

WLB32 Industrial LED Light Bar (DC)



Datasheet



Model without Motion Detector



Model with Motion Detector



Model with Eye Shield and Motion Detector

Banner's WLB32 is an ultra-bright LED fixture that features an even light output for a no glare 'glow'. Suitable for a variety of environments and applications, including work stations, machine lighting, control cabinets, and manufacturing lines, the WLB32 uses advanced LED lighting technology to provide a high-quality and maintenance free industrial lighting solution for years.

- Highly energy efficient for overall cost savings
- High/Low/Off switch
- Models with eye shield block side glare
- Daisy chain power to multiple lights
- Motion detection models available
- Metal housing, shatterproof window
- Easy installation with snap clips, or a choice of magnetic or angle brackets

WLB32 Industrial LED Light Bars are available as cascading models that can be "daisy-chained" together for a continuous length of lighting, with a minimum of wiring. Each light bar can be turned to high, low, or off independently of the other lights, upstream or downstream, in the chain. A double-ended accessory cordset must be used between each pair of cascading lights.

| 12 to 30 V dc Models | | | |
|----------------------|---------------------|----------------------------|--------|
| Models | Lighted Length (mm) | Connector | Lumens |
| WLB32C285PBQ | 285 | 4-pin M12 Quick Disconnect | 750 |
| WLB32C570PBQ | 570 | | 1500 |
| WLB32C850PBQ | 850 | | 2250 |
| WLB32C1130PBQ | 1130 | | 3000 |
| WLB32C285PB | 285 | 2 m (6.5 ft) cable | 750 |
| WLB32C570PB | 570 | | 1500 |
| WLB32C850PB | 850 | | 2250 |
| WLB32C1130PB | 1130 | | 3000 |

- To order the light without the integral switch, omit the "PB" from the model number. For example, WLB32C285Q.
- To order the light with the integral motion detector, replace the 'PB' from the model number with 'M'. For example, WLB32C285MQ.
- To order the light with the eye shield, add an 'E' after the length. For example, WLB32C285EPBQ.



Important: Read the following instructions before operating the light. Please download the complete WLB32 Industrial LED Light Bar (DC) 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 WLB32 Industrial LED Light Bar (DC), 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 luminare. Veuillez télécharger la documentation technique complète des WLB32 Industrial LED Light Bar (DC) sur notre site www.bannerengineering.com pour les détails sur leur utilisation correcte, les applications, les notes de sécurité et les instructions de montage.

Specifications

Supply Voltage

12 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

| Light Length (mm) | Max Current Draw (A) | Typical Current Draw (A) | | |
|-------------------|----------------------|--------------------------|---------|---------|
| | | 12 V dc | 24 V dc | 30 V dc |
| 285 | 0.8 | 0.66 | 0.31 | 0.24 |
| 570 | 1.6 | 1.36 | 0.62 | 0.48 |
| 850 | 2.4 | 2.19 | 0.93 | 0.72 |
| 1130 | 3.2 | 3.02 | 1.24 | 0.96 |



Supply Protection Circuitry

Protected against reverse polarity and transient voltages

Light Characteristics

Color: Daylight white
 Color temperature (CCT): 5000K (±300K)
 Lumen output: 750 (±5%) per foot, typical at 25 °C (77 °F)
 Luminous efficacy: 100 lumens/Watt typical at 24 V dc at 25 °C (77 °F)
 CRI: 85, typical
 Eye shield reduces lumens by about 25%

LED Lifetime

Lumen Maintenance - L₇₀
 When operating within specifications, output will decrease less than 30% after 50,000 hours.

