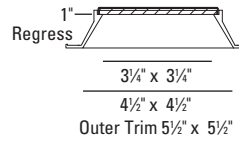


BeveLED® LED

Downlight



3010



LUMINAIRE INFORMATION

APPLICATION:

Accent luminaire for Residential, Commercial, Retail or Hospitality environments.

MATERIALS:

Trim: Die cast aluminum retained by two mounting clips.
Housing: All-Ways Square® housing allows alignment of square aperture (up to 20° rotation) after housing installation and prior to finish ceiling installation. All-Ways Square® covered by US Pat. No: US 7,832,889. Fabricated of 20 ga. galvanized steel with thru wire J-box, 4 in 4 out (for NC, NCAH and IC) 2 in 2 out (for NCSL and RT) at min. 90°C, #12 AGW thru branch circuit wiring. Housing and trim supplied as one complete unit.
Trim Lens: Proprietary low glare blended optical lens system.
Reflector: Precision injection molded specular polycarbonate reflector maximized for 30°, 50° or 80° beam distribution. 30° and 50° reflectors are field interchangeable in NC, IC, CP and NCAH.

LIGHT ENGINE: Field Replaceable

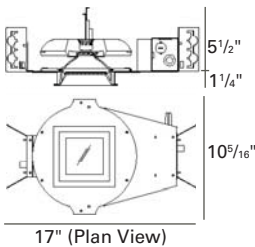
Available in 10W or 20W ±100K. High power white LED's tightly binned for fixture to fixture color consistency.

CRI OPTIONS:

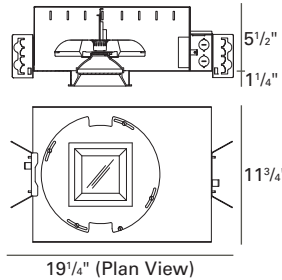
Standard: 80+ CRI. **High:** 90+ CRI.

HOUSING INFORMATION

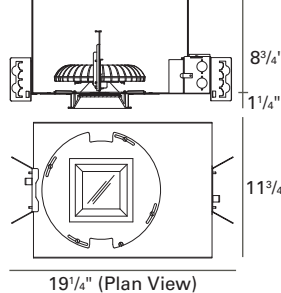
New Construction - NC
Non-Air Handling Plenum
 50° Beam Shown



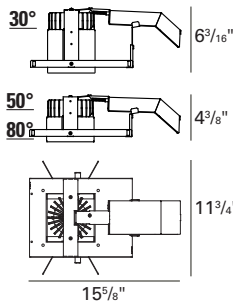
New Construction - NCAH
Air Handling Plenum
 50° Beam Shown



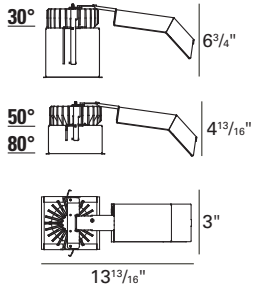
Insulated / Airtight - IC
Chicago Plenum - CP
 50° Beam Shown



New Construction - NCSL
Air Handling Plenum



Retrofit - RT
Air Handling Plenum



HOW TO SPECIFY

| Trim | Trim Suffix for 80° | Finish | Housing | Color Temperature | Reflector | Housing Type | Voltage | Accessories |
|--------------------------------------|---|--|--|--|----------------------------------|---|--------------|--|
| 3010 BeveLED Trim Downlight | 8 Use 8 suffix to order trim that uses 80° reflector Do not include 8 when ordering 30° or 50° reflector | 10 - White 21 - Black 28 - Metalized Grey RAL - Special Color | LSTD4-9010-C1 (10W LED) LSTD4-9020-C1 (20W LED) | Standard CRI 80+ 27 - 2700K 30 - 3000K 35 - 3500K 40 - 4000K High CRI 90+ 27H - 2700K 30H - 3000K | 30 - 30° 50 - 50° 80 - 80° | NC - New Construction CP - Chicago Plenum IC - Insulated / Airtight NCAH - New Construction Air Handling NCSL - New Construction Air Handling RT - Retrofit Air Handling | 120V 277V | CB27 - 27" C-Channel Bars CB52 - 52" C-Channel Bars DIML2 - 0-10V Low Voltage 15% Dimming Driver DIML4 - Lutron Hi-Lume LED / ECO System Series A 3 Wire Control 1% Dimming Driver Below Options ONLY available for NC / NCAH / IC* W - Wet Listed (under covered ceiling) EML - Emergency lighting battery pack w/ remote test switch. Not available in IC* Note: Housing size may differ. Above ceiling access required for service Not for use with WET LISTED (W) option SLD30 - 30° Reflector SLD50 - 50° Reflector |
| | 8 | | | | 80 | | | |

