# WLC60 Heavy Duty LED Light

## Features



Banner's WLC60 Heavy Duty Lights are engineered to withstand harsh environments, making it the first choice for a machine lighting solution. A conservative mechanical design protects against liquid ingress and state-of-the-art LED technology delivers best of class brightness.

Choose between a durable polycarbonate window or a borosilicate glass (BSG) option featuring enhanced chemical and thermal resistance. This smart industrial lighting solution also features energy-efficient eco-mode dimming states to tailor the lumen levels and power consumption to the application.

- Rugged and durable for harsh environments
- Oil, chemical, and water resistant with IP67, JIS C IP68G, and IP69K per ISO 20653 ratings
- High brightness paired with advanced glare-reducing optics
- Easy to install with a wide variety of mounting solutions
- Highly resistant to vibration and shock
- Input voltage of 12 V DC to 30 V DC
- Integral 4-pin M12 male quick-disconnect connector
- Models have four discrete intensity level settings

**IMPORTANT:** Read the following instructions before operating the light. Please download the complete WLC60 Heavy Duty LED Light technical documentation, available in multiple languages, from www.bannerengineering.com for details on the proper use, applications, Warnings, and installation instructions of this device.

**IMPORTANT:** Lea el siguiente instructivo antes de operar el luminario. Por favor descargue desde www.bannerengineering.com toda la documentación técnica de los WLC60 Heavy Duty LED Light, disponibles en múltiples idiomas, para detalles del uso adecuado, aplicaciones, advertencias, y las instrucciones de instalación de estos dispositivos.

**IMPORTANT:** Lisez les instructions suivantes avant d'utiliser le luminaire. Veuillez télécharger la documentation technique complète des WLC60 Heavy Duty LED Light sur notre site www.bannerengineering.com pour les détails sur leur utilisation correcte, les applications, les notes de sécurité et les instructions de montage.

## Models

| Family | Cascadable | Color | Length (mm) | Window | Mounting Type | Construction | Connector Exit | Connector[1] |
|---|---|---|---|---|---|---|---|---|
| **WLC60** | **X** | **W** | **340** | | | **A** | | |
| | X = Non-cascadable<br>C = Cascadable | W = Cool white<br>WW = Warm white<br>G = Green<br>R = Red<br>Y = Yellow<br>B = Blue | 340<br>640 | Blank = Polycarbonate<br>G = Borosilicate glass | Blank = Base mount<br>F = Flush mount[2] | A = Nickel-plated aluminum | Blank = Side exit<br>R = Rear exit[3] | Blank = 2 m (6.5 ft) integral PVC-jacketed cable<br>Q = Integral 4-pin M12 male quick-disconnect connector |

**Sample Models:**

**WLC60XW340AQ**

Non-cascadable, cool white color, 340 mm with polycarbonate window, base mount, and nickel-plated aluminum construction. Side exit connection with integral 4-pin M12 male quick-disconnect connector.

**WLC60CG340GAR**

Cascadable, green color, 340 mm with borosilicate glass window, base mount, and nickel-plated aluminum construction. Rear exit connection with 2 m (6.5 ft) integral PVC-jacketed cable.

The following models are no longer available for order but are still covered by the information in this document.

(1) Models with a quick-disconnect connector require a mating cordset.
(2) 340 mm model only.
(3) 340 mm model only.

Original Instructions
12-Mar-26

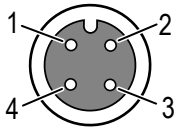
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173718
p/n: 173718 Rev. J

ПРОМЭЛЕКТРОНИКА/ sales@prom-elec.com

- WLC60CW340AR
- WLC60CW340GARQ
- WLC60CW340GFARQ
- WLC60CWW340GAQ
- WLC60XB340GAQ
- WLC60XR340AQ
- WLC60XW340GAR

# Wiring

| 4-pin M12 Male Pinout | Pins | Wires | Description |
|---|---|---|---|
|  | Pin 1 | Brown | 12 V DC to 30 V DC |
| | Pin 2 | White | Connect to 12 V DC to 30 V DC for 33% max. intensity |
| | Pin 3 | Blue | DC common |
| | Pin 4 | Black | Connect to 12 V DC to 30 V DC for 66% max. intensity |
| | Pin 4 and Pin 2 | Black and White | Connect to 12 V DC to 30 V DC for 50% intensity |



For maximum intensity, leave the white and black wires floating or connected to common.

