# Features

*General Purpose LED Work Lights*



Shown are flat-mount model with touch-button and 30 mm base-mount model without the touch-button

- Designed for desk, work station, enclosure, and small area lighting
- Optimized for use with flex arm mount for adjustable, industrial task lighting[1]
- Excellent, even distribution for close-range lighting applications
- Standard or touch models available
- Touch models can be actuated with bare hands or gloves via the integrated capacitive switch on the face of the model
- Flat-mount or 30 mm base-mount models available
- Cabled, quick-disconnect, and terminal connection models available
- Rugged, sealed polycarbonate housing rated to IP65, IP67, and IP69K
- Low-profile design with several mounting options
- 12 V DC to 30 V DC operation
- High lumen output and low power consumption at less than 3 watts
- Touch models are dimmable via the touch interface, and all models are dimmable via PWM[2] input on the control wire



For PWM dimming, use with the LC15T-127AP1RBGQP dimmer module. For more information, refer to the LC15T In-Line Touch Switch datasheet, p/n 217460.

# Models

Flat-mount models include a 48 mm (1.9 in) circular velcro mounting kit for easy mounting with no additional hardware.

| Housing | Mounting | – | Generation | Function | Color | Connection |
|---|---|---|---|---|---|---|
| **WL50** | **F** | **–** | **3** | **T** | **W** | **Q** |
| | F = Flat model<br>Blank = M30 threaded base | | 3 = 3rd generation | T = Touch<br>Blank = Non-touch | W = Daylight white (5000K) | Q = Integral 4-pin M12 male quick-disconnect connector<br>QP = 150 mm (6 in) PVC-jacketed cable with a 4-pin M12 male quick-disconnect connector<br>Blank = 2 m (6.5 ft) integral PVC-jacketed cable<br>W/30 = 9 m (30 ft) integral PVC-jacketed cable<br>T = Screw terminal (base mount option only) |

The following models are no longer available for order but are still covered by the information in this document.

- WL50-3TWT
- WL50F-3TW W/30

# Device Configuration

| Device Interface | Function |
|---|---|
| **Single Touch** | **ON/OFF**<br>A single touch in the off-state turns the device on.<br>A single touch in the on-state turns the device off. |
| **Touch and Hold** | **Lumen Control**<br>Touch and hold to increase the Lumen Output from 10% to 100%.<br>Continue to touch and hold to decrease the Lumen Output from 100% to 10%. |
| **Double Touch** | **100% ON**<br>Double touch to return to 100% Lumen Output. |

[1] Flex Arm Lights are available pre-assembled with integrated WL50 light for plug and play operation with available power supplies. Refer to the Flex Arm Light literature, p/n 222095, and PSW-24-1 Power Supply literature, p/n 214507.

[2] Pulse width modulation is a digital way to represent an analog value by varying the width of pulses at a constant frequency. The duty cycle (on-time versus off-time) is measured in percent from 1-100.

Original Instructions
26-Mar-26

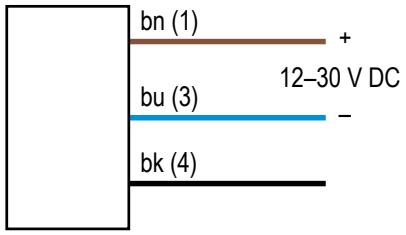
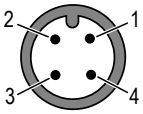
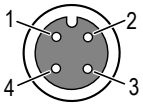
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219928
p/n: 219928 Rev. B

ПРОМЭЛЕКТРОНИКА/ sales@prom-elec.com

**NOTE:** The unit flashes at the maximum and the minimum state to notify the user that the limit has been reached.

## Wiring

| Diagram | Wire | Connection | Pinout (Male) | Pinout (Female) |
|---|---|---|---|---|
|  | 1 - Brown | 12 V DC to 30 V DC |  1 = Brown<br>2 = White<br>3 = Blue<br>4 = Black |  1 = Brown<br>2 = White<br>3 = Blue<br>4 = Black |
| | 2 - White | Not used | | |
| | 3 - Blue | DC common | | |
| | 4 - Black | Pulse width modulation (PWM) input. For maximum intensity, leave the black wire floating or connected to common. Connecting to 12 V DC to 30 V DC causes LEDs to shut off. | | |