Use 8 suffix to order trim that uses 80° reflector only
Do not include 8 suffix when ordering 30° or 50° reflector

RATED LIFE: Based on IESNA LM80-2008

20W - 50,000 hours at 70% lumen maintenance (L70).
 10W - 50,000 hours at 70% lumen maintenance (L70).

HEATSINK:

Proprietary high performance aluminum die cast heatsink for maximum LED life.

DRIVER: Field Replaceable

Solid state electronic. Constant current.
 High power factor. Specify 120V or 277V.

DIMMING: (optional)

Multiple 3 wire dimming drivers available.
 See compatibility chart attached.

MOUNTING:

NC / NCAH / IC / NCSL : Butterfly brackets and adjustable nailer bars with integral nails provided. Nailer bars are extendible from 14" to 24" centers.
RT: Screw driver activated swing and compress mounting system.

CEILING CUT OUT: 5 1/16" x 5 1/16"

LISTINGS:

Dry/Damp.

*Wet under covered ceiling is optionally available (not standard). IBEW union made. Chicago Plenum housing is CCEA Approved.



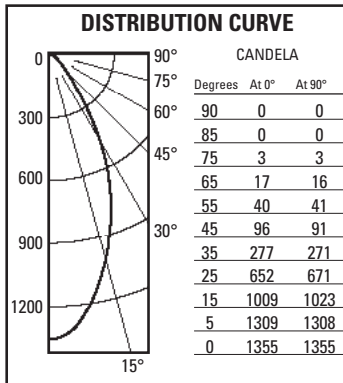
NOTES:

- Housing included with trim.
 - Maximum ceiling thickness
NC / NCAH / IC / CP: 1 inch. **NCSL / RT:** 1-1/4"
 Consult factory for other ceiling conditions.
 - Fixture should be installed in applications where ambient temperatures do not exceed 40°C during normal operation.
 - 5 year warranty**
 - IC not currently Energy Star rated.
 - NCSL / RT: Min. 1/2" clearance above fixture for servicing.
- PHOTOMETRICS:**
 Consult factory or website for IES files.
 Tested in accordance with IESNA LM79-2008.

BeveLED Downlight, 50° Beam, 20W
3010-10-LSTD4-9020-C1-30-50-NC-120V
 LTL Report No. : 19747
 Spacing Criteria: .74 CBCP: 1355



| LIGHTING PERFORMANCE DATA | | |
|---------------------------|---------------------|---------------------|
| Ceiling Height (FT) | Initial Footcandles | Beam Diameter @ 50° |
| 6.0 | 37.6 | 4.5 |
| 8.0 | 21.2 | 6.1 |
| 10.0 | 13.6 | 7.6 |
| 12.0 | 9.4 | 9.1 |
| 14.0 | 6.9 | 10.6 |



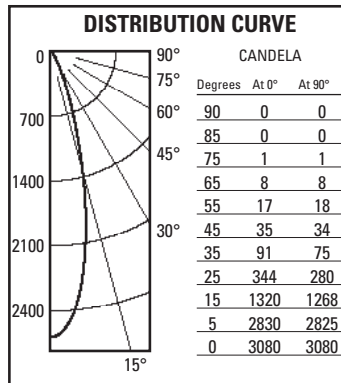
| ZONAL LUMEN SUMMARY | | | |
|---------------------|--------|-----------|----------------|
| Zone | Lumens | % of Lamp | % of Luminaire |
| 0-30 | 706.4 | N/A | 69.7% |
| 0-40 | 886.6 | N/A | 87.5% |
| 0-60 | 995.8 | N/A | 98.3% |
| 0-90 | 1013.5 | N/A | 100.0% |
| 90-180 | 0.0 | N/A | 0.0% |
| 0-180 | 1013.5 | N/A | 100.0% |

Total lumen Output: 1013.5 Lumens
Luminaire Efficacy: 51.7 Lumens per Watt
CIE Type: Direct
Spacing Criterion: 0°: 0.74 90°: 0.76
 180°: 0.74 270°: 0.76

