

WLB92 Industrial LED Light Bar (DC)



Datasheet

Banner's WLB92 is a very bright LED fixture/luminaire that features an even light output for a no glare 'glow'. The WLB92 series is designed for a wide variety of environments and applications, including but not limited to work stations, machine lighting, and low bay lighting. The WLB92 uses advanced LED lighting technology to provide a high-quality and maintenance free industrial lighting solution.

- Increase worker productivity and ergonomics with bright, high-quality, uniform light
- Exceptionally energy efficient for overall cost savings
- Durable light stands up to your environment with a rugged metal housing and shatter-resistant window
- Easy installation with surface mount brackets or a choice of snap, swivel, or hanging brackets
- Intensity can be controlled from 0% to 100% using Pulse Width Modulation (PWM) dimming
- Rated for use at 24 V dc



WLB92 Industrial LED Light Bars are available in several configurations including different lengths, switches, dimming capabilities, and cord options. See [Accessories](#) on p. 4. To view or download the latest technical information about this product, including specifications, dimensions, accessories, and wiring, see www.bannerengineering.com.



For PWM dimming, use with the LC65 Dimmer Module. For more information, refer to the LC65 LED Dimmer Module datasheet, p/n [177086](#).



Important: Read the following instructions before operating the light. Please download the complete WLB92 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 WLB92 Industrial LED Light Bar (DC), disponibles en múltiples idiomas, para detalles del uso adecuado, aplicaciones, advertencias, y las instrucciones de instalación de estos dispositivos.



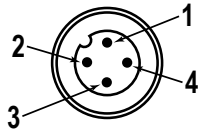
Important: Lisez les instructions suivantes avant d'utiliser le luminaire. Veuillez télécharger la documentation technique complète des WLB92 Industrial LED Light Bar (DC) sur notre site www.bannerengineering.com pour les détails sur leur utilisation correcte, les applications, les notes de sécurité et les instructions de montage.

Models

Family	Cascadable	LED Color	Lighted Length (mm)	Control	Connector
WLB92	X		550	PB	Q
	X = Non-Cascadable	Blank = Daylight White WW = Warm White G = Green R = Red Y = Yellow B = Blue	550 1100	PB = Switch, Dimming knob PWM = Dimmable via Pulse Width Modulation	Blank = 2 m Integral Cable Q = Integral 4-pin M12 Quick Disconnect (QD) fitting * * QD models require mating cordset



Wiring Diagram



Key

- Pin 1 brown – 24 V dc
- Pin 3 blue – dc common
- Pin 4 black – Pulse width modulation (PWM) input (PWM models only)
- Pin 2 white – Not Used



Note: For maximum intensity, leave the black wire floating or connected to common. There is no black wire present in the models with a dimming knob.

Specifications

Supply Voltage

Operating Voltage: 24 V dc ($\pm 10\%$)
See electrical characteristics on product label
Use only with a suitable Class 2 power supply (North America)
Use only with a suitable Class III SELV power supply (Europe)

Supply Current

Lighted Length (mm)	Max Current Draw (A)	Typical Current Draw at 24 V dc (A)
550	1.75	1.325
1100	3.50	2.650

Supply Protection Circuitry

Protected against reverse polarity and transient voltages

Light Characteristics

Daylight White and Warm White Efficacy: 110 lumens/watt typical at 24 V dc at 25 °C (77 °F)
CRI: 82, typical

Color	Dominant Wavelength (nm) or Color Temperature (CCT)	Lighted Length Lumens (Typical at 25 °C)	
		550 mm	1100 mm
Daylight White	5000 K (± 300 K)	3510	7150
Warm White	3000 K (+225 K, -125 K)	3510	7150
Green	525 nm	1430	2975
Red	625 nm	745	1545
Yellow	590 nm	620	1295
Blue	470 nm	405	840

LED Lifetime

Lumen Maintenance - L_{70}
When operating within specifications, output will decrease less than 30% after 50,000 hours.

Test Data

LM-79, LM-80, TM-21

Switch/Dimming Knob (some models)

On/Off Switch and dimming knob, dimmable to 0% intensity

Pulse Width Modulation (PWM) Dimming (some models)

Frequency: Up to 1000 Hz
Voltage: 12 V dc to 24 V dc
Current: 4 mA maximum
Compatible with the LC65 Dimmer Module. For more information, refer to the LC65 LED Dimmer Module datasheet, p/n 177086.

Construction

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

Spacing Criterion

Vertical: 1.20
Horizontal: 1.32

Mounting

Surface mount brackets included (2)
Compatible with integral 45 mm aluminum framing mounting slots
Several optional mounting brackets available (see [Accessories](#) on p. 4)

Connections

Integral 4-pin M12/Euro-style quick disconnect connector (4-pin connecting cordset required for QD models); or 2 m (6.5 ft) integral cable

Environmental Rating

IEC IP40

Operating Temperature

-40 °C to +70 °C (-40 °F to +158 °F)

550 Lighted Length Models: Light output begins to decrease above 65 °C (149 °F); light output is approximately 90% of maximum intensity at 70 °C (158 °F).

