

| | |
|----------------|------|
| Catalog Number | |
| Notes | Type |

WallConnect LED



Description

Perimeter and security lighting requires excellent control and uniformity while minimizing light trespass and glare. The WCNG/WCNP WallConnect LED luminaires excel at this, requiring fewer luminaires to achieve required light levels in infrastructure, industrial and municipal applications. With energy cost reductions up to 77% and expected service life of over 20 years, WallConnect LED provides the latest lighting technology from the company that introduced the very first Wallpack to the market.

Optics

- The WCNG uses a borosilicate glass refractor lens and the WCNP uses a protective polycarbonate lens that covers the light engine's precision-molded proprietary silicone lenses.
- Type 3 medium
- Type 4 medium and optional underpass optic

Mechanical

- The housing is constructed of die-cast aluminum and is fully gasketed for ease of maintenance
- Housing is completely sealed against moisture and environmental contaminants, IP66
- Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering.
- A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling.

Electrical

- Light engine(s) consist of 10-30 high-efficacy LEDs mounted to a metal-core circuit board and integral aluminum heat sink to maximize heat dissipation and promote long life
- The standard 0-10V dimmable electronic driver and optional XVOLT and DALI drivers have a power factor of >90%, THD <20%
- Zetashield driver (XVOLT option) is available for particularly challenging dirty power environments
- DALI dimmable driver supporting D4i is available as an option. Consult factory for custom programming.
- Adjustable output module (AO option) provides selectable lumens output control.
- Traditional button and twist lock photo controls are available as well as embedded Bluetooth (LCP) and motion sensing controls (RSBOR).
- SPD: 20kV/10kA standard
- CCT: 2700K, 3000K, 4000K, 5000K
- CRI: 70CRI
- Integrated UL924 emergency backup option is available.

Installation

- Top, bottom, left and right side 1/2" threaded wiring access
- Back access through removable 1/2" knockout
- Feed-thru wiring can be achieved by using a conduit tee

Certification and Standards

- UL listed for wet locations. Rated for -40 °C to 50 °C ambient, refer to page 4 for details
- LM-79 compliant
- The projected LED Lumen Maintenance shall be based only on IES LM-80-08 and TM-21

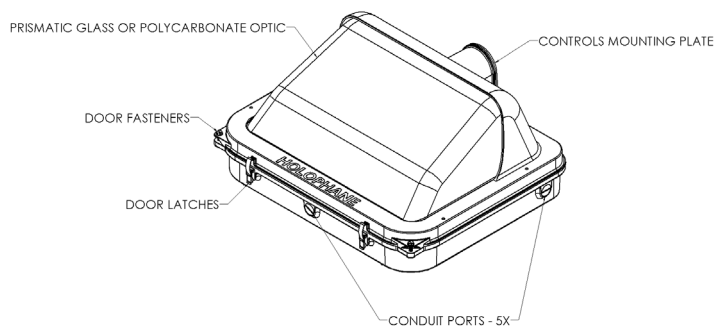
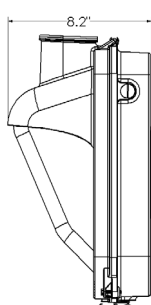
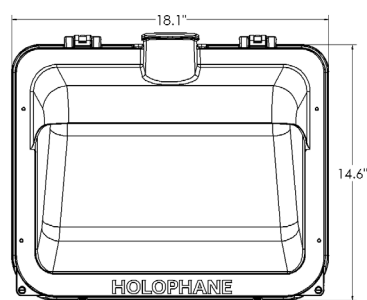
Warranty

5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C.



