

WLS27 LED Strip Light



Datasheet

Banner's WLS27 LED Strip Lights have sturdy aluminum housings, encased in shatterproof, UV-stabilized, polycarbonate shells, making them ideal for harsh indoor and outdoor applications.

- Low-profile, space-saving design
- Rugged, water-resistant IP69K option
- Available in eight lengths from 145 to 1130 mm
- Daisy chain power to multiple lights
- Optional snap clips for easy installation and repositioning
- Capability to dim lights using the wiring pinout (Hi/Lo/Off)
- Automatic temperature protection built into the unit. Above 50 °C, the light dims to manage heat and protect product lifetime



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

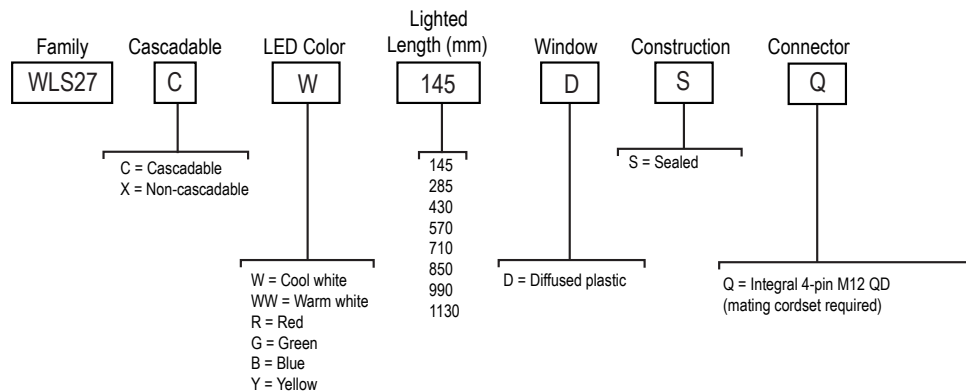


First or Middle of a Cascade—QD

These Work Light Strips 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 (QD) at one end for power connection and no connections at opposite end. A stand-alone model may be used as the last in the cascade series.

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



Models		Lighted Length	Power Connector
Stand-Alone	Cascade		
WLS27XW145DQ	WLS27CW145DQ	145 mm	Integral 4-pin threaded M12/Euro-style male quick disconnect
WLS27XW285DQ	WLS27CW285DQ	285 mm	
WLS27XW430DQ	WLS27CW430DQ	430 mm	
WLS27XW570DQ	WLS27CW570DQ	570 mm	
WLS27XW710DQ	WLS27CW710DQ	710 mm	
WLS27XW850DQ	WLS27CW850DQ	850 mm	
WLS27XW990DQ	WLS27CW990DQ	990 mm	
WLS27XW1130DQ	WLS27CW1130DQ	1130 mm	



Specifications

Supply Voltage

12 to 30 V dc

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

Light Length	Typical Current			Max. Current A	Lumens (Typical at 25 °C)					
	12 V dc	24 V dc	30 V dc		Cool White	Warm White	Green	Red	Yellow	Blue
145 mm	0.33 A	0.15 A	0.12 A	0.4	325	325	180	55	50	40
285 mm	0.66 A	0.30 A	0.24 A	0.8	650	650	360	110	100	80
430 mm	1.01 A	0.46 A	0.36 A	1.2	975	975	540	165	150	120
570 mm	1.36 A	0.61 A	0.48 A	1.6	1300	1300	720	220	200	160
710 mm	1.75 A	0.77 A	0.60 A	2.0	1625	1625	900	275	250	200
850 mm	2.13 A	0.92 A	0.73 A	2.4	1950	1950	1080	330	300	240
990 mm	2.59 A	1.08 A	0.85 A	2.8	2275	2275	1260	385	350	280
1130 mm	3.04 A	1.24 A	0.97 A	3.2	2600	2600	1440	440	400	320

Supply Protection Circuitry

Protected against reverse polarity and transient voltages

Light Characteristics

Cool white

Color Temperature (CCT): 6000–7100K

Lumen output: 650 (± 5%) per foot, typical at 25 °C (77 °F)

Luminous efficacy: 90 lumens/Watt typical at 24 V dc at 25 °C (77 °F)

CRI: 85, typical

Warm white: 2850–3250K

Green: 525 nm

Red: 618 nm

Yellow: 590 nm

Blue: 460 nm

Application Note

When connecting cascable lights in series at 100% intensity, it is important not to exceed maximum current limitations:

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)

At 50% intensity, double the lengths.

