

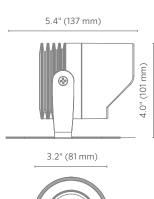
PROJECT	
CATALOG#	
TYPE	
NOTES	

# LL Underwater Light DESIGNER PREMIUM

Durable brass underwater light for illuminating water features. An RGBW version is also available for use with Luxor® **ZDC** systems.

# **Quick Facts**

- Corrosion-resistant die-cast brass
- Natural brass with tumbled finish
- Cree<sup>®</sup> integrated LEDs
- Stainless steel mounting stand
- Tamper-resistant features
- Color temperature filters
- Compatible with Luxor technology
- Phase and PWM dimmable
- Input voltage: 10-15V





# **LL** Specialty Light specifications

Lamp	1LED	3LED	3LEDT	6LED	9LED	ZDC
Halogen Lumen Equivalent	10W	20W	20W	35W	50W	20W
Total Lumens†	110	225	121	445	600	140
Input Voltage	10 to 15V	11 to 15V				
Input Power (W)	2.0	4.2	4.2	8.2	10.0	9.1
VA	2.4	4.5	4.5	9.7	10.7	11.0
Efficacy (Lumens/Watt)	54	54	34	54	46	26
Color Rendering Index (CRI)	84	84		84	84	81
Center Beam Candlepower*						
Spot (17°-20°)	400	1,100	492	2,700	3,500	170
Dimming	PWM, Phase**					
RGBW Available	No	No	No	No	No	Yes
Luxor Compatibility						
Default	Zoning	Zoning		Zoning	Zoning	
ZD Option	Zoning/ Dimming	Zoning/ Dimming	Zoning/ Dimming	Zoning/ Dimming	Zoning/ Dimming	
ZDC Option						Zoning/ Dimming/ Color
Minimum Rated Life (L70)	50,000 Hrs					

<sup>\*</sup> Information not available for Flood or Wide Flood.

#### **FX** Luminaire

FX Luminaire is an industryleading manufacturer of landscape and architectural lighting products with a focus on the advancement of LED technology and digital lighting control with zoning, dimming, and color adjustment capabilities. We offer a full spectrum of highly efficient lighting fixtures that can be used to create elegant landscape lighting systems for commercial or residential applications. Our products are available exclusively via our extensive professional distributor network.

#### Materials

Die-cast C360 brass housing and cap with stainless steel stand

#### Socket

Socket contains MoistureBlock™ technology, preventing moisture from wicking up into sealed areas of the fixture.

#### Finish

Natural brass, tumbled finish.

#### Lamp

Integrated module with Cree LEDs. Gold-plated connectors and conformal coated for maximum reliability and corrosion resistance. Proprietary on-board intelligent driver uses firmware-controlled temperature regulation, maximizing LED life. Field upgradeable and replaceable, the LEDs are rated to 50,000 hrs. Maximum drive current: 1 A.

#### Wiring

16 AWG (1.3 mm); 220°F (105°C); 300V; 30' (9 m) length; 0.30 PVC insulation.

#### Power

Input 10-15VAC/VDC 50/60Hz. Remote transformer required (specify separately).

#### Housing

Die-cast brass housing with capacity for 1LED, 3LED, 6LED, 9LED, or ZDC integrated LEDs.

#### Shroud

Die-cast brass shroud with 15° cutoff.

#### Optics and CCT

Polycarbonate color temperature adjustment lenses included with fixture: 2,700K (preinstalled), 3,900K (no lens), 4,500K, and 5,200K. Interchangeable optics for 10°, 20°, 30°-32°, or 55-58° distributions ordered pre-assembled to fixture. Color temperature and beam angle lenses field serviceable. For additional color filters, spread lenses, hex baffles, etc., use MR-16 sized accessories (MR-16: 1.95" (49.5 mm dia. x 1.1 mm thickness). Beam angle is calculated using LM-79 method for SSL luminaires.

#### Lens

Tempered glass lens with shock resistance and high tolerance for thermal expansion and stress.

#### Weight

4.4 lbs. (2 kg)

#### Manufacturing 9001:2015 ISO certified facility

### Hardware

10-24 stainless steel Phillips screws for angle adjustment. Includes stainless steel stand.

#### **Ambient Operating Temperature**

-30°F to 140°F (-34°C to 60°C)

#### Sustainability

Innovation meets conservation in the design and manufacturing of our products. Where we can, we use recycled materials while maintaining superior functionality. Our LED products provide highquality light at optimal energy efficiency, lifespan, and durability.

# **Installation Requirements**

Designed for installation in any direction underwater at a maximum depth of 6' (1.8 m).

#### Wildlife-Friendly Lighting Available with wildlifefriendly amber LEDs.

#### Control

ZD or ZDC utilizes Luxor technology to zone light fixtures in up to 250 groups, dim each group in 1% increments between 0 and 100%, or change to one of 30,000 colors with RGBW LEDs. Select the ZD option for zoning/dimming or ZDC for zoning/dimming/color. Standard fixture is zoneable with Luxor.

#### International Compliance Compliant per IEC 60598-1 and IEC 60598-2-7 when selecting the "e" version.

#### Warrantv

10-year limited warranty.

### Listings









<sup>\*\*</sup> For optimal performance, use a trailing-edge, phase-cut dimmer.

 $<sup>^\</sup>dagger$  Measured using the 3,900K CCT lens. Multipliers for other CCTs include 0.80 (2,700K), 0.65 (4,500K), and 0.65 (5,200K).