Push Button

I = 100% light intensity
 I = 50% light intensity
 O = Off

Models with Motion Detection

Light turns off after approximately 60 seconds without detecting motion.
 Range: 12 meters; ±45° field of view
 Standby current: 170 µA

Construction

Anodized aluminum housing; polycarbonate window and end caps; stainless steel mounting brackets

Spacing Criterion

Vertical: 1.22
 Horizontal: 1.32

Mounting

Snap clips; optional magnetic mount or swivel bracket accessories available

Connections

Integral 4-pin Euro-style QD (4-pin connecting cordset required for QD models); or 2 m (6.5 ft) integral cable

Environmental Rating

IEC IP50

Vibration and Mechanical Shock

Vibration 10-55 Hz 1.0 mm p-p amplitude per IEC60068-2-6
 Shock 15G 11 ms duration, half sine wave per IEC60068-2-27

Operating Temperature

-40 °C to +70 °C (-40 °F to +158 °F)
 Light output begins to decrease above 50 °C (122 °F) and will be approximately 65% of max intensity at 60 °C (140 °F) and 30% of max intensity at 70 °C (158 °F)
 Models with motion detection: -20 °C to +60 °C (-4 °F to +140 °F)

Storage Temperature

-40 °C to +70 °C (-40 °F to +158 °F)

Test Data

LM-79, LM-80, TM-21

Certifications



UL Recognized for easy installation in control cabinets.

Application Note

When connecting cascadable lights in series it is important not to exceed the maximum current limitation of 4 Amps
 Maximum length of light at 12 V dc: 1.4 m (4.6 ft)
 Maximum length of light at 24 V dc: 3.0 m (9.8 ft)
 Maximum length of light at 30 V dc: 3.1 m (10.2 ft)

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).

$Luminaire\ Spacing = SC \times Height\ to\ Illuminated\ Plane$

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

Light Characteristics

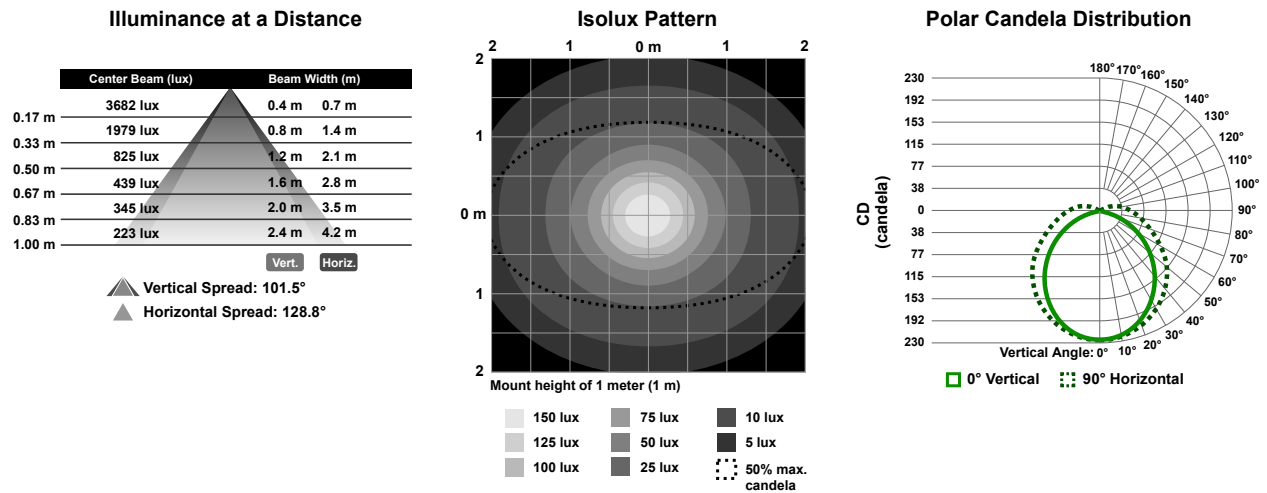
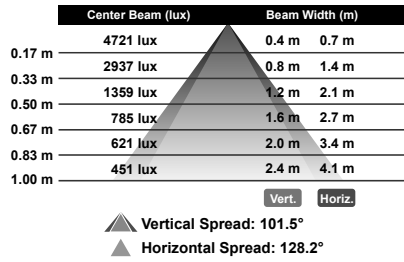
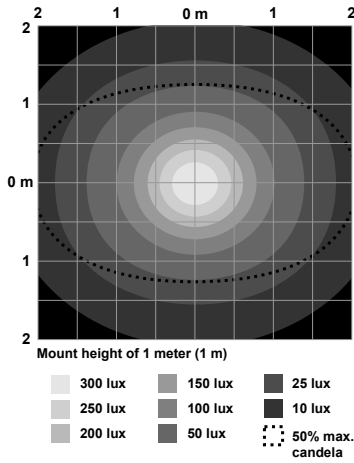