## Specifications

**Supply Voltage**

12 V DC to 30 V DC

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

**Supply Current**

| Model | Max. Current Draw (A) at 12 V DC | Typical Current Draw (A) | | |
|---|---|---|---|---|
| | | 12 V DC | 24 V DC | 30 V DC |
| WL50-3 | 0.25 | 0.22 | 0.1 | 0.085 |

**Power-Up Response Time**

1 ms maximum for touch models

**Dimming and Control**

Non-touch models: PWM frequency 100-600 Hz

Touch models: On/off, 10% to 100% dimming, and PWM input

See "Device Configuration" on page 1 for detailed function

**Pulse Width Modulation (PWM)**

Frequency: Up to 600 Hz

Voltage: 12 V DC to 30 V DC

Current: 3 mA maximum

Duty Cycle Range:

Off - 0%
On - 100%

**Supply Protection Circuitry**

Protected against reverse polarity and transient voltages

**Construction**

Housing: Polycarbonate

Connector: Nickel-plated quick-disconnect connector or PVC-jacketed cable

**Mounting**

Base mount: M30 × 1.5 threaded base, maximum torque 4.5 N·m (40 in·lbf)

Flat: Included 48 mm (1.9 in) circular velcro mounting kit

**Connections**

Integral 4-pin M12 male quick-disconnect connector, 150 mm (6 in) PVC-jacketed cable with an M12 quick disconnect, or 2 m (6.5 ft) integral PVC-jacketed cable, depending on model

Terminal model: 3 color-coded screw terminals for up to 16 AWG wire, screw terminal maximum torque 0.11 N·m (1.0 lbf·in)

Flex arm: 300 mm (11.8 in) PVC cable with an M12 quick-disconnect connector

**Environmental Rating**

Rated IP65, IP67, and IP69K per ISO 20653

Cabled models meet IP69K per ISO 20653 if the cable is protected from high-pressure spray

The illuminated side of the terminal models meets IP65, IP67, and IP69K per ISO 20653 when installed in an enclosure

Terminal connection points meet IP00

**LED Lifetime**

Lumen maintenance - $L_{70}$

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

**Operating Temperature**

–40 °C to +50 °C (–40 °F to +122 °F)

**Storage Temperature**

–40 °C to +70 °C (–40 °F to +158 °F)

**Vibration and Mechanical Shock**

Vibration: 10 Hz to 55 Hz, 1.0 mm peak-to-peak amplitude per IEC 60068-2-6

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

Impact: IK06 (IEC EN 60068-2-75)

**Third Wire Functionality**

Touch models: PWM input overrides touch control

Standard models: PWM input full on-off, with 10%-100% dimming

**Light Characteristics**

Daylight White Efficacy: up to 125 lumens/Watt typical at 24 V DC at 25 °C (77 °F)

CRI: 82, typical

| Model | Color | Color Temperature (CCT) | Lumens (Typical at 25 °C) | Watts at 24 V DC | Luminous Efficacy (lm/w) |
|---|---|---|---|---|---|
| WL50-3 | Daylight White | 5000K (±300K) | 300 | 2.4 | 125 |



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### Certifications and Approvals

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

### Required Overcurrent Protection

**WARNING:** Electrical connections must be made by qualified personnel in accordance with local and national electrical codes and regulations.

Overcurrent protection is required to be provided by end product application per the supplied table.

Overcurrent protection may be provided with external fusing or via Current Limiting, Class 2 Power Supply.

Supply wiring leads < 24 AWG shall not be spliced.

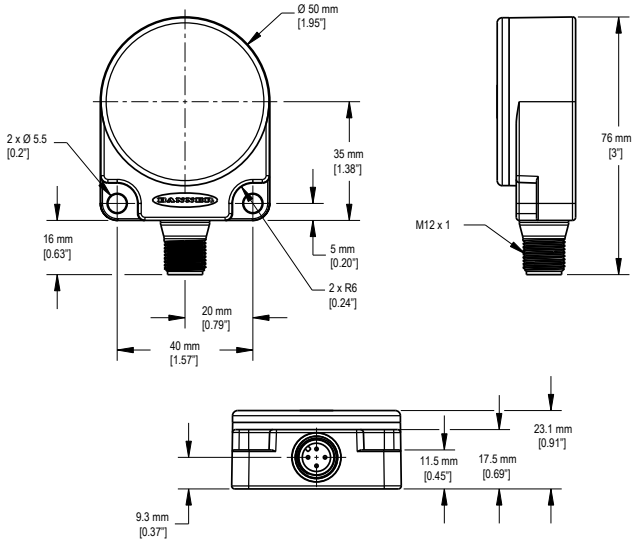
For additional product support, go to www.bannerengineering.com.