Certifications



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

LED Lifetime

Lumen Maintenance - L₇₀

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

Construction

Clear anodized aluminum housing; polycarbonate outer housing

Mounting

Bracket LMBWLS27EC included (2 for lights up to 570 mm or 3 for lights 710 mm and longer)

Connections

Integral 4-pin M12 quick disconnect fitting (4-pin connecting cordset required for QD models)

Environmental Rating

Rated IEC IP66, IP67, and IP69K, per DIN 40050

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)

Storage Temperature

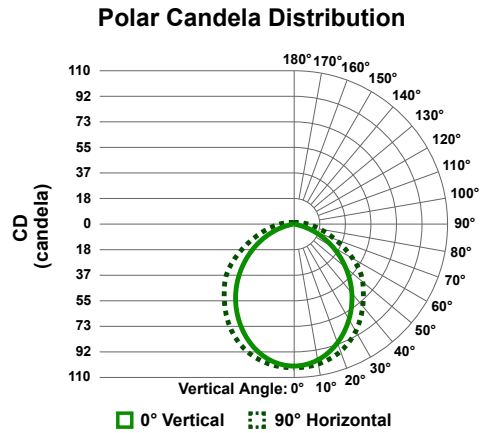
–40 °C to +70 °C (–40 °F to +158 °F)

Vibration and Mechanical Shock

Vibration 10-55 Hz 1.0 mm p-p amplitude per IEC 60068-2-6

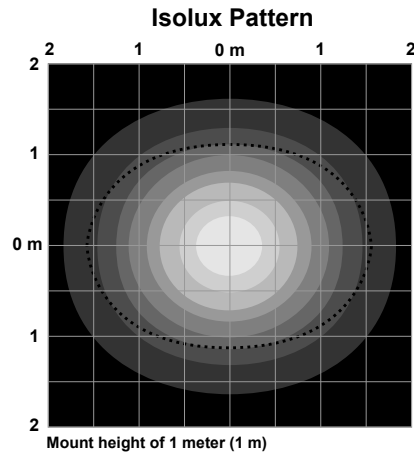
Shock 15G 11 ms duration, half sine wave per IEC 60068-2-27

145 mm Models

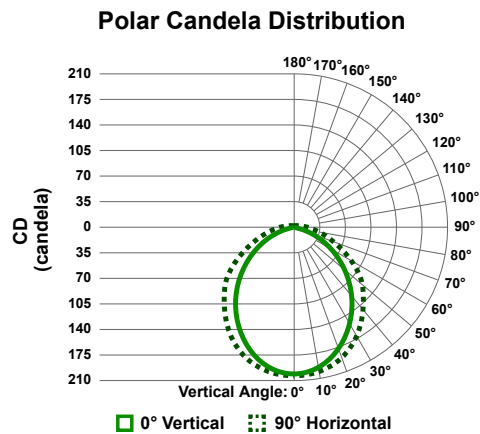
**Illuminance at a Distance**

	Center Beam (lux)	Beam Width (m)	
	476 lux	1.1 m	1.6 m
0.5 m	99 lux	2.2 m	3.1 m
1.0 m	46 lux	3.3 m	4.7 m
1.5 m	26 lux	4.4 m	6.3 m
2.0 m	16 lux	5.5 m	7.8 m
2.5 m	11 lux	6.6 m	9.4 m
3.0 m			

