| Project     | Catalog # | Туре |  |
|-------------|-----------|------|--|
| Prepared by | Notes     | Date |  |



# Lumark

# Prevail / Prevail XL Discrete LED

Area / Site Luminaire

#### **Product Features**



# Interactive Menu

- Ordering Information page 2
- Mounting Details page 3
- Optical Configurations page 3
- Product Specifications page 4
- Energy and Performance Data page 4
- Control Options page 5

### **Product Certifications**



















### **Quick Facts**

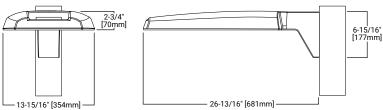
- Direct-mounted discrete light engine for improved optical uniformity and visual comfort
- Lumen packages range from 7,500 41,000 nominal lumens (50W 300W)
- Replaces 70W up to 1,000W HID equivalents
- Efficacies up to 148 lumens per watt
- · Standard universal quick mount arm with universal drill pattern

# Connected Systems

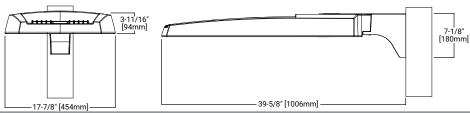
- WaveLinx
- Enlighted

### **Dimensional Details**

# Prevail



#### Prevail XL





### **Ordering Information**

SAMPLE NUMBER: PRV-XL-PA4B-740-U-T4W-BZ

| Product Family 1, 2  | Light Engine  | •  | Color Temperature  | Voltage  | Distribution   | Mounting (Included)   | Finish   |
|--|---|--|--|--|--|---|--|
| PRV=Prevail  PRV-XL=Prevail XL   | Configuration  PA1=1 Panel, 24 LED Rectangle PA2=2 Panels, 48 LED Rectangles  PA3=3 Panels, 72 LED Rectangles PA4=4 Panels, 96 LED Rectangles | Drive Current <sup>3</sup> <b>A=</b> 745mA Nominal <b>B=</b> 950mA Nominal | 740=70CRI, 4000K<br>730=70CRI, 3000K<br>735=70CRI, 3500K<br>750=70CRI, 5000K | U=Universal, 120-277V<br>H=High Voltage, 347-480V<br>9=347V<br>8=480V <sup>4</sup>   | T2R=Type II Roadway<br>T2U=Type II Urban<br>T3=Type III<br>T4W=Type IV Wide<br>5WQ=Type V Square Wide  | [Blank]=Standard<br>Versatile Arm<br>MA=Mast Arm<br>WM=Wall Mount Arm | AP=Grey<br>BK=Black<br>BZ=Bronze<br>DP=Dark Platinum<br>GM=Graphite Metallic<br>WH=White |
|  | Options (Add as   | Suffix)  |  |  | Accessories (Order   | Separately) <sup>17</sup>   |  |
| Options (Add as Suffix)  10K-10kV UL 1449 Fused Surge Protective Device 20MSP=20kV MOV Surge Protective Device 20KS-eries 20kV UL 1449 Surge Protective Device 4A-50°C High Ambient Temperature HSS-House Side Shield (Factory Installed) 5 L90-Optics Rotated 90° Left R90-Optics Rotated 90° Left RP0-Optics Rotated 90° Left RP3-NEMA 7-PIN Twistlock Photocontrol Receptacle 6 PR7-NEMA 7-PIN Twistlock Photocontrol Receptacle 8 SPB1-Dimming Occupancy Sensor with Bluetooth Interface, 8°-20′ Mounting 23 SPB2-Dimming Occupancy Sensor with Bluetooth Interface, 8°-20′ Mounting 23 SPB2-Dimming Occupancy Sensor with Bluetooth Interface, 8°-20′ Mounting 23 MS/DIM-L08-Motion Sensor for Dimming Operation, Up to 8′ Mounting Height 7°-8.9 MS/DIM-1-40-Motion Sensor for Dimming Operation, Up to 8′ Mounting Height 7°-8.9 MS/DIM-1-40-Motion Sensor for Dimming Operation, Up to 8′ Mounting Height 7°-8.9 MS-L08-Motion Sensor for ON/OFF Operation, Up to 8′ Mounting Height 7°-8.9 MS-L08-Motion Sensor for ON/OFF Operation, Up to 8′ Mounting Height 7°-8.9 MS-L08-Motion Sensor for ON/OFF Operation, Up to 8′ Mounting Height 7°-8.9 MS-L08-Motion Sensor for ON/OFF Operation, Up to 8′ Mounting Height 7°-8.9 MS-L08-Motion Sensor for ON/OFF Operation, Up to 8′ Mounting Height 7°-8.9 MS-L08-Motion Sensor for ON/OFF Operation, Up to 8′ Mounting Height 7°-8.9 MS-L08-Motion Sensor for ON/OFF Operation, Up to 8′ Mounting Height 7°-8.9 MS-L08-Motion Sensor for ON/OFF Operation, Up to 8′ Mounting Height 7°-8.9 MS-L08-Motion Sensor for ON/OFF Operation, Up to 8′ Mounting Height 7°-8.9 MS-L08-Motion Sensor for ON/OFF Operation, 0°-20′ Mounting Height 7°-8.9 MS-L08-Motion Sensor for ON/OFF Operation, 0°-20′ Mounting Height 7°-8.9 MS-L08-Motion Sensor for ON/OFF Operation, 0°-20′ Mounting Height 7°-8.9 MS-L08-Motion Sensor for ON/OFF Operation, 0°-20′ Mounting Height 7°-8.9 MS-L08-Motion Sensor for ON/OFF Operation, 0°-20′ Mounting Height 7°-8.9 MS-L08-Motion Sensor for ON/OFF Operation, 0°-20′ Mounting Height 7°-8.9 MS-L08-Motion Sensor for ON/OFF Operation, 0 |   |  |  | MA1010-XX-Single Tenon A<br>MA1011-XX=2@180° Tenon<br>MA1017-XX-Single Tenon A<br>MA1018-XX-2@180° Tenon<br>MSS-VP-House Side Shield,<br>OA/RA1013-Photocontrol S<br>OA/RA1014-NEMA Photoco<br>OA/RA1014-NEMA Photoco<br>OA/RA1021-NEMA Photoco<br>OA/RA1021-NEMA Photoco<br>SIR-100-Wireless Configur<br>SWP04-XX-WaveLinx Wirele<br>SWP05-XX=WaveLinx Wirele<br>SWP05-XX=WaveLinx Wirele | nting Kit 18 Jounting Kit 18 Jounting Kit 18 Jounting Kit (for Prevail XL) 15 Jounting Kit (for Prevail XL) 15 Jounting Kit (for Prevail XL) 15 Jounting Kit (for Prevail XL) 14 Jounting Kit (for Prevail XL) 19 Jounting Kit (for Prevail XL) 19 Jounting Adapter for 2-3/8° 0.D. Tenon Jounting Panel 5-19 Jounting Panel 5-19 Jounting Cap Jounting | sight <sup>11, 12, 13</sup><br>leight <sup>11, 12, 13</sup>           |  |

- NOTES:

  1. DesignLights Consortium® Qualified. Refer to www.designlights.org Qualified Products List under Family Models for details.

  2. Customer is responsible for engineering analysis to confirm pole and fixture compatibility for applications. Refer to installation instructions and pole white paper WP513001EN for additional support information.

  3. Nominal drive currents shown here. For actual drive current by configuration, refer to Power and Lumen tables.

  4. Only for use with 480V Wye systems. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems).

  5. House Side Shield not for use with 5WQ distribution.

  6. If High Voltage (H) is specified, use a photocontrol that matches the input voltage used (either 347V or 480V).

  7. Option not available with High Voltage (H). Must specify Universal (U), 347V (9), or 480V (8) voltage.

  8. Controls system is not available with High Voltage (H) in voltage (H) in

- 10. Sensor passive infrared (PIR) may be overly sensitive when operating below -20°C (-4°F).

  11. For the device to be field-configurable, requires WAC Gateway components WAC-PoE and WPOE-120 in appropriate quantities. Only compatible with WaveLinx system and software and requires system components to be installed for operation. See website for more Wavelinx application information.