BeveLED Downlight, 30° Beam, 20W
3010-10-LSTD4-9020-C1-30-30-NC-120V
 LTL Report No. : 19746
 Spacing Criteria: .46 CBCP: 3080



| LIGHTING PERFORMANCE DATA | | |
|---------------------------|---------------------|---------------------|
| Ceiling Height (FT) | Initial Footcandles | Beam Diameter @ 50° |
| 6.0 | 85.6 | 2.7 |
| 8.0 | 48.1 | 3.7 |
| 10.0 | 30.8 | 4.6 |
| 12.0 | 21.4 | 5.5 |
| 14.0 | 15.7 | 6.4 |



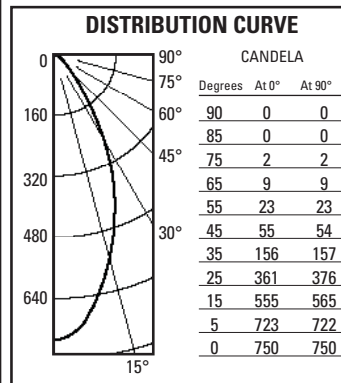
| ZONAL LUMEN SUMMARY | | | |
|---------------------|--------|-----------|----------------|
| Zone | Lumens | % of Lamp | % of Luminaire |
| 0-30 | 757.9 | N/A | 87.5% |
| 0-40 | 813.9 | N/A | 93.9% |
| 0-60 | 857.5 | N/A | 99.0% |
| 0-90 | 866.4 | N/A | 100.0% |
| 90-180 | 0.0 | N/A | 0.0% |
| 0-180 | 866.4 | N/A | 100.0% |

Total lumen Output: 866.4 Lumens
Luminaire Efficacy: 44.2 Lumens per Watt
CIE Type: Direct
Spacing Criterion: 0°: 0.46 90°: 0.45
 180°: 0.46 270°: 0.45

BeveLED Downlight, 50° Beam, 10W
3010-10-LSTD4-9010-C1-30-50-NC-120V
 LTL Report No. : 19901
 Spacing Criteria: .73 CBCP: 750



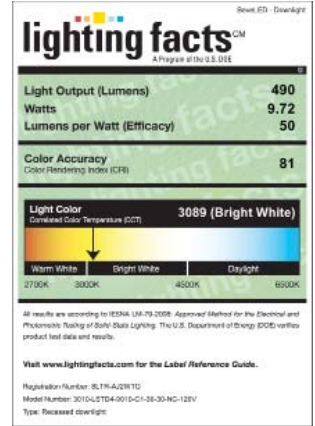
| LIGHTING PERFORMANCE DATA | | |
|---------------------------|---------------------|---------------------|
| Ceiling Height (FT) | Initial Footcandles | Beam Diameter @ 50° |
| 6.0 | 20.8 | 4.5 |
| 8.0 | 11.7 | 6.0 |
| 10.0 | 7.5 | 7.6 |
| 12.0 | 5.2 | 9.1 |
| 14.0 | 3.8 | 10.6 |



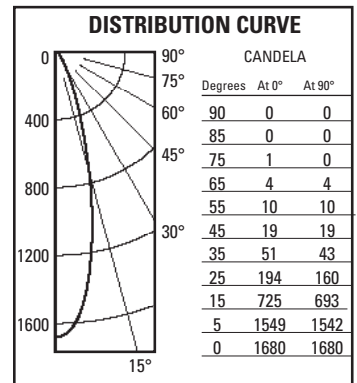
| ZONAL LUMEN SUMMARY | | | |
|---------------------|--------|-----------|----------------|
| Zone | Lumens | % of Lamp | % of Luminaire |
| 0-30 | 390.6 | N/A | 69.0% |
| 0-40 | 493.2 | N/A | 87.1% |
| 0-60 | 556.3 | N/A | 98.3% |
| 0-90 | 566.2 | N/A | 100.0% |
| 90-180 | 0.0 | N/A | 0.0% |
| 0-180 | 566.2 | N/A | 100.0% |

Total lumen Output: 566.2 Lumens
Luminaire Efficacy: 58.0 Lumens per Watt
CIE Type: Direct
Spacing Criterion: 0°: 0.73 90°: 0.77
 180°: 0.73 270°: 0.77

