

# P8212 Series

6" High Output Pro-Optic® LED  
 New Construction Downlight



## SPECIFICATIONS:

### General

- 6" 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 P8212 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
- 120V or 277V available

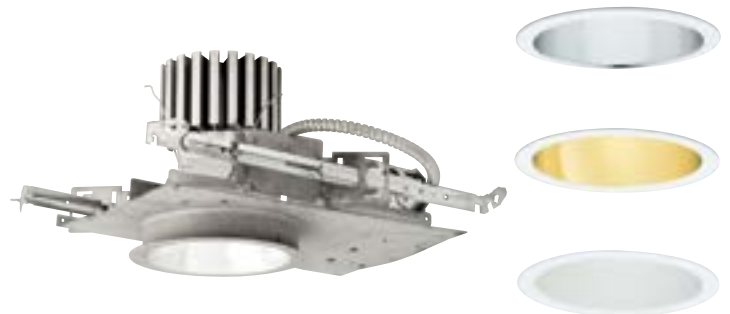
### Dimming

- Flicker-free 0 – 10V dimming to 10%

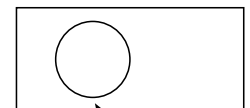
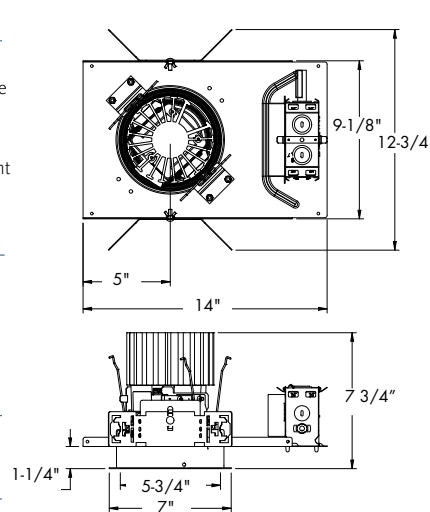
### Labeling

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

### Images:



### Ceiling Cutout: See Guide



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

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

Maximum Ceiling Thickness: 1-1/4"

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

### SAMPLE: P8212-EB120VG4

| Housing   | Description        | Voltage                    | Version            |
|-----------|--------------------|----------------------------|--------------------|
| P8212- EB | 6" LED High Output | 120V - 120V<br>277V - 277V | G4- 4th Generation |

### SAMPLE: P8112-21A/30KG4

| Base               | Reflector Finish                                    | Color Temp                                | Version            |
|--------------------|---|---|--------------------|
| P8112 -3000 Lumens | 21A - Clear Alzak<br>22A - Gold ALzak<br>28 - White | 30K - 3000K<br>35K - 3500K<br>40K - 4000K | G4- 4th Generation |

### Performance:

|                         |                                |
|-------------------------|--------------------------------|
| Input Voltage           | 120/277V                       |
| Input Frequency         | 60Hz                           |
| Input Current           | 0.325A (120v)<br>0.141A (277v) |
| Input Power             | 39W                            |
| Constant Current Output | .3-1.0A                        |
| Power Factor            | ≥0.90                          |
| THD                     | <20%                           |
| EMI Filtering           | FCC 47CFR<br>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.

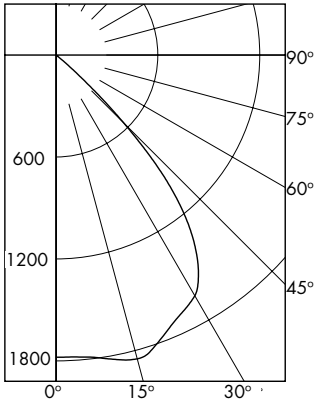
| Control Manufacturer           | Wallbox Dimmer  | Power Booster Available |
|--------------------------------|---|-------------------------|
| Douglas Lighting controls      | WPC 5721  |                         |
| Entertainment Technology       | Tap Glide TG600FAM120 (120V)<br>Tap Glide Heatsink TGH1500FAM120 (120V)<br>Oasis OA2000FAMU (120/277V)  |                         |
| Honeywell, Inc.                | EL 7315A1019 and EL7315A1009  | EL7305A1010             |
| HUNT Dimming                   | Preset Slide: PS-010-IV-120V and PS-010-WH-120V<br>Preset Slide: PS-010-3W-IV-120V and PS-010-3W-WH-120V<br>Preset Slide: PS-010-IV-277V and PS-010-WH-277V<br>Preset Slide: PS-010-3W-IV-277V and PS-010-3W-WH-277V<br>Preset Slide, controls FD-010: PS-IFC-010-IV- and PS-IFC-010-WH-120/277V<br>Preset Slide, controls FD-010: PS-IFC-010-3W-IV- and PS-IFC-010-3W-WH-120/277V<br>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<br>IllumaTech™ IP7 Series  | CN100<br>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:

