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 C = Cascadable	W = Cool white WW = Warm white G = Green R = Red Y = Yellow B = Blue	340 640	Blank = Polycarbonate G = Borosilicate glass	Blank = Base mount F = Flush mount[2]	A = Nickel-plated aluminum	Blank = Side exit R = Rear exit[3]	Blank = 2 m (6.5 ft) integral PVC-jacketed cable 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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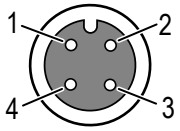
173718
p/n: 173718 Rev. J

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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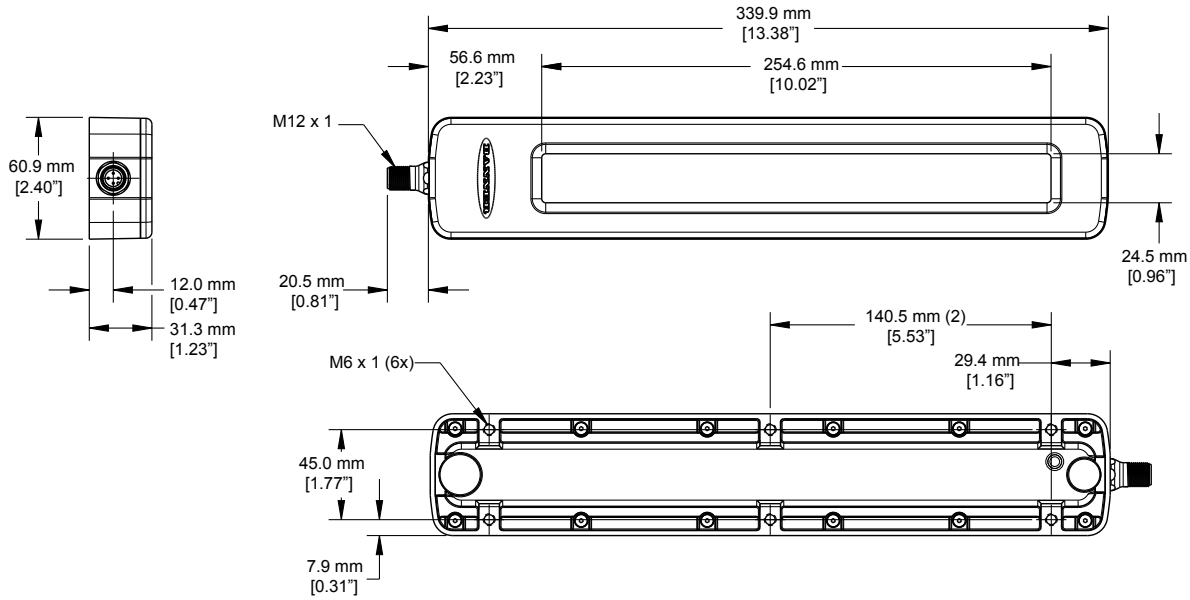
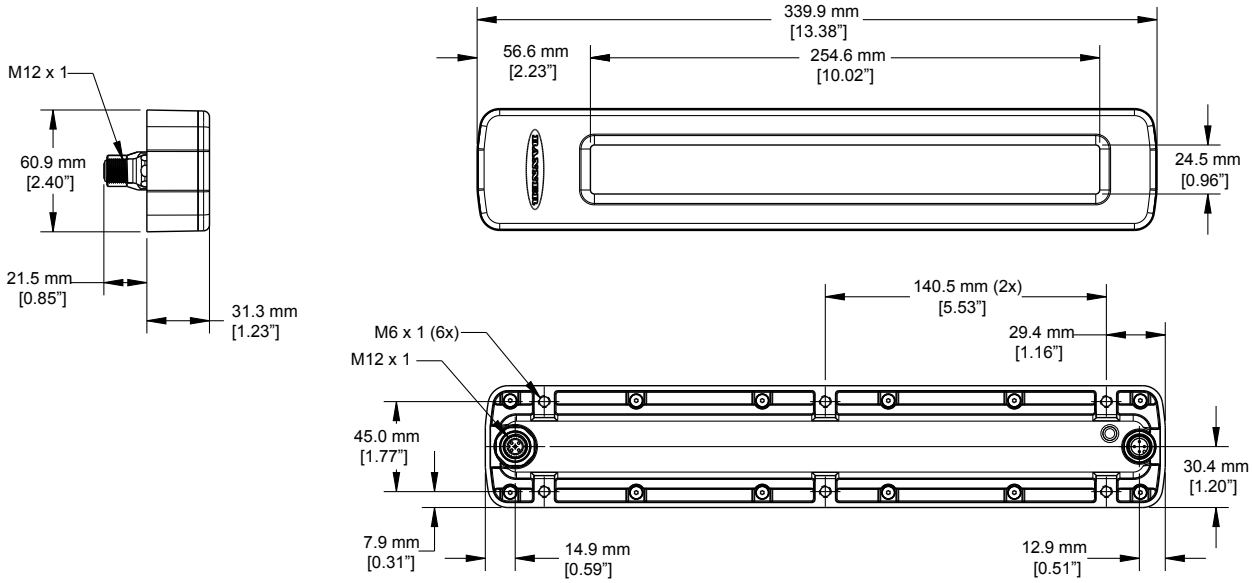
Dimensions for WLC60 340 mm Models