Vertical Spread: 95.1°
Horizontal Spread: 115.0°

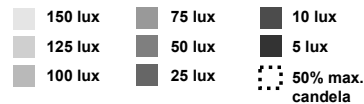
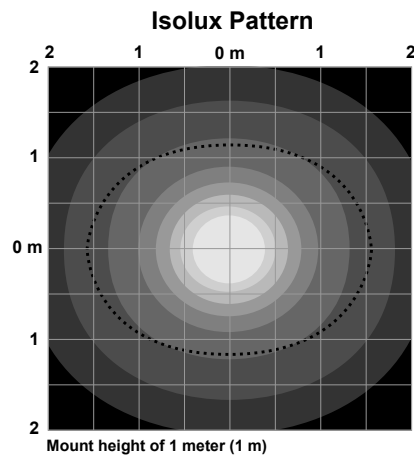


285 mm Models

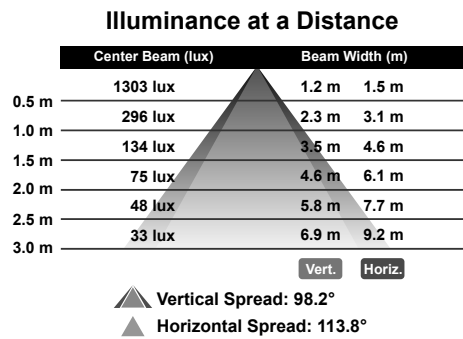
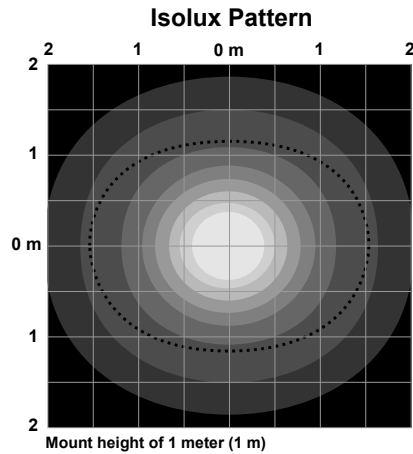
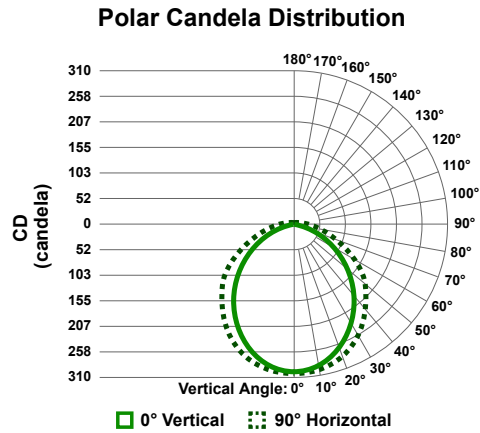
**Illuminance at a Distance**

	Center Beam (lux)	Beam Width (m)	
	961 lux	1.1 m	1.6 m
0.5 m	204 lux	2.3 m	3.1 m
1.0 m	90 lux	3.4 m	4.7 m
1.5 m	51 lux	4.6 m	6.3 m
2.0 m	32 lux	5.7 m	7.8 m
2.5 m	23 lux	6.9 m	9.4 m
3.0 m			

