BeveLED2.1

## PROJECT INFORMATION

PROJECT _____

_____

DATE _____

TYPE _____

# ADJUSTABLE 3131

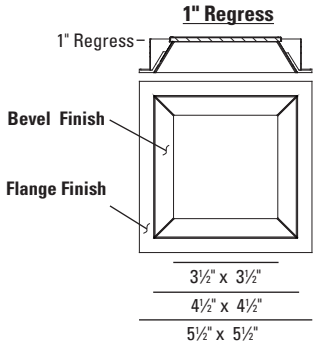
1" Regress

**BeveLED 2.1 Recessed Adjustable** - BeveLED 2.1 is the most complete recessed LED downlight product family available from USAI Lighting, now with more BeveLED trim finishes, LED classic white color temperatures, innovative housing styles, and dimming driver options than before. With industry-leading performance, BeveLED 2.1 can provide a solution for any project - commercial, corporate and residential installations.

## DELIVERED PERFORMANCE

| BeveLED 2.1 ADJUSTABLE | | 9 Watts | | 12 Watts | | 16 Watts | | 24 Watts | | 33 Watts | | 36 Watts | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Color Rendering Index | 80+ CRI | 90+ HIGH CRI | 80+ CRI | 90+ HIGH CRI | 80+ CRI | 90+ HIGH CRI | 80+ CRI | 90+ HIGH CRI | 80+ CRI | 90+ HIGH CRI | 80+ CRI | 90+ HIGH CRI |
| 25°/30° Performance Data | Lumens per Watt | 95 | 74 | 81 | 64 | 81 | 64 | 75 | 59 | 64 | 53 | 89 | 69 |
| | Source Lumens | 1150 | 900 | 1300 | 1025 | 1725 | 1350 | 2400 | 1875 | 3025 | 2350 | 4150 | 3250 |
| | **Delivered Lumens** | **850** | **675** | **975** | **750** | **1300** | **1025** | **1800** | **1400** | **2250** | **1750** | **3000** | **2350** |
| 10° Performance Data | Lumens per Watt | | | 83 | 71 | 84 | 70 | 78 | 65 | 71 | 59 | | |
| | Source Lumens | | | 1150 | 1000 | 1575 | 1300 | 2175 | 1800 | 2725 | 2275 | | |
| | **Delivered Lumens** | | | **1000** | **850** | **1350** | **1125** | **1875** | **1550** | **2350** | **1950** | | |
| | Color Consistency | 2-Step MacAdam Ellipse | | | | | | | | | | | |

Note: 25°/30° data includes solite glass lens. 10° data does not include lens.




| CCT MULTIPLIER | 2200K | 2700K | | 3000K | | 3500K | 4000K |
|---|---|---|---|---|---|---|---|
| Color Rendering Index | 80+ CRI | 80+ CRI | 90+ HIGH CRI | 80+ CRI | 90+ HIGH CRI | 80+ CRI | 80+ CRI |
| Multiplier for Lumen Output | 0.72 | 0.94 | 0.78 | 1.00 | .78 | 1.00 | 1.06 |

90+ CRI is not available for 2200K, 3500K, or 4000K

## HOW TO SPECIFY

**Ordering Example:** Specify trim code and housing code to order: Example : **3131W - B1- S - 10 - LSTA4 - 8412 - C3 - 27KS - 25 - NC - 277V - DIML2 - CB27**

### TRIM ORDERING INFORMATION

TRIM OPTION – BEVEL STYLE – LENS – FLANGE FINISH

| TRIM | OPTION | BEVEL STYLE | LENS | FLANGE FINISH |
|---|---|---|---|---|
| 3131 | _____ | | | |
| 3131 Square Adjustable 1" Regress | **W** Wet location [1] | **B1** 1" Regress Bevel, Painted Die Cast Matches Flange Finish | **N** No Glass (use for 10°) | **01** Clear Matte (AC Bevel only) |
| | [1] Wet location, use with B1 trims only. | **AB1** 1" Regress Bevel, Black Anodized | **S** Solite (use for 25°) | **02** Black Anodized (AB Bevel Only) |
| | | **AC1** 1" Regress Bevel, Clear Matte Anodized | **F** Frosted | **10** White |
| | | | **C** Clear (use for 10°) | **13** Statuary Bronze |
| | | | | **21** Black |
| | | | | **28** Metalized Grey |
| | | | | **RAL** Custom Color (specify RAL #) |

**OPTICAL ACCESSORIES**

(Order separately)

| | |
|---|---|
| **AL10E** | Refer to optical accessories matrix on next page for resulting beamspreads when accessory lens is combined with 10° and 25° optics |
| **AL15E** | |
| **AL30E** | |
| **AS61E** | |
| **AL20F** | |
| **AL30F** | |
| **AL40F** | |
| **AL55F** | |
| **AL80F** | |
| **AS61F** | |

Clearly specify quantity in your order

### HOUSING ORDERING INFORMATION

HOUSING CODE – WATTAGE – ENGINE CODE – COLOR – REFLECTOR – HOUSING TYPE – SELECT ONE VOLTAGE – DIMMING DRIVER OPTIONS – ACCESSORIES

| HOUSING CODE | WATTAGE | ENGINE CODE | COLOR | REFLECTOR | HOUSING TYPE | SELECT ONE VOLTAGE | DIMMING DRIVER OPTIONS | ACCESSORIES |
|---|---|---|---|---|---|---|---|---|
| **LSTA4** | **8409** 9W LED<br>**8412** 12W LED<br>**8416** 16W LED<br>**8424** 24W LED<br>**8433** 33W LED | **C3** | **22KS** 2200K, 80+ CRI [2]<br>**27KS** 2700K, 80+ CRI<br>**30KS** 3000K, 80+ CRI<br>**35KS** 3500K, 80+ CRI<br>**40KS** 4000K, 80+ CRI<br>**27KH** 2700K, 90+ CRI<br>**30KH** 3000K, 90+ CRI | **25** 25° beam [2] | **NC** New Construction, all in one<br>**CP** Chicago Plenum<br>**IC** Insulation-Contact Rated / Airtight [3] | **120V**<br>**277V** | **For use with 120V or 277V**<br>**DIML2** 0-10V dim, 10% (provided standard)<br>**DIML4** Lutron A 3-wire/ECO, 1%<br>**DIML4E** Lutron 5 ECO, 5% [4]<br>**DIML4H** Lutron H ECO, 1% Fade [4]<br>**DIML6A** EldoLED 0-10V, 0.1%, logarithmic / Lutron controls<br>**DIML6B** EldoLED 0-10V Linear, 0.1%, linear controls<br>**DIML6E** EldoLED 0-10V, 1%, logarithmic/Lutron controls<br>**DIML6F** EldoLED 0-10V, 1%, linear controls<br>**DIML7** EldoLED DALI, 0.1%<br>**DIML8** EldoLED DMX, 0.1% [5] | **CB27** 27" C-Channel Bars<br>**CB52** 52" C-Channel Bars<br>**EML** Emergency battery [7]<br>**EMLW** Emergency battery, wet location [7] |
| | **8412** 12W LED<br>**8416** 16W LED<br>**8424** 24W LED<br>**8433** 33W LED | **C2** | **27KS** 2700K, 80+ CRI<br>**30KS** 3000K, 80+ CRI<br>**35KS** 3500K, 80+ CRI<br>**40KS** 4000K, 80+ CRI<br>**27KH** 2700K, 90+ CRI<br>**30KH** 3000K, 90+ CRI | **10** 10° beam [2] | | | | |
| | **8436** 36W LED | **E1** | | **30** 30° beam | | | | |
| | See performance chart for precise lumen information. | | 2 Step MacAdam ellipse is standard for all | | See emergency solutions chart for EM options with these housings | **120V** | **For use with 120V only**<br>**DIML3** Lutron A 2-wire, 1% 120V only<br>**DIML19** Phase 2-wire dimming, 1% 120V only [4, 5, 6] | |
| | | | | | | **347V** | **For use with 347V only**<br>**DIML15** 0-10V dim, 1% 347 only | |

[2] Not available with E1 light engine

[3] Not available with E1 light engine

[4] N/A with 9W,
[5] N/A with 33W
[6] N/A with E1 light engine

[7] See emergency solutions chart for more details on EM options. Not available with 347V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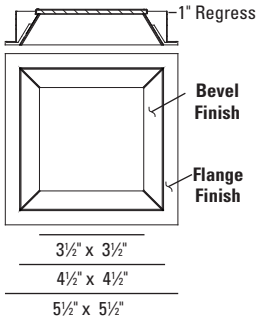
Revised 12/19//2017

# BeveLED 2.1

**ADJUSTABLE** 3131

## ADDITIONAL TRIM INFORMATION

**1" Regress**




| BeveLED 2.1 Optical Accessories Matrix | | | |
|---|---|---|---|
| if you want… | and you have…. | | |
| | 10° | 25° | 30° |
| 15° beam | AL10E | N/A | N/A |
| 20° beam | AL15E | N/A | N/A |
| 25° beam | AL30E | N/A | N/A |
| 35° beam | N/A | AL20F | N/A |
| 40° beam | N/A | AL30F | AL20F |
| 45° beam | N/A | AL40F | AL30F |
| 55° beam | N/A | AL55F | AL40F |
| 60° beam | N/A | AL80F | AL55F |
| 20x60° beam | AS61E | N/A | N/A |
| 40x60° beam | N/A | AS61F | AS61F |
| | size E | size F | size F |

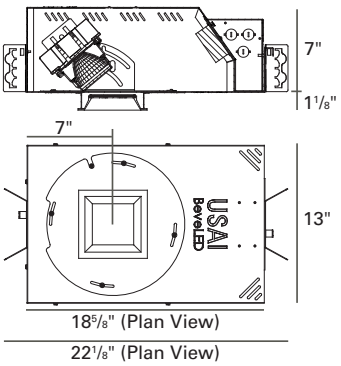
**3131 Emergency Solutions**

| Housing | EM SERVICE | Integral Test Switch | Remote Test Switch | Inverter By Others |
|---|---|---|---|---|
| NC | Through aperture | | X | |
| CP | N/A | | | X |
| IC | N/A | | | X |