# Specifications

**Supply Voltage**

12 V DC to 30 V DC

Use only with a suitable Class 2 power supply (UL) or SELV power supply (CE)

See electrical characteristics on product label

**Supply Current**

| Length (mm) | Color | Max. Current Draw | Typical Current Draw |
|---|---|---|---|
| 340 | White, Warm White | 1.53 A at 12 V DC | 1.38 A at 12 V DC |
| | | 0.68 A at 24 V DC | 0.62 A at 24 V DC |
| | | 0.55 A at 30 V DC | 0.49 A at 30 V DC |
| | Green, Blue | 1.46 A at 12 V DC | 1.32 A at 12 V DC |
| | | 0.63 A at 24 V DC | 0.58 A at 24 V DC |
| | | 0.51 A at 30 V DC | 0.46 A at 30 V DC |
| | Red, Yellow | 1.03 A at 12 V DC | 0.94 A at 12 V DC |
| | | 0.49 A at 24 V DC | 0.44 A at 24 V DC |
| | | 0.4 A at 30 V DC | 0.36 A at 30 V DC |
| 640 | White, Warm White | 3.34 A at 12 V DC | 3.04 A at 12 V DC |
| | | 1.37 A at 24 V DC | 1.25 A at 24 V DC |
| | | 1.1 A at 30 V DC | 1 A at 30 V DC |
| | Green, Blue | 3.24 A at 12 V DC | 2.95 A at 12 V DC |
| | | 1.3 A at 24 V DC | 1.19 A at 24 V DC |
| | | 1.05 A at 30 V DC | 0.95 A at 30 V DC |
| | Red, Yellow | 2.14 A at 12 V DC | 1.95 A at 12 V DC |
| | | 0.97 A at 24 V DC | 0.88 A at 24 V DC |
| | | 0.79 A at 30 V DC | 0.71 A at 30 V DC |

**Light Characteristics**

White and Warm White Efficacy: 87 lumens/watts typical at 24 V DC at 25 °C

CRI: 80, minimum

| Color | Dominant Wavelength (nm) or Color Temperature (CCT) | Lumens (Typical at 25 °C) | |
|---|---|---|---|
| | | 340 mm | 640 mm |
| Cool White | 6200K (+500, -550K) | 1300 | 2600 |
| Warm White | 3000K (+200, -150K) | 1300 | 2600 |
| Green | 528 nm (+7, -8 nm) | 855 | 1710 |
| Red | 625 nm (± 5 nm) | 525 | 1050 |
| Yellow | 590 nm (± 5 nm) | 370 | 740 |
| Blue | 475 nm (± 10 nm) | 340 | 680 |

**LED Lifetime**

Lumen Maintenance - $L_{70}$

When operating within specifications, output will decrease less than 30% after 60,000 hours

**Spacing Criterion**

0.86

**Operating Temperature**

–40 °C to +50 °C (–40 °F to +122 °F) at the maximum intensity setting

–40 °C to +70 °C (–40 °F to +158 °F) at any of the dim settings

**Environmental Rating**

IP67, JIS C IP68G, IP69K per ISO 20653

**Supply Protection Circuitry**

Protected against reverse polarity and transient voltages

**Test Data**

LM-79, LM-80, TM-21

**Construction**

Nickel-plated aluminum housing

Polycarbonate or borosilicate glass window

**Connections**

Integral 4-pin M12 male quick-disconnect connector or 2 m (6.5 ft) integral PVC-jacketed cable

A mating cordset is required for quick-disconnect connector models

**Vibration and Mechanical Shock**

Vibration: 10 Hz to 55 Hz, 1.0 mm peak-to-peak amplitude per IEC 60068-2-6

Shock: 15G 11 ms duration, half sine wave per IEC 60068-2-27

**Storage Temperature**

–40 °C to +70 °C (–40 °F to +158 °F)

