

# P8002 Series

6" Pro-Optic® LED  
 Retrofit Downlight



## SPECIFICATIONS:

### General

- 6" specification grade Retrofit LED retrofit downlight that combines superior brightness control with energy savings and low maintenance costs.
- Suitable for a variety of commercial, retail, and institutional applications with ambient temperature up to 40°C (104°F) in open plenum applications.

### Housing

- Components made of quality die cast aluminum or galvaneal steel
- Pre-wired J-box with snap-on cover for easy access
- Snap-in connection from driver compartment allows easy installation of LED trim assembly without tools above or below ceiling.
- 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 P8002 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 in all Kelvin temperatures

### 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%

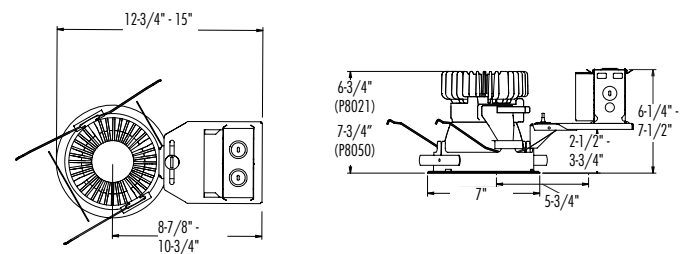
### Labeling

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

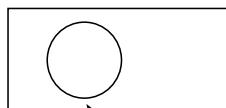
### Images:



### Ceiling Cutout: See Guide



### Maximum Ceiling Thickness: 1-1/2"



Dimensions shown are for the diameter of the frame flange at its narrowest point.

#### Notes:

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

## CATALOG NUMBER:

### SAMPLE: P8002-EBG4

Housing	Description	Voltage	Version
P8002-EB	6" LED Retrofit Housing	blank- 120V - 277V	G4- 4TH GENERATION
P8002-EBSD	6" LED Small Diameter Retrofit Housing	blank- 120V - 277V	G4- 4TH GENERATION

### SAMPLE: P8050-21A/30KG4

Base	ReflectorFinish	Color Temp	Version
P8021 -1100 Lumens	21A - Clear Alzak	30K - 3000K	G4- 4TH GENERATION
P8050-2000 Lumens	22A - Gold ALzak	35K - 3500K	
	28 - White	40K - 4000K	

Performance:	P8021-21A/30KG4	P8050-21A/30KG4
Input Voltage	120/277V	120/277V
Input Frequency	50/60Hz	50/60Hz
Input Current	0.12A (120v) 0.05A (277v)	0.22 (120v) 0.10 (277v)
Input Power	14.5W	26.5W
Constant Current Output	200-1000mA	200-1000mA
Power Factor	≥0.90	≥0.90
THD	<20%	<20%
EMI Filtering	FCC 47CFR PART 15, CLASS A	FCC 47CFR PART 15, CLASS A
Operating Temperature	-20° C to 40° C	-20° C to 40° C
Dimming	0-10V	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.

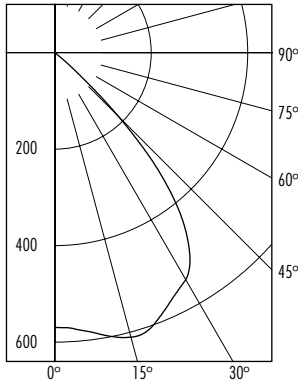
Control Manufacturer	Wallbox Dimmer	Power Booster Available
Douglas Lighting controls	WPC 5721	
Entertainment Technology	Tap Glide TG600FAM120 (120V) Tap Glide Heatsink TGH1500FAM120 (120V) Oasis OA2000FAMU (120/277V)	
Honeywell, Inc.	EL 7315A1019 and EL7315A1009	EL7305A1010
HUNT Dimming	Preset Slide: 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
Lightolier Controls	Sunrise Preset slider ZP600FAM120(120V) Momentum Preset Slider MP1500FAM120(120V) Vega Slider V2000FAMU(120/277)	
Lithonia Controls	ISD BC SLD LPCS Digital Equinox (DEQ BC)	RDM FC
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:**

## P8021-21A/30KG4

### P8002-EBG4 WITH P8021-21A/30KG4

LED Light Engine: 3000K, 80 CRI  
 System Wattage: 14.5W  
 Fixture Delivered Lumens: 1157  
 Fixture Efficacy: 80.0  
 Spacing Criteria: 1.2



