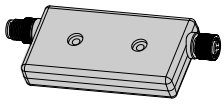
WLR95 In-Line Work Light Product Manual

Original Instructions
p/n: 233990 Rev. F
08-Jan-25

Contents

Chapter Contents

Chapter 1 Features



- Rugged waterproof and dustproof overmolded design meets IP65, IP67, and IP68
- Daisy-chain multiple lights with double-ended cables
- Compact space-saving design
- Designed for enclosure, conveyor, machine, or vision lighting

IMPORTANT: Read the following instructions before operating the light. Please download the complete WLR95 In-Line Work 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 WLR95 In-Line Work 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 WLR95 In-Line Work 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

Models	Color	Connection
WLR95WQ	Cool White (6500K)	Integral 4-pin M12 male/female quick-disconnect connector
WLR95BQ	Blue	
WLR95RQ	Red	
WLR95YQ	Yellow	
WLR95GQ	Green	
WLR95XWX	Cool White (6500K)	2 m (6.5 ft) unterminated 2-wire PVC-jacketed cable

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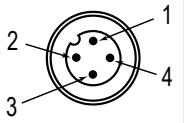
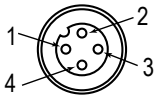
Chapter 2 Wiring

Quick-Disconnect Models

Male	Female	Pin	Wire Color	Description*
		1	Brown	12 V DC to 30 V DC
		2	White	Not used
		3	Blue	DC Common
		4	Black	Connect to 12 V DC to 30 V DC for 50% of maximum intensity. For 100% intensity, leave the black wire floating or connected to common.

*Continuity between male and female connection for all four wires.

Cabled Model

Wire Color	Description
Brown	12 V DC to 30 V DC
Blue	DC Common

NOTE: The cabled model cannot be cascaded and its intensity cannot be changed.

Chapter Contents

Chapter 3 Specifications

Supply Voltage

12 V DC to 30 V DC

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

See electrical characteristics on product label

Typical Current (A)			Maximum Current (A)
12 V DC	24 V DC	30 V DC	
0.485	0.23	0.185	0.5

Supply Protection Circuitry

Protected against reverse polarity and transient voltages

Connections

Integral 4-pin M12 male/female quick-disconnect connector, or 2 m (6.5 ft) unterminated 2-wire PVC-jacketed cable, depending on model

Construction

Connector: Nickel-plated brass

Housing: TPU clear

Removable cap covering female quick disconnect included

Vibration and Mechanical Shock

Meets IEC 60068-2-6 requirements (Vibration: 10 Hz to 55 Hz, 1.0 mm amplitude, 5 minutes sweep, 30 minutes dwell)

Meets IEC 60068-2-27 requirements (Shock: 15G 11 ms duration, half sine wave)

Impact: IK06

Light Characteristics

Color Temperature: 6500K ± 1000K

Lumens: 600

CRI: 80 minimum

Environmental Rating

IP65, IP67, IP68

UL Type 1

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	1.0	30	0.5

Operating Conditions

Temperature: –40 °C to +50 °C (–40 °F to +122 °F)

90% at +50 °C maximum relative humidity (non-condensing)

Storage Temperature: –40 °C to +70 °C (–40 °F to +158 °F)

Dimming

High/Low/Off models: 100/50/0% intensity, dependent on wiring

LED Lifetime

Lumen Maintenance - L_{70}

When operating within specifications, output will decrease less than 30% after 70,000 hours.

Mounting

Integral through holes for M4 (#8) screws

Multiple bracket options available

Application Note

Maximum continuous run or cascadable lights in a series: 8 units

Certifications

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

Turck Banner LTD Blenheim House
Blenheim Court
Wickford, Essex SS11 8YT
GREAT BRITAIN

FCC Part 15 Class B for Unintentional Radiators

(Part 15.105(b)) 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. 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 dealer or an experienced radio/TV technician for help.

