

P8102 Series

8" Pro-Optic® LED
Remodel Downlight



SPECIFICATIONS:

General

- 8" commercial grade LED downlight utilizing remote phosphor technology to obtain color consistency, energy savings, and low maintenance costs
- The P8102 is specifically designed to retrofit into ceilings with existing downlights without the need to removed the existing fixture
- 50,000 hours minimum life up to 40°C (104° 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 P8102 uses the Philips Fortimo DLM 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

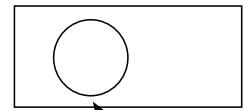
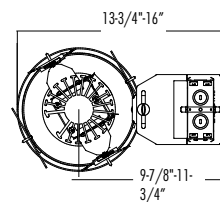
- cCSAus certified to US and Canadian standards
- Suitable for wet locations
- 5 year warranty

CATALOG NUMBER: _____

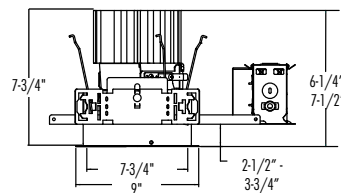
Images:



Ceiling Cutout: See Guide



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



Maximum Ceiling Thickness: 1-1/2"

Notes:

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

SAMPLE: P8102-EBG4

Housing	Description	Voltage	Version
P8102- EB	8" LED Remodel	blank - 120V - 277V	G4- 4TH GENERATION
P8102- EBSD	8" LED Remodel Small Diameter		

SAMPLE: P8121-21A/30KG4

Base	ReflectorFinish	Color Temp	Flange Options	Version
P8121 -1100 Lumens	21A - Clear Alzak	30K - 3000K	WF- Wide Flange*	G4- 4TH GENERATION
P8133-2000 Lumens	22A - Gold ALzak	35K - 3500K		
	28 - White	40K - 4000K		

* (only for small Diameter housings)

Performance:

	P8121-21A/30KG4	P8133-21A/30KG4
Input Voltage	120/277V	120/277V
Input Frequency	50/60Hz	50/60Hz
Input Current	0.12A (120V) 0.52A (277V)	0.22A (120V) 0.10A (277V)
Input Power	14.4W	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
Lutron Electronics Co., Inc.	Visit www.lutron.com/advance for the latest control information and selection	
PDM Electrical products	WPC-5721	
Starfield Controls	TR61 with DALI interface port	RT03 DAL Inet router
The Watt Stopper, Inc.	LS4 used with LCD-101 and LCD-103	

P8102 Series

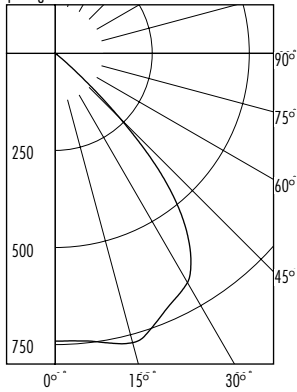
LED Remodel • Recessed

Photometrics:

P8121-21A/30KG4

P8102-EBG4 with P8121-21A/30KG4

LED Light Engine: 3000K, 80 CRI
 System Wattage: 14.4W
 Fixture Delivered Lumens: 1175
 Fixture Efficacy: 81.8 lm/watt
 Spacing Criteria: 1.2



CANDELA DISTRIBUTION		
DEG	CANDELA	LUMENS
0	692	
5	693	67
15	735	210
25	816	375
35	678	407
45	101	112
55	4	4
65	0	0
75	0	0
85	0	0
90	0	0

Test No. 8461

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

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	652	55.4
0-40	1058	90.1
0-60	1175	100.0
0-90	1175	100.0
90-180	0	0.0
0-180	1175	100.0

LUMINANCE DATA IN CANDELA/SQ. METER

Angle in Vertical	Average - 0°
45°	4403
55°	215
65°	0
75°	0
85°	0

COEFFICIENTS OF UTILIZATION Zonal Cavity Method

Room Cavity Ratio	% Effective Ceiling Cavity Reflectance																
	80%			70%			50%			30%			10%				
	70	50	30	10	70	50	30	10	50	30	10	50	30	10			
1	113	110	107	105	111	108	105	103	104	102	100	100	99	97	97	95	94
2	107	102	97	94	105	100	96	92	97	93	90	94	91	88	91	89	87
3	101	94	88	84	99	92	87	83	90	85	82	87	84	81	85	82	79
4	95	87	80	76	93	85	80	75	83	78	74	81	77	74	79	76	73
5	89	80	74	69	88	79	73	69	77	72	68	75	71	67	74	70	67
6	84	74	68	63	82	73	67	63	72	66	62	70	65	62	69	65	61
7	79	69	62	57	78	68	62	57	67	61	57	65	60	57	64	60	56
8	74	64	57	53	73	63	57	53	62	56	52	61	56	52	60	55	52
9	70	60	53	49	69	59	53	48	58	52	48	57	52	48	56	51	48
10	66	56	49	45	65	55	49	45	54	49	45	53	48	44	53	48	44

P8102-EBG4

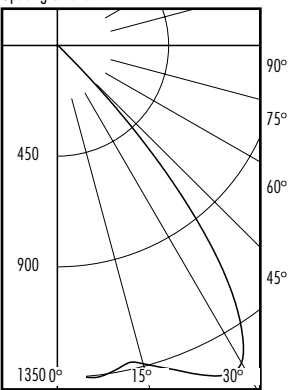
P8121-21A/30KG4

Test No. 8461

P8133-21A/30KG4

P8102-EBG4 with P8133-21A/30KG4

LED Light Engine: 3000K, 80 CRI
 System Wattage: 26.5W
 Fixture Delivered Lumens: 1978
 Fixture Efficacy: 74.6
 Spacing Criteria: 1.2



CANDELA DISTRIBUTION		
DEG	CANDELA	LUMENS
0	1191	
5	1232	118
15	1245	355
25	1335	616
35	1130	679
45	191	199
55	9	9
65	1	2
75	0	0
85	0	0
90	0	0

Test No. 8462

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

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	1089	55.1
0-40	1768	89.4
0-60	1976	99.9
0-90	1978	100.0
90-180	0	0.0
0-180	1978	100.0

LUMINANCE DATA IN CANDELA/SQ. METER

Angle in Vertical	Average
45°	8326
55°	484
65°	73
75°	0
85°	0

COEFFICIENTS OF UTILIZATION Zonal Cavity Method

Room Cavity Ratio	% Effective Ceiling Cavity Reflectance																
	80%			70%			50%			30%			10%				
	70	50	30	10	70	50	30	10	50	30	10	50	30	10			
1	113	110	107	105	111	108	105	103	104	102	100	100	99	97	97	95	94
2	107	102	97	93	105	100	96	92	96	93	90	93	91	88	91	89	87
3	101	94	88	84	99	92	87	83	90	85	82	87	84	81	85	82	79
4	95	87	80	76	93	85	80	75	83	78	74	81	77	74	79	76	73
5	89	80	74	69	87	79	73	68	77	72	68	75	71	67	74	70	67
6	84	74	67	63	82	73	67	62	72	66	62	70	65	62	69	65	61
7	79	69	62	57	78	68	62	57	67	61	57	65	60	57	64	60	56
8	74	64	57	53	73	63	57	53	62	56	52	61	56	52	60	55	52
9	70	60	53	49	69	59	53	48	58	52	48	57	52	48	56	51	48
10	66	56	49	45	65	55	49	45	54	49	45	53	48	44	53	48	44

P8102-EBG4

P8133-21A/30KG4

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