**Application Notes**

When connecting cascadable lights in series, it is important not to exceed the maximum current limitation of 4 Amps

| Input Voltage | Max. Number of Units | |
|---|---|---|
| | 340 mm Models | 640 mm Models |
| 12 V DC | 2 | 1 |
| 24 V DC | 5 | 2 |
| 30 V DC | 7 | 3 |

**Certifications**

Banner Engineering BV
Park Lane, Culliganlaan 2F bus 3
1831 Diegem, BELGIUM

**Required Overcurrent Protection**

**WARNING:** Electrical connections must be made by qualified personnel in accordance with local and national electrical codes and regulations.

Overcurrent protection is required to be provided by end product application per the supplied table.

Overcurrent protection may be provided with external fusing or via Current Limiting, Class 2 Power Supply.

Supply wiring leads < 24 AWG shall not be spliced.

For additional product support, go to www.bannerengineering.com.

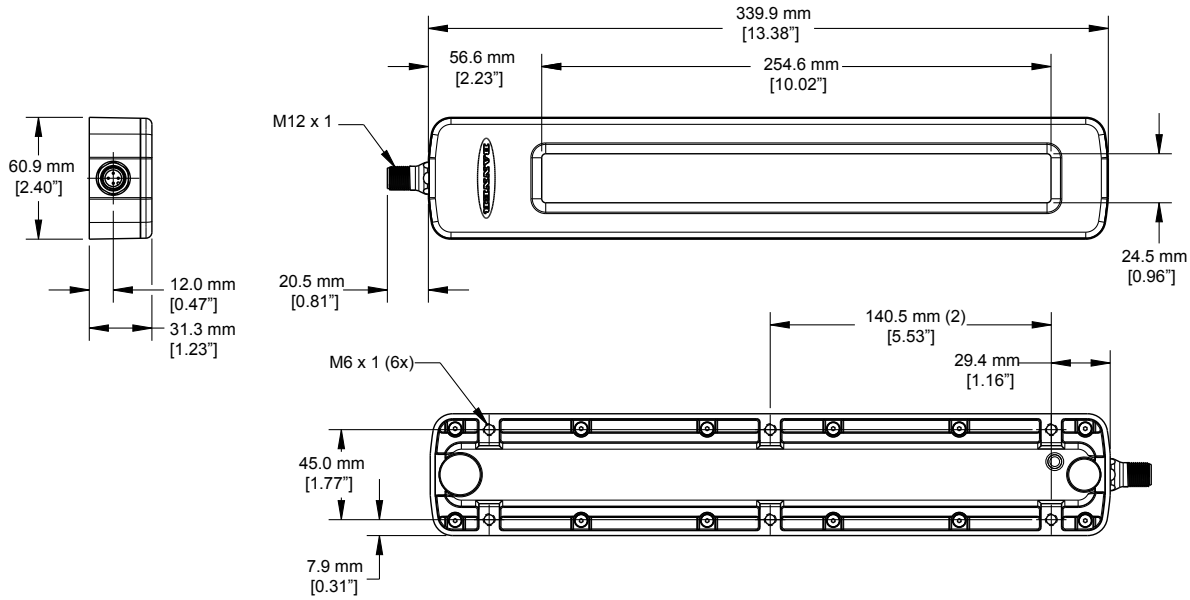
| Supply Wiring (AWG) | Required Overcurrent Protection (A) | Supply Wiring (AWG) | Required Overcurrent Protection (A) |
|---|---|---|---|
| 20 | 5.0 | 26 | 1.0 |
| 22 | 3.0 | 28 | 0.8 |
| 24 | 2.0 | 30 | 0.5 |