## P8112-21A/30KG4

### P8212-EB120VG4 with P8112-21A/30KG4

LED Light Engine: 3000K, 80 CRI  
 System Wattage: 39.2W  
 Fixture Delivered Lumens: 2834  
 Fixture Efficacy: 72.3  
 Spacing Criteria: 1.2



| CANDELA DISTRIBUTION |         |        |
|----------------------|---------|--------|
| DEG                  | CANDELA | LUMENS |
| 0                    | 1778    |        |
| 5                    | 1784    | 171    |
| 15                   | 1851    | 519    |
| 25                   | 1702    | 788    |
| 35                   | 1449    | 887    |
| 45                   | 566     | 439    |
| 55                   | 16      | 26     |
| 65                   | 4       | 4      |
| 75                   | 0       | 0      |
| 85                   | 0       | 0      |
| 90                   | 0       | 0      |

### ZONAL LUMEN SUMMARY

| ZONE   | LUMENS | %LUMINAIRE |
|--------|--------|------------|
| 0-30   | 1478   | 52.1       |
| 0-40   | 2365   | 83.4       |
| 0-60   | 2830   | 99.8       |
| 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°               | 43865   |
| 55°               | 1529    |
| 65°               | 519     |
| 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  | 70  | 50  | 30  | 10  | 70  | 50 | 30 | 10 | 70  | 50 | 30 | 10 |    |
| 1                 | 113                                    | 110 | 107 | 105 | 110 | 108 | 105 | 103 | 104 | 102 | 100 | 100 | 98  | 97 | 96 | 95 | 94  | 93 | 90 | 88 | 86 |
| 2                 | 106                                    | 101 | 97  | 93  | 104 | 99  | 95  | 92  | 96  | 93  | 90  | 88  | 86  | 84 | 81 | 78 | 75  | 72 | 68 | 63 | 60 |
| 3                 | 100                                    | 93  | 87  | 83  | 98  | 92  | 86  | 82  | 89  | 85  | 81  | 78  | 75  | 72 | 68 | 63 | 60  | 56 | 51 | 47 | 43 |
| 4                 | 94                                     | 86  | 79  | 75  | 92  | 84  | 79  | 74  | 82  | 77  | 73  | 70  | 67  | 64 | 60 | 56 | 51  | 47 | 43 | 39 | 35 |
| 5                 | 88                                     | 79  | 72  | 68  | 87  | 78  | 72  | 67  | 76  | 71  | 67  | 64  | 60  | 56 | 51 | 47 | 43  | 39 | 35 | 31 | 27 |
| 6                 | 83                                     | 73  | 66  | 61  | 82  | 72  | 66  | 61  | 71  | 65  | 61  | 57  | 53  | 49 | 45 | 41 | 37  | 33 | 29 | 25 | 21 |
| 7                 | 78                                     | 68  | 61  | 56  | 77  | 67  | 60  | 56  | 66  | 60  | 56  | 52  | 48  | 44 | 40 | 36 | 32  | 28 | 24 | 20 | 16 |
| 8                 | 74                                     | 63  | 56  | 51  | 72  | 62  | 56  | 51  | 61  | 55  | 51  | 47  | 43  | 39 | 35 | 31 | 27  | 23 | 19 | 15 | 11 |
| 9                 | 69                                     | 58  | 52  | 47  | 68  | 58  | 52  | 47  | 57  | 51  | 47  | 43  | 39  | 35 | 31 | 27 | 23  | 19 | 15 | 11 | 7  |
| 10                | 65                                     | 54  | 48  | 44  | 64  | 54  | 48  | 44  | 53  | 47  | 43  | 39  | 35  | 31 | 27 | 23 | 19  | 15 | 11 | 7  | 3  |

P8212-EB120VG4  
 P8112-21A/30KG4

Test No. 8454 2673996-10

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