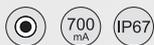


LD190 / LD190A

MID-POWER RECESSED EXTERIOR YACHT LED UPLIGHT



The LD190 is a mid-power, high-quality machined uplight, designed to withstand harsh marine environments. It offers excellent wall washing and features a high transmission opal diffuser, for an impressively wide and even beam distribution. The LD190A features an asymmetric reflector, which tilts and focuses the beam onto the lit surface for a concentrated lit effect. The fitting is very compact, mounted inside a robust machined, hard anodised aluminium body, with marine-grade bezel finish options and toughened safety glass.



KEY FEATURES

- > Mid-power uplight featuring F1 LED engine, delivering up to 415 lumens at 700mA in 3000K
- > Extremely wide beam distribution of 90°, with frosted opal diffuser for an even and soft beam distribution
- > LD190A option features an asymmetric reflector which tilts the light by 5° onto the lit surface for a concentrated lit effect
- > Designed with robust materials for harsh marine environments, rated IP67
- > Compact overall depth with excellent thermal management and light output performance at high or low ambient temperatures
- > Designed to be fixed flush in the mounting surface
- > Wide range of high-quality machined marine-grade metal and paint finishes available, including: 316 Stainless Steel, Polished & Passivated 316 Stainless Steel and paint finishes; White (RAL 9016), Black (9005), Classic Bronze (YM26E), Textured Mars Bronze (SX350F), Textured Fir Green (RAL 6009), Gunmetal Grey (RAL 7021) or any RAL colour.
- > Toughened safety glass for drive over applications up to 2000kg
- > Integral anti-wicking barrier increases protection against moisture ingress due to incorrect IP rated cable connections.
- > Switched, 0-10V, Casambi, DMX, DALI, or Mains dimmable drivers available

DIMENSIONS

Dimensions in mm



WHITE LED ENGINE SPECIFICATION

Product	LD190 (Lambertian reflector)		LD190A (Asymmetric reflector)	
Engine	 F1		 F1	
Beam angles	90°		85°	
LED manufacturer	CREE		CREE	
Colour temperature	2200K / 2700K / 3000K / 4000K / 5000K		2200K / 2700K / 3000K / 4000K / 5000K	
Current	700mA		700mA	
LED power (Max)**	6.3W (7W**)		6.3W (7W**)	
Delivered lumens (L ₁₀₀)*	415		344	
Lumens per circuit watt	66		55	
CRI (Typ)	90		90	
Forward voltage (V ₁₀₀)	9V		9V	
Colour consistency	2 SCDM		2 SCDM	
Peak intensity	191 cd		164 cd	
LED Lumens	623		623	
LOR	0.64		0.53	
TM30	RF91	RG98	RF91	RG99
LED lifetime	L90B5 at 90,000hrs		L90B5 at 90,000hrs	
UGR***	24.9		N/A	
Applications				

This data is based around a LD190-F1-700-LW30 and LD190A-F1-700-LW30

*see lumen variance table to the right

**indicates the nominal power for the LED run at that particular current and includes losses associated with using an 85% efficient driver

***UGR values based on room parameter of 4H 8H, C70 W50 F20

Lumen variance by CCT	
2200K	-17%
2700K	-4%
3000K	0%
4000K	+16%
5000K	+34%

MECHANICAL

Ambient temperature	-20°C to 45°C (700mA)
Glass	Low iron clear glass, 6.4mm thick toughened
Materials	316 Stainless Steel bezel, black hard anodised aluminium body
Weight of product	0.610kg
Static load	2000kg
IK rating	IK08
IP rating	IP67
Wiring	In-series constant current wiring (pre-wired with 2 core cable at a length of 350mm)

AVAILABLE FINISHES

Please refer to our finishes guide for full details

POLISHED & PASSIVATED 316 STAINLESS STEEL

- > Marine Grade 316 Stainless Steel
- > Pristine mirror like finish
- > Recommended for pools and marine applications
- > Extremely durable with very high corrosion resistance
- > Passivated to extensively prolong resistance to corrosion and brown stains caused by oxidation in marine environments
- > Interior & exterior use



316 STAINLESS STEEL

- > Marine grade 316 Stainless Steel
- > Standard machined finish
- > Extremely durable with very high corrosion resistance
- > Passivation recommended for marine environments to further strengthen corrosion resistance if fitting is to be continuously subjected to salt water
- > Interior & exterior use