(Part 15.21) Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

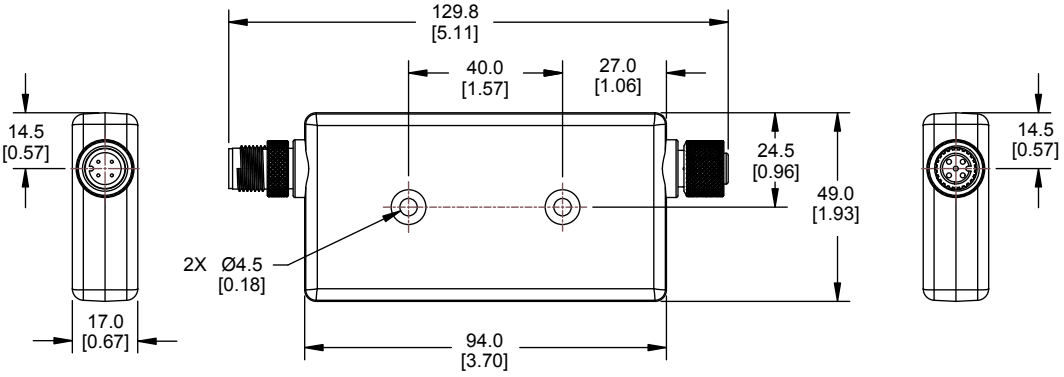
Industry Canada ICES-003(B)

This device complies with 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.

Cet appareil est conforme à la norme NMB-3(B). Le fonctionnement est soumis aux deux conditions suivantes : (1) ce dispositif ne peut pas occasionner d'interférences, et (2) il doit tolérer toute interférence, y compris celles susceptibles de provoquer un fonctionnement non souhaité du dispositif.

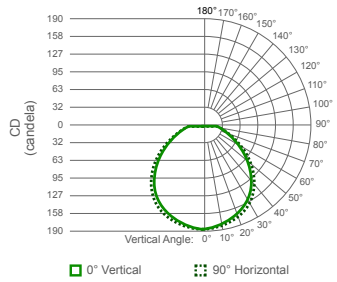
Dimensions

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

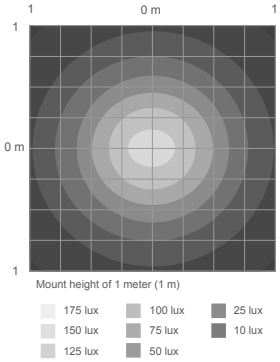


Photometric Data

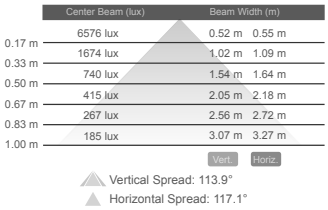
Polar Candela Distribution



Isolux Pattern



Illuminance at a Distance



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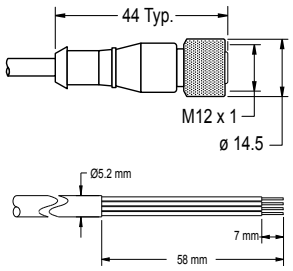
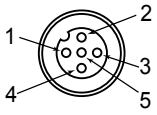
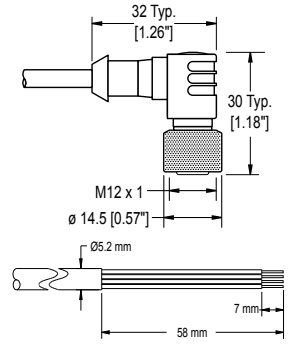
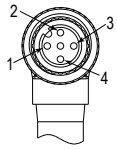
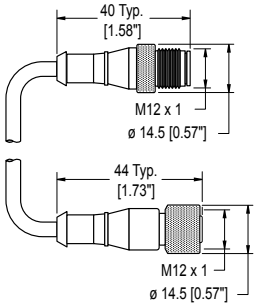
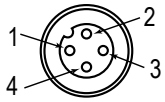
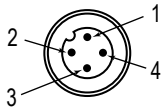
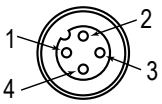
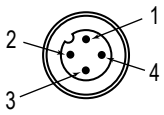
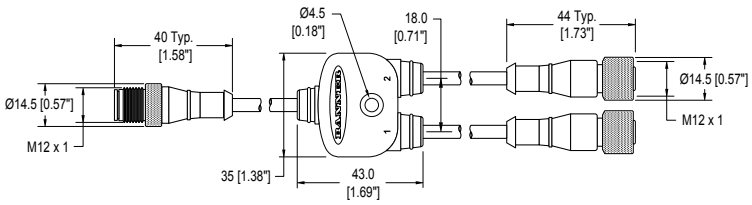
Chapter 4 Accessories

Cordsets

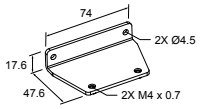
4-Pin Single-Ended M12 Female Cordsets					
Model	**Length**	**Style**	**Dimensions**	**Pinout (Female)**	
MQDC-406	2 m (6.56 ft)	Straight			1 = Brown 2 = White 3 = Blue 4 = Black 5 = Unused c UL us
MQDC-415	5 m (16.4 ft)				
MQDC-430	9 m (29.5 ft)				
MQDC-450	15 m (49.2 ft)				
MQDC-406RA	2 m (6.56 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)			

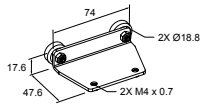
4-Pin Flat Junction M12 Female Branch to M12 MaleTrunk Splitter Cordsets			
Model	**Branches (Female)**	**Trunk (Male)**	**Pinout**
CSB-M1240M1240	No branch	No trunk	Female  Male  1 = Brown 2 = White 3 = Blue 4 = Black
CSB-M1240M1241	2 × 0.3 m (1 ft)	No trunk	
CSB-M1241M1241		0.31 m (1 ft)	
CSB-M1248M1241		2.44 m (8 ft)	
CSB-M12415M1241		4.57 m (15 ft)	
CSB-M12425M1241		7.60 m (25 ft)	
CSB-UNT425M1241		7.60 m (25 ft) Unterminated	
CSB-M1243M1243	2 × 1 m (3.28 ft)	1 m (3.28 ft)	
			

Brackets

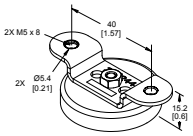
SMBR90RA
- Bracket for mounting R90
- R90 right-angle
- M4 × 0.7 mm
- Stainless steel



SMBR90RAMAG
- R90 right-angle magnetic mount
- M4 × 0.7 mm
- Stainless steel

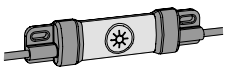


LMBR95MAG
- Magnetic mounting bracket kit for easy attachment to steel and iron surfaces

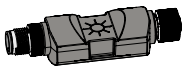


Switches

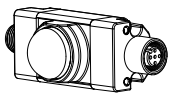
LC15T-127AL2RGQP
- In-line capacitive touch switch with M12 connectors
- On/Off control and illuminated indication
- Rated for up to 30 V DC and 4 A maximum output current
- Rugged and waterproof IP67 housing



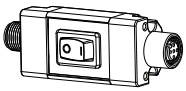
LC25T-AL2RGQ
- In-line capacitive touch switch with M12 connectors
- Used with 2-wire DC devices
- Rated for up to 30 V DC and 4 A maximum output current
- Low profile, rugged, water-resistant IP67 design



WLS28-2MQ
- 2-position in-line motion detector switch with M12 connectors
- Used with 2-wire DC LED lights
- Rated for up to 30 V DC and 4 A maximum output current
- IP50 housing



WLS28-2PBQ
- 3-position in-line switch with M12 connectors
- Used with 3-wire DC LED lights
- Rated for up to 30 V DC and 4 A maximum output current
- IP50 housing



Other Accessories

PSW-24-1
- 24 V DC, 1 A Class 2 UL Listed power supply
- 100 V AC to 240 V AC 50/60 Hz input
- 2 m (6.5 ft) PVC cable with M12 quick disconnect
- Includes Type A (US, Canada, Japan, Puerto Rico, Taiwan), Type C (Germany, France, South Korea, Netherlands, Poland, Spain, Turkey), Type G (United Kingdom, Ireland, Singapore, Vietnam), and Type I (China, Australia, New Zealand) AC detachable input plugs

ACC-CAP M12-10
- 10 Caps
- Seal and protect exposed, unterminated cascade quick-disconnect connectors

Chapter Contents

Chapter 5 Product Support and Maintenance

Repairs

Contact Banner Engineering for troubleshooting of this device. **Do not attempt any repairs to this Banner device; it contains no field-replaceable parts or components.** If the device, device part, or device component is determined to be defective by a Banner Applications Engineer, they will advise you of Banner's RMA (Return Merchandise Authorization) procedure.

> **IMPORTANT:** If instructed to return the device, pack it with care. Damage that occurs in return shipping is not covered by warranty.

Contact Us

Banner Engineering Corp. headquarters is located at: 9714 Tenth Avenue North | Plymouth, MN 55441, USA | Phone: + 1 888 373 6767

For worldwide locations and local representatives, visit www.bannerengineering.com.

Banner Engineering Corp Limited Warranty

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

Mexican Importer

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