**CANDELA DISTRIBUTION**

DEG	CANDELA	LUMENS
0	719	
5	722	69
15	756	212
25	692	321
35	597	365
45	236	181
55	4	8
65	0	0
75	0	0
85	0	0
90	0	0

Test No. 8458  
 Tested at 25°C Ambient in accordance to IESNA LM-79-2008

**ZONAL LUMEN SUMMARY**

ZONE	LUMENS	%LUMINAIRE
0-30	602	52.0
0-40	967	83.6
0-60	1157	100.0
0-90	1157	100.0
90-180	0	0.0
0-180	1157	100.0

**LUMINANCE DATA IN CANDELA/SQ. METER**

Angle in Vertical	Average
45°	18290
55°	382
65°	0
75°	0
85°	0

**COEFFICIENTS OF UTILIZATION**

Zonal Cavity Method

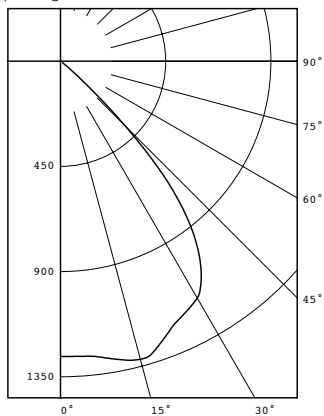
Room Cavity Ratio	% Effective Floor Cavity Reflectance																			
	80%				70%				50%				30%				10%			
	20% Effective Floor Cavity Reflectance																			
	% Wall Reflectance																			
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10			
1	113	110	107	105	110	108	105	103	104	102	100	100	98	97	96	95	94			
2	107	101	97	93	104	99	95	92	96	93	90	93	90	88	90	88	86			
3	100	93	88	83	98	92	87	82	89	85	81	87	83	80	84	81	79			
4	94	86	80	75	92	85	79	74	82	77	74	80	76	73	78	75	72			
5	89	79	73	68	87	78	72	67	76	71	67	75	70	66	73	69	66			
6	83	73	66	62	82	72	66	61	71	65	61	69	64	61	68	64	60			
7	78	68	61	56	77	67	61	56	66	60	56	64	59	55	63	59	55			
8	74	63	56	52	72	62	56	51	61	55	51	60	55	51	59	54	51			
9	69	59	52	47	68	58	52	47	57	51	47	56	51	47	55	50	47			
10	66	55	48	44	64	54	48	44	53	48	44	52	47	43	52	47	43			

P8002-EBG4 P8021-21A/3-KG4

## P8080-21A/30KG4

### P8002-EBG4 WITH P8050-21A/30KG4

LED Light Engine: 3000K, 80 CRI  
 System Wattage: 26.64W  
 Fixture Delivered Lumens: 2013  
 Fixture Efficacy: 76.1  
 Spacing Criteria: 1.2



**CANDELA DISTRIBUTION**

DEG	CANDELA	LUMENS
0	1263	
5	1267	122
15	1320	370
25	1212	561
35	1041	637
45	391	306
55	15	15
65	3	2
75	0	0
85	0	0
90	0	0

Test No. 8459  
 Tested at 25°C Ambient in accordance to IESNA LM-79-2008

**ZONAL LUMEN SUMMARY**

ZONE	LUMENS	%LUMINAIRE
0-30	1053	52.3
0-40	1690	83.9
0-60	2011	99.9
0-90	2013	100.0
90-180	0	0.0
0-180	2013	100.0

**LUMINANCE DATA IN CANDELA/SQ. METER**

Angle in Vertical	Average
45°	30302
55°	860
65°	259
75°	0
85°	0

**COEFFICIENTS OF UTILIZATION**

Zonal Cavity Method

Room Cavity Ratio	% Effective Floor Cavity Reflectance																			
	80%				70%				50%				30%				10%			
	20% Effective Floor Cavity Reflectance																			
	% Wall Reflectance																			
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10			
1	113	110	107	105	110	108	105	103	104	102	100	100	98	97	97	95	94			
2	107	101	97	93	104	99	95	92	96	93	90	93	90	88	90	88	86			
3	100	93	88	83	98	92	87	83	89	85	81	87	83	80	84	81	79			
4	94	86	80	75	92	85	79	75	83	78	74	80	76	73	79	75	72			
5	89	79	73	68	87	78	72	68	77	71	67	75	70	66	73	69	66			
6	83	73	67	62	82	73	66	62	71	65	61	70	65	61	68	64	60			
7	78	68	61	57	77	67	61	56	66	60	56	65	60	56	64	59	55			
8	74	63	56	52	73	63	56	52	61	56	51	60	55	51	59	55	51			
9	70	59	52	48	68	58	52	48	57	52	47	56	51	47	55	51	47			
10	66	55	48	44	65	54	48	44	54	48	44	53	47	44	52	47	44			

P8002-EBG4-P8050-21A/30KG4