  12. Replace XX with sensor color (WH, BZ or BK).

- 12. heplace AX minestess tool of Mr., 20 obs.),
  13. Requires 4-PIN twistlock receptacle (20 or ZW) option.
  14. Enlighted wireless sensors are factory installed and require network components LWP-EM-1, LWP-GW-1, and LWP-PoE8 in appropriate quantities. See website for application information.
  15. Only available in PRV-XL configurations PA3X or PA4X.
- 16. Not available with High Voltage (H, 8 or 9) or HA options. Consult LumenSafe system product pages for additional details and compatibility information.

- 16. Not available with High Voltage (H, 8 or 9) or HA options. Consult LumenSate system product pages for additional details and compatibility information.

  17. Replace XX with paint color.

  18. Only available in PRV configurations PA1X or PA2X.

  19. Must order one per optic/LED when ordering as a field-installable accessory (1, 2, 3 or 4). Refer to House Side Shield reference table for details.

  20. This tool enables adjustment to Motion Sensor (MS) parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult your lighting representative for more information.

  21. Requires 7-PIN NEMA twistlock photocontrol receptacle (PR7) option. The WOLC-7 cannot be used in conjunction with other controls systems (MS, ZW, ZD or LWR). Only for use at 120-347V.

  22. Coastal construction finish salt spray tested to over 5,000-hours per ASTM B117, with a scribe rating of 9 per ASTM D1654.
- 23. Smart device with mobile application required to change system defaults. See controls section for details

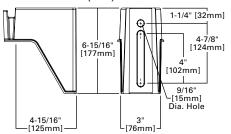
#### LumenSafe Integrated Network Security Camera Technology Options (Add as Suffix)

| Product Family         | Camera Type   | Data Backhaul   |  |  |
|------------------------|---------------|---|--|--|
| L=LumenSafe Technology | D=Dome Camera | C=Cellular, Customer Installed SIM Card A=Cellular, Factory Installed ATEAT SIM Card V=Cellular, Factory Installed Verizon SIM Card S=Cellular, Factory Installed Sprint SIM Card |  |  |

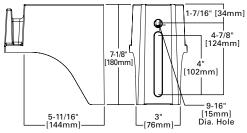


### **Mounting Details**

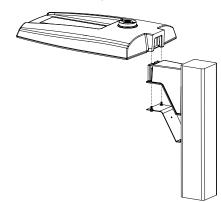
#### Pole Mount Arm (PRV)



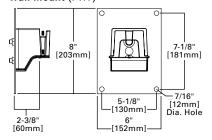
### $\textbf{Pole Mount Arm} \; (\text{PRV-XL})$



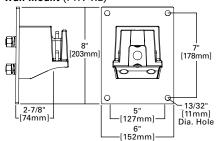
#### **Versatile Mount System**



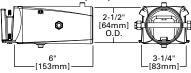
#### Wall Mount (PRV)



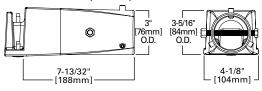
#### Wall Mount (PRV-XL)



#### Mast Arm Mount (PRV)



#### Mast Arm Mount (PRV-XL)



#### **Mounting Configurations and EPAs**

NOTE: For 2 PRV's mounted at 90°, requires minimum 3" square or 4" round pole for fixture clearance. For 2 PRV-XL's mounted at 90°, requires minimum 4" square or round pole for fixture clearance. Customer is responsible for engineering analysis to confirm pole and fixture compatibility for applications.



Arm Mount Single EPA 0.92 (PRV) EPA 1.12 (PRV-XL) **Arm Mount 2 @ 180°** EPA 1.35 (PRV) EPA 2.25 (PRV-XL) Arm Mount 2 @ 90° EPA 1.42 (PRV) EPA 2.13 (PRV-XL) Arm Mount 3 @ 90° EPA 1.63 (PRV) EPA 2.52 (PRV-XL) Arm Mount 4 @ 90° EPA 1.63 (PRV) EPA 2.52 (PRV-XL)









