# WLS70 Industrial LED Strip Light (AC)

## Quick Start Guide

This guide is designed to help you set up and install the WLS70 Industrial LED Strip Light (AC). For complete information on programming, performance, troubleshooting, dimensions, and accessories, please refer to the Instruction Manual at www.bannerengineering.com. Search for p/n 220753 to view the Instruction Manual. Use of this document assumes familiarity with pertinent industry standards and practices.

**Important:** Read the following instructions before operating the light. Please download the complete WLS70 Industrial LED Strip Light (AC) 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 WLS70 Industrial LED Strip Light (AC), 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 WLS70 Industrial LED Strip Light (AC) 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

| Family | Voltage | Cascade | Color | Lighted Length (mm) | Window | Control | Connection |
|---|---|---|---|---|---|---|---|
| WLS70 | Z | X | W | 600 | D | A | QM |
| | Z = AC | X = Non-Cascadable<br>C = Cascadable* | W = Daylight White | 300 = 300 mm<br>600 = 600 mm<br>900 = 900 mm<br>1200 = 1200 mm | D = Diffused Window | A = 0-10 V Analog Dimming | Blank = 5-wire, 2 m Cable<br>QM = 5-pin Integral Mini QD** |

*Cascadable models only available with QM connection.

**Models with a quick disconnect require a mating cordset. See Cordsets on p. 3.

## Installing the WLS70 Industrial LED Strip Light

*Figure 1. Attaching the Clamp Brackets (Step 3)*

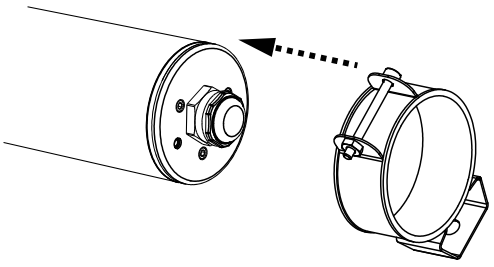
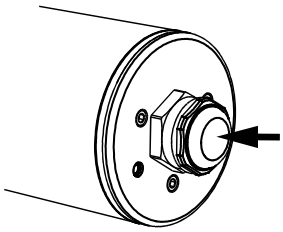


*Figure 2. Verifying the Cascade Cover is Attached (Step 10)*



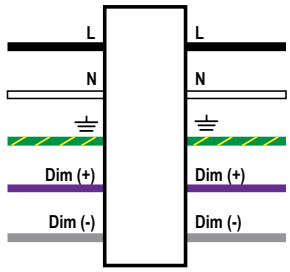
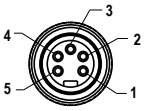
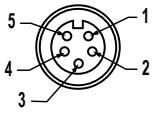
1. Turn off power at fuse or circuit breaker box.
2. Remove the light from the packaging and inspect it for damage before installing it.
3. Attach the included LMBWLS70T clamp brackets to the light. Slide on gasket if desired.
   Refer to the instruction manual for a complete list of compatible brackets.
4. Select a suitable horizontal or vertical mounting location.
5. Place the light in the mounting location and mark the positions of the bracket mounting holes.
   The optional LMBWLS70HK bracket can be used to hang the light in conjunction with the LMBWLS70T (see Brackets on p. 3).
6. Drill the holes and use appropriate screws to secure the bracket to the mounting location.

7. Clamp the light onto the brackets.
8. When daisy chaining multiple lights, follow steps 1 through 5 to mount additional lights. See the application note in Specifications on p. 2 for the maximum allowed lights daisy chained together and maximum allowed cable run when choosing mounting locations.
9. Connect the daisy chained units together using cascade cordsets (see Cordsets on p. 3).
10. Verify the supplied cascade cover is on the output connector of the last light in the chain.
11. Attach cables (cabled model) or cordsets (quick-disconnect model) per the wiring diagram. Terminate wire as appropriate per application.

Installation is complete. Turn on electricity at fuse or circuit breaker box.

**WARNING:**
- **Risk of electric shock**
- Failure to follow these instructions could result in serious injury or death.
- Disconnect or turn off power before installing, removing, or servicing the device.
- Install and connect the device in accordance with the National Electrical Code (NEC) and any applicable local code requirements and supply the device with an appropriate fuse box or circuit breaker (see *Specifications*).

