

Catalog Number	
Notes	Type

## WallConnect LED



### Description

Perimeter, security and roadway underpass 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
- Type 4 Underpass

### 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 dusk-to-dawn (DDC) and Local Connect (ALCB, ALCF, ALCC) 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
- Luminaire designed and tested to comply with ANSI C136:31 for 100,000 cycles at 3.0G acceleration for bridges and overpasses
- DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check with the DLC Qualified Products List at [www.designlights.org/QPL](http://www.designlights.org/QPL) to confirm which versions are qualified.

### Government Procurement

**BAA – Buy America(n) Act:** Product with the BAA option qualifies as a domestic end product under the Buy American Act as implemented in the FAR and DFARS. Product with the BAA option also qualifies as manufactured in the United States under DOT Buy America regulations.

**BABA – Build America Buy America:** Product with the BAA option also qualifies as produced in the United States under the definitions of the Build America, Buy America Act.

Please refer to [www.acuitybrands.com/buy-american](http://www.acuitybrands.com/buy-american) for additional information.

### Warranty

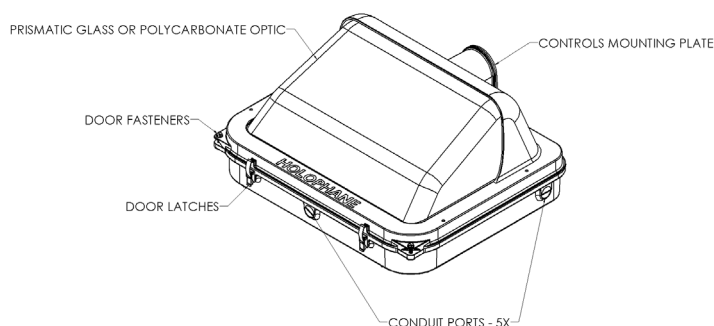
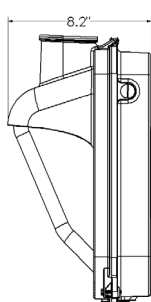
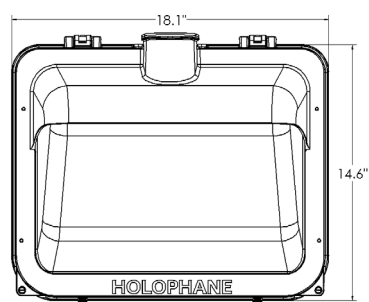
5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: [www.acuitybrands.com/support/warranty/terms-and-conditions](http://www.acuitybrands.com/support/warranty/terms-and-conditions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

**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



WCNG Weight = 28.5 lbs  
WCNP Weight = 22.5 lbs

## ORDERING INFORMATION

**Example:** WCNG P4 30K T3M MVOLT ZT 20KV BKSDP SCRW PR7 PCLL ELCW MISC

Series		Performance Package	Color Temperature	Distribution	Voltage	Driver
WCNG	WallConnect LED Wallpack glass refractor	P1 16W, 2,100 nominal lumens at 4K CCT	27K 2,700K CCT 30K 3,000K CCT	T3M TYPE III medium T4M TYPE IV medium	MVOLT Multivolt (120-277) 120 120VAC	ZT 0-10V dimmable D4I DALI D4i driver for 120-277VAC applications
WCNP	WallConnect LED Wallpack polycarbonate refractor	P2 <sup>6</sup> 35W, 4,100 nominal lumens at 4K CCT P3 <sup>6</sup> 51W, 6,200 nominal lumens at 4K CCT P4 72W, 8,500 nominal lumens at 4K CCT P5 93W, 12,000 nominal lumens at 4K CCT P6 117W, 14,300 nominal lumens at 4K CCT P7 128W, 15,800 nominal lumens at 4K CCT P8 138W, 15,700 nominal lumens at 4K CCT	40K 4,000K CCT 50K 5,000K CCT	U4W TYPE IV underpass	208 208VAC 240 240VAC 277 277VAC 347 347VAC 480 480VAC XVOLT277 Zetashield driver for 277VAC applications XVOLT347 Zetashield driver for 347VAC applications XVOLT480 Zetashield driver for 480VAC applications	

Surge Protection		Finish Color	Door Closure	Top Receptacle	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 LTCH Toolless steel latches	NTR No top receptacle PR7 7-pin photocontrol receptacle	SF <sup>1</sup> Single fused DF <sup>2</sup> Double fused	AO Adjustable output module
20KV	20kV/10kA fail off style SPD	GYSDP Grey super durable paint WHSDP White super durable paint	TMPS Tamper resistant enclosure fasteners	ZRT Zhaga receptacle on top of fixture		

Photo Control		Embedded Controls	Sensor	Emergency Battery	Terminal Block
SH	Shorting cap for NEMA receptacle	ALCB Local Connect Basic ALCC Local Connect Custom	RSBOR External mount RSBOR nLight motion sensing control	ELSW <sup>3,4,5</sup> Emergency battery backup (standard 0C) ELCW <sup>3,4,5</sup> Emergency battery backup (cold ether -20C)	TB 3-position Terminal Block (6-16 AWG)
PCLL	DTL DLL long life photo control	ALCF Local Connect Full DDC DC Connect photocontrol			
DZP	DC Zhaga Photocontrol	UBC Cell Connect BSPC Button Style photocontrol integral			

Nema Label	Factory installed guards	Point of Manufacture	Option
NL Nema Label	WCNLVG Vandal guard factory installed WCNLWG Wire guard factory installed	BAA Buy America(n) Act and/or Build America Buy America Qualified	MISC Mex

Accessories: (separately shipped).	
WCNVGU	Vandal guard
WCNWGU	Wire guard
DLL127F1.5JU	Multivolt DLL photocontrol
DLL3471.5CULJU	347V DLL photocontrol
DLL4801.5CULJU	480V DLL photocontrol
<b>Controls Training:</b>	
LCTRAIN	Local Connect Remote Training; 1 day training provided by Acuity Services Team

### Notes

1. Single fusing (SF) option only valid with 120, 277, 347 voltages
2. Double fusing (DF) option only valid with 208, 240, 480 voltages
3. Emergency Battery (ELSW and ELCW) cannot be selected with XVOLT, 347 or 480 voltages
4. Emergency Battery (ELSW and ELCW) with P1, P2 or P3 cannot be selected with 20KV surge protection
5. Emergency Battery (ELSW and ELCW) with P4 or P5 cannot be selected with D4I
6. P2 and P3 performance packages with 347 or 480 voltages cannot be selected with D4I

D4i Driver Option Defaults			
Setting	Top Receptacle / Photocontrol	Default Value	Alternate Values
DALI Power Bus	NTR	ON	Off
	ALCB / ALCF / ALCC	ON	none
	DDC	ON	none
	PR7	OFF	On
	ZRT	ON	Off
	DZP	ON	Off
Dimming Type	Any	LINEAR	Logarithmic
24V AUX	Any	ON (Not Connected)	none
Scenes Data	Any	0 (blank)	01-255

\*To program different settings, consult factory; RFD is required

## OPTIONS MATRIX

WCNG / WCNP		Driver		Surge Protection		Embedded Controls					Top Receptacle			AO	Photocontrols			Motion Sensor	Emergency Battery		
		ZT	D4I	10KV	20KV	ALCB	ALCF	ALCC	DDC	UBC	BSPC	NTR	PR7	ZRT	AO	SH	PCLL	DZP	RSBOR	ELSW	ELCW
Driver	ZT		N	Y	Y	N	N	N	N	N	Y	Y	Y	N	Y	Y	Y	N	Y	Y	Y
	D4I	N		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	N	Y	Y
Surge Protection	10KV	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	20KV	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Embedded Controls	ALCB	N	Y	Y	Y		N	N	N	N	N	Y	N	N	N	N	N	N	N	N	Y
	ALCF	N	Y	Y	Y	N		N	N	N	N	Y	N	N	N	N	N	N	N	N	Y
	ALCC	N	Y	Y	Y	N	N		N	N	N	Y	N	N	N	N	N	N	N	N	Y
	DDC	N	Y	Y	Y	N	N	N		N	N	Y	N	N	N	N	N	N	N	N	Y
	UBC	N	Y	Y	Y	N	N	N	N		N	Y	N	N	N	N	N	N	N	N	Y
Top Receptacle	BSPC	Y	Y	Y	Y	N	N	N	N	N		Y	N	N	Y	N	N	N	N	N	Y
	NTR	Y	Y	Y	Y	Y	Y	Y	Y	Y		N	N	Y	N	N	N	N	Y	Y	Y
	PR7	Y	Y	Y	Y	N	N	N	N	N	N		N	Y	Y	Y	N	N	N	Y	
AO	ZRT	N	Y	Y	Y	N	N	N	N	N	N	N		N	N	N	Y	N	N	Y	
	AO	Y	N	Y	Y	N	N	N	N	N	Y	Y	Y	N		Y	Y	N	N	Y	
Photocontrols	SH	Y	Y	Y	Y	N	N	N	N	N	N	Y	N	Y		N	N	N	N	Y	
	PCLL	Y	Y	Y	Y	N	N	N	N	N	N	Y	N	Y	N		N	N	N	Y	
	DZP	N	Y	Y	Y	N	N	N	N	N	N	N	Y	N	N	N		N	N	Y	
Motion Sensor	RSBOR	Y	N	Y	Y	N	N	N	N	N	N	Y	N	N	N	N	N	N		Y	
Emergency Battery	ELSW	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
	ELCW	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N

## Performance Package / Options Matrix

Performance Package	Distribution			Driver		Emergency Battery		Voltage									
	T3M	T4M	U4W	ZT	D4I	ELSW	ELCW	MVOLT	120	208	240	277	347	480	XVOLT277	XVOLT347	XVOLT480
P1	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N
P2	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N
P3	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N
P4	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
P5	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
P6	Y	N	N	Y	Y	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
P7	Y	N	N	Y	Y	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
P8	Y	N	N	Y	Y	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

