



WLS28V Strip Light Product Manual

Original Instructions

p/n: 246866 Rev. A

03-Oct-25

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Chapter 1

Features



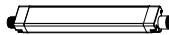
Banner's WLS28 Strip Lights have sturdy polycarbonate housings, shatterproof windows, and impressive environmental ratings, making them an ideal general-purpose LED light for machine, enclosure, or other industrial lighting applications.

- Low-profile, space-saving design
- Rugged, water-resistant IP65 and IP67 rating
- Available in four lengths from 285 mm to 1130 mm
- Includes diffuse window
- Daisy chain power to multiple lights
- Includes snap clips for easy installation and repositioning

Stand-Alone Light or End Light in a Cascade—QD



First or Middle of a Cascade—QD



WLS28 Strip Lights are available as either stand-alone models, or as cascade models that can be "daisy-chained" together for a continuous length of lighting, with a minimum of wiring.

Stand-alone models have a male quick-disconnect connector at one end for power connection, and no connections on the opposite end. A stand-alone model may be used as the last in the cascade series.

Cascade models have a male quick-disconnect connector at one end for power connection, and a female quick-disconnect connector on the opposite end for connection to other lights in the cascade. A double-ended accessory cordset must be used between each pair of lights in a cascade.

IMPORTANT: Read the following instructions before operating the light. Please download the complete WLS28 Strip 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 WLS28 Strip 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 WLS28 Strip 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

Model Key

Family	Cascadable	LED Color	Lighted Length (mm)	Window	Construction	Connector ⁽¹⁾
WLS28V	C	W	285	D	S	Q
	C = Cascadable X = Non-cascadable	W = Daylight white	285 570 850 1130	D = Diffused plastic	S = Sealed	Q = Integral 4-pin M12 male quick-disconnect connector

Model Names

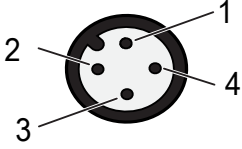
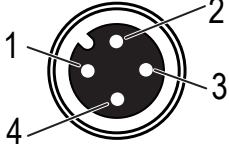
Stand-Alone	Cascade	Lighted Length
WLS28VXW285DSQ	WLS28VCW285DSQ	285 mm
WLS28VXW570DSQ	WLS28VCW570DSQ	570 mm
WLS28VXW850DSQ	WLS28VCW850DSQ	850 mm
WLS28VXW1130DSQ	WLS28VCW1130DSQ	1130 mm

⁽¹⁾ Models with a quick-disconnect connector require a mating cordset.

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Chapter 2

Wiring

Male	Female	Pin	Wire Color	Connection
		1	Brown	24 V DC
		2	White	Not used
		3	Blue	DC common
		4	Black	Not used

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Chapter 3 Specifications

Supply Voltage and Current

24 V DC (-10%/+20%)

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

See the electrical characteristics on the product label.

Supply Protection Circuitry

Protected against reverse polarity and transient voltages

Light Characteristics

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

Lumen output: 725 (± 5%) per foot, typical at 25 °C (77 °F)

Luminous efficacy: 110 lumens/Watt typical at 24 V DC at 25 °C (77 °F)

CRI: 80, minimum

LED Lifetime

Lumen Maintenance = L₇₀

When operating within specifications, output will decrease less than 30% after 100,000 hours.

Construction

White polycarbonate housing and diffuse window co-extrusion; black polycarbonate end caps

Mounting

Included LMBWLS28VSP bracket kit contains 3 stainless steel snap brackets

Connections

Integral 4-pin M12 male quick-disconnect connector (4-pin connecting cordset required)

Environmental Rating

IP65, IP67

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)

Operating Temperature

-20 °C to +50 °C (-4 °F to +122 °F)

Storage Temperature

-40 °C to +70 °C (-40 °F to +158 °F)

Certifications



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



Application Note

When connecting cascable lights in series, it is important not to exceed maximum current limitations:

Maximum length of light at 24 V DC: 3.05 m (10 ft)

NOTE: Do not spray cable with high-pressure sprayer, or cable damage will result.

