

Evoke® 2.9"

HP

2.9" Square Downlight



Downlight

Features

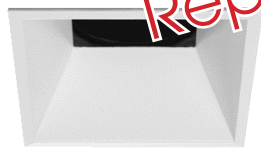
Evoke 2.9 LED fixtures are now available with a higher performance LED module providing 11W, 18W or 20W of lighting power. Featuring the fit, finish and attention to detail of the existing Evoke® line, bringing true performance and control in a fixed downlight, adjustable, wall washer and pinhole. Everything you desire from a small aperture recessed downlight with lumen delivery, energy efficiency, dimming control and color consistency is now a reality in Evoke.

Product Overview

Type: Recessed Square Downlight
Wattage: 11, 18, 20
Lumen Output: 1,100 max; 54.4 Lm/W (spot optic)
CBCP: 9,764 max (spot optic)
Color Temp: 2200K, 2700K, 3000K, 3500K, 4000K
CRI: 83 typ. (2700K, 3000K, 3500K, 4000K)
 90+ typ. (2200K, 2700K, 3000K, 3500K, 4000K)
 CrispWhite (18W max) & 3K Class A available
Dimming: TRIAC & ELV (120/277VAC) - 5% Dim
 Lutron Hi-lume® H Series/EcoSystem - 1% dim with soft on, fade to black, 120/277VAC
 0-10V (120/277VAC) - 1% Dim
 DALI dimming - 1% Dim

PROJECT:

TYPE:



Downlight Trimless

PRODUCT DISCONTINUED
Replacement Product: Solace 3"

Fixture Type

| Round/Square | New Construction | Trim | Trimless |
|--------------|------------------|------|----------|
| Yes | Yes | Yes | Yes |

See separate spec sheet for Round trim fixture

Performance Chart

| Watts | Delivered Lumens | LPW | CBCP | Color Temp |
|-------|------------------|------|-------|------------|
| 11 | 605 | 55 | 5,370 | 3000K-83 |
| 18* | 990 | 55 | 8,788 | 3000K-83 |
| 20* | 1,100 | 54.4 | 9,764 | 3000K-83 |

Data is based on 3000K-83 IES files available on website

Data is Spot optic. See page 5 for other beam spreads

2W thermal protector included on 18W & 20W

Electrical Data

| | 11W | | 18W* | | 20W* | |
|------|--------------|------|--------------|------|--------------|------|
| | System Watts | Amps | System Watts | Amps | System Watts | Amps |
| 120V | 11 | 0.09 | 18 | 0.15 | 20 | 0.17 |
| 277V | 11 | 0.04 | 18 | 0.06 | 20 | 0.07 |

Electronic constant current LED driver

*2W thermal protector included on 18W & 20W



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PROJECT:

TYPE:

Housing/Frame Ordering Information

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|--|--|--|
| 1 <u>Model</u> For New Construction E2.9SD-HP-NC-A17[†] (New Construction) E2.9SD-HP-CP-A17[†] (Chicago Plenum (CCEA) housing) E2.9SD-HP-IC-A17[†] (Insulated Ceiling/air tight, 11W only) | 2 <u>Style</u> T - trimmed TL - trimless (not available for use with Grid ceiling) | 3 <u>Wattage</u> 11 18 (not available for use with IC housing) 20 (not available for use with IC housing) | 4 <u>Voltage</u> 120 277 120/277 (for use with IC housing only) | 5 <u>Ceiling Mounting</u> GB - gyb board, 5/8" deep collar GRID - grid, 1" deep collar (not available for use with trimless option) <i>For other ceiling type, consult factory</i> | 6 <u>Driver</u> (for non-dimming, select LE/TE option) LE/TE - TRIAC/ELV dimming HILUME-H-ECO - Lutron Hi-lume® H Series, EcoSystem, 1% dim with soft on, fade to black 0-10V - 0-10V dimming, 1% dim DALI - DALI dimming, 1% dim | 7 <u>Options</u> HB49 - hanger bars from min 29" to max 49" |