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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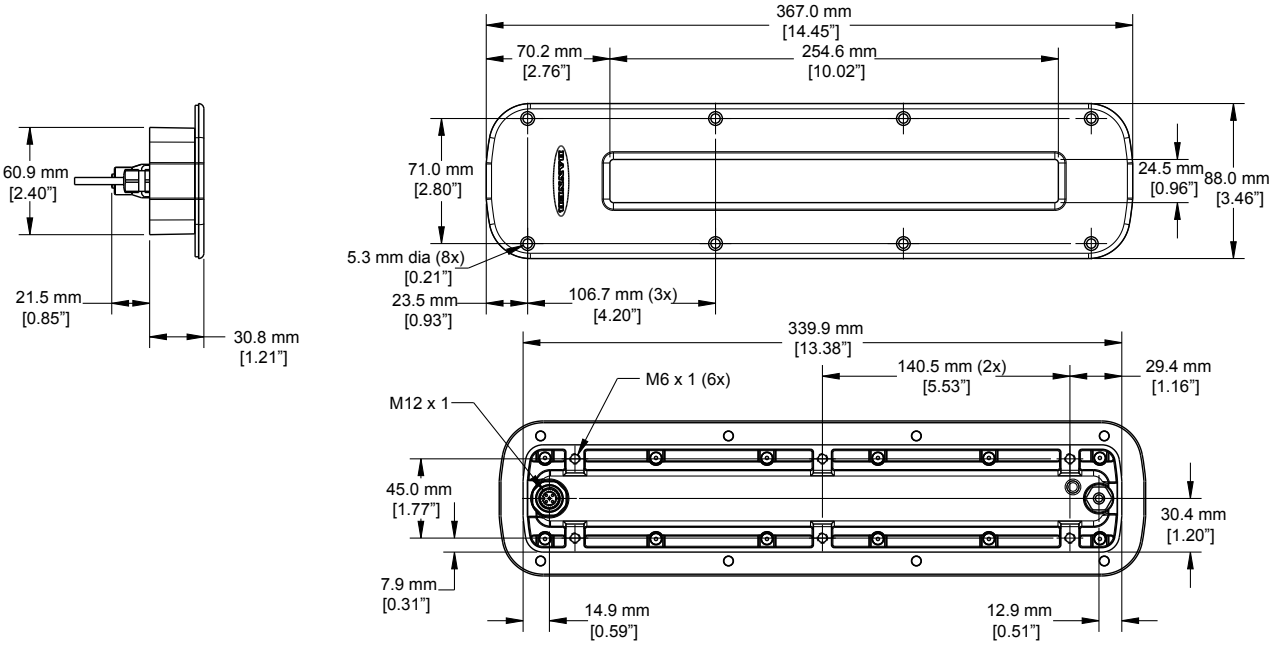
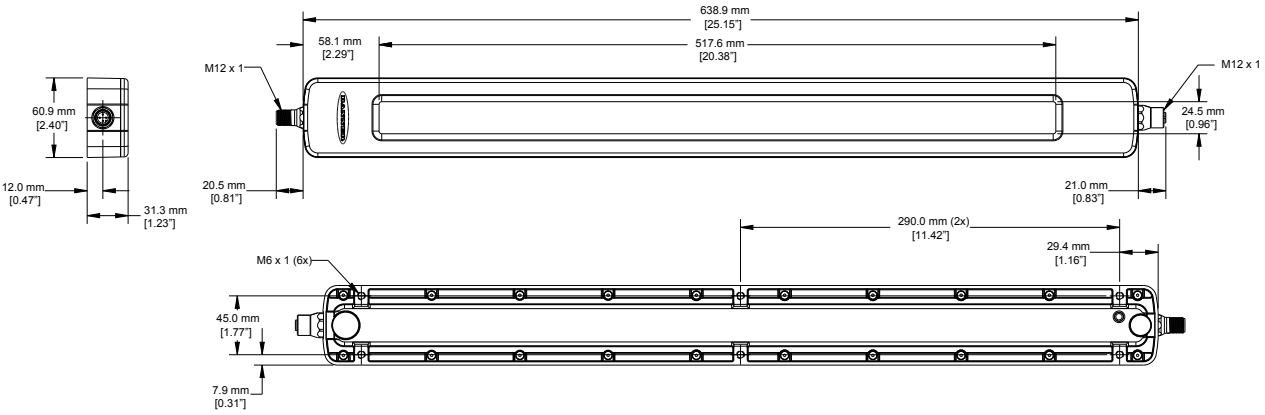
WLC60 (340 mm) Flush Mount Models