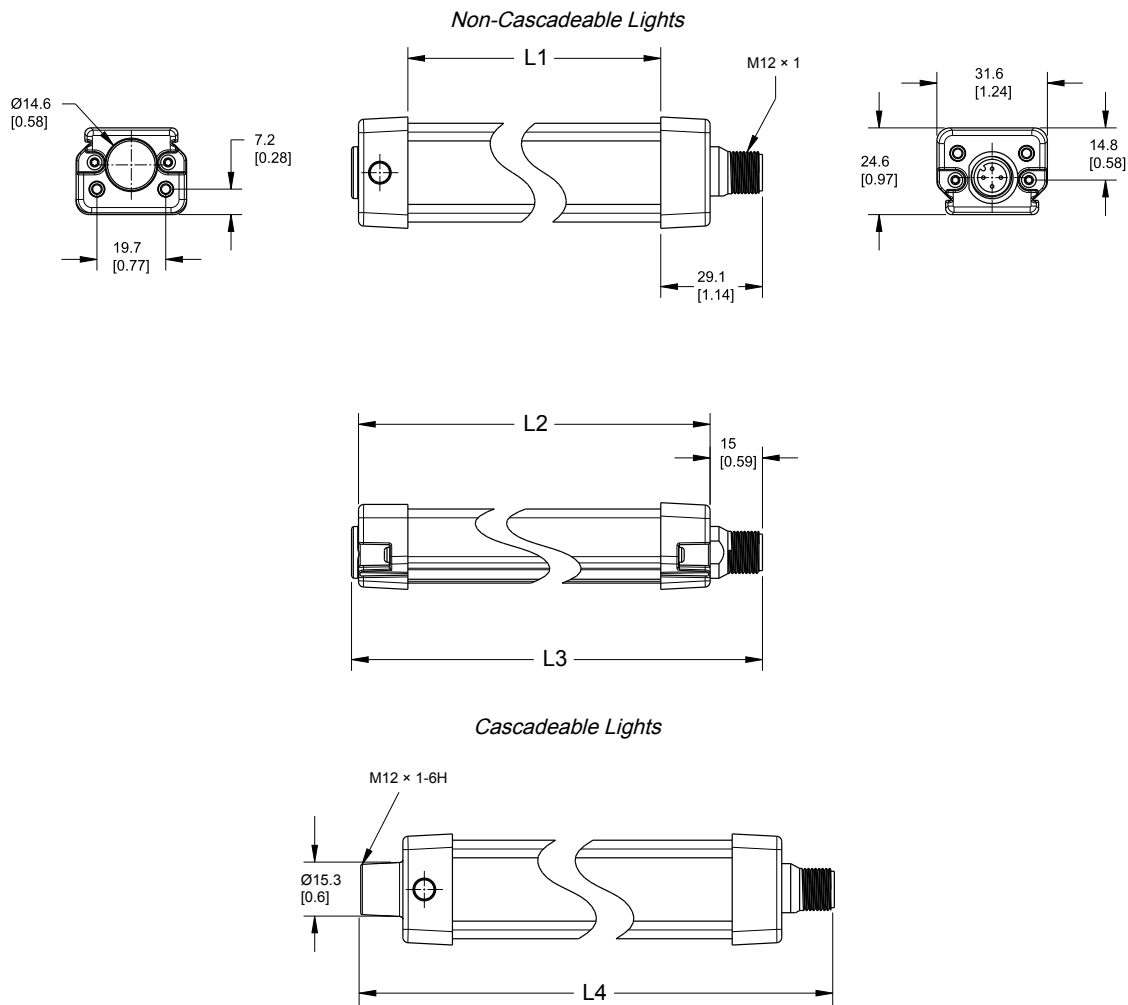
Typical Current

Light Length	Typical Current at 24 V DC ⁽²⁾	Max. Current	Lumens (Typical at 25 °C)
285 mm	0.3 A	0.4 A	725
570 mm	0.6 A	0.8 A	1450
850 mm	0.9 A	1.2 A	2175
1130 mm	1.2 A	1.6 A	2900

⁽²⁾ Values shown at 25 °C - current and lumen values decrease 0.4% per 1 °C from ambient. For example, a 1130 mm unit will have a maximum current of 1.600 A at -40 °C and 1.134 A at +50 °C.