## Wiring Diagram

| Diagram | Wire | Connection | Pinout (Male) | Pinout (Female) |
|---|---|---|---|---|
|  | L - Black | Line/Hot |  |  |
| | N - White | Neutral | | |
| | - Green/Yellow | Earth ground | | |
| | Dim (+) - Purple | 0–10 V DC analog dimming | | |
| | Dim (-) - Gray | Return analog dimming | 1 = Purple<br>2 = White<br>3 = Yellow/Green<br>4 = Black<br>5 = Gray | 1 = Purple<br>2 = White<br>3 = Yellow/Green<br>4 = Black<br>5 = Gray |

## Specifications

**Supply Voltage**
Nominal voltage: 120 V AC to 277 V AC, 60 Hz in North America
Nominal voltage: 100 V AC to 277 V AC, 50/60 Hz outside North America
Power factor: > 0.95 at 120 V AC and > 0.90 at 277 V AC
Total harmonic distortion (THD): < 20%
See electrical characteristics on product label

**Supply Current**

| Lighted Length (mm) | Max. Current Draw (A) at 100 V AC | Typical Current Draw (A) | | |
|---|---|---|---|---|
| | | 120 V AC | 230 V AC | 277 V AC |
| 300 | 0.120 | 0.080 | 0.040 | 0.040 |
| 600 | 0.220 | 0.165 | 0.080 | 0.070 |
| 900 | 0.320 | 0.240 | 0.130 | 0.110 |
| 1200 | 0.420 | 0.315 | 0.160 | 0.140 |

**Application Notes**
When connecting continuous run/cascadable lights in series, it is important not to exceed maximum current limitations of 8A. For example: the typical current draw of a 1200 mm fixture at 120 V is 0.315A. 8A/0.315A yields a maximum of 25 fixtures cascaded together.
Two or more lights installed in parallel must maintain a 150 mm (6 inch) spacing to maintain a 50 °C operating temperature.

**Certifications and Approvals**

UL/cULus E338626

**Light Characteristics**
Daylight White Efficacy: up to 143 lumens/watt typical at 120 V AC at 25 °C (77 °F)
CRI: 82, typical

| Model | Color | Color Temperature (CCT) | Lumens (Typical at 25 °C) | Watts at 120 V AC | Luminous Efficacy (lm/w) |
|---|---|---|---|---|---|
| 300 | Daylight White | 5000 K (±300 K) | 1350 | 9.6 | 141 |
| 600 | Daylight White | 5000 K (±300 K) | 2700 | 19.8 | 136 |
| 900 | Daylight White | 5000 K (±300 K) | 4050 | 28.8 | 141 |
| 1200 | Daylight White | 5000 K (±300 K) | 5400 | 37.8 | 143 |

**Dimming**
Compatible with 0–10 V analog LED dimming, dimmable to 5% intensity
Dimming current: <1.0 mA

**Supply Protection Circuitry**
Protected against transient voltages

**Construction**
Clear anodized aluminum housing; polycarbonate outer housing

**Mounting**
Several optional mounting brackets are available (see Accessories)

**Connections**
Integral 5-pin 7/8/Mini-style quick disconnect (8A / 300V / 2.5kV / 2), (5-pin connecting cordset required); or 2 m (6.5 ft) integral STOOW UL/HAR PVC cable
See Cordsets on p. 3

**Environmental Rating**
IEC IP65

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

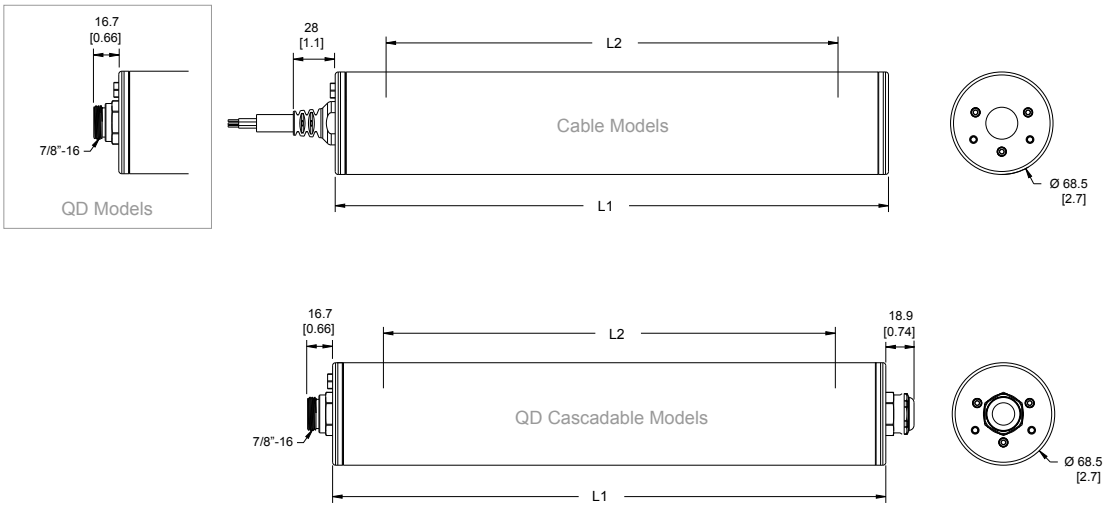
**Operating Temperature**
Surface Mount Installation: –40 °C to +50 °C (–40 °F to +122 °F)
85% at +50 °C maximum relative humidity (non-condensing)