DIMENSIONAL DATA



ORDERING INFORMATION

Example: WCNG P8 30K T3M MVOLT ZT 20KV BKSDP SCRW PR7 PCLL ELCW

| Series | Performance Package | Color Temperature | Distribution | Voltage | Driver |
|---|---|----------------------------------|-----------------------|---------------------------|---|
| WCNG WallConnect LED Wallpack glass refractor | P1 ⁴ 16W, 2,100 nominal lumens at 4K CCT | 27K 2,700K CCT 30K 3,000K CCT | T3M TYPE III medium | MVOLT Multivolt (120-277) | ZT 0-10V dimmable |
| WCNP WallConnect LED Wallpack polycarbonate refractor | P2 ¹¹ 35W, 4,100 nominal lumens at 4K CCT | 40K 4,000K CCT 50K 5,000K CCT | T4M TYPE IV medium | 120 120VAC | XVOLT277 Zetashield driver for 277VAC applications |
| | P3 ¹¹ 51W, 6,200 nominal lumens at 4K CCT | | U4W TYPE IV underpass | 208 208VAC | XVOLT347 Zetashield driver for 347VAC applications |
| | P4 72W, 8,500 nominal lumens at 4K CCT | | | 240 240VAC | XVOLT480 Zetashield driver for 480VAC applications |
| | P5 ¹ 93W, 12,000 nominal lumens at 4K CCT | | | 277 277VAC | |
| | P6 ¹ 117W, 14,300 nominal lumens at 4K CCT | | | 347 347VAC | |
| | P7 ¹ 128W, 15,800 nominal lumens at 4K CCT | | | 480 480VAC | DALI2 ¹³ DALI D4i driver for 120-277VAC applications |
| | P8 ¹ 152W, 17,700 nominal lumens at 4K CCT | | | | |

| Surge Protection | Finish Color | Door Closure | Receptacles and Embedded Controls | Fusing | Adjustable Output |
|---|---|--|--|------------------------------|-----------------------------|
| 10KV 10kV/5kA fail on style MOV pack | BKSDP Black super durable paint BZSDP Bronze super durable paint | SCRW Standard screw closure | NPR No receptacle | SF ² Single fused | A0 Adjustable output module |
| 20KV ¹² 20kV/10kA fail off style SPD | GYSDP Grey super durable paint WHSDP White super durable paint | LTCH Toolless steel latches TMPS Tamper resistant enclosure fasteners | ZREC ⁵ Zhaga receptacle with weather cover PR7 ¹⁰ 7 pin dimming capable NEMA photo control receptacle BSPC Button style photocontrol integral LCP ^{5,8} Local Connect Bluetooth integral control DCP ^{5,8} DC embedded photo control | DF ³ Double fused | |

| Photo Control | Sensor | Emergency Battery | POM | Factory installed guards |
|---|---|--|-------------------------------|---------------------------------------|
| SH ⁷ Shorting cap for NEMA receptacle | RSBOR ⁶ External mount RSBOR nLight motion sensing control | ELSW ¹⁴ Emergency battery backup (standard 0C) | BAA BAA compliant made in USA | WCNLVG Vandal guard factory installed |
| PCLL ⁷ DTL DLL long life photo control | | ELCW ¹⁴ Emergency battery backup (cold eather -20C) | | WCNLWG Wire guard factory installed |

| Accessories: (separately shipped). | |
|------------------------------------|----------------------------|
| WCNVGU | Vandal guard |
| WCNWWG | Wire guard |
| DLL127F1.5JU | Multivolt DLL photocontrol |
| DLL3471.5CULJU | 347V DLL photocontrol |
| DLL4801.5CULJU | 480V DLL photocontrol |

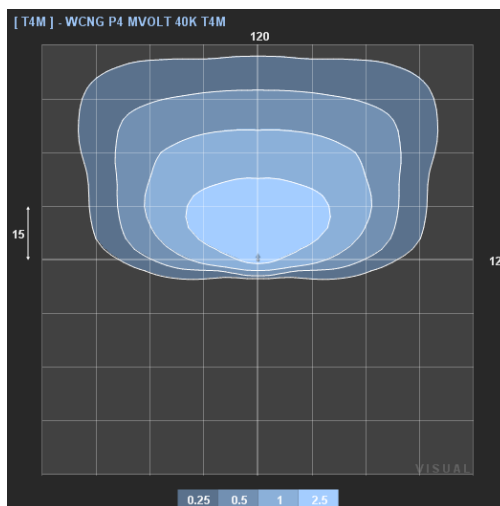
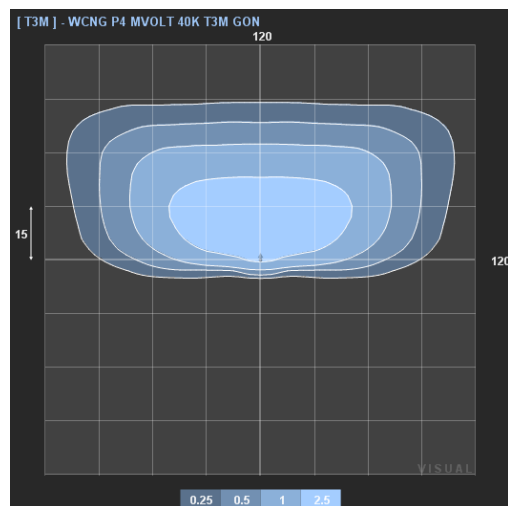
Notes