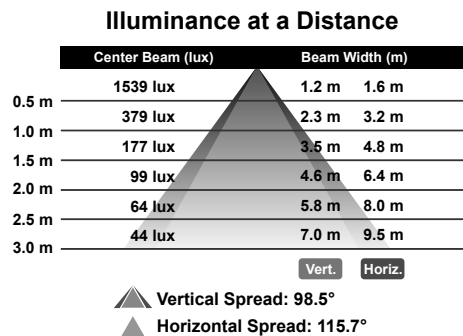
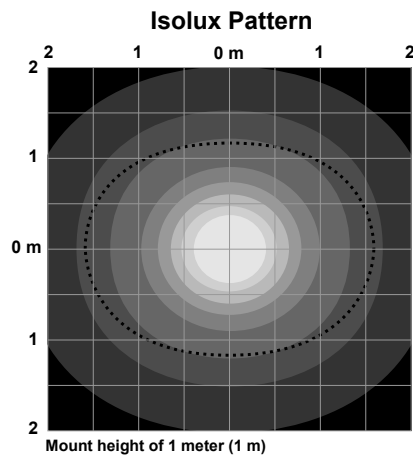
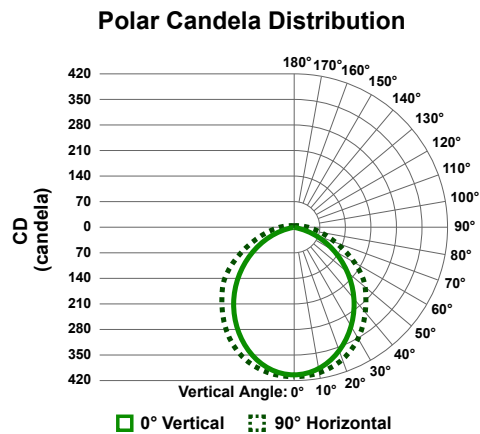
Vertical Spread: 97.8°
Horizontal Spread: 115.0°



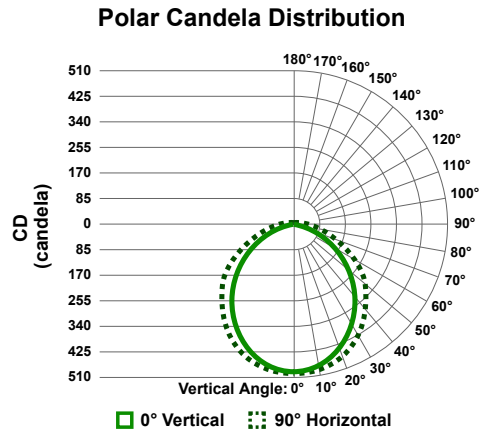
430 mm Models



570 mm Models

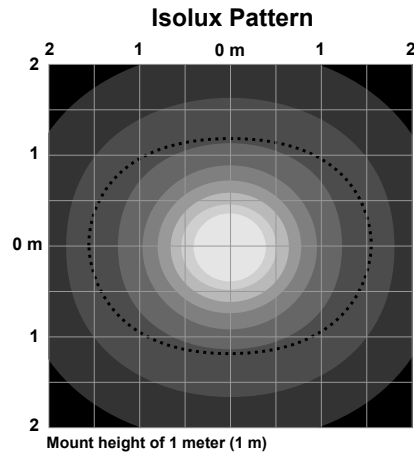


710 mm Models

**Illuminance at a Distance**

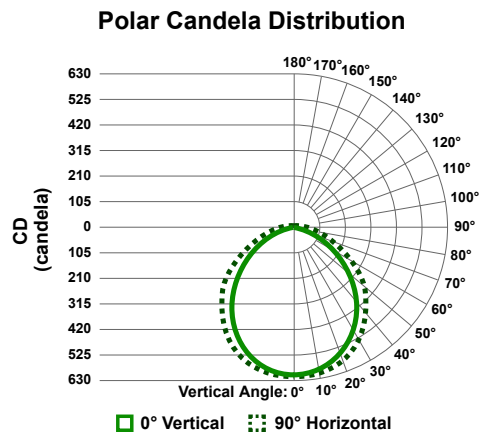
	Center Beam (lux)	Beam Width (m)	
	1778 lux	1.2 m	1.6 m
0.5 m	469 lux	2.3 m	3.1 m
1.0 m	221 lux	3.5 m	4.7 m
1.5 m	124 lux	4.7 m	6.2 m
2.0 m	80 lux	5.9 m	7.8 m
2.5 m	55 lux	7.0 m	9.3 m
3.0 m			