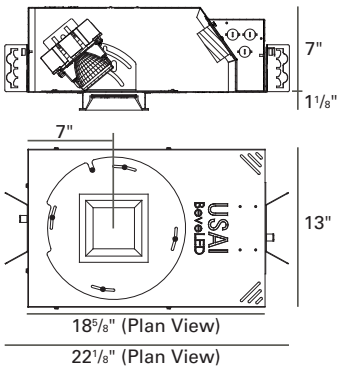
347V cannot be offered with EM

## HOUSING INFORMATION

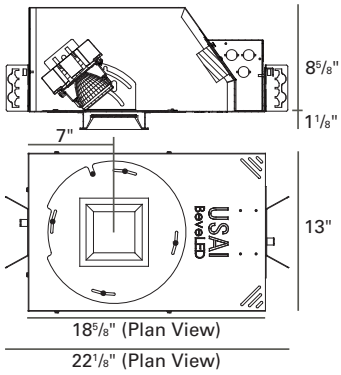
**New Construction**
**Universal Style Housing - NC**




**Chicago Plenum (24W and less) - CP**
**IC / Airtight (24W and less) - IC**




**Chicago Plenum (33W and 36W) - CP**
**IC / Airtight (33W) - IC**
(Not available with E1 light engine)




## SPECIFICATIONS

**TRIM:** 4-1/2" square aperture with a 1" regressed bevel and 1/2" flange, retained by two mounting clips. Die cast aluminum bevel is self-flanged and is available in white, statuary bronze, black, and metalized grey finishes. Also available in black anodized or clear matte anodized bevel with self-finish or with contrasting painted flange. Custom color flanges available (provide RAL#).

**TRIM LENS:** 25° and 30° trim is shipped with integral solite lens. 10° does not come with a solite lens unless selected as an option. Frosted lens option available for both. 10° wet location is provided with a clear lens.

**REFLECTOR:** Interchangeable precision injection molded specular polycarbonate reflector optimized for 10°, 25° or 30° beam distribution. Note: 10° optic requires dedicated 10° light engine. 10° is not available with E1 light engine.

**ADJUSTMENT:** True hot aiming with center beam optics is adjustable, with a completely tool-less mechanism. 0°-40° lockable vertical tilt with 362° lockable rotation.

**FIELD REPLACEABLE LIGHT ENGINE:** Available in 6 lumen packages. Engine is field replaceable through the aperture without tools. See performance chart for precise lumen output information.

**COLOR:** BeveLED 2.1 is available in 5 color temperatures (2200K, 2700K, 3000K, 3500K, 4000K). All color options are tightly binned for fixture-to-fixture color consistency within a 2-Step MacAdam Ellipse. 80+ color rendering index provided standard. 90+ CRI available for 2700K and 3000K CCTs. 2200K is not available with 10° or E1 light engine.

**RATED LIFE:** Based on IESNA LM80-2008 50,000 hours at 70% lumen maintenance (L70).

**THERMAL MANAGEMENT:** Proprietary high performance aluminum die cast heatsink for maximum LED life. Ambient temperatures at fixture location should not exceed 40°C during normal operation.

**FIELD REPLACEABLE DRIVER:** 0-10V, 100%-10% solid state electronic constant current driver with a high power factor provided standard and sources 2mA. Specify 120V or 277V. Driver complies with IEEE C62.41 surge protection.

**DIMMING OPTIONS:** Multiple dimming drivers available. See compatibility chart attached. Some on-time delay may be experienced depending on control system used. Note: DIML6A and DIML6E logarithmic control are intended for use with Lutron control systems; DIML6B and DIML6F linear control are intended for use with non-Lutron controls. DIML15 and DIML6 dimming drivers source 2mA.

**EMERGENCY:** Fixtures provided with a remote test switch are provided with a 24" lead length for location of the test switch. Fixtures that have no USAI EM option may be connected to an inverter (by others) for emergency lighting. See emergency solutions chart for more information on EM test switches and servicing.

**MOUNTING:** Butterfly brackets and adjustable nailer bars with integral nails provided. Nailer bars are extendible from 14" to 24" centers. C-channel bars are optionally available for acoustical ceiling applications.

**MAXIMUM CEILING THICKNESS:** As per drawings above.

**ACCESSORY HOLDER:** Snap in accessory holder shipped with fixture.
10° accepts "E" size lens, maximum 2.
25° accepts "F" size lens, maximum 2.
30° accepts "F" size lens, maximum 2.

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

**HOUSING:** All-Ways Square® (covered by US Pat. No: US 7,832,889) housing allows alignment of square aperture (up to 20° rotation) after housing installation and prior to finish ceiling installation. Fabricated of 20 ga. galvanized steel with thru wire J-box, 4 in 4 out at min. 90°C, #12 AWG thru branch circuit wiring. IC-rated housings for use with 9W, 12W, and 16W light engines only are rated for direct contact with spray foam insulation of R-42 or less. IC rated housing is not available with E1 light engine.

**LISTINGS:** Dry/Damp. Wet location option available with B1 trim only. NRTL/CSA-US tested to UL standards. IBEW union made. Energy Star Qualified under Luminaires Specification V2.0. Please see Energy Star website for exact model #s included in the listing. Please note that the following options are not Energy Star qualified: 22KS, 27KH, and 30KH light engines; E1 light engines; B-13, B-21, and AB trim styles; Frosted lens and EM options. CEC/Title 24 Compliant up to 16W maximum. See CEC website for exact models included.

**WARRANTY:** 5 years

**NOTES:**
- Not for use in corrosive environment.
- Use of pressure washer voids warranty.

**PHOTOMETRICS:** Consult factory or website for IES files. Tested in accordance with IESNA LM79-2008.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Revised 12/19/2017

## DELIVERED PERFORMANCE

### 3131 / 3431 16W 30KS 25°

**Coefficients Of Utilization - Zonal Cavity Method**

Effective Floor Cavity Reflectance: 20%

| RCC %: | 80 | | | | 70 | | | | 50 | | | 30 | | | 10 | | | 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RW %: | 70 | 50 | 30 | 0 | 70 | 50 | 30 | 0 | 50 | 30 | 20 | 50 | 30 | 20 | 50 | 30 | 20 | 0 |
| RCR: 0 | 1.19 | 1.19 | 1.19 | 1.19 | 1.16 | 1.16 | 1.16 | 1.00 | 1.11 | 1.11 | 1.11 | 1.06 | 1.06 | 1.06 | 1.02 | 1.02 | 1.02 | 1.00 |
| 1 | 1.15 | 1.12 | 1.10 | 1.09 | 1.12 | 1.10 | 1.09 | .96 | 1.06 | 1.05 | 1.04 | 1.03 | 1.02 | 1.01 | .99 | .98 | .98 | .96 |
| 2 | 1.11 | 1.07 | 1.04 | 1.01 | 1.08 | 1.05 | 1.02 | .93 | 1.02 | 1.00 | .98 | .99 | .97 | .96 | .96 | .95 | .94 | .92 |
| 3 | 1.07 | 1.02 | .98 | .95 | 1.05 | 1.00 | .97 | .89 | .98 | .95 | .92 | .95 | .93 | .91 | .93 | .91 | .90 | .88 |
| 4 | 1.03 | .97 | .93 | .90 | 1.01 | .96 | .92 | .86 | .94 | .91 | .88 | .92 | .89 | .87 | .90 | .88 | .86 | .85 |
| 5 | .99 | .93 | .89 | .85 | .98 | .92 | .88 | .82 | .90 | .87 | .84 | .89 | .86 | .83 | .88 | .85 | .83 | .82 |
| 6 | .96 | .89 | .85 | .81 | .95 | .89 | .84 | .79 | .87 | .83 | .81 | .86 | .83 | .80 | .85 | .82 | .80 | .79 |
| 7 | .93 | .86 | .81 | .78 | .92 | .85 | .81 | .77 | .84 | .80 | .78 | .83 | .80 | .77 | .82 | .79 | .77 | .76 |
| 8 | .90 | .83 | .78 | .75 | .89 | .82 | .78 | .74 | .81 | .77 | .75 | .80 | .77 | .74 | .80 | .76 | .74 | .73 |
| 9 | .87 | .80 | .75 | .72 | .86 | .79 | .75 | .72 | .79 | .75 | .72 | .78 | .74 | .72 | .77 | .74 | .72 | .71 |
| 10 | .85 | .77 | .73 | .70 | .84 | .77 | .73 | .69 | .76 | .72 | .70 | .75 | .72 | .69 | .75 | .72 | .69 | .68 |

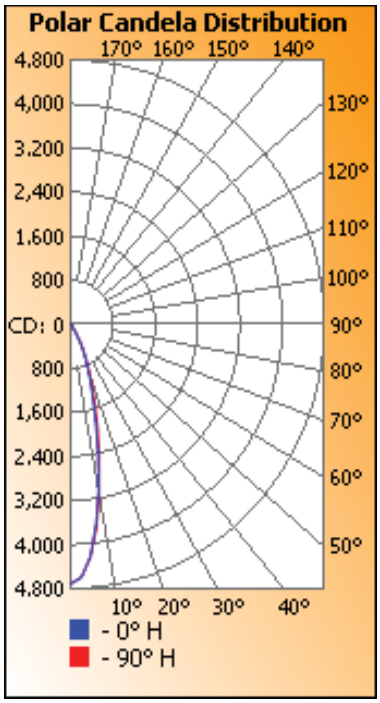
**Zonal Lumen Summary**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 1,185.7 | 92.3% |
| 0-40 | 1,268.1 | 98.7% |
| 0-60 | 1,282.9 | 99.9% |
| 60-90 | 1.6 | 0.1% |
| 70-100 | 0.2 | 0% |
| 90-120 | 0 | 0% |