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

**Vibration and Mechanical Shock**
Vibration: 10 Hz to 55 Hz, 0.5 mm peak-to-peak amplitude per IEC 60068-2-6 (5 minute sweep, 30 minute dwell)
Shock: 15G 11 ms duration, half sine wave per IEC 60068-2-27
Impact: IK10 (IEC 60068-2-75)

## Dimensions

All measurements are listed in millimeters [inches], unless noted otherwise.




| Model | Housing Length (L1) | Lighted Length (L2) |
|---|---|---|
| WLS70..300.. | 369.8 | 302 |
| WLS70..600.. | 667.6 | 600 |
| WLS70..900.. | 965.3 | 898 |
| WLS70..1200.. | 1263 | 1196 |

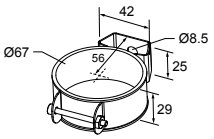
# Accessories

## Brackets

All measurements are listed in millimeters, unless noted otherwise. Refer to the instruction manual for a complete list of compatible brackets.

**LMBWLS70T**

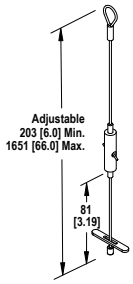
- Stainless steel
- Includes two clamp brackets for hanging or surface mount, two anti-rotation gaskets, and stainless steel hardware for securing the bracket to the light
- For use with M8 or 5/16" mounting hardware



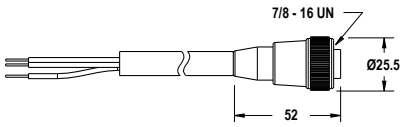
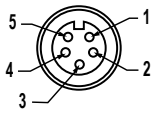

**Note:** The LMBWLS70T is supplied with the light.

**LMBWLS70HK**

- Hanging bracket kit allows for suspended installation
- Includes two hanging bracket assemblies
- For use with bracket LMBWLS70T



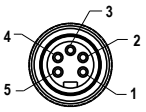
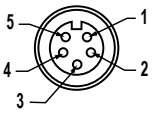
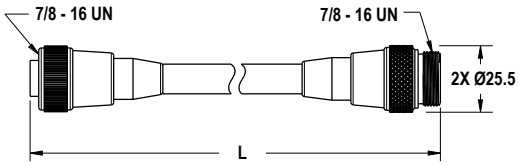

## Cordsets

| 5-Pin Threaded 7/8-in Cordsets--Single Ended | | | | |
|---|---|---|---|---|
| **Model** | **Length** | **Style** | **Dimensions** | **Pinout (Female)** |
| **MBCCL-506** | 2 m (6.56 ft) | Straight |  |  |
| **MBCCL-515** | 5 m (16.4 ft) | | | |
| **MBCCL-530** | 9 m (29.5 ft) | | | |





1 = Purple
2 = White
3 = Yellow/Green
4 = Black
5 = Gray

| 5-Pin Threaded 7/8-in Cordsets--Double Ended | | | | |
|---|---|---|---|---|
| **Model** | **Length** | **Style** | **Pinout (Male)** | **Pinout (Female)** |
| MBCCL-503SS | 1 m (3.28 ft) | Female Straight/Male Straight |  1 = Purple<br>2 = White<br>3 = Yellow/Green<br>4 = Black<br>5 = Gray |  1 = Purple<br>2 = White<br>3 = Yellow/Green<br>4 = Black<br>5 = Gray |
| MBCCL-506SS | 2 m (6.56 ft) | | | |
| MBCCL-512SS | 4 m (13.1 ft) | | | |
| MBCCL-520SS | 6 m (19.7 ft) | | | |
|  | | | | |

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## FCC Part 15 and CAN ICES-3 (B)/NMB-3(B)

This device complies with part 15 of the FCC Rules and 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.

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 and CAN ICES-3 (B)/NMB-3(B). 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 manufacturer.

## Mexican Importer

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