

# P8220 Series

8" Pro-Optic® LED  
 New Construction Downlight



## SPECIFICATIONS:

### General

- 8" commercial grade LED downlight utilizing remote phosphor technology to obtain color consistency, energy savings, and low maintenance costs
- 50,000 hours minimum life up to 35°C (95° F) in open plenum applications

### Housing

- One-piece 22 gauge non-corrosive steel platform
- Pre-wired J-box with snap-on cover for easy access
- Snap-in connection from driver compartment allows easy installation of light engine/trim assembly without tools above or below the ceiling and can be upgraded to accommodate technology improvements
- Approved for 8 (4 in/4 out) No. 12 AWG conductors rated for 90°C through wiring

### Reflector

- High purity aluminum Alzak, iridescence suppressed, semi-diffuse reflector
- Self-flanged trim standard
- White painted self-flanged trim (-28) option available

### LED Light Engine

- The P8220 uses the Philips Fortimo DLM Gen 4 LED Module with remote phosphor technology. This technology provides controlled color consistency from fixture to fixture
- The system is designed for optimal life and lumen maintenance (50,000 hours at 70% lumen maintenance)
- Both reflector and light engine assembly are mechanically retained to housing. The light engine comes standard with 80 CRI for all CCT's

### LED Driver

- Driver is designed to match the 50,000 hour minimum life expectancy of the system
- Meets UL Class 2, inherent short circuit protection, self limited, overload protected
- Integrated thermal feedback loop will gradually reduce current to protect system life
- Universal driver 120V-277V

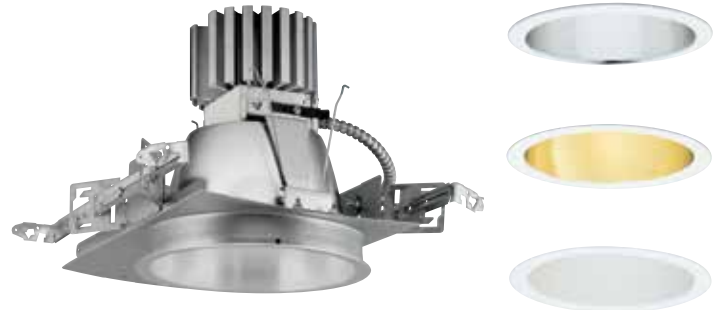
### Dimming

- Flicker-free 0 – 10V dimming to 10%

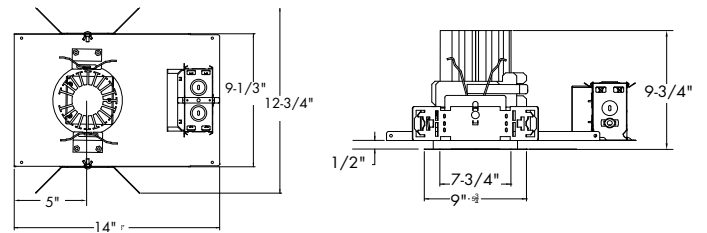
### Labeling

- cCSAus certified to US and Canadian standards
- Suitable for wet locations
- 5 year warranty

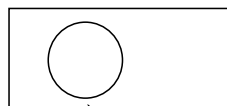
### Images:



### Ceiling Cutout: See Guide



Maximum Ceiling Thickness: 1-1/4"



#### Notes:

- To order proper housing:
1. Measure existing plaster frame aperture
  2. Use Compatibility Guide for selecting hsg

Dimensions shown are for the diameter of the frame flange at it's narrowest point.

## CATALOG NUMBER: \_\_\_\_\_

### SAMPLE: P8220-EB120VG4

Housing	Description	Voltage	Version
P8220- EB	8" LED NEW CONSTRUCTION	120V- 120 VOLT 277V- 277 VOLT	G4- 4TH GENERATION

### SAMPLE: P8120-21A/30KG4

Base	ReflectorFinish	Color Temp	Version
P8120 -3000 Lumens	21A - Clear Alzak 22A - Gold ALzak 28 - White	30K - 3000K 35K - 3500K 40K - 4000K	G4- 4TH GENERATION

## Performance:

Input Voltage	120/277V
Input Frequency	60Hz
Input Current	0.33A (120V) 0.14A (277V)
Input Power	39W
Constant Current Output	.3-1.0A
Power Factor	≥0.90
THD	<20%
EMI Filtering	FCC 47CFR PART 15, CLASS A
Operating Temperature	-20° C to 35° C
Dimming	0-10V

Over-voltage, over-current, short-circuit protected

Power consumption and photometric output may vary with HDM or 2DM driver option

## Dimming Notes:

Dimming 0-10V 100% to 10%

Pro-Optic LED driver is compatible with 0-10V type dimming controls. Recommended dimming controls are listed below.