- P5, P6, P7 and P8 performance packages are not available with T4M or U4W distribution.
- Single fusing (SF) option is only valid with 120, 277, 347 and 480 voltage selections.
- Double fusing (DF) option is only valid with 208, 240 and 480 voltage selections.
- P1 performance package is not available with either XVOLT or DALI drivers.
- ZREC, LCP and DCP options require selection of DALI2 driver.
- RSBOR sensor option is not valid with DALI2, PR7, ZREC, AO, BSPC, LCP, DCP, SH, NPR or PCLL options.
- Shorting cap (SH) and DTL photo control (PCLL) options require selection of PR7 receptacle.
- LCP and DCP embedded control options are not allowed with BSPC, PR7, ZREC, AO, RSBOR, SH or PCLL options and require DALI2 driver to be selected.
- Battery backup options ELSW and ELCW cannot be selected with XVOLT driver or 347V or 480V configurations.
- Cannot select PR7 receptacle with RSBOR sensor or LCP or DCP controls.
- P2 and P3 performance packages are not available with XVOLT option and DALI option is not available with 347V or 480V selection.
- 20KV option not available in combination with XVOLT with P7 and P8 performance packages.
- DALI2 not available with P1, performance package.
- ELSW and ELCW with P1, P2 or P3 performance package cannot be selected with 20KV surge protection.