BeveLED Downlight, 30° Beam, 10W
3010-10-LSTD4-9010-C1-30-30-NC-120V
 LTL Report No. : 19900
 Spacing Criteria: .46 CBCP: 1680



| LIGHTING PERFORMANCE DATA | | |
|---------------------------|---------------------|---------------------|
| Ceiling Height (FT) | Initial Footcandles | Beam Diameter @ 50° |
| 6.0 | 46.7 | 2.8 |
| 8.0 | 26.2 | 3.7 |
| 10.0 | 16.8 | 4.6 |
| 12.0 | 11.7 | 5.5 |
| 14.0 | 8.6 | 6.4 |



| ZONAL LUMEN SUMMARY | | | |
|---------------------|--------|-----------|----------------|
| Zone | Lumens | % of Lamp | % of Luminaire |
| 0-30 | 417.0 | N/A | 87.2% |
| 0-40 | 448.7 | N/A | 93.9% |
| 0-60 | 473.1 | N/A | 99.0% |
| 0-90 | 478.0 | N/A | 100.0% |
| 90-180 | 0.0 | N/A | 0.0% |
| 0-180 | 478.0 | N/A | 100.0% |

Total lumen Output: 478.0 Lumens
Luminaire Efficacy: 49.0 Lumens per Watt
CIE Type: Direct
Spacing Criterion: 0°: 0.46 90°: 0.45
 180°: 0.46 270°: 0.45

Note: Above data shown using 80+ CRI. 90+ CRI, de-rate data by approximately 20%.

BeveLED® LED Downlight

Performance Summary (continued)

BeveLED Downlight, 80° Beam, 20W
3010-10-LSTD4-9020-C1-30-80-NC-120V

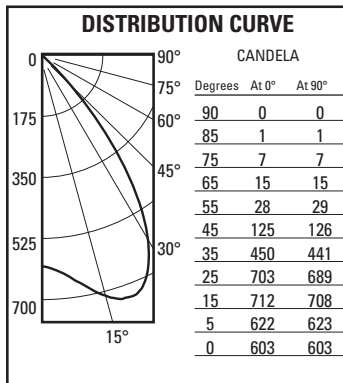
LTL Report No. : 23058

Spacing Criteria: 1.30 CBCP: 603.3



NOTE
lighting facts label
coming soon

| LIGHTING PERFORMANCE DATA | | |
|---------------------------|---------------------|---------------------|
| Ceiling Height (FT) | Initial Footcandles | Beam Diameter @ 50° |
| 6.0 | 16.8 | 7.92 |
| 8.0 | 9.43 | 10.6 |
| 10.0 | 6.03 | 13.2 |
| 12.0 | 4.19 | 15.8 |
| 14.0 | 3.08 | 18.5 |



ZONAL LUMEN SUMMARY

| Zone | Lumens | % of Lamp | % of Luminaire |
|--------|--------|-----------|----------------|
| 0-30 | 580 | N/A | 54.6% |
| 0-40 | 869 | N/A | 81.8% |
| 0-60 | 1038 | N/A | 97.7% |
| 0-90 | 1062 | N/A | 100.0% |
| 90-180 | 0.0 | N/A | 0.0% |
| 0-180 | 1062 | N/A | 100.0% |

Total lumen Output: 1062 Lumens

Luminaire Efficacy: 54.7 Lumens per Watt

CIE Type: Direct

Spacing Criterion: 0°: 1.30 90°: 1.29
180°: 1.30 270°: 1.29

Note: Above data shown using 80+ CRI. 90+ CRI, de-rate data by approximately 20%.

DIMMING DRIVER COMPATIBILITY SELECTION GUIDE

DIML2

DIMMING DRIVER WIRING SCHEMES:

DIML2 LED: 0-10V 3-Wire FL Dimming Driver Wiring (Dims down to 15%)

NOTE: Consult dimmer manufacturer for detailed installation information.

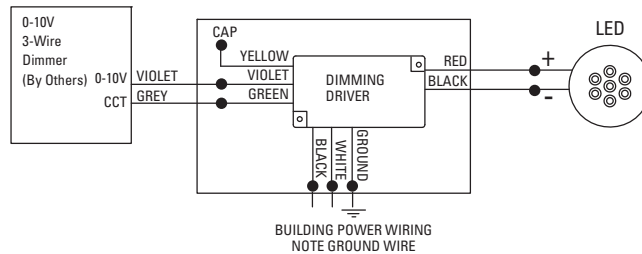
For use with 0-10V fluorescent type controls.