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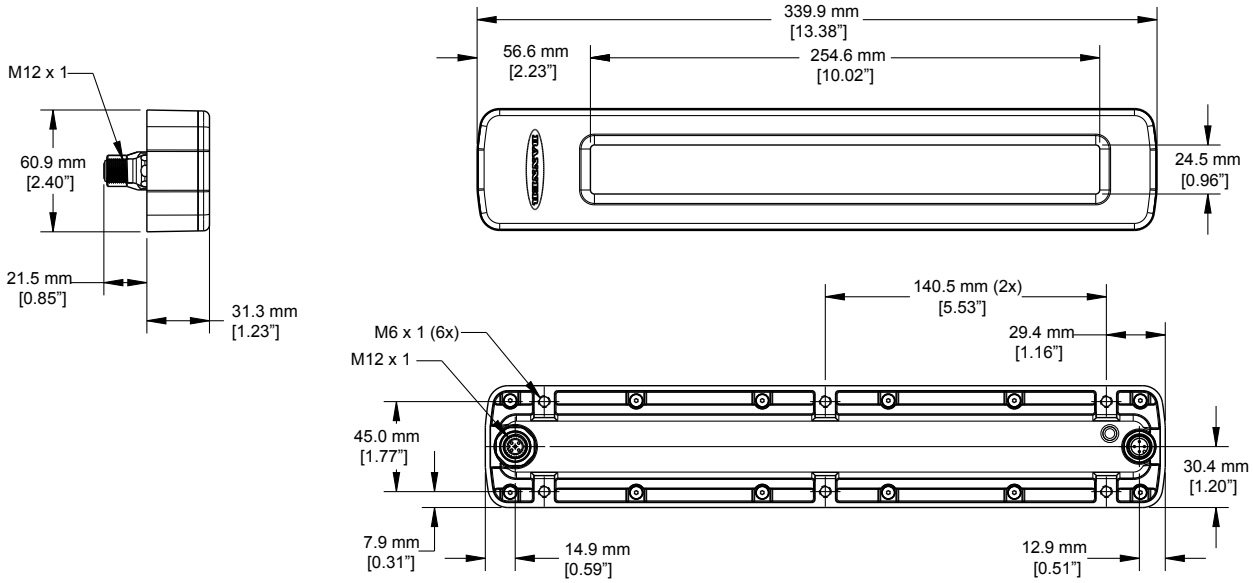
# Dimensions for WLC60 340 mm Models

All measurements are listed in millimeters [inches], unless noted otherwise. The measurements provided are subject to change.