### MATRIX KEY

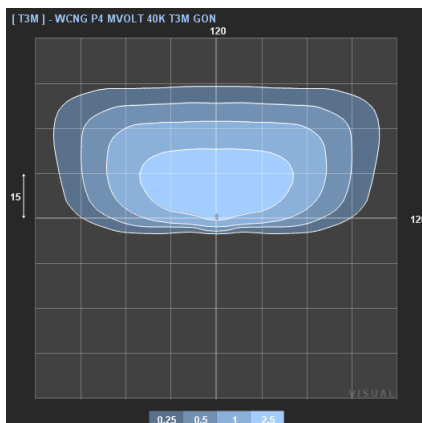
N = Combination Not available

Y = Valid Option Combination

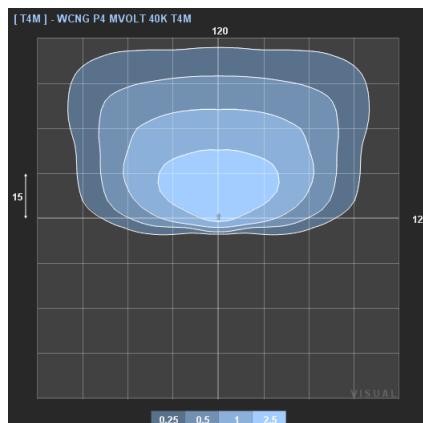
## OPERATIONAL DATA

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	2,021	126	2,054	128	2,194	137	2,225	139
	P2		35	3,962	114	4,028	116	4,303	124	4,362	126
	P3		51	6,171	122	6,274	124	6,702	133	6,795	135
	P4		72	8,403	117	8,542	119	9,125	127	9,252	129
	P5		93	10,648	114	10,825	116	11,564	124	11,725	126
	P6		117	12,736	108	12,947	110	13,831	118	14,023	119
	P7		128	13,982	109	14,214	111	15,184	118	15,395	120
	P8		138	14,426	105	14,665	106	15,666	114	15,884	115
	P1	T4M	16	2,053	128	2,087	130	2,230	139	2,261	141
	P2		35	4,026	116	4,093	118	4,373	126	4,433	128
	P3		51	6,251	124	6,355	126	6,789	134	6,883	136
	P4		72	8,512	118	8,653	120	9,244	128	9,372	130
	P5		93	9,621	103	9,781	105	10,448	112	10,593	114
	P1	U4W	16	2,026	127	2,060	129	2,200	138	2,231	139
	P2		35	3,973	114	4,039	116	4,314	124	4,374	126
P3	51		5,835	116	5,932	117	6,337	125	6,425	127	
P4	72		7,945	110	8,077	112	8,628	120	8,748	122	
P5	93		9,432	101	9,588	103	10,243	110	10,385	112	
WCNP	P1	T3M	16	1,864	117	1,895	118	2,024	127	2,052	128
	P2		35	3,655	105	3,715	107	3,969	114	4,024	116
	P3		51	5,693	113	5,787	115	6,182	122	6,268	124
	P4		72	7,751	108	7,880	109	8,418	117	8,535	119
	P5		93	9,823	106	9,986	107	10,668	115	10,816	116
	P6		117	11,748	100	11,943	102	12,759	109	12,936	110
	P7		128	13,623	106	13,849	108	14,794	115	14,999	117
	P8		138	13,787	100	14,016	102	14,973	109	15,181	110
	P1	T4M	16	1,885	118	1,916	120	2,047	128	2,075	130
	P2		35	3,696	107	3,757	108	4,014	116	4,069	117
	P3		51	5,656	112	5,750	114	6,142	122	6,228	123
	P4		72	7,701	107	7,829	109	8,363	116	8,480	118
	P5		93	9,032	97	9,182	99	9,809	105	9,945	107
	P1	U4W	16	1,838	115	1,869	117	1,996	125	2,024	127
	P2		35	3,604	104	3,664	106	3,914	113	3,969	114
P3	51		5,507	109	5,598	111	5,980	118	6,063	120	
P4	72		7,498	104	7,623	106	8,143	113	8,256	115	
P5	93		8,864	95	9,012	97	9,627	103	9,760	105	

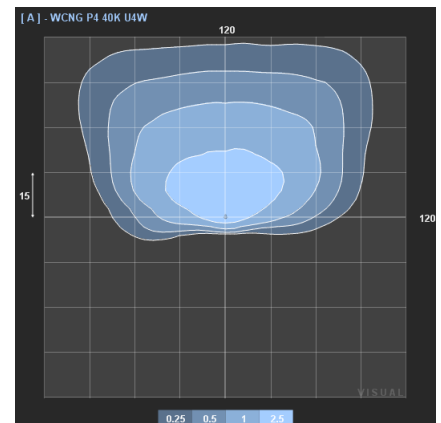
## PHOTOMETRIC DISTRIBUTIONS



T3M



T4M



U4W

## 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).

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

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 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	138	1.150	0.663	0.575	0.498	0.398	0.288

### Lumen Ambient Temperature (LAT) Multipliers

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

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

### Ambient Temperature Ratings

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	40°C	0°C	40°C	-20°C	40°C
P6	-40°C	40°C	N/A	N/A	N/A	N/A
P7	-40°C	35°C	N/A	N/A	N/A	N/A
P8	-40°C	35°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%	20%
2	34%	35%	32%	27%	32%	29%	33%	31%	32%	31%	33%	31%	33%	31%	34%	31%	31%
3	46%	46%	46%	40%	46%	42%	47%	47%	47%	47%	47%	47%	48%	47%	49%	47%	47%
4	60%	59%	61%	55%	61%	57%	62%	58%	61%	58%	62%	58%	63%	64%	64%	64%	64%
5	70%	70%	71%	67%	71%	67%	72%	69%	72%	69%	73%	69%	73%	77%	74%	77%	77%
6	82%	80%	82%	79%	82%	80%	83%	81%	83%	81%	83%	81%	84%	86%	85%	86%	86%
7	93%	92%	93%	92%	93%	92%	93%	92%	93%	92%	94%	92%	94%	95%	94%	95%	95%
8	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%