Vertical Spread: 99.1°
Horizontal Spread: 114.5°



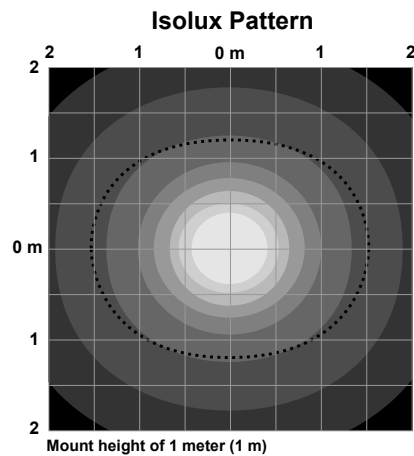
375 lux 190 lux 25 lux
310 lux 130 lux 10 lux
250 lux 75 lux 50% max. candela

850 mm Models

**Illuminance at a Distance**

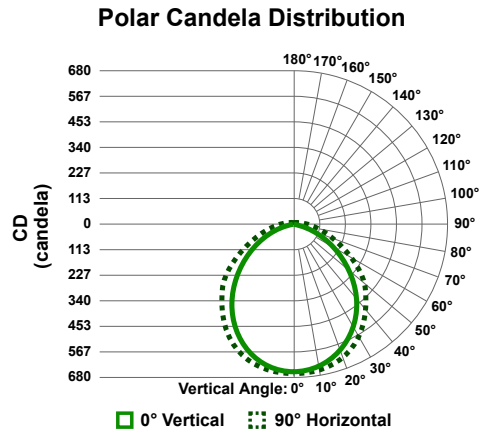
	Center Beam (lux)	Beam Width (m)	
	1925 lux	1.2 m	1.5 m
0.5 m	548 lux	2.4 m	3.1 m
1.0 m	279 lux	3.6 m	4.6 m
1.5 m	157 lux	4.8 m	6.1 m
2.0 m	100 lux	6.0 m	7.7 m
2.5 m	70 lux	7.2 m	9.2 m
3.0 m			

Vertical Spread: 100.2°
Horizontal Spread: 113.7°



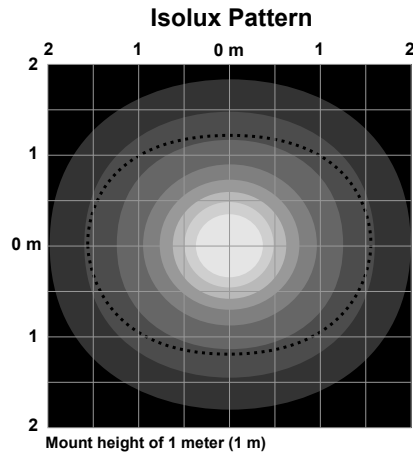
450 lux 225 lux 25 lux
375 lux 150 lux 10 lux
300 lux 75 lux 50% max. candela

990 mm Models

**Illuminance at a Distance**

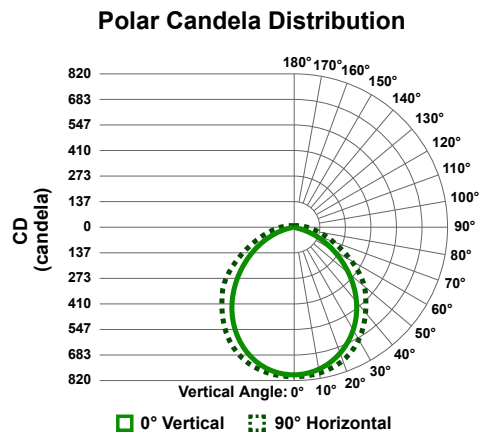
	Center Beam (lux)	Beam Width (m)	
	2071 lux	1.2 m	1.6 m
0.5 m	621 lux	2.4 m	3.1 m
1.0 m	301 lux	3.6 m	4.7 m
1.5 m	169 lux	4.8 m	6.3 m
2.0 m	108 lux	5.9 m	7.8 m
2.5 m	75 lux	7.1 m	9.4 m
3.0 m			

