

WLS27 Dual Color LED Strip Light



Instruction Manual

Banner's WLS27 LED Strip Light has a sturdy aluminum housing and is encased in a shatterproof, UV-stabilized, copolyester shell, making it ideal for harsh indoor and outdoor applications. Having two colors in one device make these ideal for mobile vehicle, machine status, and vision lighting applications.

- Rugged, water-resistant IP69K per DIN 40050-9 rating
- Available in eight lengths from 145 mm to 1130 mm
- Daisy chain power to multiple lights
- Automatic temperature protection built into the unit. Above 50 °C, the light dims to manage heat and protect product lifetime.

Figure 1. Stand-Alone Light or End Light in a Cascade



Figure 2. First or Middle of a Cascade



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 at one end of 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 at one end of 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.



Important: Read the following instructions before operating the light. Please download the complete WLS27 Dual Color LED 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.

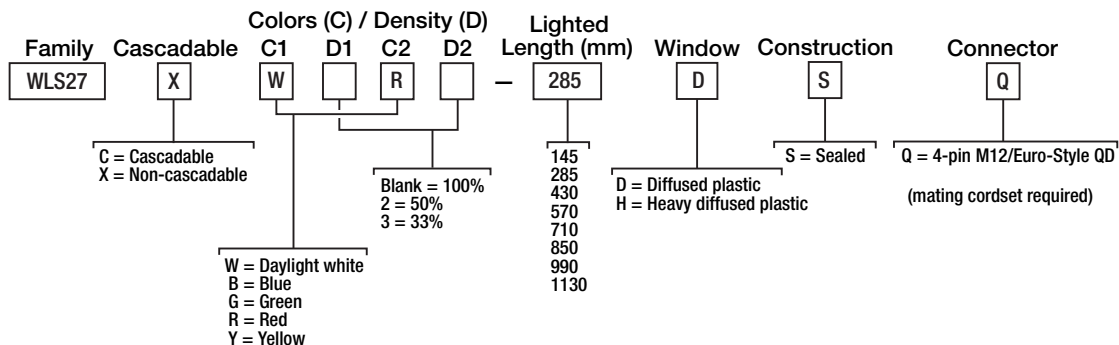


Important: Lea el siguiente instructivo antes de operar el luminario. Por favor descargue desde www.bannerengineering.com toda la documentación técnica de los WLS27 Dual Color LED Strip Light, disponibles en múltiples idiomas, para detalles del uso adecuado, aplicaciones, advertencias, y las instrucciones de instalación de estos dispositivos.



Important: Lisez les instructions suivantes avant d'utiliser le luminaire. Veuillez télécharger la documentation technique complète des WLS27 Dual Color LED 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



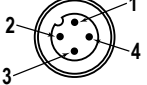
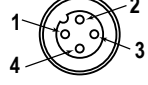
Density (D) is defined by the quantity of LEDs populated on the circuit. For example, at 100% density, there are 18 LEDs per 285 mm, and at 50% density, there are 9 LEDs per 285 mm. The lumen output decreases proportionally with density.

Sample Model	Description
WLS27XWR-285DSQ	Non Cascade, White (100% Density), Red (100% Density), 285 mm, 4-pin M12/Euro-style quick disconnect connector
WLS27CWR-850DSQ	Cascadable, White (100% Density), Red (100% Density), 850 mm, 4-pin M12/Euro-style quick disconnect connector



Sample Model	Description
WLS27XWR2-285DSQ	Non-Cascade, White (100% Density), Red (50% Density), 285 mm, 4-pin M12/Euro-style quick disconnect connector

Wiring Diagrams

Male	Female	Pin	Wire Color	Connection
		1	brown	Color 1: 12 to 30 V DC
		3	blue	DC common
		4	black	Color 2: 12 to 30 V DC (color 2 overrides color 1)
		2	white	Not used

Specifications

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)

Environmental Rating

Rated IP66, IP67, and IP69K per DIN 40050-9



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

Application Notes

When connecting cascable lights in series 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)