Figure 1. 285 mm Models

Illuminance at a Distance



Isolux Pattern



Polar Candela Distribution

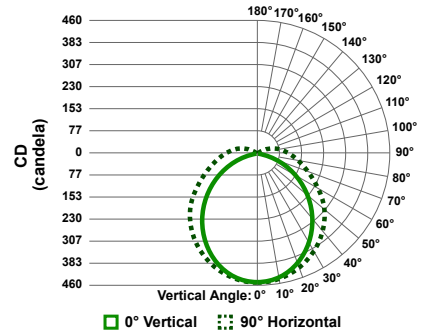
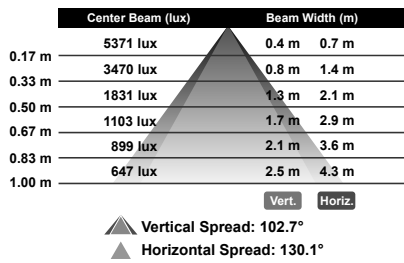
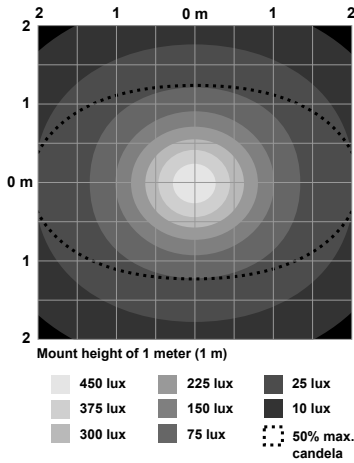


Figure 2. 570 mm Models

Illuminance at a Distance



Isolux Pattern



Polar Candela Distribution

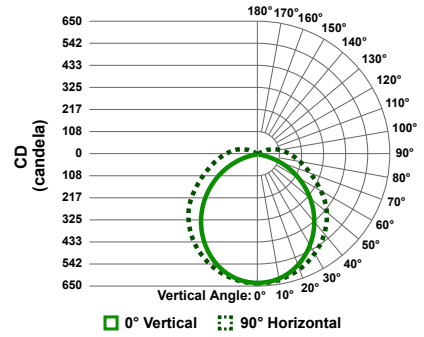
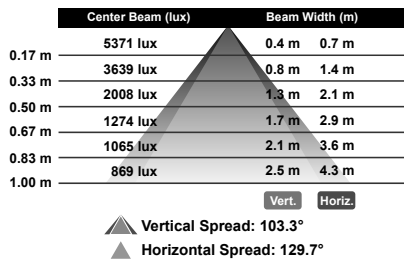
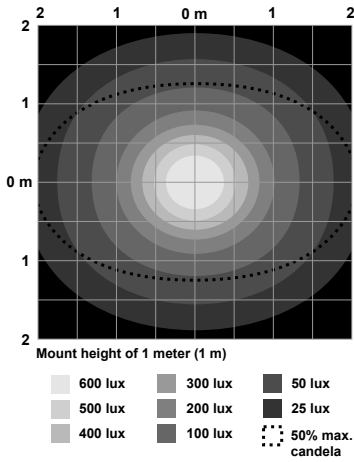


Figure 3. 850 mm Models

Illuminance at a Distance



Isolux Pattern



Polar Candela Distribution

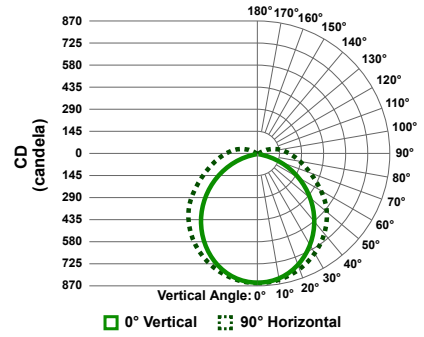
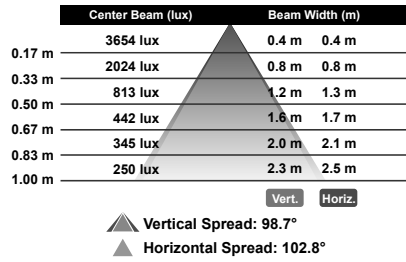
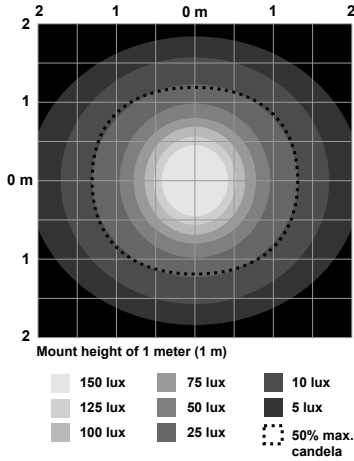