*WLC60 (340 mm) Base Mount Side Exit Models*



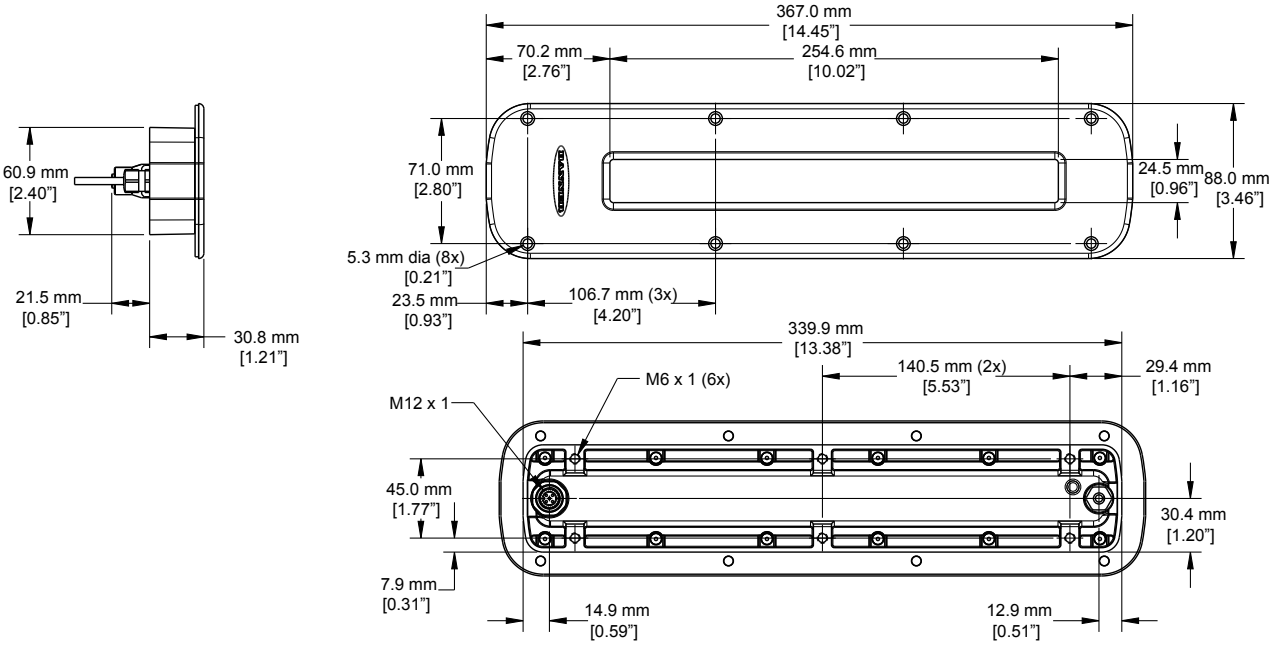

*WLC60 (340 mm) Base Mount Rear Exit Models*





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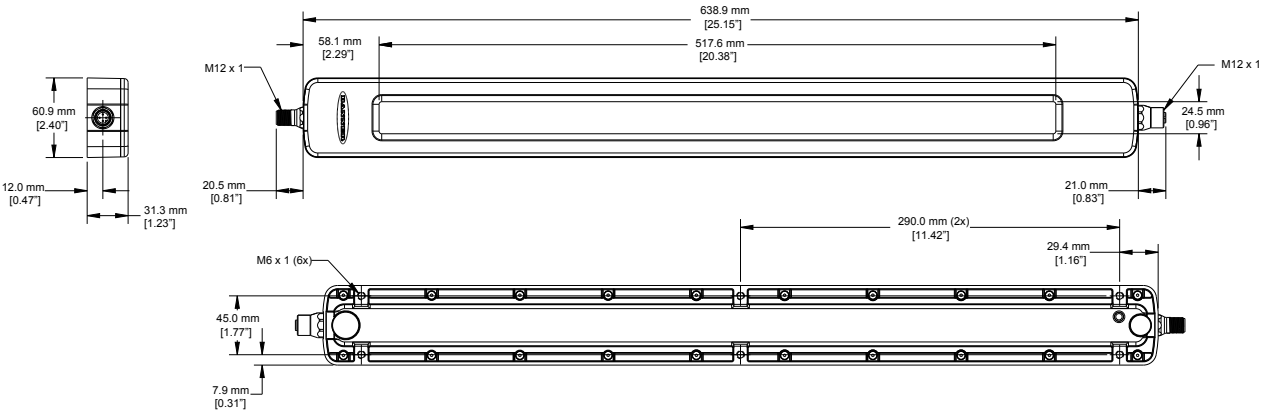
*WLC60 (340 mm) Flush Mount Models*




## Dimensions for WLC60 640 mm Models

All measurements are listed in millimeters [inches], unless noted otherwise. The measurements provided are subject to change.

*WLC60 (640 mm) Base Mount Side Exit Models Dimensions*




## Spacing Criteria (SC)

The spacing criteria is the fixture-spacing-to-mounting-height ratio and aids in laying out a pattern of fixtures. Multiply the spacing criteria by the mounting height to get the maximum fixture spacing that still provides even illumination (no shadowing between fixtures).

Luminaire Spacing = SC × Height to Illuminated Plane

The mounting height is the distance from the fixture to the surface you are lighting.