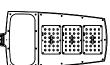


## **Optical Configurations**

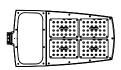
PRV-PA1X

PRV-PA2X

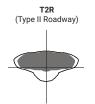
PRV-XL-PA3X



PRV-XL-PA4X

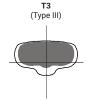


#### **Optical Distributions**

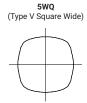




T2U









= Distribution with House Side Shield (HSS)



= Optical Distribution

### **Product Specifications**

#### Construction

- · Single-piece die-cast aluminum housing
- Tethered die-cast aluminum door

- Dark Sky Approved (3000K CCT and warmer only)
- Precision molded polycarbonate optics

- -40°C minimum operating temperature
- 40°C maximum operating temperature
- >.9 power factor
- <20% total harmonic distortion

- Class 1 electronic drivers have expected life of 100.000 hours with <1% failure rate
- 0-10V dimming driver is standard with leads external to the fixture

#### Mounting

- Versatile, patented, standard mount arm accommodates multiple drill patterns ranging from 1-1/2" to 4-7/8" (Type M drilling recommended for new installations)
- A knock-out on the standard mounting arm enables round pole mounting

Power and Lumens (PRV-XL) **Light Engine** 

- Prevail: 3G vibration rated (all arms)
- Prevail XL Mast Arm: 3G vibration rated

· Prevail XL Standard Arm: 1.5G vibration rated

Five-stage super TGIC polyester powder coat paint, 2.5 mil nominal thickness

#### **Shipping Data**

Prevail: 20 lbs. (9.09 kgs.)

PA3A

Prevail XL: 45 lbs. (20.41 kgs.)

· Five year limited warranty, consult website for details. www.cooperlighting.com/legal

PA3B

ΡΑ4Α

PA4B

# **Energy and Performance Data**

#### Power and Lumens (PRV)

|                    | Light Engine              | PA1A     | PA1B     | PA2A     | PA2B     |
|--------------------|---------------------------|----------|----------|----------|----------|
| Power (Wa          | tts)                      | 54       | 74       | 113      | 151      |
| Drive Current (mA) |                           | 670      | 930      | 720      | 970      |
| Input Curre        | nt @ 120V (A)             | 0.45     | 0.62     | 0.93     | 1.26     |
| Input Curre        | nt @ 277V (A)             | 0.21     | 0.28     | 0.41     | 0.55     |
| Input Curre        | nt @ <b>347V</b> (A)      | 0.17     | 0.23     | 0.33     | 0.45     |
| Input Curre        | nt @ <b>480V</b> (A)      | 0.12     | 0.17     | 0.24     | 0.33     |
| Distribution       | 1                         |          |          |          |          |
|                    | 4000K/5000K Lumens        | 7,605    | 9,896    | 15,811   | 19,745   |
| Type II            | BUG Rating                | B1-U0-G2 | B1-U0-G2 | B2-U0-G3 | B2-U0-G3 |
| Roadway            | Lumens per Watt           | 141      | 134      | 141      | 131      |
|                    | 3000K Lumens <sup>1</sup> | 6,926    | 9,012    | 14,399   | 17,982   |
|                    | 4000K/5000K Lumens        | 7,597    | 9,886    | 15,795   | 19,724   |
| Type II            | BUG Rating                | B2-U0-G2 | B3-U0-G3 | B3-U0-G3 | B3-U0-G3 |
| Úrban              | Lumens per Watt           | 141      | 134      | 141      | 131      |
|                    | 3000K Lumens <sup>1</sup> | 6,919    | 9,003    | 14,384   | 17,963   |
|                    | 4000K/5000K Lumens        | 7,575    | 9,857    | 15,749   | 19,667   |
| <b>T</b>           | BUG Rating                | B1-U0-G2 | B2-U0-G3 | B3-U0-G3 | B3-U0-G3 |
| Type III           | Lumens per Watt           | 140      | 133      | 141      | 130      |
|                    | 3000K Lumens <sup>1</sup> | 6,899    | 8,977    | 14,343   | 17,911   |
|                    | 4000K/5000K Lumens        | 7,484    | 9,738    | 15,560   | 19,431   |
| Type IV            | BUG Rating                | B2-U0-G2 | B2-U0-G3 | B3-U0-G3 | B3-U0-G4 |
| Wide               | Lumens per Watt           | 139      | 132      | 139      | 129      |
|                    | 3000K Lumens <sup>1</sup> | 6,816    | 8,869    | 14,170   | 17,696   |
|                    | 4000K/5000K Lumens        | 7,831    | 10,190   | 16,281   | 20,332   |
| Type V             | BUG Rating                | B3-U0-G2 | B4-U0-G3 | B4-U0-G3 | B5-U0-G3 |
| Square<br>Wide     | Lumens per Watt           | 145      | 138      | 145      | 135      |
|                    | 3000K Lumens <sup>1</sup> | 7,132    | 9,280    | 14,827   | 18,517   |