Figure 4. 1130 mm Models

Illuminance at a Distance



Isolux Pattern



Polar Candela Distribution

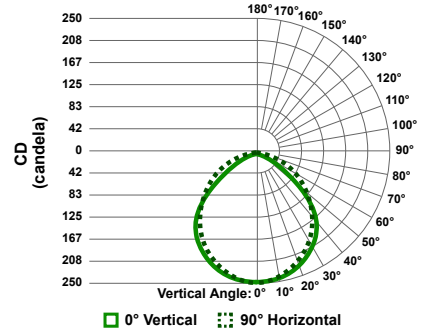
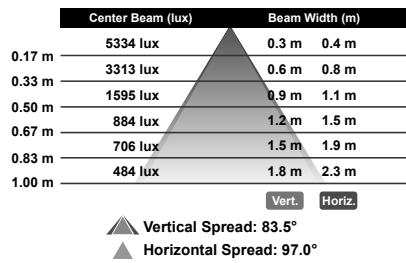
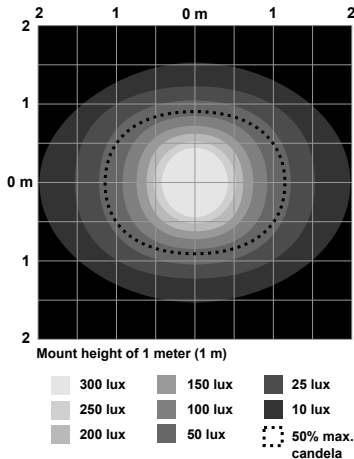


Figure 5. 285 mm Models with Eye Shields

Illuminance at a Distance



Isolux Pattern



Polar Candela Distribution

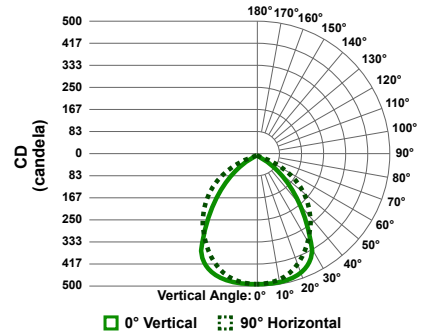
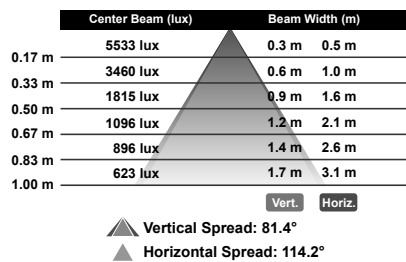
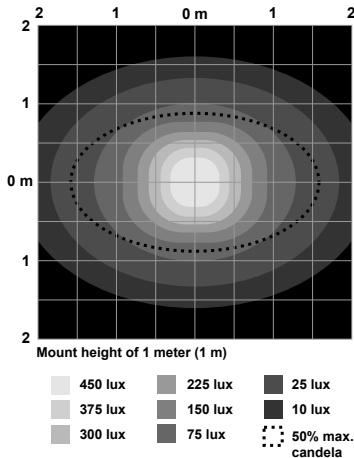


