

# P8023 Series

6" Pro-Optic® LED  
 New Construction Downlight



## SPECIFICATIONS:

### General

- 6" specification grade LED open downlight that utilizes 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
- 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 P8023 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%

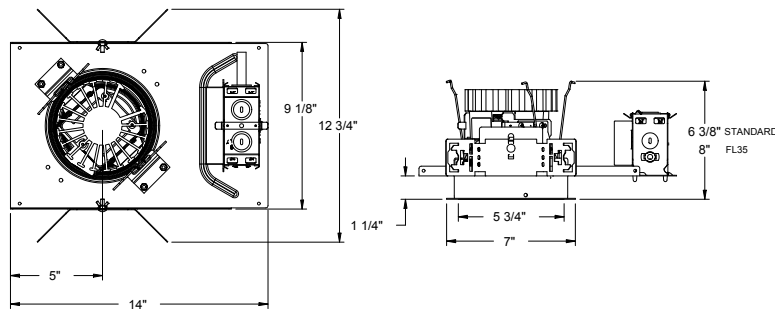
### Labeling

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

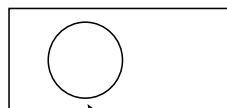
### Images:



### Ceiling Cutout: See Guide



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



- 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: P8023-EBG4

Housing	Description	Voltage	Version
P8023-EB	6" LED New Construction Housing	blank- 120V - 277V	G4- 4TH GENERATION

### SAMPLE: P8021-22A/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)	0.22A (120v) 0.10A (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 35° C	-20° C to 35° C
Dimming	0-10V	0-10V

Over-voltage, over-current, short-circuit protected  
 Power consumption and photometric output may vary with HDM or 2DM  
 When operating in EM mode, the fixture will deliver approximately 30% of the published full lumen output.

### 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.

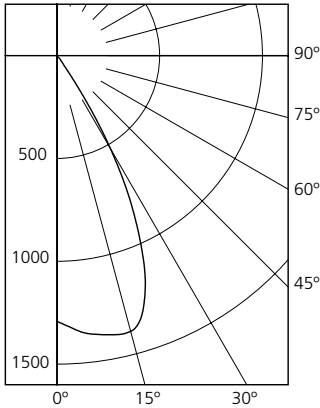
Control Manufacturer	Wallbox Dimmer	Power Booster Available
Douglas Lighting controls	WPC 5721	
Entertainment Technology	Tap Glide TG600FAM120 (120V) Tap Glide Heatsink TGH1500FAM120 (120V) Oasis OA2000FAMU (120/277V)	
Honeywell, Inc.	EL 7315A1019 and EL7315A1009	EL7305A1010
HUNT Dimming	Preset Slide: 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

### P8023-EBG4 WITH P8021-21A/30KG4

LED Light Engine: 3000K, 80 CRI  
 System Wattage: 14.1W  
 Fixture Delivered Lumens: 1051  
 Fixture Efficacy: 74.5  
 Spacing Criteria: .8



CANDELA DISTRIBUTION			
DEG	CANDELA	LUMENS	
0	1291		
5	1348	129	
15	1388	384	
25	932	415	
35	114	110	
45	9	11	
55	2	2	
65	0	1	
75	0	0	
85	0	0	
90	0	0	

ZONAL LUMEN SUMMARY		
ZONE	LUMENS	%LUMINAIRE
0-30	928	88.3
0-40	1038	98.7
0-60	1050	99.9
0-90	1051	100.0
90-180	0	0.0
0-180	1051	100.0

LUMINANCE DATA IN CANDELA/SQ. METER	
Angle in Vertical	Average
45°	759
55°	208
65°	141
75°	0
85°	0

Test No. 9373

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

#### 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	50	30	10	50	30	10	50	30	10	50	30	10
1	114	112	109	107	112	109	107	106	105	104	102	102	100	99	98	97	96			
2	109	105	101	98	107	103	100	97	100	97	95	97	95	93	94	93	91			
3	104	99	94	91	103	97	93	90	95	91	89	92	90	87	90	88	86			
4	100	93	88	84	98	92	88	84	90	86	83	88	85	82	86	83	81			
5	96	88	83	79	94	87	82	79	86	81	78	84	80	77	82	79	77			
6	91	84	78	74	90	83	78	74	81	77	74	80	76	73	79	75	73			
7	88	79	74	70	86	79	74	70	77	73	70	76	72	69	75	72	69			
8	84	75	70	66	83	75	70	66	74	69	66	73	69	66	72	68	65			
9	80	72	66	63	79	71	66	63	70	66	63	70	65	62	69	65	62			
10	77	68	63	60	76	68	63	60	67	63	60	66	62	59	66	62	59			

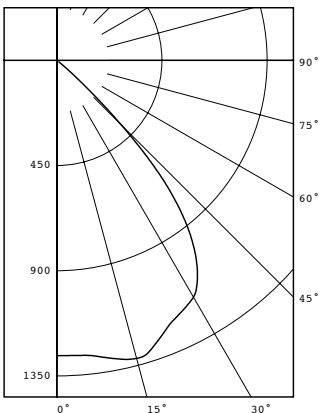
P8023-EBG4 P8021-21A/30KG4

Test No. 9373

## P8050-21A/30KG4

### P8023-EBG4 WITH P8050 -21A/30KG4

LED Light Engine: 3000K, 80 CRI  
 System Wattage: 26.4W  
 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	9	15	
65	2	2	
75	0	0	
85	0	0	
90	0	0	

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

Test No. 8453 2673996-08

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

#### 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	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	87	83	98	92	87	82	89	85	81	86	83	80	84	81	79			
4	94	86	80	75	92	85	79	74	82	77	73	80	76	73	78	75	72			
5	88	79	73	68	87	78	72	67	76	71	67	74	70	66	73	69	65			
6	83	73	66	61	82	72	66	61	71	65	61	69	64	60	68	63	60			
7	78	68	61	56	77	67	61	56	66	60	56	64	59	55	63	59	55			
8	74	63	56	51	72	62	56	51	61	55	51	60	55	51	59	54	51			
9	69	58	52	47	68	58	52	47	57	51	47	56	51	47	55	50	47			
10	65	55	48	44	64	54	48	44	53	47	43	52	47	43	52	47	43			

P8023-EBG4 P8050-21A/30KG4

Test No. 8450 2673996-09