/30meters	433MHz/30meters
Load regulation	±2%	±2%
Reverse Input Polarity	protected	protected
Efficiency	93%	92%
Case material / heatsink	Black ABS/ALU heatsink	Black ABS/ALU heatsink
Polarized connector	Gold plated contacts	Gold plated contacts
LxWxH including antenna	128x77x50mm	128x77x50mm
Weight	400gr	400gr
3-Key remote	pair	pair



	LPS3048CCV	320DRF PWM dimmer
Power max	100Watts	288Watts
VDC IN	12/24	12/48
DC Output current max	5A	6A
Voltage regulation	±0.5%	N/A
Wireless Dimming/range max	N/A	433MHz/20meters
Wired Dimming	N/A	Yes
Load regulation	±2%	0-100% dimmable
Reverse Input Polarity	protected	protected
Efficiency	92%	92%
Case material / heatsink	Black ABS/ALU heatsinks	Black ABS/ALU heatsink
Polarized connector	Gold plated contacts	Gold plated contacts
LxWxH including antenna	140x80x65mm	140x110x65mm
Weight	500gr	200gr
8-Key remote	N/A	single