Use only with approved vendor models:

Lutron: DIVA DVTV-XX XX=Color

Leviton: IP710-DLX

Lightolier: V2000FAMU



Compatible Crestron Dimming System

NOTE: Consult dimmer manufacturer for detailed installation information.

| Crestron Model | Compatible | Min # of Fixtures Required (1) | Crestron Min-Max % Limits (2) | Measured Light Output (3) |
|----------------|------------|--------------------------------|-------------------------------|---------------------------|
| CLS-EXP-DIMFLV | Y | 1 | 0-100% | 15-100% |
| DIN-4DIMFLV4 | Y | 1 | 0-100% | 15-100% |
| DIN-A08 | Y | 1 | 0-100% | 15-100% |
| GLX-DIMFLV8 | Y | 1 | 0-100% | 15-100% |
| GLXP-DIMFLV8 | Y | 1 | 0-100% | 15-100% |

(1) Operating dimmers with less than the minimum required fixtures may cause flicker.

The Max number of fixtures is limited by dimmer rating unless otherwise noted.

(2) % Level refers to the Crestron Control System Intensity.

Operating the dimmer below the Min % level may cause flicker.

Operating the dimmer above the Max % may show no additional brightness.

(3) % Level of light output from fixture when connected directly to power source

(4) Dimmer requires a direct connection to neutral unless otherwise noted.

NOTE: See next page for DIML4 LED Dimming Part Numbers

DIML4 LED: Lutron Hi-Lume A-Series LED Driver with Eco System Control / LED Dimming Driver Wiring (Dims down to 1%)

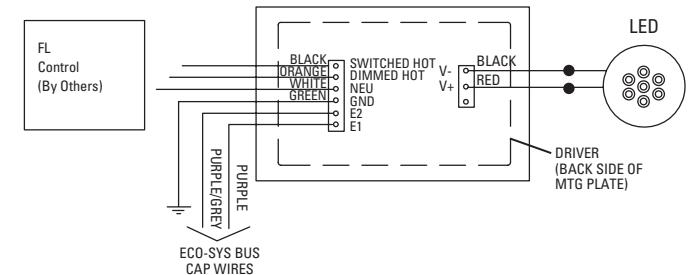
Compatible Lutron Dimmers / Test Results

NOTE: Consult dimmer manufacturer for detailed installation information.

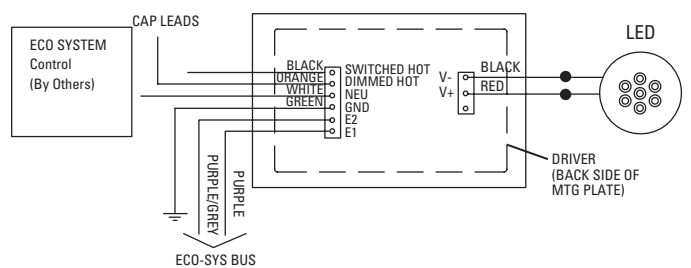
| Product | Part Number | Fixtures Per Dimmer | | Measured Light Output Range |
|-----------------------|---|---------------------|-------|-----------------------------|
| | | 120V | 277V | |
| NovaT | NTF-10, | 1-59 | - | 100% - 1% |
| NovaT | NTF-103P, NTF-10-277 | 1-29 | 1-61 | 100% - 1% |
| NovaT | NTF-103P-277 | - | 1-46 | 100% - 1% |
| Nova | NF-10 | 1-59 | - | 100% - 1% |
| Nova | NF-103P, NF-10-277 | 1-29 | 1-61 | 100% - 1% |
| Nova | NF-103P-277 | - | 1-46 | 100% - 1% |
| Vareo | VF-10 | 1-29 | - | 100% - 1% |
| Skylark | SF-10P, SF-103P | 1-29 | - | 100% - 1% |
| Skylark | SF-12P-277, SF-12P-277-3 | - | 1-46 | 100% - 1% |
| Diva | DVF-103, DVSCF-103P | 1-29 | - | 100% - 1% |
| Diva | DVF-103P-277, DVSCF-103P-277 | - | 1-46 | 100% - 1% |
| Ariadni | AYF-103P | 1-29 | - | 100% - 1% |
| Ariadni | AYF-103P-277 | - | 1-46 | 100% - 1% |
| Vierti | VTF-6AM | 1-22 | - | 100% - 1% |
| Maestro | MAF-6AM, MAF-6AM-277, MSCF-6AM, MCSF-6AM-277 | 1-22 | 1-46 | 100% - 1% |
| Maestro Wireless | MRF2-F6AN-DV | 1-22 | 1-46 | 100% - 1% |
| Spacer System | SPSF-6A, SPSF-6A-277, SPSF-6AM, SPSF-6AM-277 | 1-22 | 1-46 | 100% - 1% |
| Lyneo | LXF-103PL | 1-29 | - | 100% - 1% |
| Lyneo | LXF-103PL-277 | - | 1-46 | 100% - 1% |
| Radio RA 2 | RRD-F6AN-DV | 1-22 | 1-46 | 100% - 1% |
| HomeWorks QS | HQRD-F6AN-DV | 1-22 | 1-46 | 100% - 1% |
| Interfaces (1) | PHPM-3F | 1-59 | 1-123 | 100% - 1% |
| | GRX-FDBI-16A | 1-59 | - | 100% - 1% |
| EcoSystem | CS-1L-WM, CS-2L-WM, CS-1L CM, CS-2L-CM, EcoSystem ESN | 64 per | | 100% - 1% |
| | Grafik Eye QS with EcoSystem | EcoSystem link | | 100% - 1% |
| | Quantum | | | 100% - 1% |