Vertical Spread: 99.8°
Horizontal Spread: 115.0°



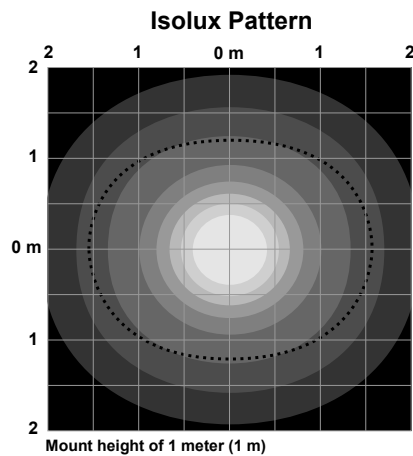
525 lux 265 lux 50 lux
435 lux 180 lux 25 lux
350 lux 100 lux 50% max. candela

1130 mm Models

**Illuminance at a Distance**

	Center Beam (lux)	Beam Width (m)	
	2239 lux	1.2 m	1.6 m
0.5 m	707 lux	2.4 m	3.1 m
1.0 m	364 lux	3.6 m	4.7 m
1.5 m	205 lux	4.8 m	6.2 m
2.0 m	131 lux	6.0 m	7.8 m
2.5 m	91 lux	7.2 m	9.3 m
3.0 m			

Vertical Spread: 100.6°
Horizontal Spread: 114.6°



600 lux 300 lux 50 lux
500 lux 200 lux 25 lux
400 lux 100 lux 50% max. candela

Dimensions

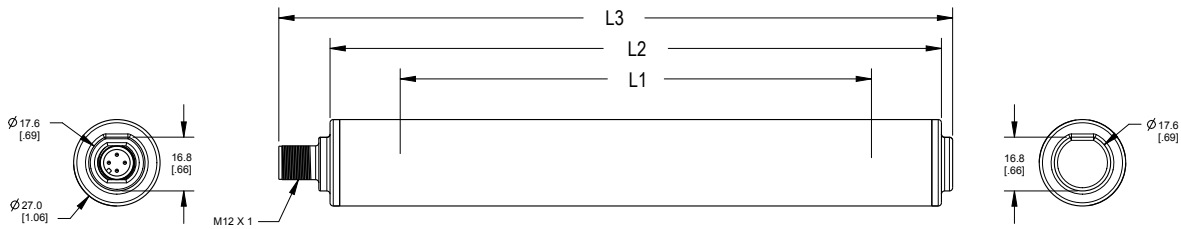


Figure 1. Quick Disconnect Models

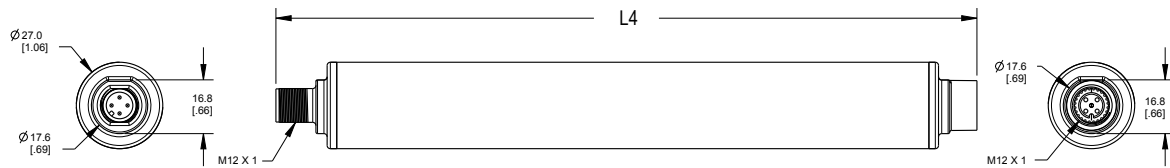


Figure 2. Cascade Models

Models	L1	L2	L3	L4
WLS27..145..	145 mm (5.7 in)	189 mm (7.4 in)	208.5 mm (8.2 in)	217 mm (8.5 in)
WLS27..285..	286 mm (11.3 in)	330 mm (13 in)	349.5 mm (13.8 in)	358 mm (14.1 in)
WLS27..430..	427 mm (16.8 in)	471 mm (18.5 in)	490.5 mm (19.3 in)	499 mm (19.6 in)
WLS27..570..	569 mm (22.4 in)	612 mm (24.1 in)	631.5 mm (24.9 in)	640 mm (25.2 in)
WLS27..710..	708 mm (27.9 in)	752 mm (29.6 in)	771.5 mm (30.4 in)	780 mm (30.7 in)
WLS27..850..	849 mm (33.4 in)	893 mm (35.2 in)	912.5 mm (35.9 in)	921 mm (36.2 in)
WLS27..990..	991 mm (39 in)	1035 mm (40.8 in)	1054.5 mm (41.5 in)	1063 mm (41.8 in)
WLS27..1130..	1120 mm (44.1 in)	1164 mm (45.8 in)	1183.5 mm (46.4 in)	1192 mm (46.9 in)

