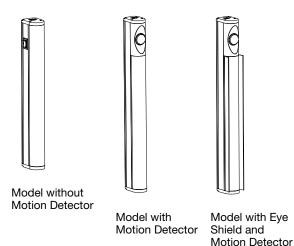
WLB32 Industrial LED Light Bar (AC)



Datasheet



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 cascadable 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.

90 to 264 V ac Models					
Models Lighted Length (mm) Connector Lumens					
WLB32ZC285PBQMB	285		750		
WLB32ZC570PBQMB	570	Custom Quick Disconnect	1500		
WLB32ZC850PBQMB	850	Custom Quick Disconnect	2250		
WLB32ZC1130PBQMB	1130		3000		

The listed models include a U.S. power cable.

- To order model with no power cable, omit the suffix "B" from the model number. For example, WLB32ZC285PBQM. For a list of other countries' wall plug cables, refer to the Accessories list.
- To order the light without the integral switch, omit the "PB" from the model number. For example, WLB32ZC285QMB.
- To order the light with the integral motion detector, replace the 'PB' from the model number with 'M'. For example, WLB32ZC285MQMB.
- To order the light with the eye shield, add an 'E' after the length. For example, WLB32ZC285EPBQMB.



Important: Read the following instructions before operating the light. Please download the complete WLB32 Industrial LED Light Bar (AC) 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 (AC), 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 WLB32 Industrial LED Light Bar (AC) sur notre site www.bannerengineering.com pour les détails sur leur utilisation correcte, les applications, les notes de sécurité et les instructions de montage.



Original Document 176314 Rev. K

Installing the WLB32 AC Series Lights

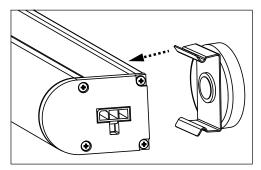


Figure 1. Attaching the Snap Brackets (Step 1)

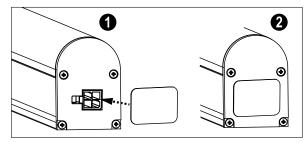


Figure 2. Installing the Cascade Cover (Step 8)

- 1. Attach the snap brackets to the light.
- 2. Select a suitable horizontal or vertical dry mounting location.
- 3. Place the light in the mounting location and mark the positions of the snap bracket mounting holes.
- 4. Drill the holes and use appropriate screws to secure the snap bracket to the mounting location.
- 5. Snap the light onto the brackets.
- 6. When daisy chaining multiple lights, follow steps 1 through 5 to mount additional lights. See the application note in the *Specifications* for the maximum allowed lights daisy chained together and maximum allowed cable run when choosing mounting locations.
- 7. Connect the daisy chained units together using cascade cordsets (see Accessories).
- 8. Install the supplied cascade cover over the output connector on the last light in the chain.
- 9. Plug the power cord from the first light into the wall outlet.



CAUTION: To reduce the risk of fire, electric shock, or injury to personnel:

- Use only insulated staples or plastic ties to secure cords;
- Route and secure cords so that they will not be pinched or damaged when the cabinet is pushed to the wall;
- Position the portable cabinet light with respect to the cabinet so the lamp replacement markings are able to be read during relamping;
- Do not recess into ceilings or soffits; and
- Do not conceal the cords. The National Electrical Code (NEC) does not permit cords to be concealed
 where damage to insulation may go unnoticed. To prevent fire danger, do not run cord behind walls,
 ceilings, soffits, or cabinets where it may be inaccessible for examination. Cords should be visually
 examined periodically and immediately replaced when any damage is noted.