(1) For use with 3 Wire controls or Commercial Systems, RA Systems or Home Systems applications.
*Contact Lutron tech support for degangging rules when using wallbox controls on the Hi-lume A-Series LED Driver.

Wire Diagram for 3-Wire FL Control (no Eco System Control)



Wire Diagram for ECO System Digital Control



Compatible Crestron Dimmers / Test Results

NOTE: Consult dimmer manufacturer for detailed installation information.

20W

Date Tested: 06/02/2011. [Report Revised 6/28/2011]
Dimming Performance: Smooth and Continuous.
Operating Voltage / Power Rating: 120V / 277V, 20W
Control Type: 3 Wire Control (HOT, Dimmed HOT, Neutral)
Notes: Recommend setting MIN Level to 25% to avoid dead travel at low dimming levels. Recommend setting MAX Level to level indicated below to avoid dead travel at high end.

| Crestron Model | Compatible | Min # of Fixtures Required (1) | Crestron Min-Max % Limits (2) | Measured Light Output % (3) | Notes |
|----------------|------------|--------------------------------|-------------------------------|-----------------------------|------------------------------|
| CLS-EXP-DIMFDB | Y | 1 | 25-87% | <1-100% | MIN Level must be set to 25% |
| GLX-DIM6 | Y | 1 | 25-77% | <1-100% | |
| GLXX-2DIM8 | Y | 1 | 25-70% | <1-100% | |

(1) Operating dimmers with less than the minimum required fixtures may cause flicker. The Max number of fixtures is limited by dimmer rating unless otherwise noted.
(2) % Level refers to the Crestron Control System Intensity. 0 power source
(4) Dimmer requires a direct connection to neutral unless otherwise noted.

10W

Date Tested: 06/02/2011.
Dimming Performance: Smooth and Continuous at 120V only.
Operating Voltage / Power Rating: 120V / 277V, 10W
Control Type: 3 Wire Control (HOT, Dimmed HOT, Neutral)
Notes: Recommend setting MIN Level to 25% to avoid dead travel at low dimming levels. Recommend setting MAX Level to level indicated below to avoid dead travel at high end. Power supply tested is NOT suitable for use at 277V. Supply cuts out regardless of LED Load or Dimmer connected.

| Crestron Model | Compatible | Min # of Fixtures Required (1) | Crestron Min-Max % Limits (2) | Measured Light Output % (3) | Notes |
|----------------|------------|--------------------------------|-------------------------------|-----------------------------|---|
| CLS-EXP-DIMFDB | Y | 1 | 25-87% | <1-100% | MIN Level must be set to 25% 120V operation only |
| GLX-DIM6 | Y | 1 | 25-77% | <1-100% | |
| GLXX-2DIM8 | Y | 1 | 25-70% | <1-100% | |