Figure 6. 570 mm Models with Eye Shields

Illuminance at a Distance



Isolux Pattern



Polar Candela Distribution

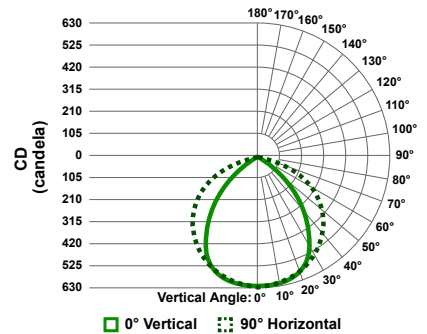


Figure 7. 850 mm Models with Eye Shields

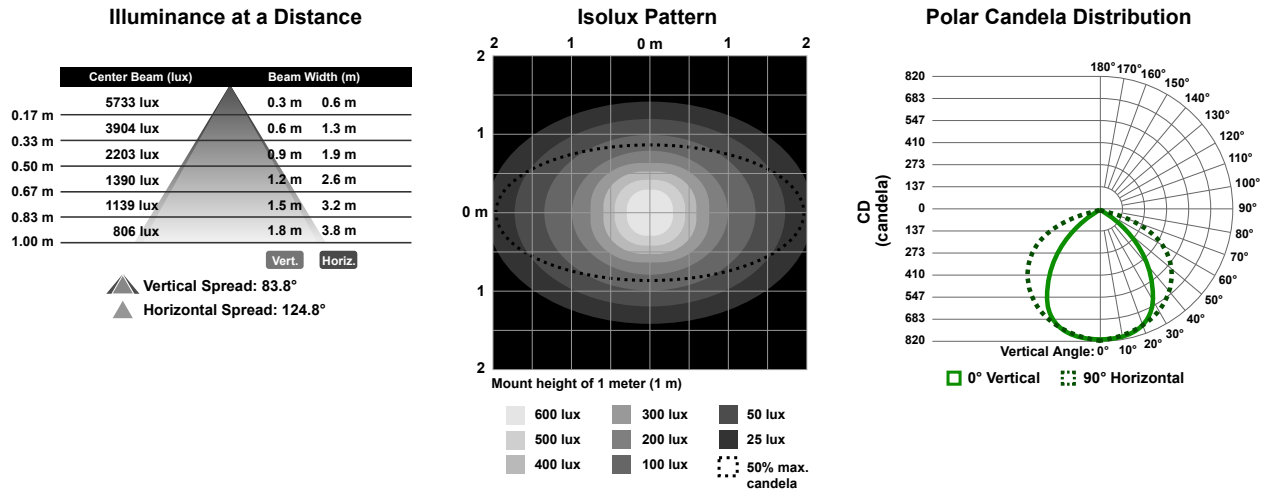
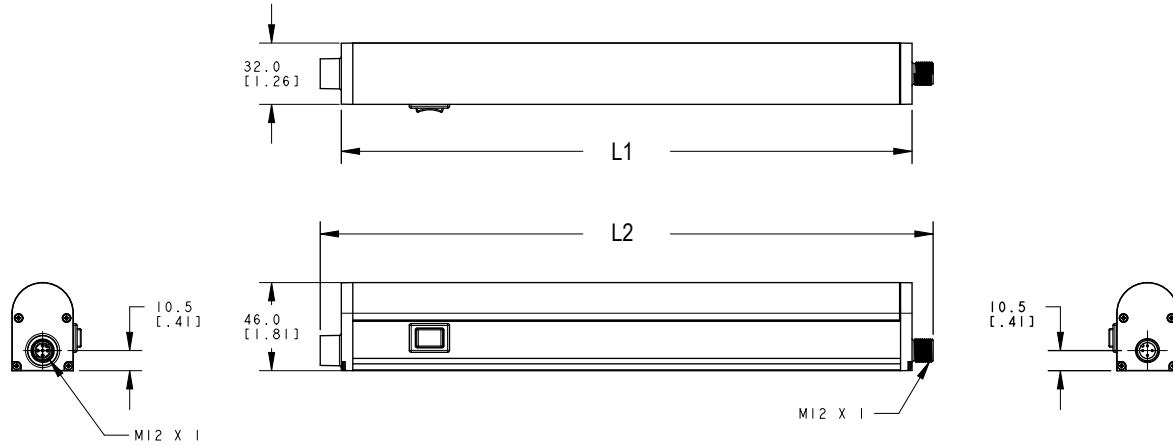