Specifications

Operating Voltage

90 to 264 V ac (50 or 60 Hz) Power factor > 0.95 on high setting at 120 V ac See electrical characteristics on product label

Supply Current

Light Length (mm)	Max Current Draw (A) at 90 V ac	Typical Current Draw (A)		
		120 V ac	230 V ac	
285	0.125	0.075	0.045	
570	0.250	0.150	0.080	
850	0.375	0.225	0.115	
1130	0.500	0.300	0.150	

Supply Protection Circuitry

Protected against transient voltages

Light Characteristics

Color: Daylight white

Color temperature (CCT): 5000K (±300K)

Lumen output: 750 ($\pm 5\%$) per foot, typical at 25 °C (77 °F)

CRI: 85 typical

Eye shield reduces lumens by approximately 25%

LED Lifetime

Lumen Maintenance - L70

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

Push Button

II = 100% light intensity I = 50% light intensity

O = Standby

Models with Motion Detection

Light turns off after approximately 60 seconds without detecting

Range: 12 m; ±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 custom QD (connecting cordset required)

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

-25 °C to +45 °C (-13 °F to 113 °F)

Models with Motion Detection: -20 °C to +45 °C (-4 °F to +113 °F)

Storage Temperature

-40 °C to +70 °C (-40 °F to +158 °F)

Test Data

LM-79, LM-80, TM-21

Application Note

When connecting cascadable lights in series, do not exceed the maximum unit limit of 10, regardless of light size, and do not exceed a maximum wiring distance of 100 m (328 ft)

Certifications









UL Listed only for 120 V ac, 60 Hz

UL Recognized for easy installation in control cabinets

Spacing Criteria (SC)

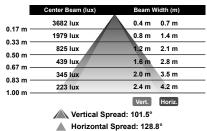
The spacing criteria is the fixture-spacing-to-mounting-height ratio and aids in laying out a pattern of fixtures. Multiply the spacing criteria by the mounting height to get the maximum fixture spacing that still provides even illumination (no shadowing between fixtures).

Luminaire Spacing = SC × Height to Illuminated Plane

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

Light Characteristics

Illuminance at a Distance





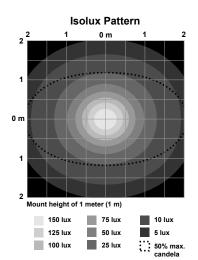
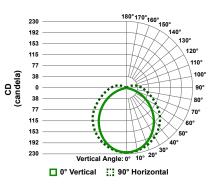


Figure 3. 285 mm Models

Polar Candela Distribution



Illuminance at a Distance

	Center Beam (lux)	Beam Width (m)
).17 m —	4721 lux	0.4 m 0.7 m
).33 m —	2937 lux	0.8 m 1.4 m
.50 m —	1359 lux	1.2 m 2.1 m
.67 m —	785 lux	1.6 m 2.7 m
.83 m —	621 lux	2.0 m 3.4 m
.00 m —	451 lux	2.4 m 4.1 m
.00 111		Vert. Horiz.

Vertical Spread: 101.5° ▲ Horizontal Spread: 128.2°

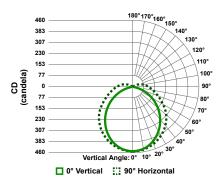
Isolux Pattern 0 m 2 0 m Mount height of 1 meter (1 m) 300 lux 150 lux 25 lux 10 lux 250 lux 100 lux 50 lux 50% max. candela

Figure 4. 570 mm Models

2 ?

0 m

Polar Candela Distribution

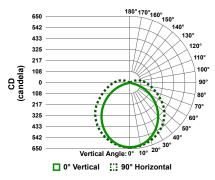


Illuminance at a Distance

	Center Beam (lux)	Beam Width (m)
0.47	5371 lux	0.4 m 0.7 m
0.17 m -	3470 lux	0.8 m 1.4 m
0.50 m -	1831 lux	1.3 m 2.1 m
0.67 m -	1103 lux	1.7 m 2.9 m
0.83 m -	899 lux	2.1 m 3.6 m
1.00 m -	647 lux	2.5 m 4.3 m
		Vert. Horiz.
	Vertical Spread	ead: 102.7°

▲ Horizontal Spread: 130.1°

Polar Candela Distribution Isolux Pattern 0 m

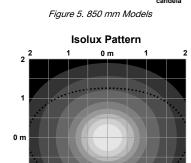


Illuminance at a Distance

Illuminance at a Distance



▲ Horizontal Spread: 129.7°



Mount height of 1 meter (1 m) 450 lux

375 lux

300 lux

225 lux

150 lux

75 lux

25 lux

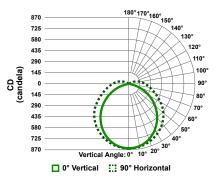
10 lux

50% max.

Mount height of 1 meter (1 m) 600 lux 300 lux 50 lux 500 lux 200 lux 25 lux 50% max. candela 400 lux 100 lux

Figure 6. 1130 mm Models

Polar Candela Distribution



Illuminance at a Distance

	Center Beam (lux)	Beam Wi	Beam Width (m)	
.17 m —	3654 lux	0.4 m	0.4 m	
.17 m – .33 m –	2024 lux	0.8 m	0.8 m	
.33 m - .50 m -	813 lux	1.2 m	1.3 m	
.67 m –	442 lux	1.6 m	1.7 m	
83 m –	345 lux	2.0 m	2.1 m	
.00 m –	250 lux	2.3 m	2.5 m	
00 111 -		Vert.	Horiz.	
	A			



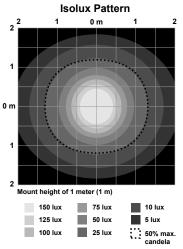


Figure 7. 285 mm Models with Eye Shields

180°170°160° 150° 250 130° 167 125 110° 83 CD (candela) 100° 42 909 42 83 167 208 250 ■ 0° Vertical 90° Horizontal

Polar Candela Distribution

Illuminance at a Distance

1	Center Beam (lux)	Beam Width (m)	
0.17 m -	5334 lux	0.3 m 0.4 m	
0.17 m =	3313 lux	0.6 m 0.8 m	
0.50 m -	1595 lux	0.9 m 1.1 m	
0.67 m -	884 lux	1.2 m 1.5 m	
0.83 m -	706 lux	1.5 m 1.9 m	
1.00 m -	484 lux	1.8 m 2.3 m	
		Vert. Horiz.	
Vertical Spread: 83.5°			

▲ Horizontal Spread: 97.0°

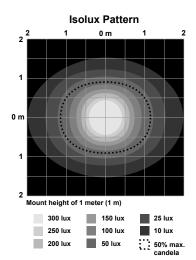
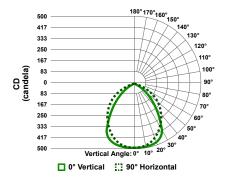


Figure 8. 570 mm Models with Eye Shields

Polar Candela Distribution



Illuminance at a Distance

	Center Beam (lux)	Beam Width (m)		
0.17 m ·	5533 lux	0.3 m 0.5 m		
•	3460 lux	0.6 m 1.0 m		
0.33 m	1815 lux	0.9 m 1.6 m		
0.50 m ·	1096 lux	1.2 m 2.1 m		
0.83 m	896 lux	1.4 m 2.6 m		
1.00 m	623 lux	1.7 m 3.1 m		
1.00 111		Vert. Horiz.		
	Vertical Spread: 81.4°			

▲ Horizontal Spread: 114.2°

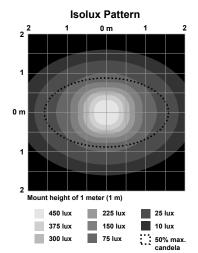
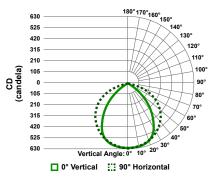


Figure 9. 850 mm Models with Eye Shields

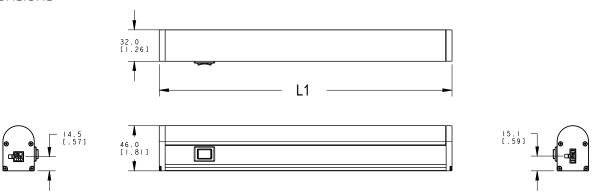
Polar Candela Distribution



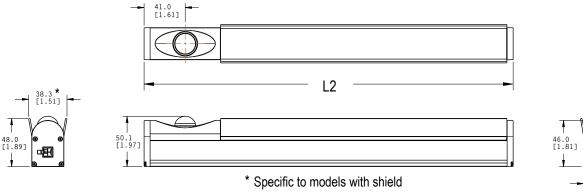
Illuminance at a Distance **Isolux Pattern Polar Candela Distribution** 0 m 5733 lux 0.3 m 0.6 m 0.17 m 3904 lux 0.6 m 1.3 m 0.33 m 410 2203 lux 0.9 m 1.9 m 273 0.50 m CD (candela) 1390 lux 1.2 m 2.6 m 137 0.67 m 1.5 m 3.2 m 1139 lux 0 m 806 lux 1.8 m 3.8 m 137 1.00 m 273 Vert. ▲ Vertical Spread: 83.8° ▲ Horizontal Spread: 124.8° 683 820 ■ 0° Vertical ## 90° Horizontal Mount height of 1 meter (1 m) 600 lux 500 lux 200 lux 25 lux 400 lux 100 lux 50% max. candela