OPERATIONAL DATA

| Series | Performance Package | Distribution Type | Wattage | 2700K CCT | | 3000K CCT | | 4000K CCT | | 5000K CCT | |
|--------|---------------------|-------------------|---------|-----------|-------|-----------|-------|-----------|-------|-----------|-----|
| | | | | Lumens | LPW | Lumens | LPW | Lumens | LPW | Lumens | LPW |
| WCNG | P1 | T3M | 16 | 1,904 | 119 | 1,938 | 121 | 2,019 | 126 | 2,059 | 129 |
| | P2 | | 35 | 3,691 | 105 | 3,756 | 107 | 3,914 | 112 | 3,991 | 114 |
| | P3 | | 51 | 5,825 | 114 | 5,927 | 116 | 6,177 | 121 | 6,297 | 123 |
| | P4 | | 72 | 8,038 | 112 | 8,179 | 114 | 8,524 | 118 | 8,690 | 121 |
| | P5 | | 93 | 10,648 | 114 | 10,825 | 116 | 11,564 | 124 | 11,725 | 126 |
| | P6 | | 117 | 12,736 | 109 | 12,947 | 111 | 13,831 | 118 | 14,023 | 120 |
| | P7 | | 128 | 13,982 | 109 | 14,214 | 111 | 15,184 | 119 | 15,395 | 120 |
| | P8 | | 152 | 15,850 | 104 | 16,113 | 106 | 17,213 | 113 | 17,452 | 115 |
| | P1 | T4M | 16 | 1,935 | 121 | 1,969 | 123 | 2,052 | 128 | 2,092 | 131 |
| | P2 | | 35 | 3,752 | 107 | 3,817 | 109 | 3,978 | 114 | 4,056 | 116 |
| | P3 | | 51 | 5,901 | 116 | 6,004 | 118 | 6,257 | 123 | 6,379 | 125 |
| | P4 | | 72 | 8,143 | 113 | 8,285 | 115 | 8,635 | 120 | 8,803 | 122 |
| P1 | U4W | 16 | 1,909 | 119 | 1,943 | 121 | 2,025 | 127 | 2,064 | 129 | |
| P2 | | 35 | 3,702 | 106 | 3,766 | 108 | 3,925 | 112 | 4,002 | 114 | |
| P3 | | 51 | 5,507 | 108 | 5,604 | 110 | 5,840 | 115 | 5,954 | 117 | |
| P4 | | 72 | 7,600 | 106 | 7,733 | 107 | 8,059 | 112 | 8,216 | 114 | |
| WCNP | P1 | T3M | 16 | 1,942 | 121 | 1,977 | 124 | 2,059 | 129 | 2,100 | 131 |
| | P2 | | 35 | 3,765 | 108 | 3,831 | 109 | 3,992 | 114 | 4,071 | 116 |
| | P3 | | 51 | 5,942 | 117 | 6,046 | 119 | 6,301 | 124 | 6,423 | 126 |
| | P4 | | 72 | 8,199 | 114 | 8,343 | 116 | 8,694 | 121 | 8,864 | 123 |
| | P5 | | 93 | 10,861 | 117 | 11,042 | 119 | 11,795 | 127 | 11,960 | 129 |
| | P6 | | 117 | 12,991 | 111 | 13,206 | 113 | 14,108 | 121 | 14,303 | 122 |
| | P7 | | 128 | 14,262 | 111 | 14,498 | 113 | 15,488 | 121 | 15,703 | 123 |
| | P8 | | 152 | 16,167 | 106 | 16,435 | 108 | 17,557 | 116 | 17,801 | 117 |
| | P1 | T4M | 16 | 1,974 | 123 | 2,008 | 126 | 2,093 | 131 | 2,134 | 133 |
| | P2 | | 35 | 3,827 | 109 | 3,893 | 111 | 4,058 | 116 | 4,137 | 118 |
| | P3 | | 51 | 6,019 | 118 | 6,124 | 120 | 6,382 | 125 | 6,507 | 128 |
| | P4 | | 72 | 8,306 | 115 | 8,451 | 117 | 8,808 | 122 | 8,979 | 125 |
| | P1 | U4W | 16 | 1,947 | 122 | 1,982 | 124 | 2,066 | 129 | 2,105 | 132 |
| | P2 | | 35 | 3,776 | 108 | 3,841 | 110 | 4,004 | 114 | 4,082 | 117 |
| | P3 | | 51 | 5,617 | 110 | 5,716 | 112 | 5,957 | 117 | 6,073 | 119 |
| | P4 | | 72 | 7,752 | 108 | 7,888 | 110 | 8,220 | 114 | 8,380 | 116 |

PHOTOMETRIC DISTRIBUTIONS



OPERATIONAL DATA

Lumen Maintenance

Data references the extrapolated performance projections for the platforms noted in a 25° C ambient, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

| WCN Lumen Maintenance | | | | |
|-----------------------|-------|--------|--------|---------|
| Operating Hours | 0 | 25,000 | 50,000 | 100,000 |
| P1 | 1.000 | 0.956 | 0.915 | 0.839 |
| P2 | | | | |
| P3 | | | | |
| P4 | 1.000 | 0.956 | 0.904 | 0.818 |
| P5 | | | | |
| P6 | | | | |
| P7 | | | | |
| P8 | 1.000 | 0.930 | 0.866 | 0.750 |

| WCN Electrical Load | | | | | | | |
|---------------------|-------|-------------|---------|---------|---------|---------|---------|
| Performance Package | Watts | Current (A) | | | | | |
| | | 120 Vac | 208 Vac | 240 Vac | 277 Vac | 347 Vac | 480 Vac |
| P1 | 16 | 0.133 | 0.077 | 0.067 | 0.058 | 0.046 | 0.033 |
| P2 | 35 | 0.289 | 0.167 | 0.145 | 0.125 | 0.100 | 0.072 |
| P3 | 51 | 0.421 | 0.243 | 0.211 | 0.182 | 0.146 | 0.105 |
| P4 | 72 | 0.600 | 0.346 | 0.300 | 0.260 | 0.207 | 0.150 |
| P5 | 93 | 0.776 | 0.448 | 0.388 | 0.336 | 0.268 | 0.194 |
| P6 | 117 | 0.978 | 0.564 | 0.489 | 0.424 | 0.338 | 0.245 |
| P7 | 128 | 1.068 | 0.616 | 0.534 | 0.463 | 0.369 | 0.267 |
| P8 | 152 | 1.264 | 0.729 | 0.632 | 0.547 | 0.437 | 0.316 |