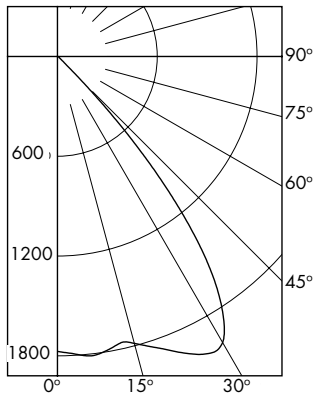
Control Manufacturer	Wallbox Dimmer	Power Booster Available
Douglas Lighting controls	WPC 5721	
Entertainment Technology	Tap Glide TG600FAM120 (120V) Tap Glide Heatsink TGH1500FAM120 (120V) Oasis OA2000FAMU (120/277V)	
Honeywell, Inc.	EL 7315A1019 and EL7315A1009	EL7305A1010
HUNT Dimming	Preset Slide: PS-010-IV-120V and PS-010-WH-120V Preset Slide: PS-010-3W-IV-120V and PS-010-3W-WH-120V Preset Slide: PS-010-IV-277V and PS-010-WH-277V Preset Slide: PS-010-3W-IV-277V and PS-010-3W-WH-277V Preset Slide, controls FD-010: PS-IFC-010-IV- and PS-IFC-010-WH-120/277V Preset Slide, controls FD-010: PS-IFC-010-3W-IV- and PS-IFC-010-3W-WH-120/277V Remoted mounted unit: FD-010-120V and FD-010-277V	
Lehigh Electric Products Co.	Solitaire	PBX
Leviton Lighting Controls Div.	Leviton Centura Fluorescent Control System IllumaTech™ IP7 Series	CN100 PE300
Lutron Electronics Co., Inc.	Visit <a href="http://www.lutron.com/advance">www.lutron.com/advance</a> for the latest control information and selection	
PDM Electrical products	WPC-5721	
Starfield Controls	TR61 with DALI interface port	RT03 DALI net router
The Watt Stopper, Inc.	LS4 used with LCD-101 and LCD-103	

Photometrics:

## P8120-21A/30KG4

### P8220-EB120VG4 with P8120-21A/30KG4

LED Light Engine: 3000K, 80 CRI  
 System Wattage: 38.8W  
 Fixture Delivered Lumens: 2834  
 Fixture Efficacy: 73.0  
 Spacing Criteria: 1.2



CANDELA DISTRIBUTION		
DEG	CANDELA	LUMENS
0	1773	
5	1805	172
15	1786	512
25	1976	909
35	1647	982
45	188	241
55	15	14
65	3	3
75	0	0
85	0	0
90	0	0

### ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	1593	56.2
0-40	2575	90.9
0-60	2831	99.9
0-90	2834	100.0
90-180	0	0.0
0-180	2834	100.0

### LUMINANCE DATA IN CANDELA/SQ. METER

Angle in Vertical	Average
45°	8196
55°	806
65°	219
75°	0
85°	0

### COEFFICIENTS OF UTILIZATION Zonal Cavity Method

Room Cavity Ratio	% Effective Ceiling Cavity Reflectance																				
	80%				70%				50%				30%				10%				
	% 20% Effective Floor Cavity Reflectance																				
	% Wall Reflectance																				
	70	50	30	10	70	50	30	10	70	50	30	10	70	50	30	10	70	50	30	10	
1	113	110	107	105	111	108	106	103	104	102	100	100	99	97	97	96	94				
2	107	102	97	94	105	100	96	93	97	93	91	94	91	89	91	89	87				
3	101	94	88	84	99	92	87	83	90	86	82	87	84	81	85	82	80				
4	95	87	81	76	93	86	80	76	83	79	75	81	77	74	79	76	73				
5	89	80	74	69	88	79	73	69	77	72	68	76	71	68	74	70	67				
6	84	74	68	63	83	74	67	63	72	67	62	71	66	62	69	65	62				
7	79	69	62	58	78	68	62	58	67	61	57	66	61	57	65	60	57				
8	75	64	58	53	73	64	57	53	63	57	53	61	56	53	60	56	52				
9	71	60	53	49	69	59	53	49	58	53	49	57	52	49	57	52	48				
10	67	56	50	45	66	56	49	45	55	49	45	54	49	45	53	48	45				

P8220-EB120VG4

Test No. 8457 2673996-06

P8120-21A/30KG4

Test No. 8457 2673996-06

Tested at 25°C Ambient in accordance to IESNA LM-79-2008