**Illuminance at a Distance**

| | Center Beam fc | Beam Width | |
|---|---|---|---|
| 2.0ft | 1,181.6 fc | 0.9 ft | 0.9 ft |
| 4.0ft | 295.4 fc | 1.8 ft | 1.9 ft |
| 6.0ft | 131.3 fc | 2.7 ft | 2.8 ft |
| 8.0ft | 73.8 fc | 3.6 ft | 3.7 ft |
| 10.0ft | 47.3 fc | 4.5 ft | 4.7 ft |
| 12.0ft | 32.8 fc | 5.4 ft | 5.6 ft |
| 14.0ft | 24.1 fc | 6.3 ft | 6.5 ft |
| 16.0ft | 18.5 fc | 7.2 ft | 7.5 ft |

Vert. Spread: 25.2°
Horiz. Spread: 26.3°




### 3131 / 3431 33W 30KS 25°

**Coefficients Of Utilization - Zonal Cavity Method**

Effective Floor Cavity Reflectance: 20%

| RCC %: | 80 | | | | 70 | | | | 50 | | | 30 | | | 10 | | | 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RW %: | 70 | 50 | 30 | 0 | 70 | 50 | 30 | 0 | 50 | 30 | 20 | 50 | 30 | 20 | 50 | 30 | 20 | 0 |
| RCR: 0 | 1.19 | 1.19 | 1.19 | 1.19 | 1.16 | 1.16 | 1.16 | 1.00 | 1.11 | 1.11 | 1.11 | 1.06 | 1.06 | 1.06 | 1.02 | 1.02 | 1.02 | 1.00 |
| 1 | 1.15 | 1.12 | 1.10 | 1.09 | 1.12 | 1.10 | 1.09 | .96 | 1.06 | 1.05 | 1.04 | 1.03 | 1.02 | 1.01 | .99 | .98 | .98 | .96 |
| 2 | 1.11 | 1.07 | 1.04 | 1.01 | 1.08 | 1.05 | 1.02 | .93 | 1.02 | 1.00 | .98 | .99 | .97 | .96 | .96 | .95 | .94 | .92 |
| 3 | 1.07 | 1.02 | .98 | .95 | 1.05 | 1.00 | .97 | .89 | .98 | .95 | .92 | .95 | .93 | .91 | .93 | .91 | .90 | .88 |
| 4 | 1.03 | .97 | .93 | .90 | 1.01 | .96 | .92 | .86 | .94 | .91 | .88 | .92 | .89 | .87 | .90 | .88 | .86 | .85 |
| 5 | .99 | .93 | .89 | .85 | .98 | .92 | .88 | .82 | .90 | .87 | .84 | .89 | .86 | .83 | .88 | .85 | .83 | .82 |
| 6 | .96 | .89 | .85 | .81 | .95 | .89 | .84 | .79 | .87 | .83 | .81 | .86 | .83 | .80 | .85 | .82 | .80 | .79 |
| 7 | .93 | .86 | .81 | .78 | .92 | .85 | .81 | .77 | .84 | .80 | .78 | .83 | .80 | .77 | .82 | .79 | .77 | .76 |
| 8 | .90 | .83 | .78 | .75 | .89 | .82 | .78 | .74 | .81 | .77 | .75 | .80 | .77 | .74 | .80 | .76 | .74 | .73 |
| 9 | .87 | .80 | .75 | .72 | .86 | .79 | .75 | .72 | .79 | .75 | .72 | .78 | .74 | .72 | .77 | .74 | .72 | .71 |
| 10 | .85 | .77 | .73 | .70 | .84 | .77 | .73 | .69 | .76 | .72 | .70 | .75 | .72 | .69 | .75 | .72 | .69 | .68 |

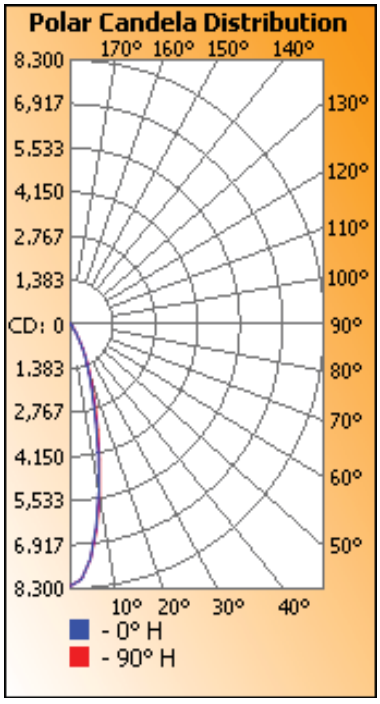
**Zonal Lumen Summary**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 2,065.7 | 92.3% |
| 0-40 | 2,209.1 | 98.7% |
| 0-60 | 2,235.1 | 99.9% |
| 60-90 | 2.8 | 0.1% |
| 70-100 | 0.4 | 0% |
| 90-120 | 0 | 0% |

**Illuminance at a Distance**

| | Center Beam fc | Beam Width | |
|---|---|---|---|
| 2.0ft | 2,058.5 fc | 0.9 ft | 0.9 ft |
| 4.0ft | 514.6 fc | 1.8 ft | 1.9 ft |
| 6.0ft | 228.7 fc | 2.7 ft | 2.8 ft |
| 8.0ft | 128.7 fc | 3.6 ft | 3.7 ft |
| 10.0ft | 82.3 fc | 4.5 ft | 4.7 ft |
| 12.0ft | 57.2 fc | 5.4 ft | 5.6 ft |
| 14.0ft | 42.0 fc | 6.3 ft | 6.5 ft |
| 16.0ft | 32.2 fc | 7.2 ft | 7.5 ft |

Vert. Spread: 25.2°
Horiz. Spread: 26.3°



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## DELIVERED PERFORMANCE

### 3131 / 3431 16W 30KS 10°

**Coefficients Of Utilization - Zonal Cavity Method**

Effective Floor Cavity Reflectance: 20%

| RCC %: | 80 | | | | 70 | | | | 50 | | | 30 | | | 10 | | | 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RW %: | 70 | 50 | 30 | 0 | 70 | 50 | 30 | 0 | 50 | 30 | 20 | 50 | 30 | 20 | 50 | 30 | 20 | 0 |
| RCR: 0 | 1.19 | 1.19 | 1.19 | 1.19 | 1.16 | 1.16 | 1.16 | 1.00 | 1.11 | 1.11 | 1.11 | 1.06 | 1.06 | 1.06 | 1.02 | 1.02 | 1.02 | 1.00 |
| 1 | 1.15 | 1.14 | 1.12 | 1.10 | 1.13 | 1.11 | 1.10 | .98 | 1.07 | 1.06 | 1.05 | 1.04 | 1.03 | 1.02 | 1.00 | 1.00 | .99 | .98 |
| 2 | 1.12 | 1.09 | 1.06 | 1.04 | 1.10 | 1.07 | 1.05 | .96 | 1.04 | 1.02 | 1.01 | 1.01 | 1.00 | .99 | .99 | .98 | .97 | .95 |
| 3 | 1.09 | 1.05 | 1.02 | .99 | 1.07 | 1.04 | 1.01 | .93 | 1.01 | .99 | .97 | .99 | .97 | .96 | .97 | .95 | .94 | .93 |
| 4 | 1.06 | 1.02 | .98 | .96 | 1.05 | 1.01 | .98 | .92 | .99 | .96 | .94 | .97 | .95 | .93 | .95 | .94 | .92 | .91 |
| 5 | 1.04 | .99 | .95 | .93 | 1.03 | .98 | .95 | .90 | .97 | .94 | .92 | .95 | .93 | .91 | .94 | .92 | .90 | .89 |
| 6 | 1.02 | .96 | .93 | .90 | 1.01 | .96 | .92 | .88 | .95 | .92 | .89 | .93 | .91 | .89 | .92 | .90 | .88 | .87 |
| 7 | 1.00 | .94 | .91 | .88 | .99 | .94 | .90 | .87 | .93 | .90 | .88 | .92 | .89 | .87 | .91 | .89 | .87 | .86 |
| 8 | .98 | .92 | .89 | .86 | .97 | .92 | .89 | .85 | .91 | .88 | .86 | .90 | .88 | .86 | .89 | .87 | .85 | .85 |
| 9 | .96 | .91 | .87 | .85 | .95 | .90 | .87 | .84 | .89 | .87 | .85 | .89 | .86 | .84 | .88 | .86 | .84 | .83 |
| 10 | .94 | .89 | .86 | .84 | .94 | .89 | .86 | .83 | .88 | .85 | .83 | .87 | .85 | .83 | .87 | .85 | .83 | .82 |

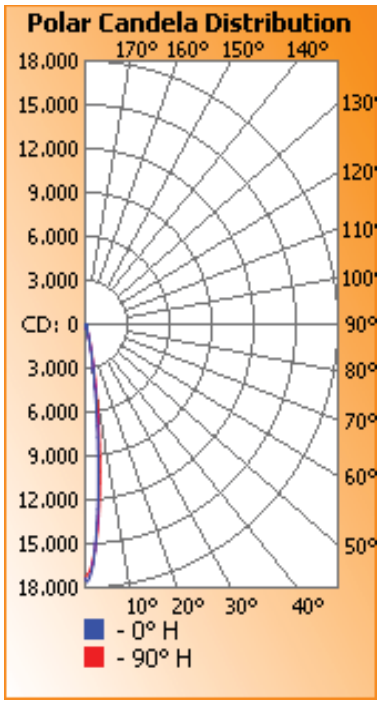
**Zonal Lumen Summary**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 1,242.2 | 92.2% |
| 0-40 | 1,291.6 | 95.9% |
| 0-60 | 1,339.5 | 99.5% |
| 60-90 | 7.1 | 0.5% |
| 70-100 | 3.2 | 0.2% |
| 90-120 | 0 | 0% |