Dimensions

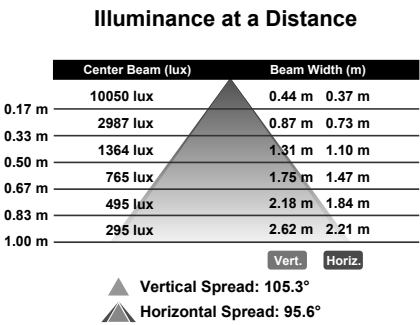
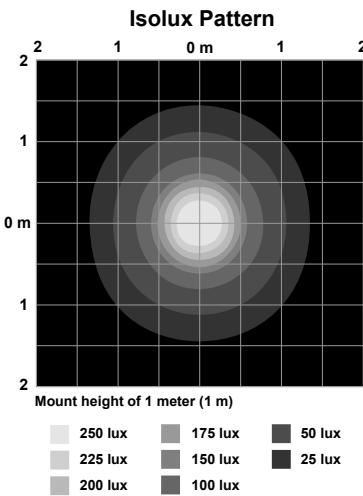
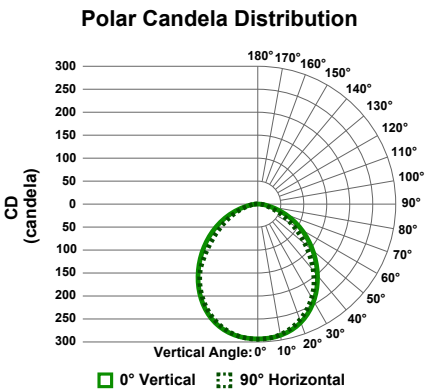
All measurements are listed in millimeters [inches], unless noted otherwise. The measurements provided are subject to change.



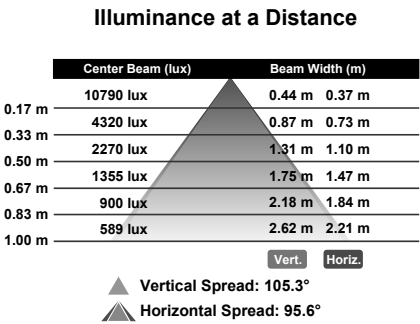
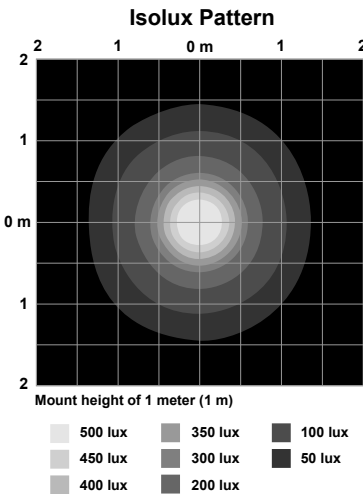
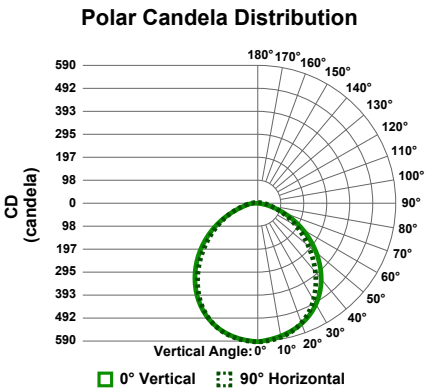
Models	L1	L2	L3 (non-cascadeable lights only)	L4 (cascadeable lights only)
WLS28V..285..Q	283.2 mm (11.15 in)	311.4 mm (12.26 in)	328.4 mm (12.93 in)	338.4 mm (13.32 in)
WLS28V..570..Q	565.2 mm (22.25 in)	593.4 mm (23.36 in)	610.4 mm (24.03 in)	620.4 mm (24.42 in)
WLS28V..850..Q	847.2 mm (33.35 in)	875 mm (34.46 in)	892.4 mm (35.13 in)	902.4 mm (35.53 in)
WLS28V..1130..Q	1129.2 mm (44.46 in)	1157.4 mm (45.57 in)	1174.4 mm (46.24 in)	1184.4 mm (46.43 in)