Figure 8. 1130 mm Models with Eye Shields

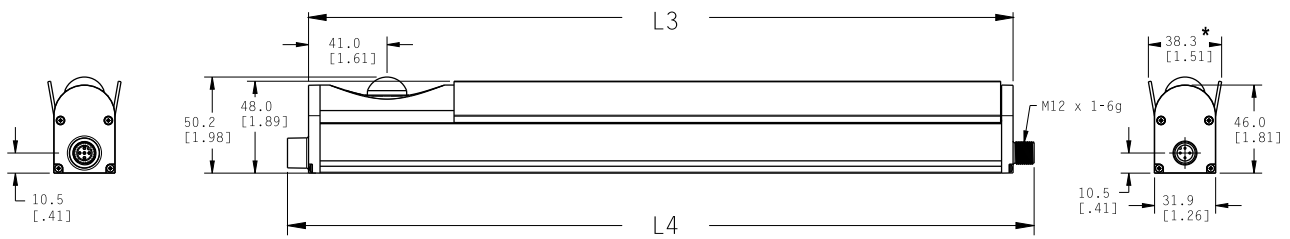
Wiring

| | Wiring | Pinouts (Female and Male) | Wiring Key |
|--|--------|---|--|
| Switch Models | | <p style="text-align: center;">Female</p> | <p>1 = Brown 3 = Blue</p> |
| Non-Switch and Motion Detector Models | | <p style="text-align: center;">Male</p> | <p>1 = Brown, connect for 100% intensity 3 = Blue 4 = Black*</p> <p><small>* For models without motion detection, connect the black wire to 12 to 30 V dc for 50% maximum intensity. For models with motion detection, connect the black wire to 12 to 30 V dc to bypass the motion detector switch.</small></p> |

Dimensions



Motion Detector and/or Eye Shield Models



* Specific to models with shield

| Models | Models without Motion Detector | | Models with Motion Detector and/or Eye Shields | |
|---------------|--------------------------------|-------------------|--|-------------------|
| | L1 | L2 | L3 | L4 |
| WLB32C285..Q | 298 mm (11.7 in) | 320 mm (12.6 in) | 368 mm (14.5 in) | 390 mm (15.4 in) |
| WLB32C570..Q | 580 mm (22.8 in) | 602 mm (23.7 in) | 650 mm (25.6 in) | 672 mm (26.5 in) |
| WLB32C850..Q | 862 mm (33.9 in) | 884 mm (34.8 in) | 932 mm (36.7 in) | 954 mm (37.6 in) |
| WLB32C1130..Q | 1144 mm (45.0 in) | 1166 mm (45.9 in) | 1214 mm (47.8 in) | 1236 mm (48.7 in) |
| WLB32C285.. | 298 mm (11.7 in) | 313 mm (12.3 in) | 368 mm (14.5 in) | 383 mm (15.1 in) |
| WLB32C570.. | 580 mm (22.8 in) | 595 mm (23.4 in) | 650 mm (25.6 in) | 665 mm (26.2 in) |
| WLB32C850.. | 862 mm (33.9 in) | 877 mm (34.5 in) | 932 mm (36.7 in) | 947 mm (37.3 in) |
| WLB32C1130.. | 1144 mm (45.0 in) | 1159 mm (45.6 in) | 1214 mm (47.8 in) | 1229 mm (48.4 in) |

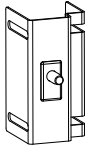
Accessories

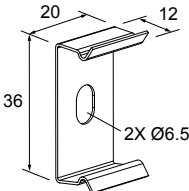
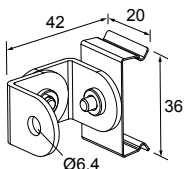
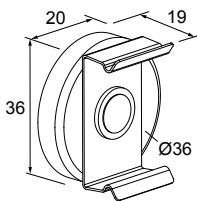
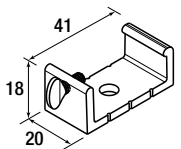
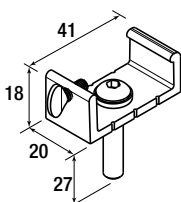
| 4-Pin Threaded M12/Euro-Style Cordsets—Single Ended | | | | |
|---|----------------|----------|------------|-----------------|
| Model | Length | Style | Dimensions | Pinout (Female) |
| MQDC-406 | 1.83 m (6 ft) | Straight | | |
| MQDC-415 | 4.57 m (15 ft) | | | |
| MQDC-430 | 9.14 m (30 ft) | | | |
| MQDC-450 | 15.2 m (50 ft) | | | |