**Illuminance at a Distance**

| | Center Beam fc | Beam Width | |
|---|---|---|---|
| 2.0ft | 4,334.6 fc | 0.4 ft | 0.5 ft |
| 4.0ft | 1,083.7 fc | 0.9 ft | 1.0 ft |
| 6.0ft | 481.6 fc | 1.3 ft | 1.4 ft |
| 8.0ft | 270.9 fc | 1.7 ft | 1.9 ft |
| 10.0ft | 173.4 fc | 2.1 ft | 2.4 ft |
| 12.0ft | 120.4 fc | 2.6 ft | 2.9 ft |
| 14.0ft | 88.5 fc | 3.0 ft | 3.3 ft |
| 16.0ft | 67.7 fc | 3.4 ft | 3.8 ft |

Vert. Spread: 12.2°
Horiz. Spread: 13.6°




### 3131 / 3431 33W 30KS 10°

**Coefficients Of Utilization - Zonal Cavity Method**

Effective Floor Cavity Reflectance: 20%

| RCC %: | 80 | | | | 70 | | | | 50 | | | 30 | | | 10 | | | 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RW %: | 70 | 50 | 30 | 0 | 70 | 50 | 30 | 0 | 50 | 30 | 20 | 50 | 30 | 20 | 50 | 30 | 20 | 0 |
| RCR: 0 | 1.19 | 1.19 | 1.19 | 1.19 | 1.16 | 1.16 | 1.16 | 1.00 | 1.11 | 1.11 | 1.11 | 1.06 | 1.06 | 1.06 | 1.02 | 1.02 | 1.02 | 1.00 |
| 1 | 1.15 | 1.14 | 1.12 | 1.10 | 1.13 | 1.11 | 1.10 | .98 | 1.07 | 1.06 | 1.05 | 1.04 | 1.03 | 1.02 | 1.00 | 1.00 | .99 | .98 |
| 2 | 1.12 | 1.09 | 1.06 | 1.04 | 1.10 | 1.07 | 1.05 | .96 | 1.04 | 1.02 | 1.01 | 1.01 | 1.00 | .99 | .99 | .98 | .97 | .95 |
| 3 | 1.09 | 1.05 | 1.02 | .99 | 1.07 | 1.04 | 1.01 | .93 | 1.01 | .99 | .97 | .99 | .97 | .96 | .97 | .95 | .94 | .93 |
| 4 | 1.06 | 1.02 | .98 | .96 | 1.05 | 1.01 | .98 | .92 | .99 | .96 | .94 | .97 | .95 | .93 | .95 | .94 | .92 | .91 |
| 5 | 1.04 | .99 | .95 | .93 | 1.03 | .98 | .95 | .90 | .97 | .94 | .92 | .95 | .93 | .91 | .94 | .92 | .90 | .89 |
| 6 | 1.02 | .96 | .93 | .90 | 1.01 | .96 | .92 | .88 | .95 | .92 | .89 | .93 | .91 | .89 | .92 | .90 | .88 | .87 |
| 7 | 1.00 | .94 | .91 | .88 | .99 | .94 | .90 | .87 | .93 | .90 | .88 | .92 | .89 | .87 | .91 | .89 | .87 | .86 |
| 8 | .98 | .92 | .89 | .86 | .97 | .92 | .89 | .85 | .91 | .88 | .86 | .90 | .88 | .86 | .89 | .87 | .85 | .85 |
| 9 | .96 | .91 | .87 | .85 | .95 | .90 | .87 | .84 | .89 | .87 | .85 | .89 | .86 | .84 | .88 | .86 | .84 | .83 |
| 10 | .94 | .89 | .86 | .84 | .94 | .89 | .86 | .83 | .88 | .85 | .83 | .87 | .85 | .83 | .87 | .85 | .83 | .82 |

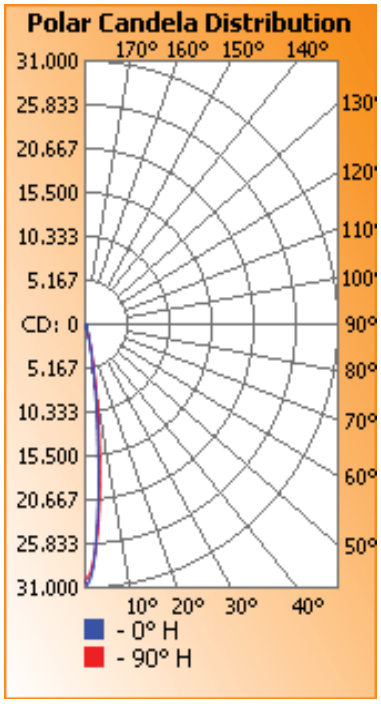
**Zonal Lumen Summary**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 2,164.2 | 92.2% |
| 0-40 | 2,250.2 | 95.9% |
| 0-60 | 2,333.6 | 99.5% |
| 60-90 | 12.5 | 0.5% |
| 70-100 | 5.5 | 0.2% |
| 90-120 | 0 | 0% |

**Illuminance at a Distance**

| | Center Beam fc | Beam Width | |
|---|---|---|---|
| 2.0ft | 7,551.6 fc | 0.4 ft | 0.5 ft |
| 4.0ft | 1,887.9 fc | 0.9 ft | 1.0 ft |
| 6.0ft | 839.1 fc | 1.3 ft | 1.4 ft |
| 8.0ft | 472.0 fc | 1.7 ft | 1.9 ft |
| 10.0ft | 302.1 fc | 2.1 ft | 2.4 ft |
| 12.0ft | 209.8 fc | 2.6 ft | 2.9 ft |
| 14.0ft | 154.1 fc | 3.0 ft | 3.3 ft |
| 16.0ft | 118.0 fc | 3.4 ft | 3.8 ft |

Vert. Spread: 12.2°
Horiz. Spread: 13.6°



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# DIMMING DRIVER COMPATIBILITY SELECTION GUIDE
# D2 / DIML2

## DIMMING DRIVER WIRING SCHEMES:

NOTES:
Wiring diagrams are examples of typical installations intended to illustrate the number of wires that must be run to fixture. These diagrams are not intended to specify all equipment necessary for a given dimming circuit. Refer to specific dimmer manufacturer's documentation for details.

## IMPORTANT SAFETY INSTRUCTIONS - SAVE THESE INSTRUCTIONS

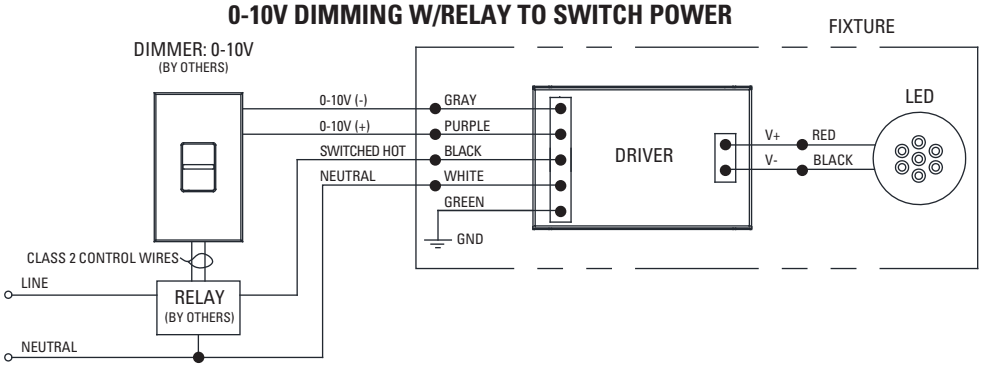
1. Keep these instructions in a safe place for future reference.
2. Only qualified electricians in accordance to local codes should install these fixtures.
3. De-energize the electrical circuit at the circuit breaker prior to installation process or servicing.
4. Make sure all connections are in accordance with the National Electrical Code and any local regulations.
5. Cap any wires not used separately (not together).

## D2 / DIML2 LED: 0-10V Dimming Driver Wiring (Dims down to 10%)

| D2 / DIML2 Dimmer Compatibility Chart | | | | |
|---|---|---|---|---|
| Manufacturer | Product | Part Number | Dimmed Light Output Range | Qty Fixtures Per Dimmer* |
| **120V / 277V** | | | | Use source current per fixture specification sheet to determine number of fixtures per dimmer. Max number of fixtures is limited by dimmer load rating. |
| Crestron | iLux dimmer expansion module | CLS-EXP-DIMFLV | 100% - 10% | |
| Crestron | DIN Rail dimmer | DIN-4DIMFLV4 | 100% - 10% | |
| Crestron | DIN Rail analog output module | DIN-A08 | 100% - 10% | |
| Crestron | 8 Channel dimmer module | GLX-DIMFLV8 | 100% - 10% | |
| Crestron | 8 Channel dimmer module | GLXP-DIMFLV8 | 100% - 10% | |
| Leviton | IllumaTech dimmer | IP710-DLX | 100% - 10% | |
| Lightolier (Philips) | Vega | V2000FAMU | 100% - 10% | |
| Lutron | Diva | DVTV-XX | 100% - 10% | |

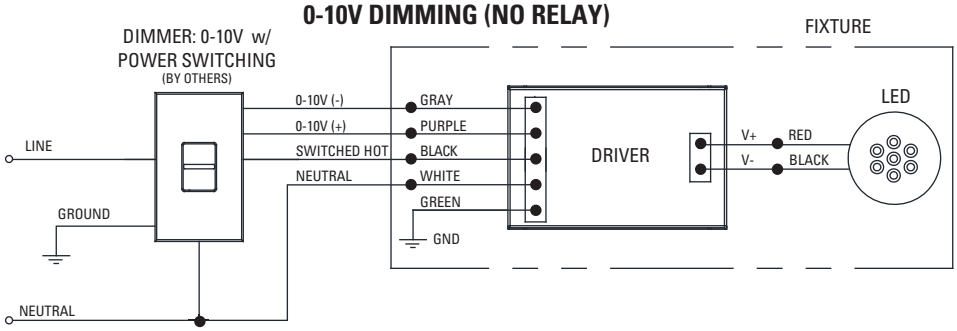
* NOTE: Refer to dimmer manufacturer's documentation for installation instructions and circuit details.

### D2 / DIML2
### 0-10V DIMMING W/RELAY TO SWITCH POWER




**NOTE:**
If switched, non-dimming operation is desired, cap off purple and gray wires individually at installation. Do NOT cap purple and gray wires together.