1. For 3000K BUG Ratings, refer to published IES files

#### Power (Watts) 172 234 245 303 Drive Current (mA) 750 980 785 970 Input Current @ 120V (A) 1.44 1.95 2.04 2.53 Input Current @ 277V (A) 0.62 0.85 0.93 1.12 Input Current @ 347V (A) 0.52 0.70 0.74 0.90 Input Current @ 480V (A) 0.39 0.52 0.53 0.65 Distribution 4000K/5000K Lumens 24,718 30,648 34,067 39,689 **BUG Rating** B3-U0-G3 B3-U0-G4 B3-U0-G4 B3-U0-G4 Type II Roadway Lumens per Watt 144 131 139 131 3000K Lumens 1 22 511 27 912 31 025 36.145 4000K/5000K Lumens 24,692 30,616 34,031 39,647 **BUG Rating** B4-U0-G4 B4-U0-G4 B4-U0-G4 B4-U0-G4 Type II Urban Lumens per Watt 144 131 139 131 3000K Lumens 1 22,488 27.882 30.992 36,107 4000K/5000K Lumens 24,621 30,527 33,932 39,532 **BUG Rating** B3-U0-G4 B3-U0-G5 B3-U0-G5 B4-U0-G5 Type III Lumens per Watt 143 130 138 130 3000K Lumens 1 22,423 27,802 30.903 36.002 4000K/5000K Lumens 24,325 33,525 30.161 39.057 B3-U0-G4 B3-U0-G5 B3-U0-G5 B4-U0-G5 BUG Rating Type IV Wide Lumens per Watt 141 129 137 129 3000K Lumens 1 22,153 27,468 30,531 35,570 4000K/5000K Lumens 25,453 31,559 35,079 40,868 Type V **BUG Rating** B5-U0-G4 B5-U0-G5 B5-U0-G5 B5-U0-G5 Square Wide Lumens per Watt 148 135 143 135 3000K Lumens 28,741 23,180 31.947 37,219

1. For 3000K BUG Ratings, refer to published IES files

# **View PRV Discrete IES files**

### **View PRV-XL Discrete IES files**

#### **Lumen Maintenance**

| Ambient Temperature | TM-21 Lumen Maintenance<br>(78,000 Hours) |  |
|---------------------|---|--|
| Up to 50°C          | 96.76%                                    |  |

#### **House Side Shield Reference Table**

|                   |                      | Light Engine Configuration |                   |                   |                   |
|-------------------|----------------------|----------------------------|-------------------|-------------------|-------------------|
|                   |                      | PA1                        | PA2               | PA3               | PA4               |
| Rotated<br>Optics | Standard             | HSS-VP<br>(qty 1)          | HSS-HP<br>(qty 2) | HSS-HP<br>(qty 3) | HSS-VP<br>(qty 4) |
|                   | L90 or R90<br>option | HSS-HP<br>(qty 1)          | HSS-VP<br>(qty 2) | HSS-VP<br>(qty 3) | HSS-HP<br>(qty 4) |

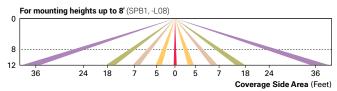


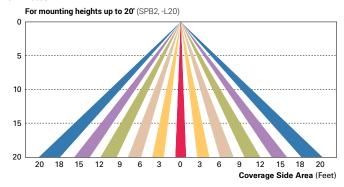
### **Control Options**

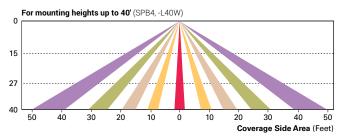
0-10V This fixture provides 0-10V dimming wire leads for use with a lighting control panel or other control method.