Lumen Ambient Temperature (LAT) Multipliers

Use this factors to determine relative lumen output for average ambient temperatures from 0-50° C (32-122°F)

Ambient Temperature Ratings

| WCN Series | | |
|------------|--------|--------------------------|
| Ambient | | Lumen Temperature Factor |
| 0° C | 32° F | 1.030 |
| 10° C | 50° F | 1.019 |
| 20° C | 68° F | 1.007 |
| 25° C | 77° F | 1.000 |
| 30° C | 86° F | 0.993 |
| 40° C | 104° F | 0.977 |
| 50° C | 122° F | 0.960 |

| Performance Package | Without Battery Backup | | With ELSW Option | | With ELCW Option | |
|---------------------|------------------------|-----------------|------------------|-----------------|------------------|-----------------|
| | Min Temperature | Max Temperature | Min Temperature | Max Temperature | Min Temperature | Max Temperature |
| P1 | -40°C | 50°C | 0°C | 40°C | -20°C | 40°C |
| P2 | -40°C | 50°C | 0°C | 40°C | -20°C | 40°C |
| P3 | -40°C | 50°C | 0°C | 40°C | -20°C | 40°C |
| P4 | -40°C | 50°C | 0°C | 40°C | -20°C | 40°C |
| P5 | -40°C | 50°C | 0°C | 40°C | -20°C | 40°C |
| P6 | -40°C | 50°C | 0°C | 40°C | -20°C | 40°C |
| P7 | -40°C | 40°C | N/A | N/A | N/A | N/A |
| P8 | -40°C | 40°C | N/A | N/A | N/A | N/A |

| WCN FAO | | | | | | | | | | | | | | | | |
|---------------------|----------------|-----------|----------------|-----------|----------------|-----------|----------------|-----------|----------------|-----------|----------------|-----------|----------------|-----------|----------------|-----------|
| Performance Package | P1 | | P2 | | P3 | | P4 | | P5 | | P6 | | P7 | | P8 | |
| A0 Position | % Lumen Output | % Wattage | % Lumen Output | % Wattage | % Lumen Output | % Wattage | % Lumen Output | % Wattage | % Lumen Output | % Wattage | % Lumen Output | % Wattage | % Lumen Output | % Wattage | % Lumen Output | % Wattage |
| 1 | 22% | 21% | 22% | 17% | 22% | 19% | 22% | 20% | 22% | 20% | 22% | 20% | 23% | 20% | 23% | 20% |
| 2 | 34% | 35% | 32% | 27% | 32% | 29% | 33% | 31% | 32% | 31% | 33% | 31% | 33% | 31% | 34% | 31% |
| 3 | 46% | 46% | 46% | 40% | 46% | 42% | 47% | 47% | 47% | 47% | 47% | 47% | 48% | 47% | 49% | 47% |
| 4 | 60% | 59% | 61% | 55% | 61% | 57% | 62% | 58% | 61% | 58% | 62% | 58% | 63% | 64% | 64% | 64% |
| 5 | 70% | 70% | 71% | 67% | 71% | 67% | 72% | 69% | 72% | 69% | 73% | 69% | 73% | 77% | 74% | 77% |
| 6 | 82% | 80% | 82% | 79% | 82% | 80% | 83% | 81% | 83% | 81% | 83% | 81% | 84% | 86% | 85% | 86% |
| 7 | 93% | 92% | 93% | 92% | 93% | 92% | 93% | 92% | 93% | 92% | 94% | 92% | 94% | 95% | 94% | 95% |
| 8 | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |