

WLS28 Work Light Strip

General-purpose LED work lighting for IP50 and IP67/IP69K environments



For the latest technical information about this product, including specifications, dimensions, and wiring, see www.BannerEngineering.com

Features

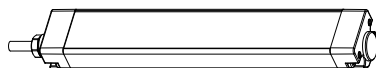


- High power solid state LED array
- Designed for enclosure or area lighting
- Rugged aluminum housing
- Narrow 28 mm total width
- Lighted lengths available from 145 mm to 1130 mm
- Low-profile design with included swivel mounting brackets
- Illuminates a large area with an even pattern of light and no shadows
- 12 to 30V dc operation
- Cabled and Quick Disconnect models available
- Stand-alone and cascadable models available
- IP50 and IP67/IP69K models available
- IP50 models available with or without ON/OFF switch
- Low power consumption; less than 9 watts per foot

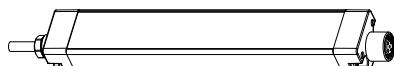


NOTE: When cascading lights, a model with an ON/OFF switch can be used to control the lights cascaded off of the switched model.

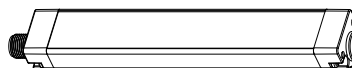
Work Light Strip Models



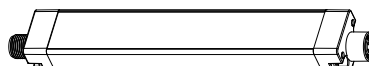
Stand-Alone Light—cable



First Light in a Cascade—cable



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



First or Middle of a Cascade—QD

WLS28 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 cable or male QD fitting at one end for power connection, no connections at opposite end. A stand-alone model may be used as the last in the cascade series.

Cascade models have cable or male QD fitting at one end for power connection, female QD fitting at opposite end for connection to other lights in the cascade. Cascade models with cable end can only be used as the first light in the cascade series. A double-ended accessory cordset (see [Cordsets](#) on page 6) must be used between each pair of lights in a cascade.



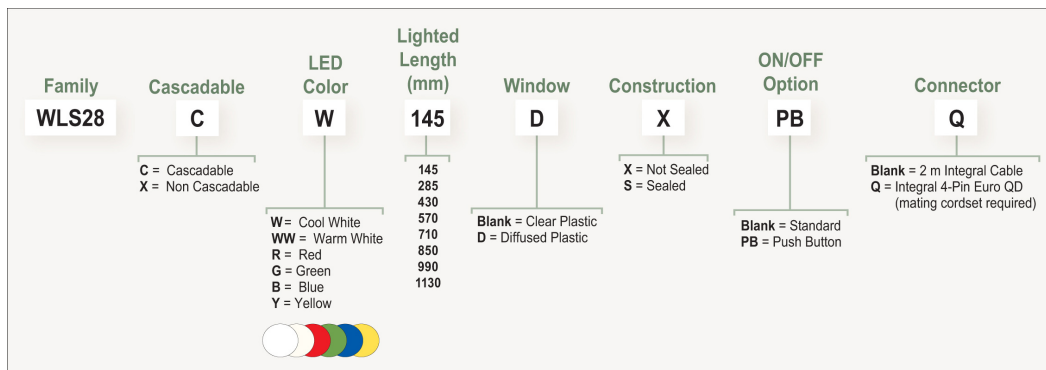


Table 1: IP50 Models

| Non-Switch Models | | ON/OFF Switch Models | | Lighted Length | Power Connector* |
|-------------------|--------------|----------------------|----------------|----------------|------------------|
| Stand-Alone | Cascade | Stand-Alone | Cascade | | |
| WLS28XW145X | WLS28CW145X | WLS28XW145XPB | WLS28CW145XPB | 145 mm | 2 m cable |
| WLS28XW285X | WLS28CW285X | WLS28XW285XPB | WLS28CW285XPB | 285 mm | |
| WLS28XW430X | WLS28CW430X | WLS28XW430XPB | WLS28CW430XPB | 430 mm | |
| WLS28XW570X | WLS28CW570X | WLS28XW570XPB | WLS28CW570XPB | 570 mm | |
| WLS28XW710X | WLS28CW710X | WLS28XW710XPB | WLS28CW710XPB | 710 mm | |
| WLS28XW850X | WLS28CW850X | WLS28XW850XPB | WLS28CW850XPB | 850 mm | |
| WLS28XW990X | WLS28CW990X | WLS28XW990XPB | WLS28CW990XPB | 990 mm | |
| WLS28XW1130X | WLS28CW1130X | WLS28XW1130XPB | WLS28CW1130XPB | 1130 mm | |

*Only cabled power connector models are listed. For 4-pin M12/Euro-style integral power connector, add suffix **Q** to the model number (for example, **WLS28XW285XQ**).

Table 2: IP67/IP69K Models

| Models | | Lighted Length | Power Connector* |
|--------------|--------------|----------------|------------------|
| Stand-Alone | Cascade | | |
| WLS28XW145S | WLS28CW145S | 145 mm | 2 m cable |
| WLS28XW285S | WLS28CW285S | 285 mm | |
| WLS28XW430S | WLS28CW430S | 430 mm | |
| WLS28XW570S | WLS28CW570S | 570 mm | |
| WLS28XW710S | WLS28CW710S | 710 mm | |
| WLS28XW850S | WLS28CW850S | 850 mm | |
| WLS28XW990S | WLS28CW990S | 990 mm | |
| WLS28XW1130S | WLS28CW1130S | 1130 mm | |

*Only cabled power connector models are listed. For 4-pin M12/Euro-style integral power connector, add suffix **Q** to the model number (for example, **WLS28XW285SQ**).

Specifications

Supply Voltage and Current

12 to 30V dc (10% max. ripple)

Use only with suitable Class 2 power supply.

Max current and power per length:

| Light Length | 12V dc | 24V dc | 30V dc | Watts | Lumens* (Typical @ 25° C) | | | | | |
|--------------|--------|--------|--------|-------|---------------------------|---------|------|-----|-----|-----|
| | | | | | Cool Wht | Wrm Wht | Grn | Red | Yel | Blu |
| 145 mm | 0.5A | 0.25A | 0.2A | 6 | 225 | 180 | 126 | 60 | 114 | 36 |
| 285 mm | 0.75A | 0.375A | 0.3A | 9 | 450 | 360 | 252 | 120 | 228 | 72 |
| 430 mm | 1.25A | 0.625A | 0.5A | 15 | 675 | 540 | 378 | 180 | 342 | 108 |
| 570 mm | 1.5A | 0.75A | 0.6A | 18 | 900 | 720 | 504 | 240 | 456 | 144 |
| 710 mm | 2.0A | 1.0A | 0.8A | 24 | 1125 | 900 | 630 | 300 | 570 | 180 |
| 850 mm | 2.25A | 1.125A | 0.9A | 27 | 1350 | 1080 | 756 | 360 | 684 | 216 |
| 990 mm | 2.75A | 1.375A | 1.1A | 33 | 1575 | 1260 | 882 | 420 | 798 | 252 |
| 1130 mm | 3.0A | 1.5A | 1.2A | 36 | 1800 | 1440 | 1008 | 480 | 912 | 288 |

* Lumen values lowered by 35% on diffused window models

Light Characteristics

Color Temperature and Wavelengths

Cool White: 5000 - 8300K

Warm White: 2600 - 4300K

Green: 520 - 535nm

Red: 620 - 630nm

Yellow: 585 - 595nm

Blue: 460 - 475nm

Useful Life

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

Construction

Clear anodized aluminum housing; painted zinc end caps; acrylic window; zinc plated steel brackets

Mounting

(2) swivel brackets SMBWLS28RA included and (4) screws

Environmental Rating

IEC IP50 (non-sealed models) or IEC IP67/IP69K per DIN 40050 (sealed models)



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

Connections

Integral 4-pin Euro style QD, or 2 m (6.5') integral cable

Operating Temperature

-20° to +50° C (-4° to +122° F)

Storage Temperature

-40° to +70° C (-40° to +158° F)

Certifications

IP50 models:



