



Xtreme Tube

The Xtreme Tube is a LED light engine encapsulated in a waterproof, impact and vibration resistant, polycarbonate tube filled with silicon resin. This unique enclosure provides ultimate protection for underwater, outdoor and other harsh environment applications.

Features

| Lumen Output ¹ | Standard | High Output |
|---------------------------|------------|-------------|
| Warm White | 60 (lm/ft) | 200 (lm/ft) |
| Cool White | 80 (lm/ft) | 300 (lm/ft) |

| Power Consumption ² | Standard | High Output |
|--------------------------------|----------|-------------|
| Warm White | 3 (w/ft) | 7 (w/ft) |
| Cool White | 3 (w/ft) | 7 (w/ft) |

| Efficacy ² | Standard | High Output |
|-----------------------|-----------|-------------|
| Warm White | 20 (lm/w) | 29(lm/w) |
| Cool White | 27 (lm/w) | 43(lm/w) |

| Color Temperature (CCT) | Standard | High Output |
|-------------------------|----------|-------------|
| Warm White | 2700K | |
| Cool White | 5500K | |

| Color Rendering Index (CRI) | Standard | High Output |
|-----------------------------|----------|-------------|
| Warm White | 78 | |
| Cool White | 82 | |

| Rated Life | Standard | High Output |
|------------|-----------------------|-------------|
| | 75,000 Hours | |
| | 70% Lumen Maintenance | |

| Housing | Standard | High Output |
|---------|------------------------------|-------------|
| | Polycarbonate - Resin filled | |

| Dimensions | Standard | High Output |
|------------|---------------------------|-------------|
| | 1" Dia. x Various lengths | |

| Beam Spread | Standard | High Output |
|-------------|----------|-------------|
| | 100° | |

| Operating Temperature | Standard | High Output |
|-----------------------|----------------|-------------|
| | -40°C to +40°C | |

| Voltage | Standard | High Output |
|---------|----------|-------------|
| | 24V DC | |

| Warranty | Standard | High Output |
|----------|----------------|-------------|
| | 3 Year Limited | |

| Standards | Standard | High Output |
|-----------|----------|-------------|
| | Pending | |

| Certification | Standard | High Output |
|---------------|---|-------------|
| |  | |

| Environment | Standard | High Output |
|-------------|--|-------------|
| | IP68  | |

1. Thermally stabilized fixture output after all thermal and optical losses, Based on length of pcb within the fixture

2. Does not include power supply losses.

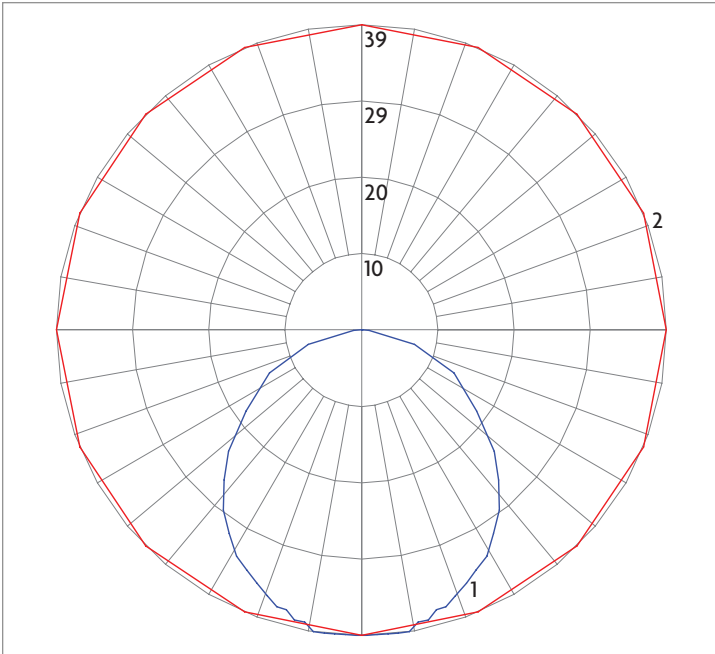
Benefits

- Designed to withstand under water and harsh environment applications.
- Slim design allows for a variety of applications and custom solutions.
- Light weight design enables ease of installation
- Dimmable
- True savings on lifetime light source in:

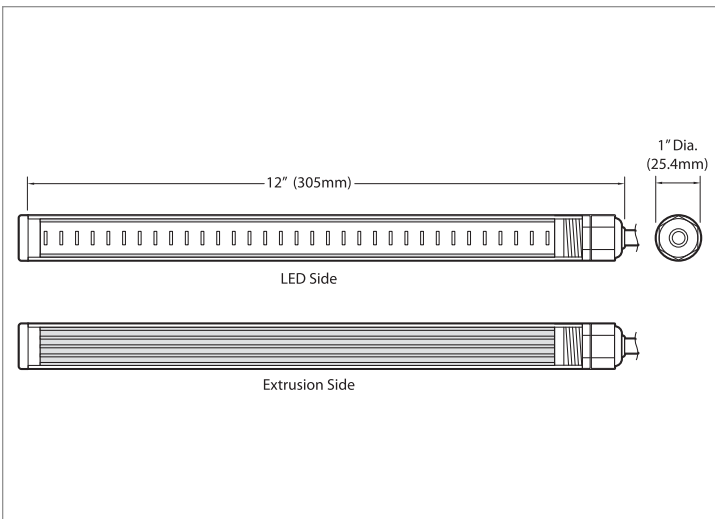
| | |
|---------------|-------------------|
| Energy costs | Power consumption |
| Labor costs | Light output |
| Fixture costs | Lifetime |