## Optical Data

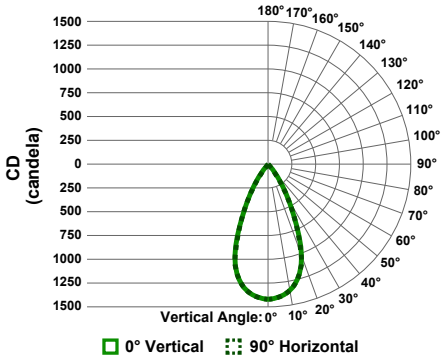
Optical data shown below is for cool white only. To get lux and candela values for warm white, green, red, yellow, and blue, multiply the values on the charts by the following factors:

Warm White: 1
Green: 0.657
Red: 0.404
Yellow: 0.285
Blue: 0.262

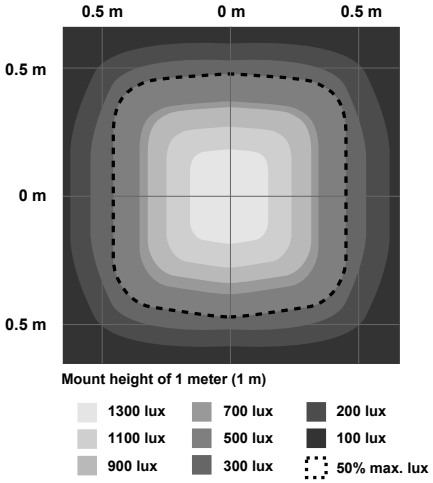

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## 340 mm Models

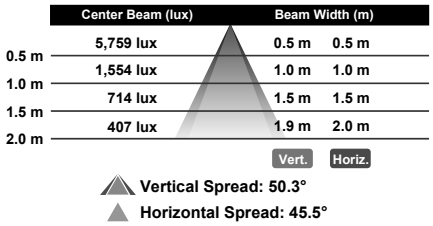
### Polar Candela Distribution




### Isolux Pattern

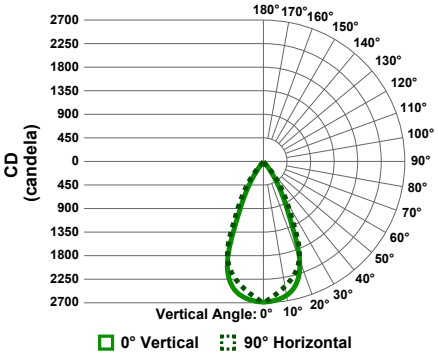



### Illuminance at a Distance

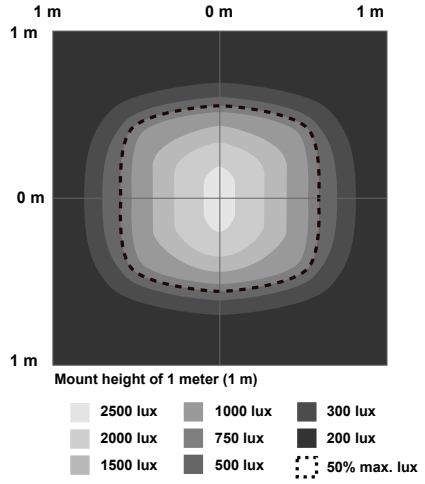



## 640 mm Models

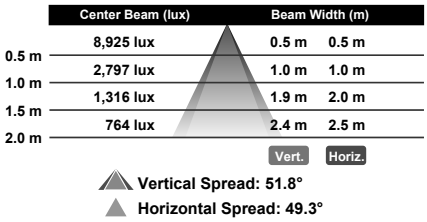
### Polar Candela Distribution




### Isolux Pattern

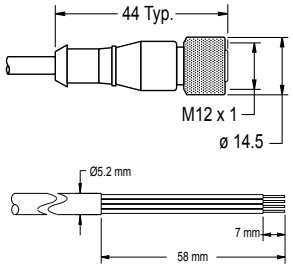
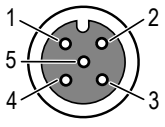



### Illuminance at a Distance




# Accessories

## Cordsets

| 4-Pin Single-Ended M12 Female Cordsets | | | | | |
|---|---|---|---|---|---|
| **Model** | **Length** | **Style** | **Dimensions** | **Pinout (Female)** | |
| **MQDC-406** | 2 m (6.56 ft) | Straight |  |  | 1 = Brown<br>2 = White<br>3 = Blue<br>4 = Black<br>5 = Not used |
| **MQDC-415** | 5 m (16.4 ft) | | | | |
| **MQDC-430** | 9 m (29.5 ft) | | | | |
| **MQDC-450** | 15 m (49.2 ft) | | | | |