Figure 10. 1130 mm Models with Eye Shields

Dimensions



Motion Detector and/or Eye Shield Models



Model	Models without Motion Detector	Models with Motion Detector and/or Eye Shield	
	L1	L2	
WLB32ZC285QM	298 mm (11.7 in)	368 mm (14.5 in)	
WLB32ZC570QM	580 mm (22.8 in)	650 mm (25.6 in)	
WLB32ZC850QM	862 mm (33.9 in)	932 mm (36.7 in)	
WLB32ZC1130QM	1144 mm (45.0 in)	1214 mm (47.8 in)	

Accessories

Wall Plug Cordsets					
Model	Plug Type	Countries	Wire Gauge	Length	Dimensions
LQMAC-306	Flying Leads				
LQMAC-306B	NEMA 5-15 grounded (IEC Type B)	United States, Canada, Japan, Puerto Rico, Taiwan			
LQMAC-306D	BS 546 (IEC Type D)	India	1.8 m (6 ft)		38
LQMAC-306EF	CEE 7/7 (IEC Type E or F)	Germany, France, South Korea, The Netherlands, Poland, Spain, Turkey		1.8 m (6 ft)	
LQMAC-306G	BS 1363 (IEC Type G)	United Kingdom, Ireland, Singapore, Vietnam		10	
LQMAC-306I	AS/NZS 3112 (IEC Type I)	China, Australia, New Zealand			18
LQMAC-306N	NBR 14136 (IEC Type N)	Brazil			
LQMAC-310B	NEMA 5-15 grounded (IEC Type B)	United States, Canada, Japan, Puerto Rico, Taiwan		3 m (10 ft)	

Continuous Run/Cascade Cordsets					
Model	Length	Style	Wire Gauge	Dimensions	
LQMAEC-3005SS	0.15 m (0.5 ft)			4	
LQMAEC-301SS	0.31 m (1 ft)	Male straight/Male straight	18 AWG	10 1 38	
LQMAEC-303SS	0.91 m (3 ft)				
LQMAEC-306SS	1.83 m (6 ft)				
LQMAEC-312SS	3.66 m (12 ft)				
LQMAEC-320SS	6.1 m (20 ft)				
LQMAEC-330SS	9.14 m (30 ft)			14	

Enclosure Accessories

LMBEDS Switch

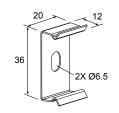
- Bracket with plunger switch to power lights when the enclosure is opened
- Refer to datasheet 160672 for more information



Mounting Brackets

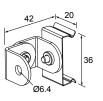
LMBWLB32

- Replaces the bracket that ships with the WLB32 light
- Stainless steel
- Includes 4 snap clips, 4 screws, and 2 insulator caps



LMBWLB32-180S

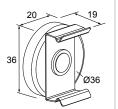
 Swivel bracket kit allows 180° of movement



Mounting Brackets

LMBWLB32MAG

 Magnetic mounting bracket for easy attachment to steel and iron surfaces



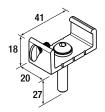
LMBWLB32U

- Die cast bracket for rugged applications
- Secured to light with included thumb screw
- Clearance hole for 6 mm (1/4 in) button head screw



LMBWLB32UT

- Die cast bracket for rugged applications
- Secured to light with included thumb screw
- Integral 1/4-20 stud for mounting



Banner Engineering Corp. Limited Warranty

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

Banner Engineering de Mèxico, S. de R.L. de C.V. David Alfaro Siqueiros 103 Piso 2 Valle oriente San Pedro Garza Garcia Nuevo Leòn, C. P. 66269 81 8363.2714