Xtreme Tube

24" Warm White Illustrated



Maximum Candela = 39 Located At Horizontal Angle = 0, Vertical Angle = 0
 # 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
 # 2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)



Dimensions shown in inches (mm). One foot tube is illustrated. Does not include cable length.



Lighting Science Group Corporation
 1227 S. Patrick Drive BLDG 2A
 Satellite Beach, FL 32937
 t: 877-999-5742
 www.lsgc.com

Specifications subject to change.

Luminance Data (cd/sq.m)

| Angle In Degrees | Average 0° | Average 45° | Average 90° |
|------------------|------------|-------------|-------------|
| 45° | 3516 | 2458 | 2099 |
| 55° | 3166 | 1947 | 1413 |
| 65° | 3073 | 1422 | 985 |
| 75° | 2644 | 1065 | 736 |
| 85° | 1016 | 984 | 380 |

Zonal Lumen Summary

| Zone | Lumens | % Lamp | % Fixt |
|--------|--------|--------|--------|
| 0-30 | 27.99 | N.A. | 27.7 |
| 0-40 | 43.26 | N.A. | 42.8 |
| 0-60 | 72.73 | N.A. | 72 |
| 0-90 | 99.93 | N.A. | 99 |
| 90-120 | 1.05 | N.A. | 1 |
| 90-130 | 1.05 | N.A. | 1 |
| 90-150 | 1.05 | N.A. | 1 |
| 90-180 | 1.05 | N.A. | 1 |
| 0-180 | 100.98 | N.A. | 100.0 |

XtremeTube LED Length Calculator

| Input Type | Output Type |
|---|--|
| | End Tube (0.75") |
| Heavy duty cable (2.00") | Heavy Duty Cable (2.0") |
| Waterproof quick connector (2.00") | Waterproof connector (through tube) (2.00") |
| Hook up wires (0.25") | Hook up wires (0.25") |
| | Example: 48" tube with heavy duty cable / End tube |
| Step 1. Subtract the factors from both input and output from the fixture length. | step 1. 48-2.00-0.75 = 45.25" |
| Step 2. Divide this figure by 2.25 | step 2. 45.75 / 2.25 = 20.11 |
| Step 3. Round this value down to zero decimal places | step 4. 20 x 2.25" = 45" led board length |

©2010 Lighting Science Group Corporation. All rights reserved.



Xtreme Tube

Ordering Information

Example: XTR CW HO 48 CLP 5CAB OTHR

| Product | Color ¹ Source | Fixture Output | Length | Mounting | Input Connector Length & Type (Example 2CAB) | Output Connector Length & Type (Example 4HWE) |
|-----------------|---------------------------|----------------|--------|---------------------|---|---|
| XTR Xtreme Tube | CW Cool White | LO Standard | 12 12" | CLP Clip | 1 1FT CAB Heavy duty waterproof cable w/wire ends | 1 1FT THR Through tube w/ heavy duty waterproof output connector* |
| | | | 18 18" | SSM Stainless Mount | 2 2FT LKC Heavy duty cable w/waterproof quick connector | 2 2FT HWE Heavy duty cable w/ wire ends |
| | WW Warm White | HO High Output | 24 24" | | 3 3FT HKP Hookup wire (light duty) | 3 3FT HWR Hookup wire (light duty) |
| | | | 36 36" | | 4 4FT HKC Hookup wire w/light duty quick connector | 4 4FT HQC Hookup wire w/light duty quick connector |
| | | | 48 48" | | ↓ | ↓ END End tube |
| Custom | | 25 25FT | | 25 25FT | | |

*Cable length 0

1. RGB also available. Consult RGB Xtreme Tube datasheet

Accessories

PSW 96W 24V 90-277 VAC input, 96W 24V power supply

PSDM 096 1 100-277 VAC input, 96W 24V dimmable power supply (0-10V)



Lighting Science Group Corporation

Florida

1227 S. Patrick Drive, BLDG 2A
Satellite Beach, FL 32937

t: 321.779.5520

f: 321.779.5521

California

11390 Sunrise Gold Circle
Suite 800
Rancho Cordova, CA 95742

t: 916.852.1719

f: 916.852.1740

NORTH AMERICA

877-999-5742

Specifications subject to change.

www.lsgc.com

©2010 Lighting Science Group Corporation. All rights reserved.