Photocontrol (PR and PR7) Photocontrol receptacles provide a flexible solution to enable "dusk-to-dawn" lighting by sensing light levels. Advanced control systems compatible with NEMA 7-pin standards can be utilized with the PR7 receptacle.

Dimming Occupancy Sensor (SPB, MS/DIM-LXX and MS-LXX) These sensors are factory installed in the luminaire housing. When the SPB or MS/DIM sensor options are selected, the luminaire will dim down after five minutes of no activity detected. When activity is detected, the luminaire returns to full light output. When a sensor for ON/OFF operation (MS-LXX) is selected, the luminaire will turn off after five minutes of no activity. These occupancy sensors include an integral photocell that can be activated or inactivated with the programming remote / configuration tool for "dusk-to-dawn" control or "daylight harvesting." SPB motion sensors require the Sensor Configuration mobile application by Wattstopper to change factory default dimming level, time delay, sensitivity and other parameters. Available for iOS and Android devices. The SPB sensor is factory preset to dim down to approximately 10% power with a time delay of five minutes.



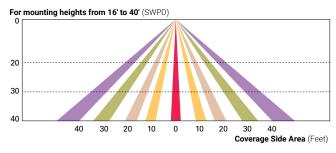




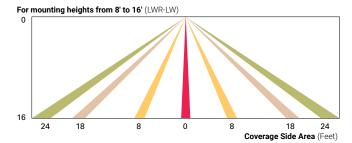
WaveLinx Wireless Control and Monitoring System Available in 7-PIN or 4-PIN configurations, the WaveLinx Outdoor control platform operates on a wireless mesh network based on IEEE 802.15.4 standards enabling wireless control of outdoor lighting. Use the WaveLinx Mobile application for set-up and configuration. At least one Wireless Area Controller (WAC) is required for full functionality and remote communication (including adjustment of any factory pre-sets).

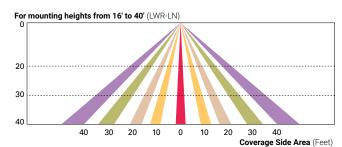
WaveLinx Outdoor Control Module (WOLC-7P-10A) A photocontrol that enables astronomic or time-based schedules to provide ON, OFF and dimming control of fixtures utilizing a 7-PIN receptacle. The out-of-box functionality is ON at dusk and OFF at dawn.

WaveLinx Wireless Sensor (SWPD4 and SWPD5) These outdoor sensors offer passive infrared (PIR) occupancy and a photocell for closed loop daylight sensing. These sensors can be factory installed or field-installed via simple, tool-less integration into luminaires equipped with the Zhaga Book 18 compliant 4-PIN receptacle (ZD or ZW). These sensors are factory preset to dim down to approximately 50 percent power after 15 minutes of no activity detected. These occupancy sensors include an integral photocell for "dusk-to-dawn" control or daylight harvesting that is factory-enabled. A variety of sensor lenses are available to optimize the coverage pattern for mounting heights from 7'-40'.



Enlighted Wireless Control and Monitoring System (LWR-LW and LWR-LN) The Enlighted System is a connected lighting solution that combines LED luminaires with an integrated wireless sensor system. The sensor controls the lighting system in compliance with the latest energy codes and collects valuable data about building performance and use. Software applications turn the granular data into information through energy dashboards and specialized apps that make it simple and help optimize the use of other resources beyond lighting.





LumenSafe (LD) The LumenSafe integrated network camera is a streamlined, outdoor-ready camera that provides high definition video surveillance. This IP camera solution is optimally designed to integrate into virtually any video management system or security software platform of choice. No additional wiring is needed beyond providing line power to the luminaire. LumenSafe features factory-installed power and networking gear in a variety of networking options allowing security integrators to design the optimal solution for active surveillance.

Cooper Lighting Solutions

1121 Highway 74 South Peachtree City, GA 30269

www.cooperlighting.com

P: 770-486-4800