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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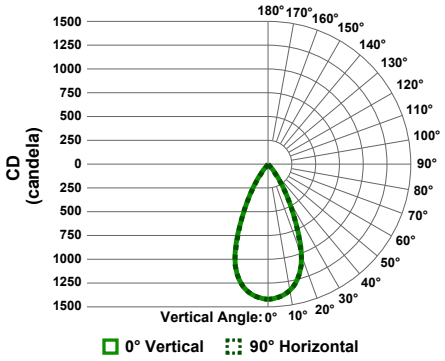
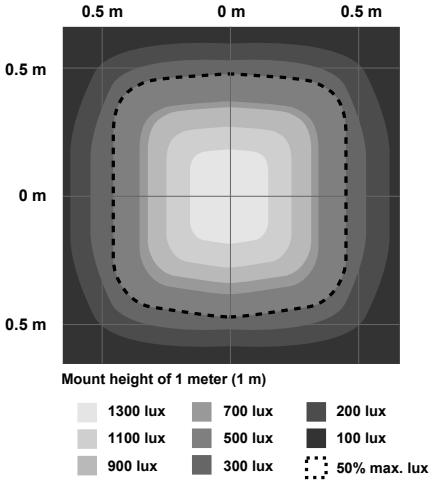
340 mm Models

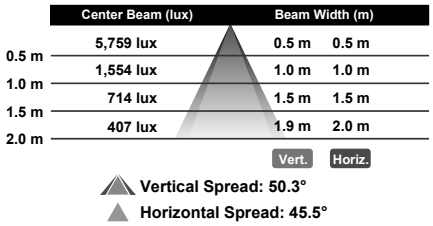
Polar Candela Distribution



Isolux Pattern

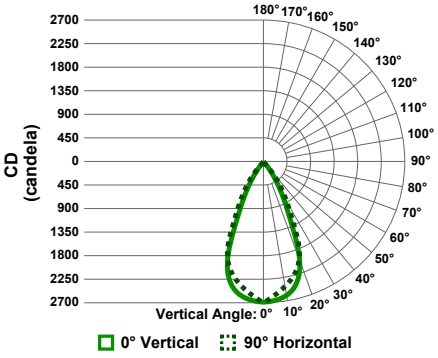


Illuminance at a Distance

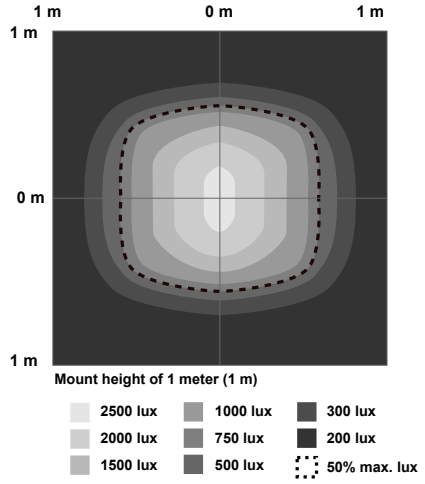


640 mm Models

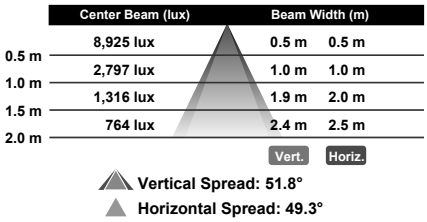
Polar Candela Distribution



Isolux Pattern

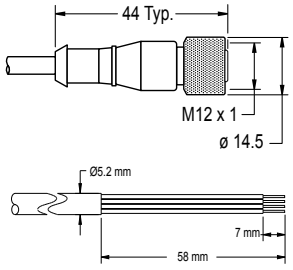
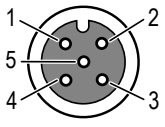