Light Characteristics

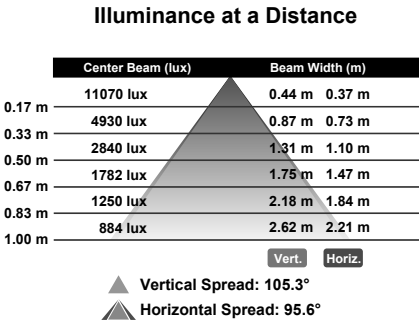
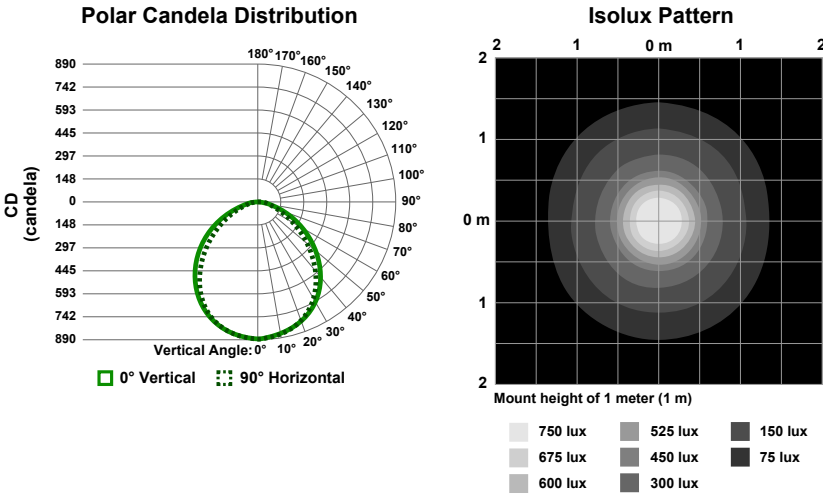
285 mm Models



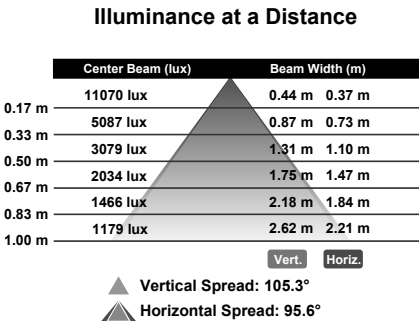
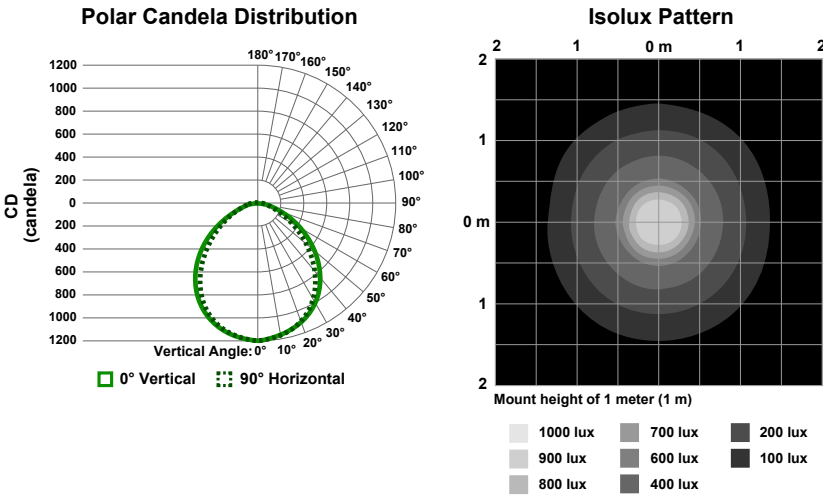
570 mm Models



850 mm Models



1130 mm Models



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Chapter 4

Accessories

Cordsets

Use single-ended cordsets between the power source and the quick-disconnect connector of a stand-alone light or the first light in a cascade.