### D2 / DIML2
### 0-10V DIMMING (NO RELAY)




**NOTE:**
If switched, non-dimming operation is desired, cap off purple and gray wires individually at installation. Do NOT cap purple and gray wires together.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I2-264-2 Revised 03/22/2017

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# DIMMING DRIVER COMPATIBILITY SELECTION GUIDE
# D3 / DIML3

## DIMMING DRIVER WIRING SCHEMES:

NOTES:
Wiring diagrams are examples of typical installations intended to illustrate the number of wires that must be run to fixture. These diagrams are not intended to specify all equipment necessary for a given dimming circuit. Refer to specific dimmer manufacturer's documentation for details.

## IMPORTANT SAFETY INSTRUCTIONS - SAVE THESE INSTRUCTIONS

1. Keep these instructions in a safe place for future reference.
2. Only qualified electricians in accordance to local codes should install these fixtures.
3. De-energize the electrical circuit at the circuit breaker prior to installation process or servicing.
4. Make sure all connections are in accordance with the National Electrical Code and any local regulations.
5. Cap any wires not used separately (not together).

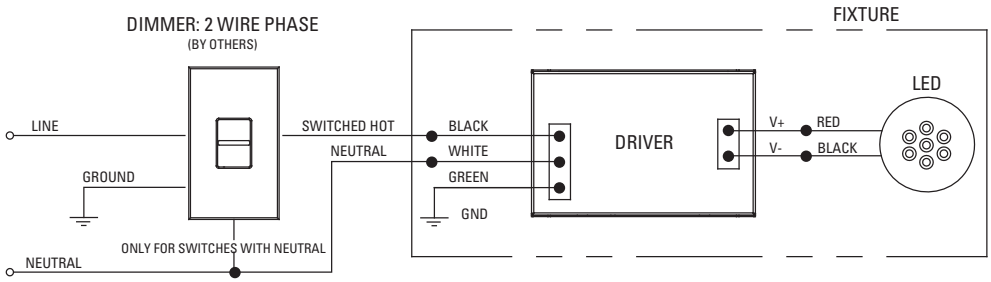
## D3 / DIML3 LED: Lutron Hi-Lume A-Series 2 Wire Fwd Phase (with neutral) / LED Dimming Driver Wiring (Dims down to 1%) 120V

**D3 / DIML3 Dimmer Compatibility Chart**

| Manufacturer | Product | Part Number | Dimmed Light Output Range | Qty Fixtures Per Dimmer* Fixture Wattage | |
|---|---|---|---|---|---|
| **120V Only** | | | | 39W and Less | 40W - 80W |
| ETC | Sensor+ Cabinet | ELV10 | 100% - 1% | 1 – 26 | 1 – 13 |
| ETC | Unison DRd Cabinet | ELV10 | 100% - 1% | 1 – 26 | 1 – 13 |
| Lutron | Maestro Wireless® 600W dimmer | MRF2-6ND-120- | 100% - 1% | 1 – 8 | 1 – 4 |
| Lutron | Maestro Wireless® 1000W dimmer | MRF2-10ND-120- | 100% - 1% | 1 – 13 | 1 – 6 |
| Lutron | HomeWorks® QS adaptive dimmer | HQRD-6NA- | 100% - 1% | 1 – 8 | 1 – 4 |
| Lutron | HomeWorks® QS 600W dimmer | HQRD-6ND- | 100% - 1% | 1 – 8 | 1 – 4 |
| Lutron | HomeWorks® QS 1000 W dimmer | HQRD-10ND- | 100% - 1% | 1 – 13 | 1 – 6 |
| Lutron | Caseta Wireless® Pro 1000W dimmer | PD-10NXD- | 100% - 1% | 1 – 13 | 1 – 6 |
| Lutron | Stanza® dimmer | SZ-6ND- | 100% - 1% | 1 – 8 | 1 – 4 |
| Lutron | RadioRA® 2 adaptive dimmer | RRD-6NA- | 100% - 1% | 1 – 8 | 1 – 4 |
| Lutron | RadioRA® 2 1000 W dimmer | RRD-10ND- | 100% - 1% | 1 – 6 | 1 – 3 |
| Lutron | myRoom DIN power module | MQSE-4A1-D | 100% - 1% | 1 – 6 | 1 – 3 |
| Lutron | HomeWorks® QS wallbox power module | HQRJ-WPM-6D-120- | 100% - 1% | 1 – 26 | 1 – 13 |
| Lutron | Homeworks® DIN power module | LQSE-4A1-D | 100% - 1% | 1 – 6 | 1 – 3 |
| Lutron | HomeWorks® wallbox power module | HWI-WPM-6D-120 | 100% - 1% | 1 – 26 | 1 – 13 |
| Lutron | GRAFIK Eye® QS control unit | QSGR-, QSGRJ- | 100% - 1% | 1 – 26 | 1 – 13 |
| Lutron | GRAFIK Eye® 3000 control unit | GRX-3100-, GRX-3500- | 100% - 1% | 1 – 26 | 1 – 13 |
| Lutron | RPM-4U module | HW-RPM-4U-120, LP-RPM-4U-120 | 100% - 1% | 1 – 26 | 1 – 13 |
| Lutron | RPM-4A module | HW-RPM-4A-120, LP-RPM-4A-120 | 100% - 1% | 1 – 26 | 1 – 13 |
| Lutron | GP dimming panels | Various | 100% - 1% | 1 – 26 | 1 – 13 |
| Lutron | Ariadni CL 250W dimmer | AYCL-253P- | 100%-1% | 1 – 8 | 1 – 4 |
| Lutron | Diva CL 250W dimmer | DVCL-253P-, DVSCCL-253P- | 100%-1% | 1 – 8 | 1 – 4 |
| Lutron | Grafik T CL or RF CL dimmer | GT-250M-, GTJ-250M- | 100%-1% | 1 – 8 | 1 – 4 |
| Lutron | Nova T CL 250W dimmer | NTCL-250- | 100%-1% | 1 – 10 | 1 – 5 |

* NOTE: Refer to dimmer manufacturer's documentation for installation instructions and circuit details.

### D3 / DIML3
### 2 WIRE PHASE DIMMING

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# DIMMING DRIVER COMPATIBILITY SELECTION GUIDE
# D4 / DIML4

## DIMMING DRIVER WIRING SCHEMES:

NOTES:
Wiring diagrams are examples of typical installations intended to illustrate the number of wires that must be run to fixture. These diagrams are not intended to specify all equipment necessary for a given dimming circuit. Refer to specific dimmer manufacturer's documentation for details.

## IMPORTANT SAFETY INSTRUCTIONS - SAVE THESE INSTRUCTIONS

1. Keep these instructions in a safe place for future reference.
2. Only qualified electricians in accordance to local codes should install these fixtures.
3. De-energize the electrical circuit at the circuit breaker prior to installation process or servicing.
4. Make sure all connections are in accordance with the National Electrical Code and any local regulations.
5. Cap any wires not used separately (not together).

## D4 / DIML4 LED: Lutron Hi-Lume A-Series LED Driver with 3-Wire FL Control / LED Dimming Driver Wiring (Dims down to 1%)

**D4 / DIML4 3-Wire Dimmer Compatibility Chart**

| Manufacturer | Product | Part Number | Dimmed Light Output Range | Qty Fixtures Per Control* Fixture Wattage | |
|---|---|---|---|---|---|
| **120V Only** | | | | 39W and Less | 40W - 80W |
| ETC | Sensor+ Cabinet | D20 Dimming module | 100% - 1% | 1–53 | 1–26 |
| ETC | Unison DRd Cabinet | D20F Dimming module | 100% - 1% | 1–53 | 1–26 |
| Lutron | Nova T | NTF-10- | 100%–1% | 1–41 | 1 – 20 |
| Lutron | Nova T | NTF-103P- | 100%–1% | 1–20 | 1 – 10 |
| Lutron | Nova | NF-10- | 100%–1% | 1–41 | 1 – 20 |
| Lutron | Nova | NF-103P- | 100%–1% | 1–20 | 1 – 10 |
| Lutron | Vareo | VF-10- | 100%–1% | 1–20 | 1 – 10 |
| Lutron | Skylark | SF-10P-, SF-103P- | 100%–1% | 1–20 | 1 – 10 |
| Lutron | Diva | DVF-103P-, DVSCF-103P- | 100%–1% | 1–20 | 1 – 10 |
| Lutron | Ariadni | AYF-103P- | 100%–1% | 1–20 | 1 – 10 |
| Lutron | Vierti | VTF-6A- | 100%–1% | 1–15 | 1 – 7 |
| Lutron | Maestro | MAF-6AM-, MSCF-6AM- | 100%–1% | 1–15 | 1 – 7 |
| Lutron | Maestro Wireless | MRF2-F6AN-DV- | 100%–1% | 1–15 | 1 – 7 |
| Lutron | RadioRA 2 | RRD-F6AN-DV- | 100%–1% | 1–15 | 1 – 7 |
| Lutron | HomeWorks QS | HQRD-F6AN-DV | 100%–1% | 1–15 | 1 – 7 |
| Lutron | Interfaces | PHPM-3F-120, PHPM-3F-DV | 100%–1% | 1–41 | 1 – 20 |
| Lutron | GP Dimming Panels | Various | 100%–1% | 1–41 | 1 – 20 |
| **277V Only** | | | | 40W and Less | 41W - 80W |
| ETC | Sensor+ Cabinet | D20 Dimming module | 100% - 1% | 1–53 | 1–26 |
| ETC | Unison DRd Cabinet | D20F Dimming module | 100% - 1% | 1–53 | 1–26 |
| Lutron | Nova T | NTF-10-277- | 100%–1% | 1–44 | 1 – 22 |
| Lutron | Nova T | NTF-103P-277- | 100%–1% | 1–33 | 1 – 16 |
| Lutron | Nova | NF-10-277- | 100%–1% | 1–44 | 1 – 22 |
| Lutron | Nova | NF-103P-277- | 100%–1% | 1–33 | 1 – 16 |
| Lutron | Skylark | SF-12P-277-, SF-12P-277-3 | 100%–1% | 1–33 | 1 – 16 |
| Lutron | Diva | DVF-103P-277-, DVSCF-103P-277- | 100%–1% | 1–33 | 1 – 16 |
| Lutron | Ariadni | AYF-103P-277- | 100%–1% | 1–44 | 1 – 22 |
| Lutron | Vierti | VTF-6A- | 100%–1% | 1–33 | 1 – 16 |
| Lutron | Maestro | MAF-6AM-277-, MSCF-6AM-277- | 100%–1% | 1–20 | 1 – 10 |
| Lutron | Maestro Wireless | MRF2-F6AN-DV- | 100%–1% | 1–33 | 1 – 16 |
| Lutron | RadioRA 2 | RRD-F6AN-DV- | 100%–1% | 1–33 | 1 – 16 |
| Lutron | HomeWorks QS | HQRD-F6AN-DV | 100%–1% | 1–33 | 1 – 16 |
| Lutron | Interfaces | PHPM-3F-DV | 100%–1% | 1–88 | 1 – 44 |
| Lutron | GP Dimming Panels | Various | 100%–1% | 1–88 | 1 – 44 |

* NOTE: Number of fixtures may be higher if wattage is less than maximum values shown. Refer to dimmer manufacturer's documentation for installation instructions and circuit details.

**DIML4 wiring diagrams continued on next page**

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# DIMMING DRIVER COMPATIBILITY SELECTION GUIDE
## D4 / DIML4 Continued

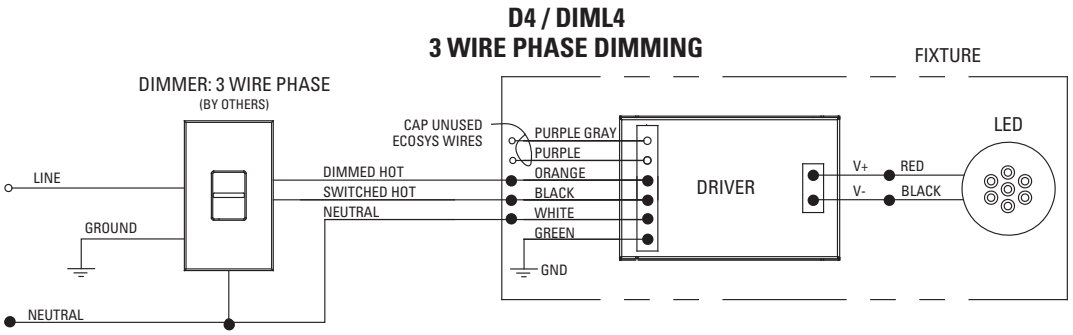
## DIMMING DRIVER WIRING SCHEMES:

NOTES:
Wiring diagrams are examples of typical installations intended to illustrate the number of wires that must be run to fixture. These diagrams are not intended to specify all equipment necessary for a given dimming circuit. Refer to specific dimmer manufacturer's documentation for details.

### IMPORTANT SAFETY INSTRUCTIONS - SAVE THESE INSTRUCTIONS

1. Keep these instructions in a safe place for future reference.
2. Only qualified electricians in accordance to local codes should install these fixtures.
3. De-energize the electrical circuit at the circuit breaker prior to installation process or servicing.
4. Make sure all connections are in accordance with the National Electrical Code and any local regulations.
5. Cap any wires not used separately (not together).

### D4 / DIML4 LED: Lutron Hi-Lume A-Series LED Driver with 3-Wire FL Control / LED Dimming Driver Wiring (Dims down to 1%)

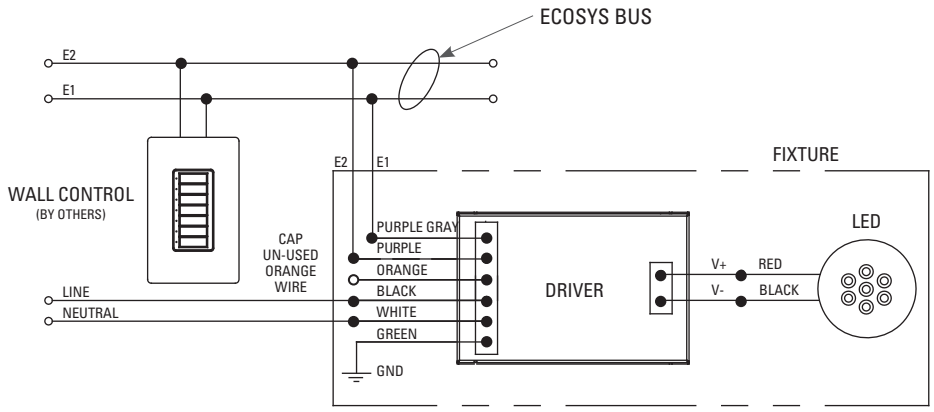



### D4 / DIML4 LED: Lutron Hi-Lume A-Series LED Driver with EcoSystem Control / LED Dimming Driver Wiring (Dims down to

**D4 / DIML4 EcoSystem Dimmer Compatibility Chart**

| Manufacturer | Product | Part Number | Dimmed Light Output Range | Qty Fixtures Per Control* Fixture Wattage | |
|---|---|---|---|---|---|
| **120V / 277V** | | | | 39W and Less | 40W - 80W |
| Lutron | PowPak dimming module | RMJ-ECO32-DV-B | 100%–1% | 1–32 | 1 – 16 |
| Lutron | Energi Savr Node | QSN-1ECO-S, QSN-2ECO-S | 100%–1% | 1–64 | 1 – 32 |
| Lutron | GRAFIK Eye QS (120V ONLY) | QSGRJ- E, QSGR- E | 100%–1% | 1–64 | 1 – 32 |
| Lutron | Quantum | Various | 100%–1% | 1–64 | 1 – 32 |

* NOTE: Number of fixtures may be higher if wattage is less than maximum values shown. Refer to dimmer manufacturer's documentation for installation instructions and circuit details.

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# DIMMING DRIVER COMPATIBILITY SELECTION GUIDE
# D4E / DIML4E and D4H /DIML4H

## DIMMING DRIVER WIRING SCHEMES:

NOTES:
Wiring diagrams are examples of typical installations intended to illustrate the number of wires that must be run to fixture. These diagrams are not intended to specify all equipment necessary for a given dimming circuit. Refer to specific dimmer manufacturer's documentation for details.

## IMPORTANT SAFETY INSTRUCTIONS - SAVE THESE INSTRUCTIONS

1. Keep these instructions in a safe place for future reference.
2. Only qualified electricians in accordance to local codes should install these fixtures.
3. De-energize the electrical circuit at the circuit breaker prior to installation process or servicing.
4. Make sure all connections are in accordance with the National Electrical Code and any local regulations.
5. Cap any wires not used separately (not together).

## D4E / DIML4E LED: Lutron 5 Series EcoSystem LED Driver / LED Dimming Driver Wiring (Dims down to 5%)

**D4E / DIML4E EcoSystem Dimmer Compatibility Chart**

| Manufacturer | Product | Part Number | Dimmed Light Output Range | Qty Fixtures Per Control* Fixture Wattage | |
|---|---|---|---|---|---|
| **120V / 277V** | | | | 39W and Less | 40W - 80W |
| Lutron | PowPak dimming module | RMJ-ECO32-DV-B | 100%–5% | 1–32 | 1 – 16 |
| Lutron | Energi Savr Node | QSN-1ECO-S, QSN-2ECO-S | 100%–5% | 1–64 | 1 – 32 |
| Lutron | GRAFIK Eye QS (120V ONLY) | QSGRJ- E, QSGR- E | 100%–5% | 1–64 | 1 – 32 |
| Lutron | Quantum | Various | 100%–5% | 1–64 | 1 – 32 |

* NOTE: Number of fixtures may be higher if wattage is less than maximum values shown. Refer to dimmer manufacturer's documentation for installation instructions and circuit details.

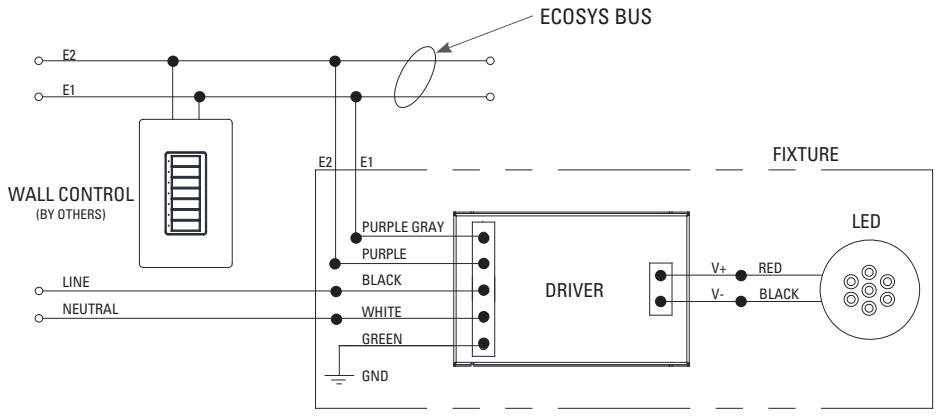
## D4H / DIML4H LED: Lutron H Series EcoSystem LED Driver with Fade to Black (dims down to 1%)

**D4H / DIML4H EcoSystem Dimmer Compatibility Chart**

| Manufacturer | Product | Part Number | Dimmed Light Output Range | Qty Fixtures Per Control* Fixture Wattage | |
|---|---|---|---|---|---|
| **120V / 277V** | | | | 39W and Less | 40W - 80W |
| Lutron | PowPak dimming module | RMJ-ECO32-DV-B | 100%–1% | 1–32 | 1 – 16 |
| Lutron | Energi Savr Node | QSN-1ECO-S, QSN-2ECO-S | 100%–1% | 1–64 | 1 – 32 |
| Lutron | GRAFIK Eye QS (120V ONLY) | QSGRJ- E, QSGR- E | 100%–1% | 1–64 | 1 – 32 |
| Lutron | Quantum | Various | 100%–1% | 1–64 | 1 – 32 |

* NOTE: Number of fixtures may be higher if wattage is less than maximum values shown. Refer to dimmer manufacturer's documentation for installation instructions and circuit details.