| 4-Pin Threaded M12/Euro-Style Cordsets—Single Ended | | | | |
|---|----------------|-------------|------------|-----------------|
| Model | Length | Style | Dimensions | Pinout (Female) |
| MQDC-406RA | 1.83 m (6 ft) | Right-Angle | | |
| MQDC-415RA | 4.57 m (15 ft) | | | |
| MQDC-430RA | 9.14 m (30 ft) | | | |
| MQDC-450RA | 15.2 m (50 ft) | | | |

| 4-Pin Threaded M12/Euro-Style Cordsets—Double Ended | | | | |
|---|----------------|--------------------------------------|------------|---|
| Model | Length | Style | Dimensions | Pinout |
| MQDEC-401SS | 0.31 m (1 ft) | Male Straight/Female Straight | | <p>Female</p> <p>Male</p> |
| MQDEC-403SS | 0.91 m (3 ft) | | | |
| MQDEC-406SS | 1.83 m (6 ft) | | | |
| MQDEC-412SS | 3.66 m (12 ft) | | | |
| MQDEC-420SS | 6.10 m (20 ft) | | | |
| MQDEC-430SS | 9.14 m (30 ft) | | | |
| MQDEC-450SS | 15.2 m (50 ft) | Male Right-Angle/ Female Straight | | <p>1 = Brown 2 = White 3 = Blue 4 = Black</p> |
| MQDEC-403RS | 0.91 m (1 ft) | | | |
| MQDEC-406RS | 1.83 m (3 ft) | | | |
| MQDEC-412RS | 3.66 m (12 ft) | | | |
| MQDEC-420RS | 6.10 m (20 ft) | | | |
| MQDEC-430RS | 9.14 m (30 ft) | | | |
| MQDEC-450RS | 15.2 m (50 ft) | | | |

| 4-Pin Threaded M12/Euro-Style Splitter Cordsets—Flat Junction | | | |
|---|-------------------|---------------------------|---|
| Model | Branches (Female) | Trunk (Male) | Pinout |
| CSB-M1240M1240 | No branch | No trunk | <p>Female</p> <p>Male</p> <p>1 = Brown 2 = White 3 = Blue 4 = Black</p> |
| CSB-M1240M1241 | 2 x 0.30 m (1 ft) | No trunk | |
| CSB-M1241M1241 | | 0.30 m (1 ft) | |
| CSB-M1248M1241 | | 2.50 m (8 ft) | |
| CSB-M12415M1241 | | 4.57 m (15 ft) | |
| CSB-M12425M1241 | | 7.60 m (25 ft) | |
| CSB-UNT425M1241 | | 7.60 m (25 ft) Untermated | |
| | | | |

| Enclosure Accessories | |
|--|---|
| <p>LMBEDS Switch</p> <ul style="list-style-type: none"> Bracket with plunger switch to power lights when the enclosure is opened Refer to datasheet 160672 for more information |  |

| Mounting Brackets | |
|--|---|
| <p>LMBWLB32</p> <ul style="list-style-type: none"> Replaces the bracket that ships with the WLB32 light Stainless steel Includes 4 snap clips, 4 screws, and 2 insulator caps |  |
| <p>LMBWLB32-180S</p> <ul style="list-style-type: none"> Swivel bracket kit allows 180° of movement |  |
| <p>LMBWLB32MAG</p> <ul style="list-style-type: none"> Magnetic mounting bracket for easy attachment to steel and iron surfaces |  |
| <p>LMBWLB32U</p> <ul style="list-style-type: none"> Die cast bracket for rugged applications Secured to light with included thumb screw Clearance hole for 6 mm (1/4 in) button head screw |  |
| <p>LMBWLB32UT</p> <ul style="list-style-type: none"> Die cast bracket for rugged applications Secured to light with included thumb screw Integral 1/4-20 stud for mounting |  |

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