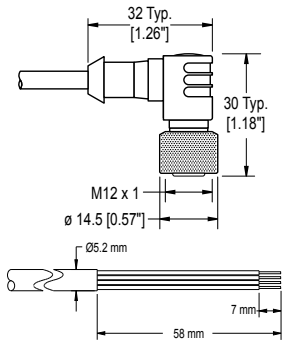
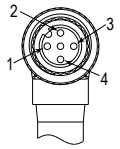


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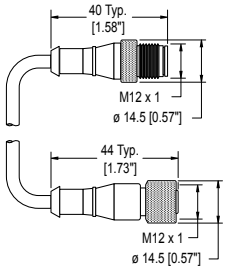
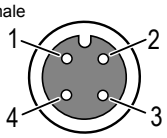
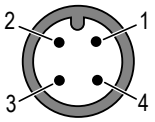
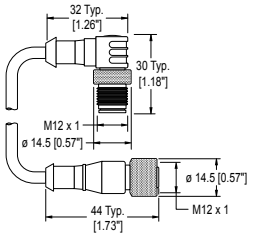
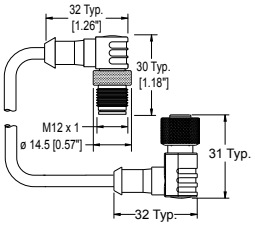

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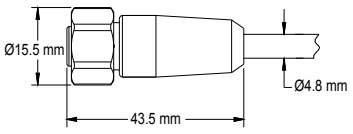
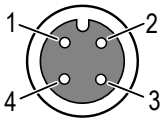
**4-Pin Single-Ended M12 Female Cordsets**

| Model | Length | Style | Dimensions | Pinout (Female) |
|---|---|---|---|---|
| MQDC-406RA | 2 m (6.56 ft) | Right-Angle |  |  |
| MQDC-415RA | 5 m (16.4 ft) | | | |
| MQDC-430RA | 9 m (29.5 ft) | | | |
| MQDC-450RA | 15 m (49.2 ft) | | | |

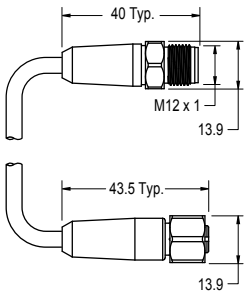
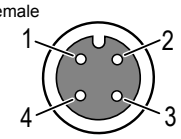
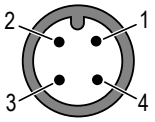
**4-Pin Double-Ended M12 Female to M12 Male Cordsets**

| Model | Length | Style | Dimensions | Pinout |
|---|---|---|---|---|
| MQDEC-401SS | 0.31 m (1 ft) | Male Straight / Female Straight |  | Female<br><br>Male<br><br>1 = Brown<br>2 = White<br>3 = Blue<br>4 = Black<br>c UL us |
| MQDEC-403SS | 0.91 m (2.99 ft) | | | |
| MQDEC-406SS | 1.83 m (6 ft) | | | |
| MQDEC-412SS | 3.66 m (12 ft) | | | |
| MQDEC-415SS | 4.58 m (15 ft) | | | |
| MQDEC-420SS | 6.10 m (20 ft) | | | |
| MQDEC-430SS | 9.14 m (30.2 ft) | | | |
| MQDEC-450SS | 15.2 m (49.9 ft) | | | |
| MQDEC-403RS | 0.91 m (2.99 ft) | Male Right-Angle / Female Straight |  | |
| MQDEC-406RS | 1.83 m (6 ft) | | | |
| MQDEC-412RS | 3.66 m (12 ft) | | | |
| MQDEC-420RS | 6.10 m (20 ft) | | | |
| MQDEC-430RS | 9.14 m (30.2 ft) | | | |
| MQDEC-450RS | 15.2 m (49.9 ft) | | | |
| MQDEC-403RR | 0.9 m (2.9 ft) | Male Right-Angle / Female Right-Angle |  | |
| MQDEC-406RR | 1.8 m (5.9 ft) | | | |
| MQDEC-412RR | 3.6 m (11.8 ft) | | | |
| MQDEC-420RR | 6.1 m (20 ft) | | | |