PAINT FINISH

- > The powder coated finish is very matt
- > Not recommended for high traffic in-ground applications, unless placed to one side where the bezel will not be walked on
- > Powder coat paint is generally used on stainless steel or anodised aluminium components
- > Interior and exterior use



WHITE (RAL 9016)



BLACK (RAL 9005)



CLASSIC BRONZE (YM262E)



TEXTURED MARS BRONZE (SX350F)



TEXTURED FIR GREEN (RAL 6009)



GUNMETAL GREY (RAL 7021)



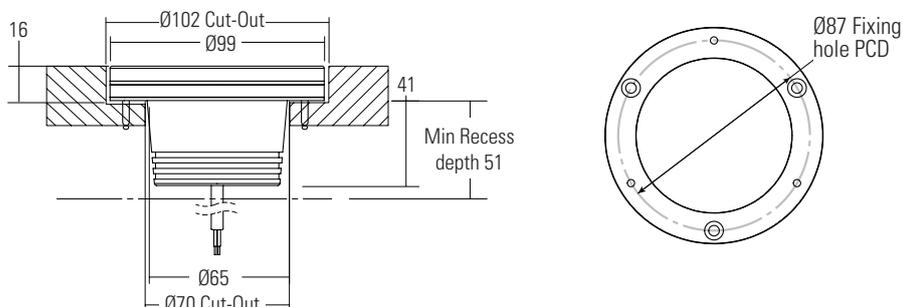
RAL

DIMENSIONS & FIXING OPTIONS

Dimensions in mm

Flush mounted installation

A flush in-ground installation can be achieved when the fitting is rebated into the mounting surface. For further details, please refer to the LD190 installation guide.



LIGHT OUTPUT OPTIONS

There are two optic options offered on the LD190. The standard LD190 is ideal for wall washing and general ambient lighting, whilst the LD190A features a tilted beam for focusing the light onto the lit surface.

LD190

Features a symmetric reflector optic, combined with a high transmission opal diffuser producing a wide spread, even and soft wall wash.



LD190A

Features an asymmetric reflector optic to create a 5° tilt, focusing the light onto the lit surface for a concentrated beam. Ideal for lighting objects slightly further away from the mounting surface.



CONE DIAGRAMS

Cone diagrams below are based on a 3000K F1 LED engine run at maximum output 700mA in one direction. Photometric files (LDT) are included in the design pack which can be downloaded from the LD190 product page on the website.

LD190-F1/700mA



Distance (m)	Luminance (lx)	Cone Width (m)
3.0	5.94	22
2.5	4.95	32
2.0	3.96	50
1.5	2.97	88
1.0	1.98	199
0.5	0.99	795

Cone Width (m)

LD190A-F1/700mA



Distance (m)	Luminance (lx)	Cone Width (m)
3.0	4.15	19
2.5	3.46	27
2.0	2.77	42
1.5	2.08	74
1.0	1.38	167
0.5	0.69	667

Cone Width (m)

ORDER CODES & OPTIONS

EXAMPLE: LD190A-F1-700 / LW30 / STAINLESS STEEL

Light Engine & Drive Current

LED Colour

Finish

LD190(A)-F1-700

/

/



F1

7W LED at 700mA

LD190-F1-700
LD190A-F1-700

Super Warm White (2200K)	/LW22
Extra Warm White (2700K)	/LW27
Warm White (3000K)	/LW30
White (4000K) - on request	/LW40
Cool White (5000K)	/LW50



Polished & Passivated
316 Stainless Steel
(for marine environments)



316 Stainless Steel



Paint Finish - White
(RAL 9016)



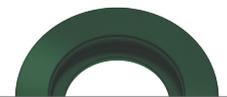
Paint Finish - Black
(RAL 9005)



Paint Finish - Classic Bronze
(YM262E)



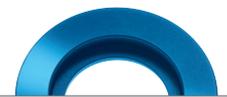
Paint Finish - Textured Mars Bronze
(SX350F)



Paint Finish - Textured Fir Green
(RAL 6009)



Paint Finish - Gunmetal Grey
(RAL 7021)



Paint Finish - RAL

Drivers

Use with 700mA constant current LED drivers

We have a range of dimmable LED drivers DMX and DALI compatible. Please see the downloads section on our website.