IP67/IP69K models: ; UL Pending

Application Notes

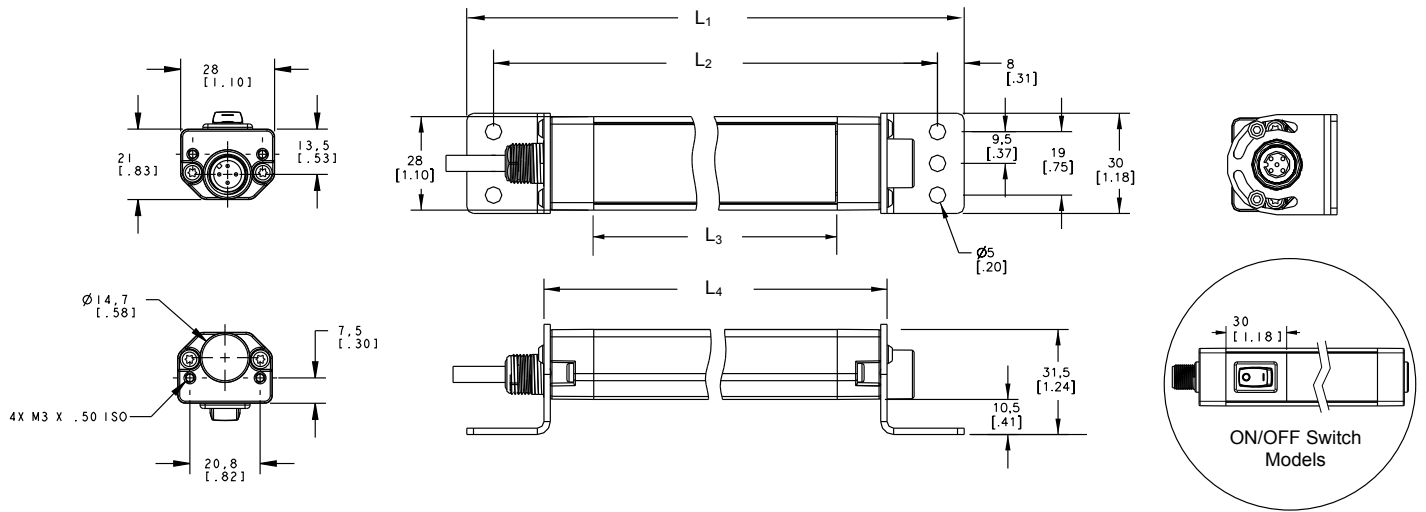
When connecting cascable lights in series it is important not to exceed maximum current limitations:

Maximum length of light at 12V dc: 1.5 m

Maximum length of light at 24V dc: 3.0 m

Maximum length of light at 30V dc: 3.1 m

Dimensions

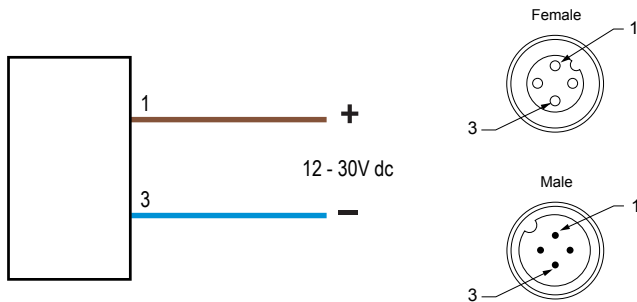


Dimensions are shown with included SMBWLS28RA bracket

| Non-Switch Models | | | | | |
|-------------------|-------------------|-----------------|-----------------|------------------|-----------------|
| IP50 Models | IP67/IP69K Models | L ₁ | L ₂ | L ₃ | L ₄ |
| WLS28..145X | WLS28..145S | 221 mm (8.7") | 205 mm (8.1") | 145 mm (5.71") | 175 mm (6.9") |
| WLS28..285X | WLS28..285S | 362 mm (14.3") | 346 mm (13.6") | 286 mm (11.26") | 316 mm (12.4") |
| WLS28..430X | WLS28..430S | 503 mm (19.8") | 487 mm (19.2") | 427 mm (16.81") | 457 mm (18.0") |
| WLS28..570X | WLS28..570S | 644 mm (25.4") | 628 mm (24.7") | 568 mm (22.36") | 598 mm (23.5") |
| WLS28..710X | WLS28..710S | 785 mm (30.9") | 769 mm (30.3") | 709 mm (27.91") | 739 mm (29.1") |
| WLS28..850X | WLS28..850S | 926 mm (36.5") | 910 mm (35.8") | 850 mm (33.46") | 880 mm (34.6") |
| WLS28..990X | WLS28..990S | 1067 mm (42") | 1051 mm (41.4") | 991 mm (39.02") | 1021 mm (40.2") |
| WLS28..1130X | WLS28..1130S | 1208 mm (47.6") | 1192 mm (46.9") | 1132 mm (44.57") | 1162 mm (45.7") |