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

Light Length (mm)	Typical Current (A)			Max. Current
	12 V DC	24 V DC	30 V DC	A
145	0.33	0.15	0.12	0.4
285	0.66	0.30	0.24	0.8
430	1.01	0.46	0.36	1.2
570	1.36	0.61	0.48	1.6
710	1.75	0.77	0.60	2.0
850	2.13	0.92	0.73	2.4
990	2.59	1.08	0.85	2.8
1130	3.04	1.24	0.97	3.2

Light Characteristics - Daylight White

Color Temperature (CCT): 4700–5300K
 Lumen output: 475 (± 5%) per 285 mm, typical at 25 °C (77 °F)
 CRI: 83, typical

Light Characteristics - Other Colors

Color	Typical Wavelength or Color Temperature	Typical Intensity (per 285 mm)
Red	625 nm	200
Yellow	590 nm	150
Green	525 nm	300
Blue	470 nm	110

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

Dimensions

Figure 3. Quick Disconnect Models

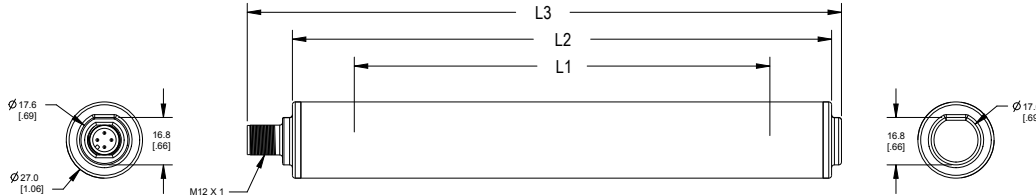
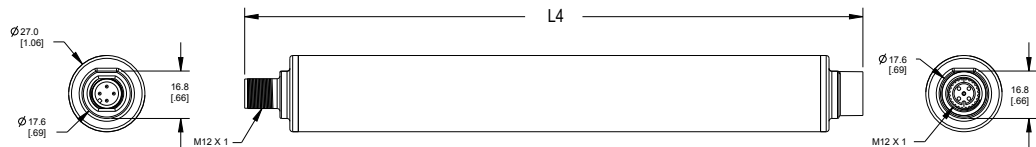