### D4E / DIML4E and D4H / DIML 4H EcoSystem CONTROLS

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# DIMMING DRIVER COMPATIBILITY SELECTION GUIDE
# D6A / DIML6A and D6E / DIML6E
# D6B / DIML6B and D6F / DIML6F

## IMPORTANT SAFETY INSTRUCTIONS - SAVE THESE INSTRUCTIONS

1. Keep these instructions in a safe place for future reference.
2. Only qualified electricians in accordance to local codes should install these fixtures.
3. De-energize the electrical circuit at the circuit breaker prior to installation process or servicing.
4. Make sure all connections are in accordance with the National Electrical Code and any local regulations.
5. Cap any wires not used separately (not together).

## D6A / DIML6A and D6E / DIML6E LED Dimming Compatibility Table

D6A / DIML6A and D6E / DIML6E are linearly programmed dimming drivers for use with logarithmic-style dimming controls (e.g., Lutron and others listed in the table below)
D6A / DIML6A = EldoLED SOLOdrive 0-10V control dims from 100% to 0.1%
D6E / DIML6E = EldoLED ECOdrive 0-10V control dims from 100% to 1%

**D6A / DIML6A and D6E / DIML6E Dimmer Compatibility Chart**

| Manufacturer | Product | Part Number | Dimmed Light Output Range | | | Qty Fixtures Per Dimmer* |
|---|---|---|---|---|---|---|
| **120V & 277V** | | | DIML6A | | 6E | Refer to manufacturer's dimmer load rating for maximum and minimum fixture quantities per dimmer. Enlighted compatible. |
| Lutron | Diva | DVTV/NFTV with PP-20 | 99% - | 0.1% | 1% | |
| Lutron | Nova T | NTFTV with PP-20 | 99% - | 0.1% | 1% | |
| Lutron | Energi Savr Node | QSN-4T16-S | 100% - | 0.1% | 1% | |
| Lutron | GP Dimming Panels | TVM2 Module | 99% - | 0.1% | 1% | |
| Lutron | Interfaces | GRX-TVI w/ GRX3503 | 100% - | 0.1% | 1% | |
| Sensor Switch | nIO | nIO EZ | 100% - | 0.1% | 1% | |
| enlighted | Control Unit | CU-3E-1R | 100% - | 0.1% | 1% | |

* NOTE: Refer to dimmer manufacturer's documentation for installation instructions and circuit details.

## D6B / DIML6B and D6F / DIML6F LED Dimming Compatibility Table

D6B / DIML6B and D6F / DIML6F are logarithmic-programmed dimming drivers for use with linear-style dimming controls (e.g., Crestron, non-Lutron and others listed below)
D6B / DIML6B = EldoLED SOLOdrive 0-10V control dims from 100% to 0.1% D6F / DIML6F = EldoLED ECOdrive 0-10V control dims from 100% to 1%

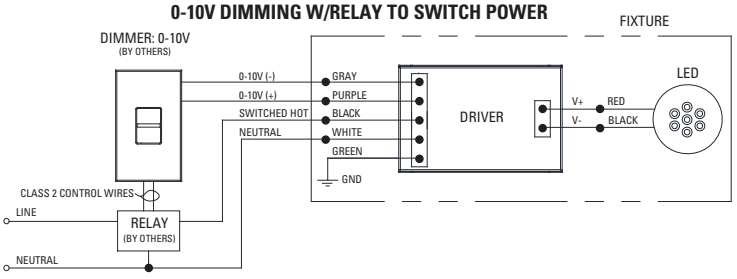
**D6B / DIML6B and D6F / DIML6F Dimmer Compatibility Chart**

| Manufacturer | Product | Part Number | Dimmed Light Output Range | | | Qty Fixtures Per Dimmer* |
|---|---|---|---|---|---|---|
| **120V & 277V** | | | DIML6B | | 6F | Refer to manufacturer's dimmer load rating for maximum and minimum fixture quantities per dimmer. Enlighted compatible. |
| Bush-Jaeger | Electronic potentiometer | 2112U-101 | 100% - | 0.1% | 1% | |
| Jung | Electronic potentiometer | 240-10 | 100% - | 0.1% | 1% | |
| Leviton | Iluma Tech dimmer | IP710-DLX | 100% - | 0.1% | 1% | |
| Lightolier (Philips) | Momentum (120V ONLY) | ZP600FAM120 | 100% - | 0.1% | 1% | |
| Merten | Electronic potentiometer | 5729 | 100% - | 0.1% | 1% | |
| Pass & Seymour | Titan | CD4FB-W | 100% - | 0.1% | 1% | |
| Watt Stopper | Miro | DCLV1 | 100% - | 0.1% | 1% | |
| Synergy | Wallbox Dimmers | ISD BC | 100% - | 0.1% | 1% | |
| ABB | i-bus | SD/S 2.16.1 | 100% - | 0.1% | 1% | |
| Crestron | Modules | GLX-DIMFLV8, GLXP-DIMFLV8 | 100% - | 0.1% | 1% | |
| Crestron | Green Light | GLPAC-DIMFLV4-, GLPAC-DIMFLV8- | 100% - | 0.1% | 1% | |
| Crestron | Green Light Power Pack | GLPP-DIMFLVEX-PM, GLPP-1DIMFLV2EX-PM, GLPP-1DIMFLV3EX-PM | 100% - | 0.1% | 1% | |
| Crestron | DIN Rail Analog Output Module | DIN-A08 | 100% - | 0.1% | 1% | |
| Crestron | DIN Rail 0-10V Fluorescent Dimmer | DIN-4DIMFLV4 | 100% - | 0.1% | 1% | |
| Crestron | iLux 0-10V Dimmer Expansion Module | CLS-EXP-DIMFLV | 100% - | 0.1% | 1% | |
| enlighted | Control Unit | CU-3E-1R | 100% - | 0.1% | 1% | |

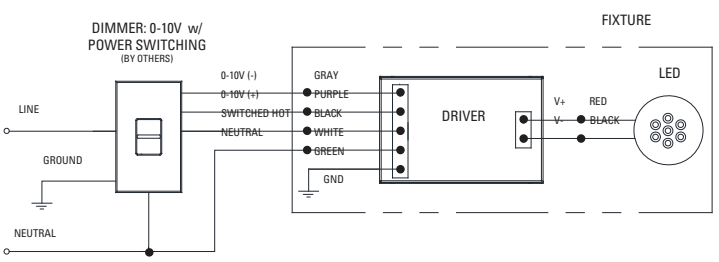
## DIMMING DRIVER WIRING SCHEMES:

NOTES: Wiring diagrams are examples of typical installations intended to illustrate the number of wires that must be run to fixture. These diagrams are not intended to specify all equipment necessary for a given dimming circuit. Refer to specific dimmer manufacturer's documentation for details.

**D6 / DIML6**
**0-10V DIMMING W/RELAY TO SWITCH POWER**




**0-10V DIMMING (NO RELAY)**





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# DIMMING DRIVER COMPATIBILITY SELECTION GUIDE
# D7 / DIML7 and D7E

## DIMMING DRIVER WIRING SCHEMES:

NOTES:
Wiring diagrams are examples of typical installations intended to illustrate the number of wires that must be run to fixture. These diagrams are not intended to specify all equipment necessary for a given dimming circuit. Refer to specific dimmer manufacturer's documentation for details.

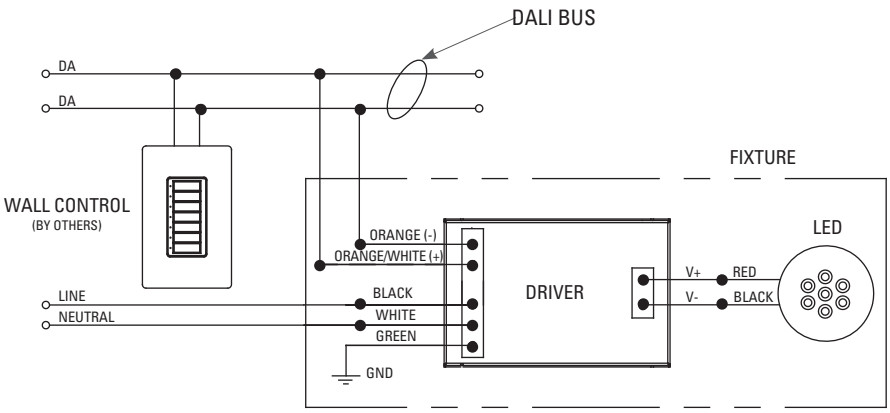
### IMPORTANT SAFETY INSTRUCTIONS - SAVE THESE INSTRUCTIONS

1. Keep these instructions in a safe place for future reference.
2. Only qualified electricians in accordance to local codes should install these fixtures.
3. De-energize the electrical circuit at the circuit breaker prior to installation process or servicing.
4. Make sure all connections are in accordance with the National Electrical Code and any local regulations.
5. Cap any wires not used separately (not together).

### D7 / DIML7 and D7E Dimming Driver Wiring

D7 / DIML7 and D7E are linearly programmed dimming drivers.
D7 / DIML7 = EldoLED SOLOdrive DALI control dims from 100% to 0.1%
D7E = EldoLED ECOdrive DALI control dims from 100% to 1%

**D7 / DIML7 / D7E**
**DALI CONTROLS**





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# DIMMING DRIVER COMPATIBILITY SELECTION GUIDE
# D8 / DIML8 and D8E

## DIMMING DRIVER WIRING SCHEMES:

NOTES:
Wiring diagrams are examples of typical installations intended to illustrate the number of wires that must be run to fixture. These diagrams are not intended to specify all equipment necessary for a given dimming circuit. Refer to specific dimmer manufacturer's documentation for details.