4-pin Single-Ended M12 Female Cordsets				
Model	Length	Dimensions (mm)	Pinout (Female)	
BC-M12F4-22-1	1 m (3.28 ft)			1 = Brown 2 = White 3 = Blue 4 = Black 5 = Unused
BC-M12F4-22-2	2 m (6.56 ft)			
BC-M12F4-22-5	5 m (16.4 ft)			
BC-M12F4-22-8	8 m (26.25 ft)			
BC-M12F4-22-10	10 m (30.81 ft)			
BC-M12F4-22-15	15 m (49.2 ft)			
BC-M12F4-22-20	20 m (65.61 ft)			
BC-M12F4-22-25	25 m (82.02 ft)			
BC-M12F4-22-30	30 m (98.42 ft)			

4-pin Single-Ended M12 Female Right-Angle Cordsets				
Model	Length	Dimensions (mm)	Pinout (Female)	
BC-M12F4A-22-1	1 m (3.28 ft)			1 = Brown 2 = White 3 = Blue 4 = Black 5 = Unused
BC-M12F4A-22-2	2 m (6.56 ft)			
BC-M12F4A-22-5	5 m (16.4 ft)			
BC-M12F4A-22-8	8 m (26.25 ft)			
BC-M12F4A-22-10	10 m (30.81 ft)			
BC-M12F4A-22-15	15 m (49.2 ft)			

Use double-ended cordsets between lights in a cascade.

4-pin A-Code Double-Ended M12 Female to M12 Male Cordsets				
Model	Length	Dimensions (mm)	Pinouts	
BC-M12F4-M12M4-22-1	1 m (3.28 ft)		Female Male 1 = Brown 2 = White 3 = Blue 4 = Black	
BC-M12F4-M12M4-22-2	2 m (6.56 ft)			
BC-M12F4-M12M4-22-3	3 m (9.84 ft)			
BC-M12F4-M12M4-22-4	4 m (13.12 ft)			
BC-M12F4-M12M4-22-5	5 m (16.4 ft)			
BC-M12F4-M12M4-22-10	10 m (30.81 ft)			
BC-M12F4-M12M4-22-15	15 m (49.2 ft)			

4-Pin Flat Junction M12 Female Branch to M12 Male Trunk 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

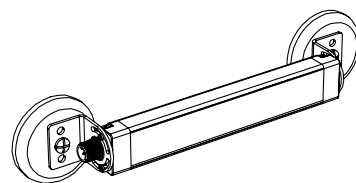
SMBWLS28RA - Replacement end bracket kit 1.8 mm (14 gage) cold rolled steel with zinc plate, clear chromate finish - Kit contains two end brackets and four screws	
LMBWLS28VSP - Stainless steel snap bracket kit - Includes three brackets	

SMBWLSMAG

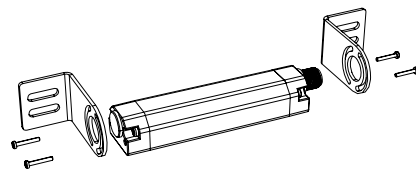
- Magnetic mounting bracket for easy attachment to steel surfaces

SMBWLSMAGR

- Protective cover also available to prevent scratches to painted surfaces

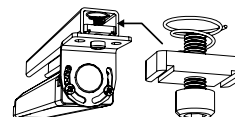
**SMBWLS28SM**

- End bracket kit
- Cold Rolled Steel with a clear zinc finish
- Allows the light or switch to be mounted at a right angle to the mounting surface
- Kit contains two end brackets and four screws

**SMH1316**

This kit allows the light or switch to be mounted to a 13/16-inch Unistrut channel. Light is shown. The kit includes:

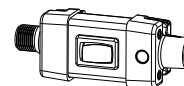
- #10-32 spring nuts (qty 2)
- #10-32 socket head cap screws (qty 2)
- #10 lock washers (qty 2)



Switch

WLS28VPBQ

- Two-position in-line switch with M12 connectors
- Used with 2-wire DC LED lights
- Rated for 12 V DC to 30 V DC, 4 A or 100 VA max. (whichever is less)
- IP50 housing



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Chapter 5 Product Support and Maintenance

Clean with Mild Detergent and Warm Water

Wipe down the device with a soft cloth dampened with a mild detergent and warm water solution. Do not use any other chemicals for cleaning.

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

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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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