Figure 4. Cascade Models

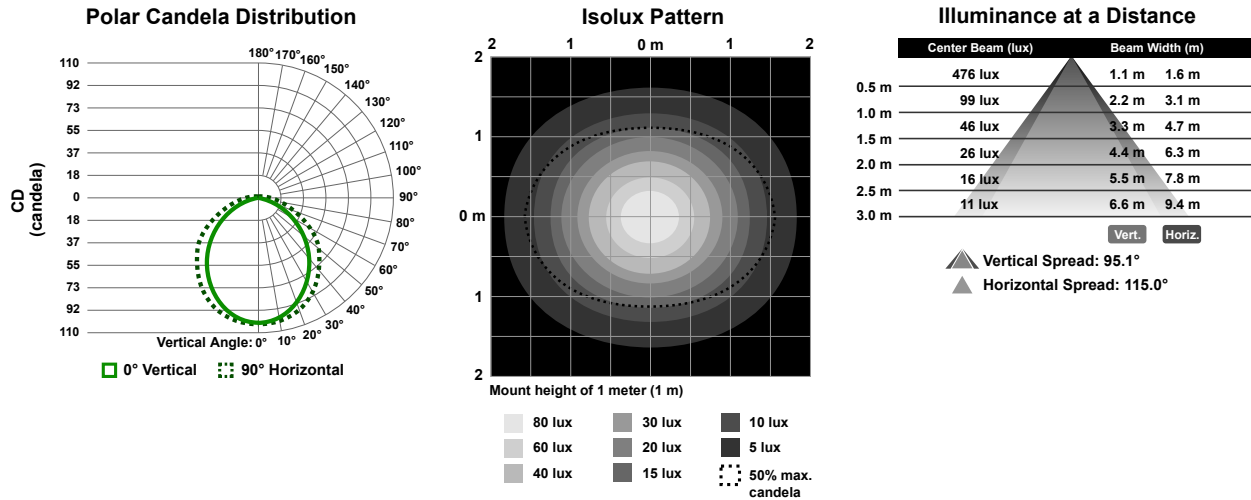


Models	L1	L2	L3	L4
WLS27..145..	145 mm (5.7 in)	191 mm (7.5 in)	210.5 mm (8.3 in)	219 mm (8.6 in)
WLS27..285..	286 mm (11.3 in)	332 mm (13.1 in)	351.5 mm (13.8 in)	360 mm (14.2 in)
WLS27..430..	427 mm (16.8 in)	473 mm (18.6 in)	492.5 mm (19.4 in)	501 mm (19.7 in)
WLS27..570..	568 mm (22.4 in)	614 mm (24.2 in)	633.5 mm (24.9 in)	642 mm (25.3 in)
WLS27..710..	709 mm (27.9 in)	755 mm (29.7 in)	774.5 mm (30.5 in)	783 mm (30.8 in)
WLS27..850..	850 mm (33.5 in)	896 mm (35.3 in)	915.5 mm (36 in)	924 mm (36.4 in)
WLS27..990..	991 mm (39 in)	1037 mm (40.8 in)	1056.5 mm (41.6 in)	1065 mm (41.9 in)
WLS27..1130..	1132 mm (44.6 in)	1178 mm (46.4 in)	1197.5 mm (47.1 in)	1206 mm (47.5 in)

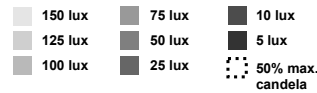
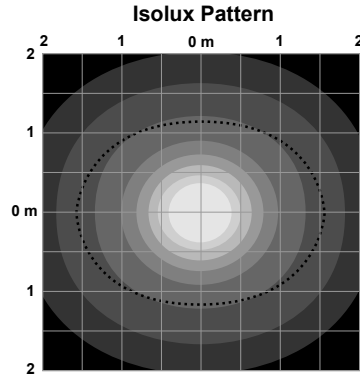
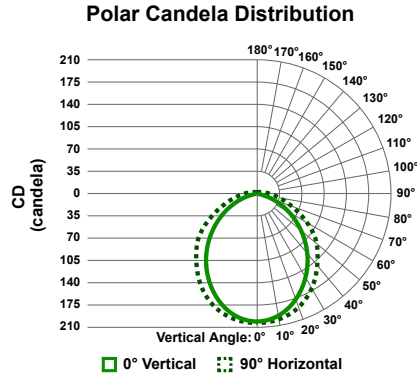
Performance

For models with heavy diffused housing, multiply lumen values by 0.8.

145 mm Models



285 mm Models

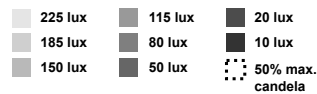
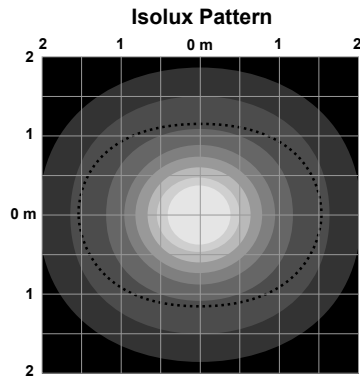
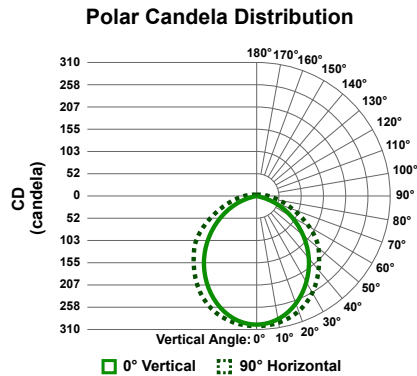