1100 Lighted Length Models: Light output begins to decrease above 45 °C (113 °F); light output is approximately 75% of maximum intensity at 60 °C (140 °F) and 65% of maximum intensity at 70 °C (158 °F).

Storage Temperature

-40 °C to +70 °C (-40 °F to +158 °F)

Vibration and Mechanical Shock

Vibration: 10 Hz to 55 Hz, 0.5 mm peak-to-peak amplitude per IEC 60068-2-6
Shock: 5G 11 ms duration, half sine wave per IEC 60068-2-27

Certifications



CAUTION: To Reduce the Risk of Fire. Do not install the 550 mm models in a compartment smaller than 305 mm by 305 mm by 675 mm. Do not install the 1100 mm models in a compartment smaller than 305 mm by 305 mm by 1350 mm.

Spacing Criteria (SC)

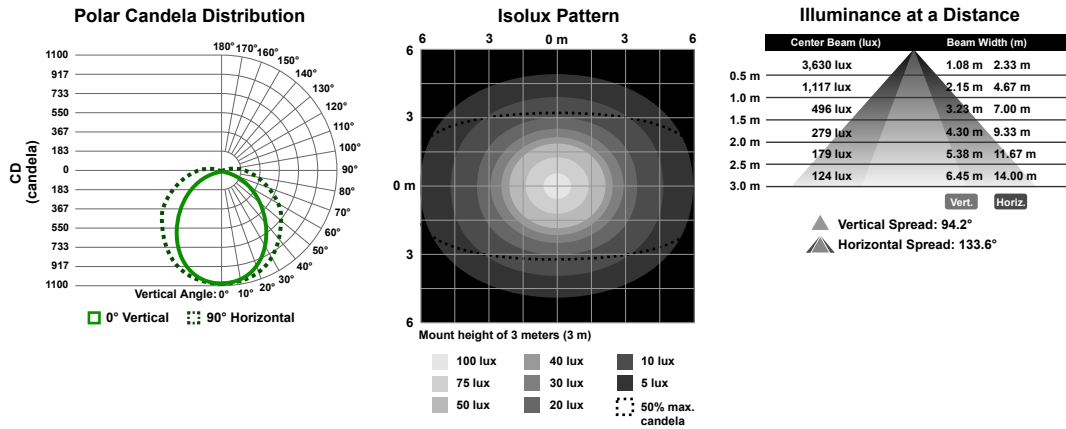
The spacing criteria is the fixture-spacing-to-mounting-height ratio and aids in laying out a pattern of fixtures. Multiply the spacing criteria by the mounting height to get the maximum fixture spacing that still provides even illumination (no shadowing between fixtures).

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

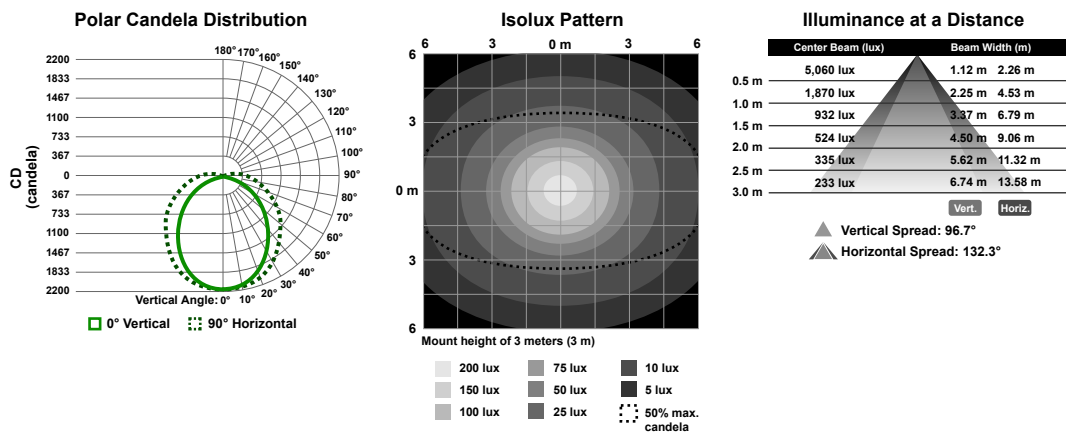
The mounting height is the distance from the fixture to the surface you are lighting.