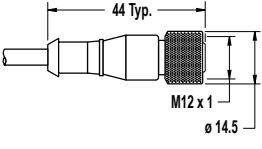
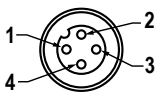
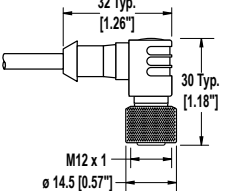
Wiring Diagram

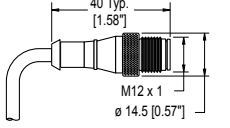
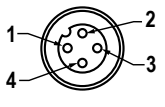
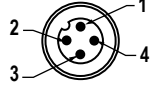
4-pin M12 /Euro-style male QD	Pin	Wire Color	Connection
	1	brown	12 to 30 V dc
	3	blue	dc common
	4	black	Connect to 12 to 30 V dc for 50% maximum intensity; for maximum intensity, leave the black wire floating or connected to common
	2	white	Not used

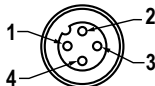
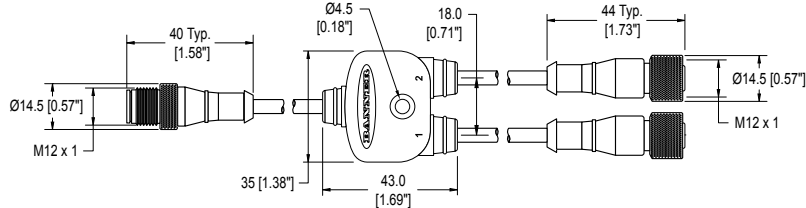
Accessories

Cordsets

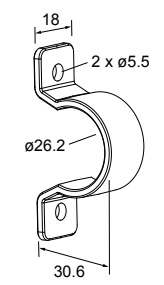
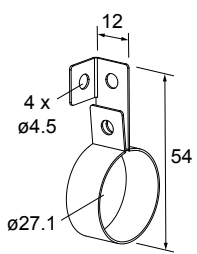
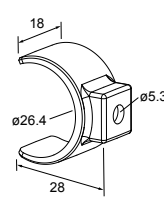
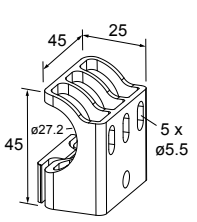
Use single-ended cordsets between the power source and the QD connection of a stand-alone light or the first light in a cascade. Use double-ended cordsets between lights in a cascade.

4-Pin Threaded M12/Euro-Style Cordsets				
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)			
MQDC-406RA	1.83 m (6 ft)	Right-Angle		1 = Brown 2 = White 3 = Blue 4 = Black
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		Female
MQDEC-403SS	0.91 m (3 ft)			
MQDEC-406SS	1.83 m (6 ft)			Male
MQDEC-412SS	3.66 m (12 ft)			
MQDEC-420SS	6.10 m (20 ft)			1 = Brown 2 = White 3 = Blue 4 = Black
MQDEC-430SS	9.14 m (30 ft)			
MQDEC-450SS	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	Female  Male  1 = Brown 2 = White 3 = Blue 4 = Black
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) Underterminated	
			

Brackets

LMBWLS27EC • Clear polycarbonate • Clearance for M5 or #10 hardware		LMBWLS27H • Stainless steel mounting brackets • M4 stainless steel hardware included	
LMBWLS27SP • Clear polycarbonate • Clearance for M5 or #10 hardware • Snap bracket for light duty applications		LMBWLS27U • Clear polycarbonate • Clearance for M5 or #10 hardware • Clamps securely around the light body	

Banner Engineering Corp. Limited Warranty

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