Illuminance at a Distance

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

▲ Vertical Spread: 97.8°
 ▲ Horizontal Spread: 115.0°

430 mm Models

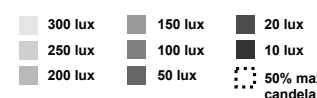
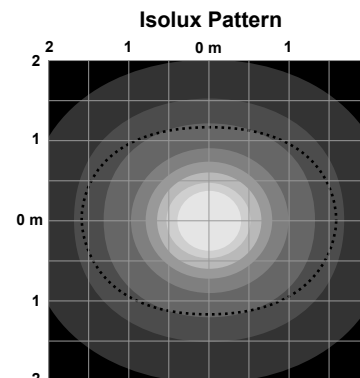
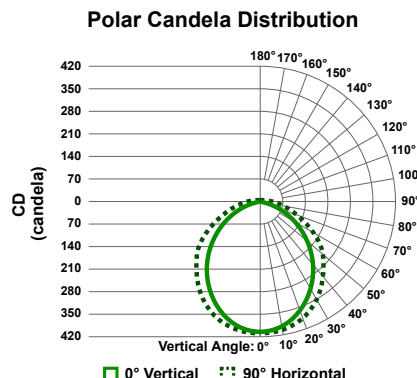


Illuminance at a Distance

	Center Beam (lux)	Beam Width (m)	
0.5 m	1303 lux	1.2 m	1.5 m
1.0 m	296 lux	2.3 m	3.1 m
1.5 m	134 lux	3.5 m	4.6 m
2.0 m	75 lux	4.6 m	6.1 m
2.5 m	48 lux	5.8 m	7.7 m
3.0 m	33 lux	6.9 m	9.2 m

▲ Vertical Spread: 98.2°
 ▲ Horizontal Spread: 113.8°

570 mm Models

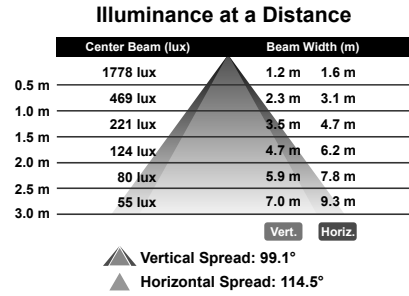
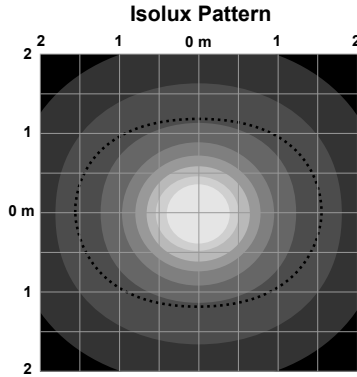
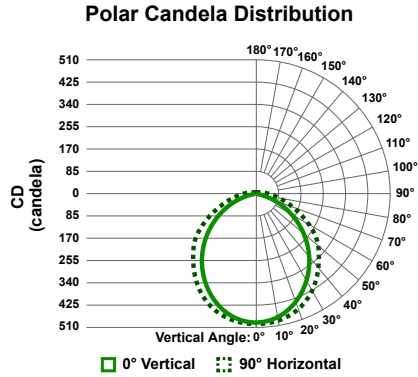


Illuminance at a Distance

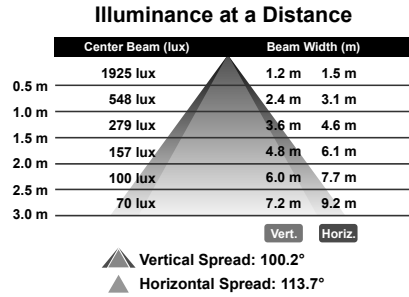
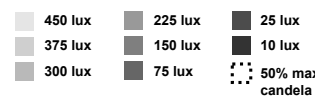
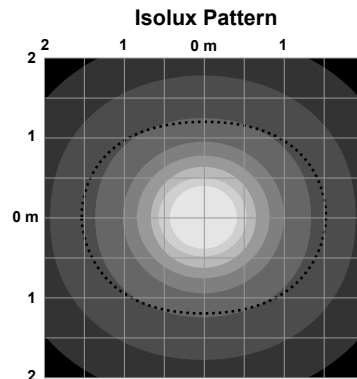
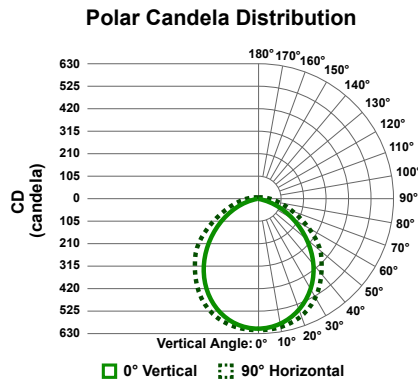
	Center Beam (lux)	Beam Width (m)	
0.5 m	1539 lux	1.2 m	1.6 m
1.0 m	379 lux	2.3 m	3.2 m
1.5 m	177 lux	3.5 m	4.8 m
2.0 m	99 lux	4.6 m	6.4 m
2.5 m	64 lux	5.8 m	8.0 m
3.0 m	44 lux	7.0 m	9.5 m