Performance Curves

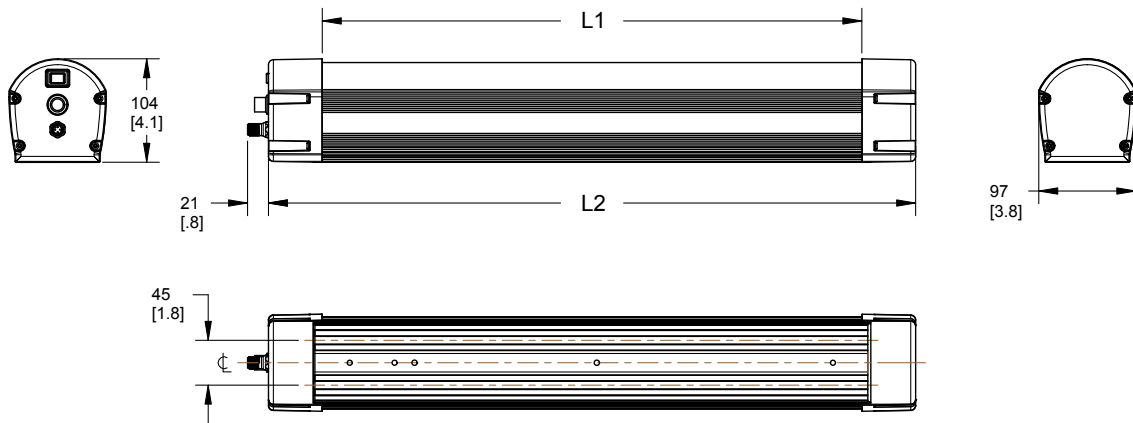
550 mm Models - Daylight White and Warm White



1100 mm Models - Daylight White and Warm White

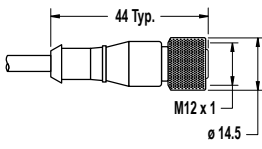
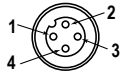
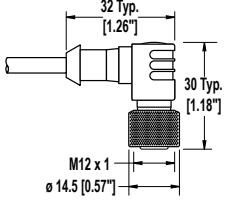


Dimensions



Models	L1	L2
WLB92X...550..Q	542 mm (21.3 in)	650 mm (25.6 in)
WLB92X...1100..Q	1097 mm (43.2 in)	1205 mm (47.4 in)
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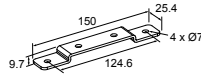
Accessories

4-Pin Threaded M12/Euro-Style Cordsets (15 ft and Shorter)—Single Ended				
Model	Length	Style	Dimensions	Pinout (Female)
MQDC-406	1.83 m (6 ft)	Straight		 1 = Brown 2 = White 3 = Blue 4 = Black
MQDC-415	4.57 m (15 ft)			
MQDC-406RA	1.83 m (6 ft)	Right-Angle		
MQDC-415RA	4.57 m (15 ft)			

Brackets

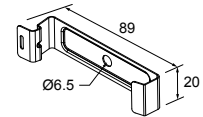
LMBWLB92

- Standard bracket that ships with the WLB92 light
- Stainless steel
- Includes two surface mount brackets, four screws, and four t-nuts



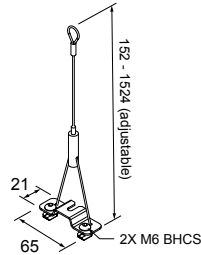
LMBWLB92CLIP

- Snap clip allows for tool-less installation
- Stainless steel
- Includes four snap clips, four screws, and two insulator caps



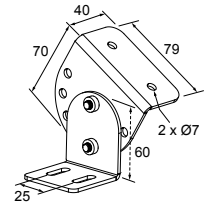
LMBWLB92HK5

- Hanging bracket kit allows for suspended installation
- Includes two hanging bracket assemblies, four screws, four t-nuts, and two 15-24 mm cables



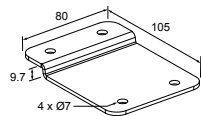
LMBWLB92RAS

- Swivel brackets allow for 180° of movement in seven fixed positions
- Stainless steel
- Includes two swivel bracket assemblies, eight screws, and four t-nuts



LMBWLB92S

- Surface mount brackets allow for mounting at the end of the light
- Stainless steel
- Includes two end brackets, four screws, and four t-nuts



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Banner Engineering Corp. warrants its products to be free from defects in material and workmanship for one year following the date of shipment. Banner Engineering Corp. will repair or replace, free of charge, any product of its manufacture which, at the time it is returned to the factory, is found to have been defective during the warranty period. This warranty does not cover damage or liability for misuse, abuse, or the improper application or installation of the Banner product.

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For patent information, see www.bannerengineering.com/patents.

FCC Part 15 and CAN ICES-3 (B)/NMB-3(B)

This device complies with part 15 of the FCC Rules and CAN ICES-3 (B)/NMB-3(B). Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules and CAN ICES-3 (B)/NMB-3(B). These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the manufacturer.

Mexican Importer

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