### IMPORTANT SAFETY INSTRUCTIONS - SAVE THESE INSTRUCTIONS

1. Keep these instructions in a safe place for future reference.
2. Only qualified electricians in accordance to local codes should install these fixtures.
3. De-energize the electrical circuit at the circuit breaker prior to installation process or servicing.
4. Make sure all connections are in accordance with the National Electrical Code and any local regulations.
5. Cap any wires not used separately (not together).

### D8 / DIML8 and D8E Dimming Driver Wiring

D8 / DIML8 and D8E are linearly programmed dimming drivers.
D8 / DIML8 = EldoLED POWERdrive DMX control dims from 100% to 0.1%
D8E = EldoLED POWERdrive DMX control dims from 100% to 1%

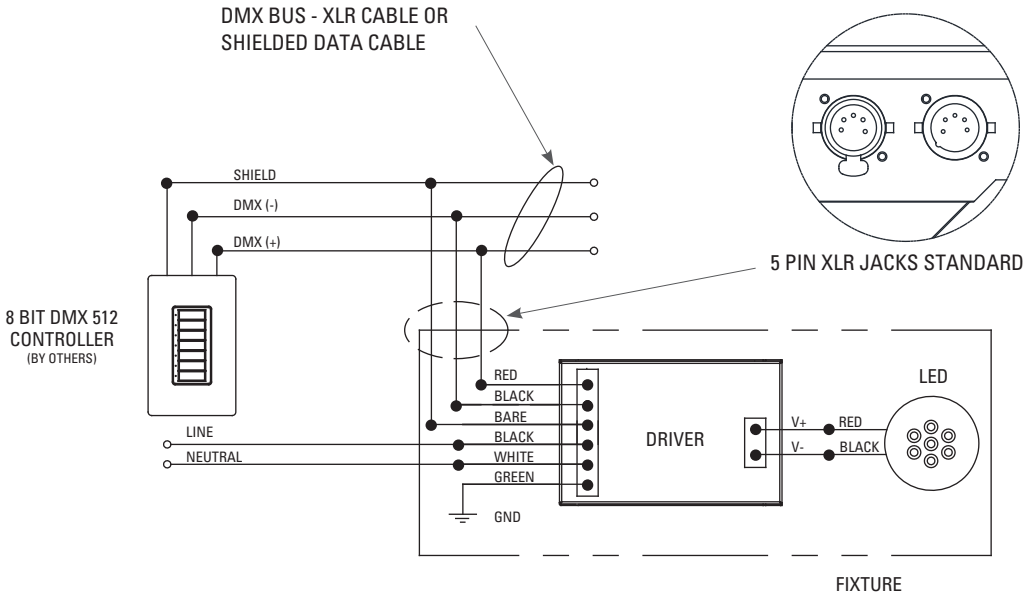
DMX BUS - XLR CABLE OR
SHIELDED DATA CABLE

The data cable used must meet the following requirements:

- type: shielded, 2-conductor twisted pair
- maximum capacitance between conductors: 30 pF/ft
- maximum capacitance between conductor and shield: 55 pF/ft
- maximum resistance: 0.02 ohms/ft
- normal impedance: 100-140 ohms
- conductive core: 24 AWG is recommended

If 3-wire data cables are preferred, we suggest a Belden 9841 or equivalent cable which meets the specifications for EIA RS-485 applications. Do not use standard microphone cables: they cannot transmit DMX512 data reliably over long distances. NOTE: DMX link termination device (by others) should be used on last fixture in line on a circuit to avoid signal loss.

**D8 / DIML8 / D8E**
**DMX CONTROLS**





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# DIMMING DRIVER COMPATIBILITY SELECTION GUIDE
# D15 / DIML15

## DIMMING DRIVER WIRING SCHEMES:

NOTES:
Wiring diagrams are examples of typical installations intended to illustrate the number of wires that must be run to fixture. These diagrams are not intended to specify all equipment necessary for a given dimming circuit. Refer to specific dimmer manufacturer's documentation for details.

## IMPORTANT SAFETY INSTRUCTIONS - SAVE THESE INSTRUCTIONS

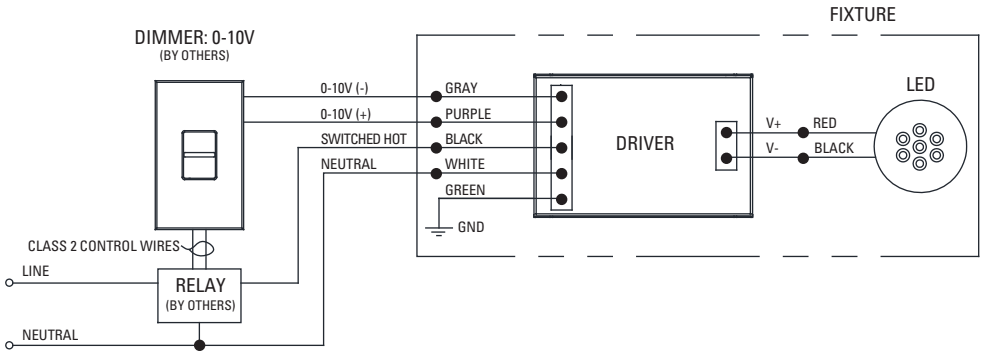
1. Keep these instructions in a safe place for future reference.
2. Only qualified electricians in accordance to local codes should install these fixtures.
3. De-energize the electrical circuit at the circuit breaker prior to installation process or servicing.
4. Make sure all connections are in accordance with the National Electrical Code and any local regulations.
5. Cap any wires not used separately (not together).

## D15 / DIML15 LED: 0-10V, 347V Dimming Driver Wiring (Dims down to 1%) 347V Only

| D15 / DIML15 Dimmer Compatibility Chart | | | |
|---|---|---|---|
| Manufacturer | Product | Dimmed Light Output Range | Qty Fixtures Per Dimmer* |
| **347** | | | Use source current per fixture specification sheet to determine number of fixtures per dimmer. Max number of fixtures is limited by dimmer load rating. |
| Acuity | Synergy ISD-BC | 100% - 1% | |
| Douglas Lighting | WPN-5721, WPN-5822 | 100% - 1% | |
| Hubbell | Light Hawk2 LHD-IRS3-N347-xx | 100% - 1% | |
| Leviton | Illumatech IP710-DLZ with 347V relay | 100% - 1% | |
| Leviton | Centura Fluorescent Control System | 100% - 1% | |
| Lutron | Nova NFTV-* dimmer plus 347V relay | 100% - 1% | |
| Lutron | Diva DVTV-* dimmer plus 347V relay | 100% - 1% | |

* NOTE: Refer to dimmer manufacturer's documentation for installation instructions and circuit details.

### D15 / DIML15
### 0-10V DIMMING W/RELAY TO SWITCH POWER




**NOTE:**
If switched, non-dimming operation is desired, cap off purple and gray wires individually at installation. Do NOT cap purple and gray wires together.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# DIMMING DRIVER COMPATIBILITY SELECTION GUIDE
# D19 / DIML19

## DIMMING DRIVER WIRING SCHEMES:

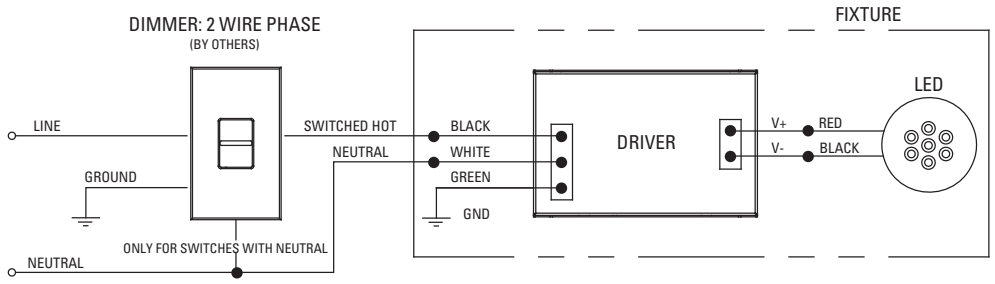
NOTES:
Wiring diagrams are examples of typical installations intended to illustrate the number of wires that must be run to fixture. These diagrams are not intended to specify all equipment necessary for a given dimming circuit. Refer to specific dimmer manufacturer's documentation for details.

### IMPORTANT SAFETY INSTRUCTIONS - SAVE THESE INSTRUCTIONS

1. Keep these instructions in a safe place for future reference.
2. Only qualified electricians in accordance to local codes should install these fixtures.
3. De-energize the electrical circuit at the circuit breaker prior to installation process or servicing.
4. Make sure all connections are in accordance with the National Electrical Code and any local regulations.
5. Cap any wires not used separately (not together).

**D19 / DIML19 LED: Hatch XTC series or equivalent - Forward and Reverse Phase Dimming Driver. Dims down to 1% contingent upon dimmer specification and load. 120V only.**

**D19 / DIML19**
**2 WIRE PHASE DIMMING**




**D19 / DIML19 Dimmer Compatibility Chart**

| **120V ONLY** | | |
|---|---|---|
| **Forward Phase / TRIAC Dimming** | | |
| Manufacturer | Product | Qty Fixtures Per Dimmer |
| Leviton | IPL06-10Z | Use fixture wattage per fixture specification sheet to determine number of fixtures per dimmer. Max number of fixtures is limited by dimmer load rating. |
| | 6613-xxx | |
| Lutron | S-600P | |
| | S-603P | |
| | DV-600P | |
| | DV-603P | |
| | DVSC-603P | |
| | CT-600P | |
| | CT-603P | |

| **120V ONLY** | | |
|---|---|---|
| **Reverse Phase / ELV Dimming** | | |
| Manufacturer | Product | Qty Fixtures Per Dimmer |
| Leviton | 6615 | Use fixture wattage per fixture specification sheet to determine number of fixtures per dimmer. Max number of fixtures is limited by dimmer load rating. |
| | IPE04-xxx | |
| Lutron | NTELV-300 | |
| | NTELV-600 | |
| | SELV-300P | |
| | SELV-303P | |
| | DVELV-300P | |
| | DVELV-303P | |

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