| ON/OFF Switch Models | | | | |
|----------------------|-----------------|-----------------|------------------|-----------------|
| Model | L ₁ | L ₂ | L ₃ | L ₄ |
| WLS28..145XPB | 251 mm (9.9") | 235 mm (9.3") | 145 mm (5.71") | 205 mm (8.1") |
| WLS28..285XPB | 392 mm (15.4") | 376 mm (14.8") | 286 mm (11.26") | 346 mm (13.6") |
| WLS28..430XPB | 533 mm (21.0") | 517 mm (20.4") | 427 mm (16.81") | 487 mm (19.2") |
| WLS28..570XPB | 674 mm (26.5") | 658 mm (25.9") | 568 mm (22.36") | 628 mm (24.7") |
| WLS28..710XPB | 815 mm (32.1") | 799 mm (31.5") | 709 mm (27.91") | 769 mm (30.3") |
| WLS28..850XPB | 956 mm (37.6") | 940 mm (37") | 850 mm (33.46") | 910 mm (35.8") |
| WLS28..990XPB | 1097 mm (43.2") | 1081 mm (42.6") | 991 mm (39.02") | 1051 mm (41.4") |
| WLS28..1130XPB | 1238 mm (48.7") | 1222 mm (48.1") | 1132 mm (44.57") | 1192 mm (46.9") |

Wiring



Wiring Key:

- 1 = Brown
- 3 = Blue

Accessories

Replacement Bracket and Unistrut Mounting Hardware

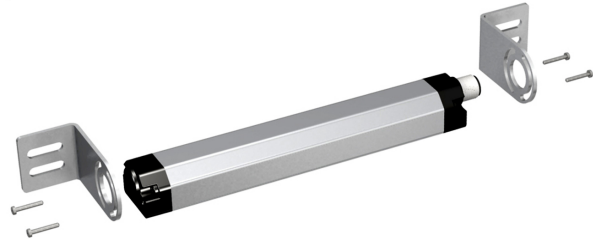
SMBWLS28RA

The bracket kit is available as a replacement for the one that comes with the Work Light Strip. The kit contains 2 end brackets, 4 screws.



SMBWLS28SM

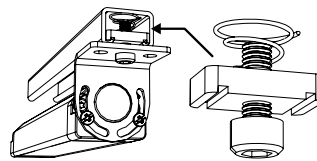
This kit allows the light to be mounted at a right angle to the mounting surface. The kit contains 2 end brackets, 4 screws.



SMH1316

This kit allows the light to be mounted to a 13/16" Unistrut channel. The kit includes:

- 2 X 10-32 spring nuts
- 2 X 10-32 socket head cap screws
- 2 X #10 lock washers



Cordsets

Single-ended cordsets are for use between power source and QD connection of stand-alone light or first light in a cascade.

Double-ended cordsets are for use between lights in a cascade.

Single-Ended Cordsets

4-Pin M12/Euro-Style Cordsets (straight connector)

MQDC-406, 2 m (6.5')

MQDC-415, 5 m (15')

MQDC-430, 9 m (30')

4-Pin M12/Euro-Style Cordsets (right-angle connector)

MQDC-406RA, 2 m (6.5')

MQDC-415RA, 5 m (15')

MQDC-430RA, 9 m (30')

Double-Ended Cordsets

4-Pin M12/Euro-Style Cordsets — Double-Ended (straight male/straight female connectors)

MQDEC-401SS, 0.3 m (1')

MQDEC-403SS, 1 m (3')

MQDEC-406SS, 2 m (6.5')

MQDEC-412SS, 4 m (12')

MQDEC-420SS, 7 m (23')

MQDEC-430SS, 10 m (33')

MQDEC-450SS, 15 m (50')

Splitter Cordsets

4-Pin M12/Euro-Style Cordsets — Splitter

CSB-M1240M1240, 10 mm (0.4") male trunk; 2 x 10 mm (0.4") female branches

CSB-M1241M1241, 0.3 m (1') male trunk; 2 x 0.3 m (1') female branches

CSB-M1248M1241, 2.5 m (8') male trunk; 2 x 0.3 m (1') female branches

CSB-M12415M1241, 5 m (15') male trunk; 2 x 0.3 m (1') female branches

CSB-M12425M1241, 8 m (26') male trunk; 2 x 0.3 m (1') female branches

CSB-UNT425M1241, 8 m (26') unterminated trunk; 2 x 0.3 m (1') female branches