Illuminance at a Distance



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 2 = White 3 = Blue 4 = Black 5 = Not used
MQDC-415	5 m (16.4 ft)				
MQDC-430	9 m (29.5 ft)				
MQDC-450	15 m (49.2 ft)				

Continued on page 6

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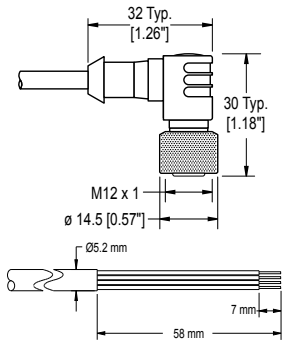
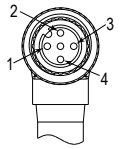
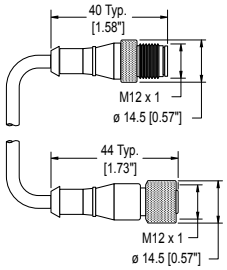
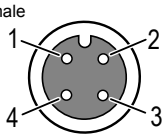
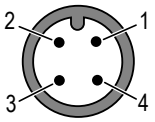
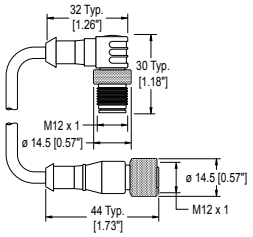
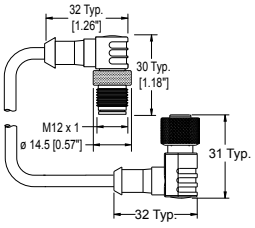
Continued from page 5

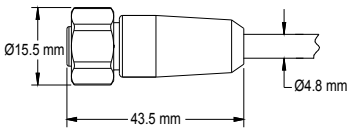
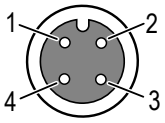
4-Pin Single-Ended M12 Female Cordsets

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  Male  1 = Brown 2 = White 3 = Blue 4 = Black 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		 1 = Brown 2 = White 3 = Blue 4 = Black
MQDC-WDSS-0415	5 m (16.4 ft)			
MQDC-WDSS-0430	9 m (29.5 ft)			

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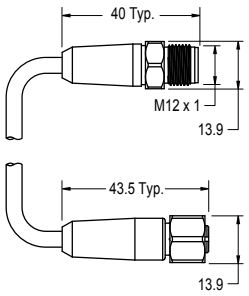
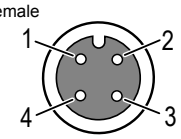
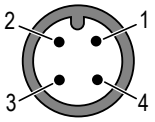
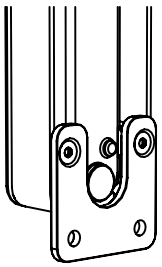
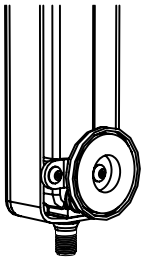
4-Pin Double-Ended M12 Female to M12 Male Washdown Stainless Steel Cordsets				
Model	**Length**	**Style**	**Dimensions**	**Pinout**
MQDEC-WDSS-401SS	0.31 m (1 ft)	Male Straight/Female Straight		Female  Male  1 = Brown 2 = White 3 = Blue 4 = Black
MQDEC-WDSS-403SS	0.91 m (2.99 ft)			
MQDEC-WDSS-406SS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

Brackets

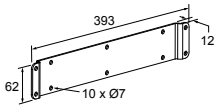
LMBWLC60F
- Set of two flat brackets
- 300 series stainless steel
- Includes M6 flathead screws for mounting to light
- Clearance for M6 or 1/4-20 mounting hardware
- CAD Files: DXF, PDF, IGS, STP



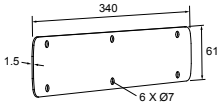
LMBWLC60MAG
- Magnetic mounting kit (set of two)
- Two-inch magnets
- Mounting hardware included
- CAD Files: DXF, PDF, IGS, STP



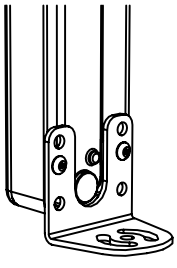
LMBWLC60B340
- Plate for sealing the cavity on the back of the 340 mm models
- 300 series stainless steel
- Includes hardware for mounting to the light
- CAD Files: DXF, PDF, IGS, STP



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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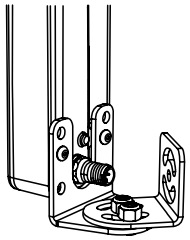
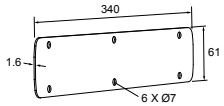
LMBWLC60RAS

- 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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