| Supply Wiring (AWG) | Required Overcurrent Protection (A) | Supply Wiring (AWG) | Required Overcurrent Protection (A) |
|---|---|---|---|
| 20 | 5.0 | 26 | 1.0 |
| 22 | 3.0 | 28 | 0.8 |
| 24 | 2.0 | 30 | 0.5 |

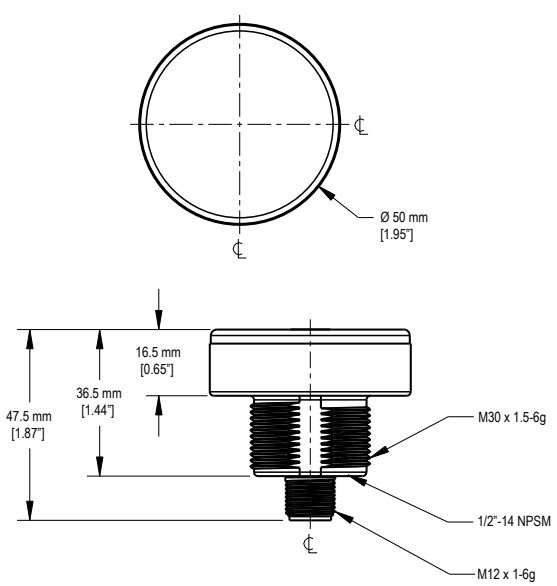
## Dimensions

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

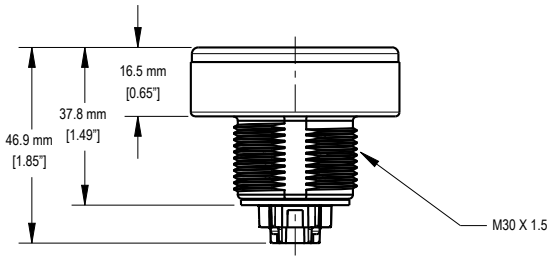
### Flat Mount




### 30 mm Base Mount




### Terminal Base Mount

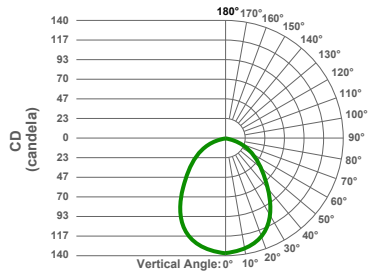




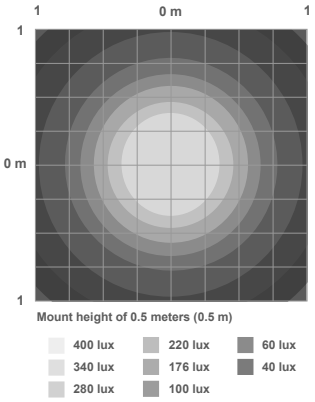
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# Optical Data

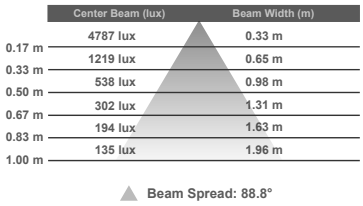
**Polar Candela Distribution**




**Isolux Pattern**

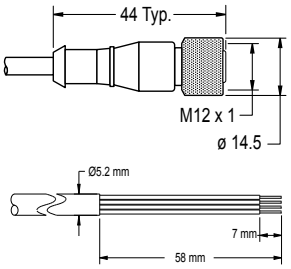
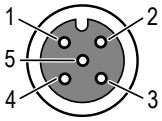
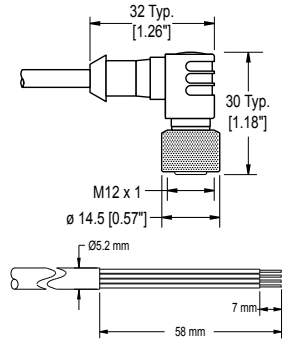
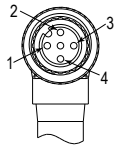