▲ Vertical Spread: 98.5°
 ▲ Horizontal Spread: 115.7°

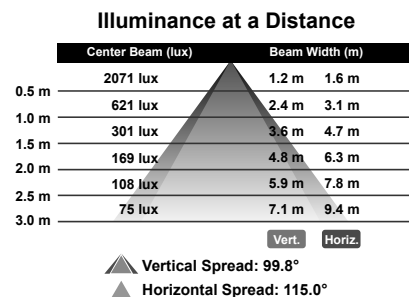
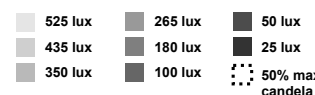
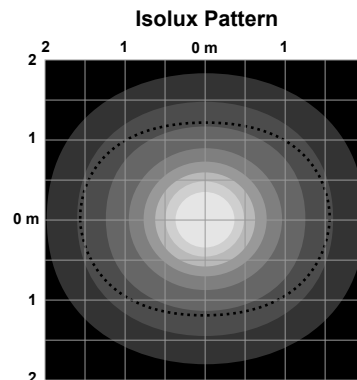
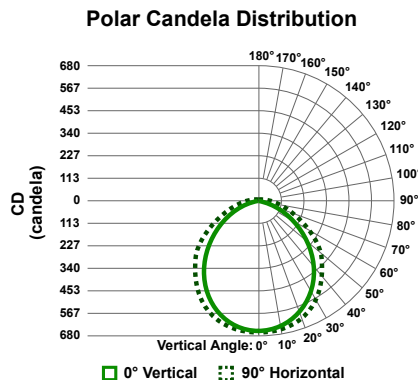
710 mm Models