**4-Pin Single-Ended M12 Female Washdown, Stainless Steel Cordsets**

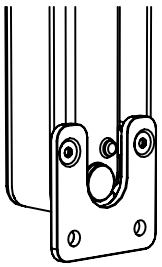
| Model | Length | Style | Dimensions | Pinout (Female) |
|---|---|---|---|---|
| MQDC-WDSS-0406 | 2 m (6.56 ft) | Straight |  | <br>1 = Brown<br>2 = White<br>3 = Blue<br>4 = Black |
| MQDC-WDSS-0415 | 5 m (16.4 ft) | | | |
| MQDC-WDSS-0430 | 9 m (29.5 ft) | | | |


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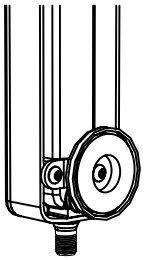
| 4-Pin Double-Ended M12 Female to M12 Male Washdown Stainless Steel Cordsets | | | | |
|---|---|---|---|---|
| **Model** | **Length** | **Style** | **Dimensions** | **Pinout** |
| **MQDEC-WDSS-401SS** | 0.31 m (1 ft) | Male Straight/Female Straight |  | Female<br><br>Male<br><br>1 = Brown<br>2 = White<br>3 = Blue<br>4 = Black |
| **MQDEC-WDSS-403SS** | 0.91 m (2.99 ft) | | | |
| **MQDEC-WDSS-406SS** | 1.83 m (6 ft) | | | |
| **MQDEC-WDSS-412SS** | 3.66 m (12 ft) | | | |

## Brackets

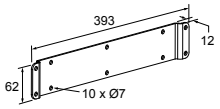
**LMBWLC60F**
- Set of two flat brackets
- 300 series stainless steel
- Includes M6 flathead screws for mounting to light
- Clearance for M6 or 1/4-20 mounting hardware
- CAD Files: DXF, PDF, IGS, STP



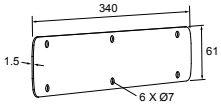
**LMBWLC60MAG**
- Magnetic mounting kit (set of two)
- Two-inch magnets
- Mounting hardware included
- CAD Files: DXF, PDF, IGS, STP



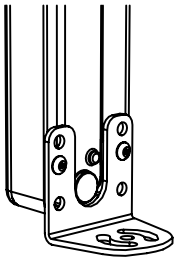
**LMBWLC60B340**
- Plate for sealing the cavity on the back of the 340 mm models
- 300 series stainless steel
- Includes hardware for mounting to the light
- CAD Files: DXF, PDF, IGS, STP




**ACC-WLC60-340-GSK-N-1**
- Black nitrile gasket
- Thickness: 1.5 mm
- CAD Files: DXF, PDF, IGS, STP



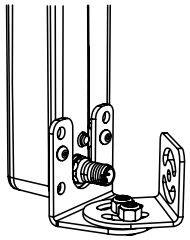

**LMBWLC60RA**
- Set of two right-angle brackets
- 300 series stainless steel
- Includes M6 button head screws for mounting to light
- Clearance for M6 or 1/4-20 mounting hardware
- CAD Files: DXF, PDF, IGS, STP




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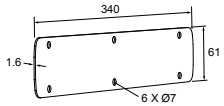
**LMBWLC60RAS**

- Pair of two swivel mount, right-angle brackets
- 300 series stainless steel
- Includes hardware for mounting to light
- CAD Files: DXF, PDF, IGS, STP



**ACC-WLC60-340-GSK-FDA-1**

- Blue FDA-approved silicone gasket
- Thickness: 1.6 mm
- CAD Files: DXF, PDF, IGS, STP




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# Mexican Importer

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