**Illuminance at a Distance**




# Accessories

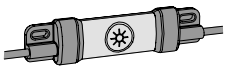
## Cordsets

| 4-Pin Single-Ended M12 Female Cordsets | | | | | |
|---|---|---|---|---|---|
| **Model** | **Length** | **Style** | **Dimensions** | **Pinout (Female)** | |
| **MQDC-406** | 2 m (6.56 ft) | Straight |   |   | 1 = Brown<br>2 = White<br>3 = Blue<br>4 = Black<br>5 = Not used |
| **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) | | | | |

## Dimmers

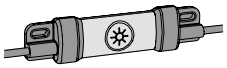
**LC15T-127AL2RGQP**

- In-line capacitive touch switch with M12 connectors
- On/Off control and illuminated indication
- Rated for up to 30 V DC and 4 A maximum output current
- Rugged and waterproof IP67 housing

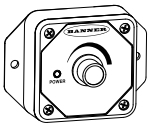



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**LC15T-127AP1RBGQP**
- In-line capacitive touch switch with M12 connectors
- On/Off/Dimming control and illuminated indication
- Rated for up to 30 V DC and 4 A maximum output current
- Rugged and waterproof IP67 housing



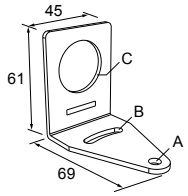
**LC65P1T**
- Potentiometer with terminal and M12 connector options
- PWM control
- Rated for up to 30 V DC and 4 A maximum output current
- Unsealed IP20 housing



## Brackets

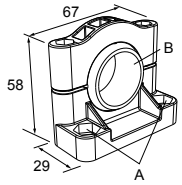
**SMB30A**
- Right-angle bracket with curved slot for versatile orientation
- Clearance for M6 (¼ in) hardware
- Mounting hole for 30 mm sensor
- 12-gauge stainless steel
- CAD Files: DXF, PDF, IGS, STP

**Hole center spacing:** A to B=40
**Hole size:** A=ø 6.3, B= 27.1 × 6.3, C=ø 30.5



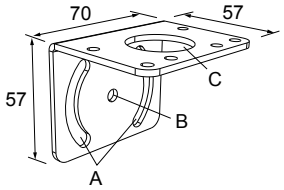

**SMB30SC**
- Swivel bracket with 30 mm mounting hole for sensor
- Black reinforced thermoplastic polyester
- Stainless steel mounting and swivel locking hardware included
- CAD Files: DXF, PDF, IGS, STP

**Hole center spacing:** A=ø 50.8
**Hole size:** A=ø 7.0, B=ø 30.0

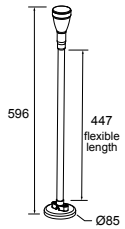



**SMB30MM**
- 12-gauge stainless steel bracket with curved mounting slots for versatile orientation
- Clearance for M6 (¼ in) hardware
- Mounting hole for 30 mm sensor
- CAD Files: DXF, PDF, IGS, STP

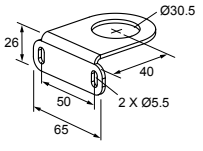
**Hole center spacing:** A=51, A to B=25.4
**Hole size:** A=42.6 × 7, B=ø 6.4, C=ø 30.1



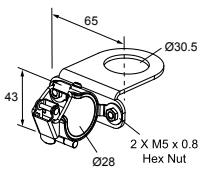

**Flex Arm Light**
- Fully assembled plug and play
- 457 mm (18 in) long
- See Flex Arm Light literature, p/n 222095




**LMB30LP**
- Low profile
- 30 mm mounting hole
- 300 series stainless steel
- CAD Files: DXF, PDF, IGS, STP




**LMB30LPC**
- For 28 mm tubular racking
- LMB30LP attached to clamp bracket
- Toolless mount to racking
- 30 mm mounting hole
- CAD Files: DXF, PDF, IGS, STP





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