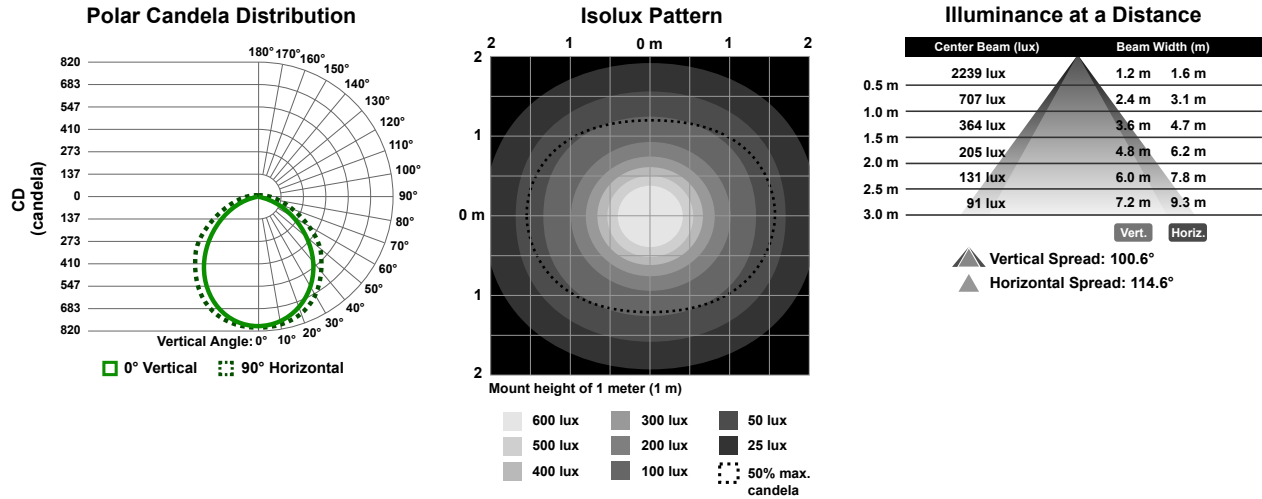
850 mm Models



990 mm Models



1130 mm Models

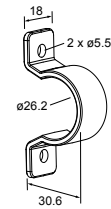


Accessories

Brackets

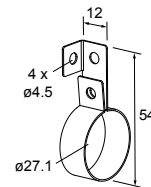
LMBWLS27EC

- Clear copolyester
- Clearance for M5 or #10 hardware



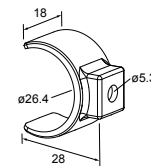
LMBWLS27H

- 300 series stainless steel mounting brackets
- M4 stainless steel hardware included



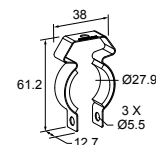
LMBWLS27SP

- Clear copolyester
- Clearance for M5 or #10 hardware
- Snap bracket for light duty applications



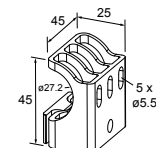
LMBWLS27T

- Stainless steel mounting brackets with rubber grips
- M5 stainless steel hardware included
- Clearance for M5 or #10 hardware



LMBWLS27U

- Clear copolyester
- Clearance for M5 or #10 hardware
- Clamps securely around the light body



Cordsets

4-Pin Threaded M12 Cordsets—Single Ended				
Model	Length	Style	Dimensions	Pinout (Female)
MQDC-406	2 m (6.56 ft)	Straight		
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)			

1 = Brown
2 = White
3 = Blue
4 = Black
5 = Unused

4-Pin Threaded M12 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 (2.99 ft)			
MQDEC-406SS	1.83 m (6 ft)			Male
MQDEC-412SS	3.66 m (12 ft)			
MQDEC-420SS	6.10 m (20 ft)			<p>1 = Brown 2 = White 3 = Blue 4 = Black</p>
MQDEC-430SS	9.14 m (30.2 ft)			
MQDEC-450SS	15.2 m (49.9 ft)			

4-Pin Threaded M12 Cordsets—Washdown, Stainless Steel, Single Ended				
Model	Length	Style	Dimensions	Pinout (Female)
MQDC-WDSS-0406	2 m (6.56 ft)	Straight		
MQDC-WDSS-0415	5 m (16.4 ft)			
MQDC-WDSS-0430	9 m (29.5 ft)			

1 = Brown
2 = White
3 = Blue
4 = Black

4-Pin Threaded M12 Cordsets—Double Ended, Washdown, Stainless Steel				
Model	Length	Style	Dimensions	Pinout
MQDEC-WDSS-401SS	0.31 m (1 ft)	Male Straight/ Female Straight		Female
MQDEC-WDSS-403SS	0.91 m (2.99 ft)			
MQDEC-WDSS-406SS	1.83 m (6 ft)			Male
MQDEC-WDSS-412SS	3.66 m (12 ft)			<p>1 = Brown 2 = White 3 = Blue 4 = Black</p>

4-Pin Threaded M12 Splitter Cordsets—Flat Junction			
Model	Branches (Female)	Trunk (Male)	Pinout
CSB-M1240M1240	No branch	No trunk	<p>Female</p> <p>Male</p> <p>1 = Brown 2 = White 3 = Blue 4 = Black</p>
CSB-M1240M1241	2 x 0.3 m (1 ft)	No trunk	
CSB-M1241M1241		0.30 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 (25.0 ft) Unterminated	

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

Mexican Importer

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