# **LL** Specialty Light ordering information

Fixture	Luxor Op	tion Outpu	JT	Compliance		Finish	Wire Lead
LL*	■ [default] Zone	■ 1LED 2.0W	'; 2.4VA	■ [default] North America (UL-listed)	1	■ BS Brass	[default] 30' (9 m) Lead
	<b>ZD</b> Zone/Dim	■ <b>3LED</b> 4.2W	'; 4.5VA	■ <b>E</b> Int'l (CE appro	ved)		■ <b>100</b> 100' (30 m) Lea
			T** ife-Friendly er (585-595 nm)				
		■ <b>6LED</b> 8.2W	) '; 9.7 <i>VA</i>				
		■ <b>9LEC</b> 10.0V	) V; 10.7VA				
	<b>ZDC</b> Zone/Dim.	■ [defa	ult ZDC option] 11.0VA				
EXAMPLE FIX LL-ZD-6LED-E	TURE CONFIGUR E-BS-100	ATION: LL		-	_	BS -	
** Available wi	ounting stand th ZD Luxor option						
		Specify Separat		21.50	-		
Lens Opt		1LED	2LED	3LED			
DIFFUSE	<b>R</b> ssembled)	770600	771300	771600			
<b>FLOOD L</b> I 35° (1 not		1LEDFLLENS	3LEDFLLENS	9LEDFLLENS			
60° (2 no		1LEDWFLLENS	3LEDWFLLENS	9LEDWFLLENS			
ENS ACCE	ESSORIES: S	pecify Separatel	У	_			
Item		Code					
■ HEX BAFF MR-16 Size		250015260000					
SOLITE SP MR-16 Siz		250015240000		_			
■ LINEAR SE	PREAD LENS	250013550000					

MR-16 Size

# **LL** Specialty Light PHOTOMETRICS

# LL 3LED Illuminance at a Distance

Feet (Meters)	Center Beam	Beam	Width
	Foot-Candle (Lux)	Vertical 17.3°	Horizontal 17°
4' (1.2 m)	52 fc (560 lx)	1' (0.4 m)	1' (0.4 m)
8' (2.4 m)	13 fc (140 lx)	2' (0.7 m)	2' (0.7 m)
12' (3.7 m)	6 fc (62 lx)	4' (1.1 m)	4' (1.1 m)
16' (4.9 m)	3 fc (36 lx)	5' (1.5 m)	5' (1.5 m)
20' (6.1 m)	2 fc (23 lx)	6' (1.9 m)	6' (1.8 m)
24' (7.3 m)	1.2 fc (13 lx)	8' (2.4 m)	8' (2.4 m)

### LL 3LEDT Illuminance at a Distance

Feet (Meters)	Center Beam	Beam Width		
	Foot-Candle (Lux)	Vertical 21.1°	Horizontal 20.6°	
4' (1.2 m)	30 fc (325 lx)	2' (0.5 m)	2' (0.5 m)	
8' (2.4 m)	8 fc (82 lx)	3' (0.9 m)	3' (0.9 m)	
12' (3.7 m)	3 fc (37 lx)	5' (1.4 m)	4' (1.3 m)	
16' (4.9 m)	1.9 fc (21 lx)	6' (1.8 m)	6' (1.8 m)	
20' (6.1 m)	1.2 fc (13 lx)	8' (2.3 m)	7' (2.2 m)	
24' (7.3 m)	0.8 fc (9 lx)	9' (2.7 m)	9' (2.7 m)	

## LL 6LED Illuminance at a Distance

Feet (Meters)	Center Beam	ı	Beam Width		
	Foot-Candle (Lux)		Vertical 16°	Horizontal 17°	
4' (1.2 m)	118 fc (1,265 lx)		1' (0.3 m)	1' (0.4 m)	
8' (2.4 m)	29 fc (317 lx)		2' (0.7 m)	2' (0.7 m)	
12' (3.7 m)	13 fc (141 lx)		3' (1.0 m)	4' (1.1 m)	
16' (4.9 m)	7 fc (79 lx)		5' (1.4 m)	5' (1.4 m)	
20' (6.1 m)	5 fc (51 lx)		6' (1.7 m)	6' (1.8 m)	
24' (7.3 m)	3 fc (30 lx)		7' (2.2 m)	8' (2.3 m)	

## LL 9LED Illuminance at a Distance

Feet (Meters)	Center Beam		Beam Width		
	Foot-Candle (Lux)		Vertical 16.6°	Horizontal 17°	
4' (1.2 m)	150 fc (1,615 lx)		1' (0.4 m)	1' (0.4 m)	
8' (2.4 m)	38 fc (404 lx)		2' (0.7 m)	2' (0.7 m)	
12' (3.7 m)	17 fc (180 lx)		4' (1.1 m)	4' (1.1 m)	
16' (4.9 m)	9 fc (101 lx)		5' (1.4 m)	5' (1.4 m)	
20' (6.1 m)	6 fc (65 lx)		6' (1.8 m)	6' (1.8 m)	
24' (7.3 m)	4 fc (39 lx)		8' (2.3 m)	8' (2.3 m)	

## LL ZDC Illuminance at a Distance

Feet (Meters)	Center Beam	Bean	n Width
	Foot-Candle (Lux)	Vertical 43°	Horizontal 43°
4' (1.2 m)	12 fc (129 lx)	3' (1.0 m)	3' (1.0 m)
8' (2.4 m)	3 fc (31 lx)	6' (1.9 m)	6' (1.9 m)
12' (3.7 m)	1.3 fc (14 lx)	9' (2.8 m)	9' (2.9 m)
16' (4.9 m)	0.7 fc (8 lx)	12' (3.8 m)	13' (3.8 m)
20' (6.1 m)	0.5 fc (5 lx)	16' (4.7 m)	16' (4.8 m)
24' (7.3 m)	0.3 fc (3 lx)	19' (5.7 m)	19' (5.8 m)