Trim Ordering Information

| E2.9SD-HP-A17 | | | | | | | | | | | | | | |
|---|---|---|----------------|---|--|-------------------------|--|-------------------------|--|---------------------------|--|---|--|---|
| 1 | 2 | 3 | 4 | 5 | 6 | | | | | | | | | |
| 1 <u>Model</u> E2.9SD-HP-A17[†] | 2 <u>Style</u> T - trimmed TL - trimless (not available for use with Grid ceiling) | 3 <u>Finish</u> <table border="0"> <tr> <td><u>Trimmed</u></td> <td><u>Trimless</u></td> </tr> <tr> <td>MBW - matte black, white flange</td> <td>MB - matte black</td> </tr> <tr> <td>MWW - matte white, white flange</td> <td>MW - matte white</td> </tr> <tr> <td>SLVW - matte silver, white flange</td> <td>SLV - matte silver</td> </tr> </table> | <u>Trimmed</u> | <u>Trimless</u> | MBW - matte black, white flange | MB - matte black | MWW - matte white, white flange | MW - matte white | SLVW - matte silver, white flange | SLV - matte silver | 4 <u>Beam Spreads</u> SP - spot, 15° NF - narrow flood, 20° MFL - medium flood, 24° FL - flood, 28° WF - wide flood, 45° VWF - very wide flood, 60° LS - linear spread, 60° x 10° | 5 <u>Color Temp</u> 83 CRI 27 - 2700K-83 30 - 3000K-83 35 - 3500K-83 40 - 4000K-83 | 90+ CRI 229 - 2200K-90+ 279 - 2700K-90+ 309 - 3000K-90+ 359 - 3500K-90+ 409 - 4000K-90+ | CRISP - CrispWhite (18W max) 3CLA - 3K Class A |
| <u>Trimmed</u> | <u>Trimless</u> | | | | | | | | | | | | | |
| MBW - matte black, white flange | MB - matte black | | | | | | | | | | | | | |
| MWW - matte white, white flange | MW - matte white | | | | | | | | | | | | | |
| SLVW - matte silver, white flange | SLV - matte silver | | | | | | | | | | | | | |
| | | | | 6 <u>Options/Accessories</u> WET - wet location (not available for use with trimless option) | | | | | | | | | | |

* The "A" refers to the sequential revision in a year and "XX" refers to the year of update. Updates coincide with improved performance while not changing the overall fixture aesthetic and are reflected in the published performance data. Please contact your Amerlux representative for explanations of changes.

Evolve[®] 2.9" HP

2.9" Square Downlight



PROJECT:

TYPE:

Specifications

Application

Retail and commercial ambient and task lighting

Housing Construction

20 ga. steel painted matte black
Formed aperture plate with 5/8" lip (GB-standard)
Cast aluminum plaster frame with perforated face (for trimless option)
Integral adjustable locking mounting bars
Thermally protected

Reflector Trim Construction

Die-cast aluminum seamless reflector
Painted finishes include matte white and optical matte black with matte white flange
Wet location option adds clear glass lens and silicone flange gasket

Optical

Beam spreads: Spot, 15°; Narrow Flood, 20°;
Medium Flood, 24°; Flood, 28°; Wide Flood, 45°;
Very Wide Flood, 60°; Linear Spread, 60° x 10°

LED

Color Temp Options:
2200K, 2700K, 3000K, 3500K, 4000K
CRI: 83 typ. (2700K, 3000K, 3500K, 4000K)
90+ typ. (2200K, 2700K, 3000K, 3500K, 4000K)
CrispWhite* LED available, 18W max
Class A** 3000K (high CRI, high gamut)

R9 Values: 11 (83 CRI), 55 (92 CRI)

Binning: 3 MacAdam (SDCM)

Life: 50,000+ hrs, > 70% of initial lumens at 50,000 hrs

**CrispWhite: CrispWhite Technology delivers the warmth of colors expected from a high 90 CRI solution but also creates the natural crisp white color that is pleasing to the eye. It creates the most impactful lighting ever available, by revealing the richest whites and vibrant colors that pop.*

***Class A LED: Class A LED's have a CRI > 80 and a GAI > 80. CRI defines color "Naturalness" and GAI defines color "Saturation." Both being high delivers rich colors and pure whites.*

Electrical

Wattage: 11, 18, 20

Electronic constant current LED driver, 129/277VAC input (voltage specific TP on 18W & 20W)

This product complies with IEEE C62.41 for surge endurance up to 2.5KV. Amerlux® recommends using additional surge protection with this unit (supplied by others), surge and over voltage damage is not covered under warranty.

Drivers

LE/TE - Leading Edge, TRIAC, forward phase/Trailing Edge, ELV, reverse phase (standard)

0-10V, Lutron and DALI systems also available

See pages 6-7 for more dimming information

Finish

Wet paint

Mounting

26" Hanger bars included

Optional **HB49** - hanger bars from min 29" to max 49" available

For Trimmed fixture:

For use in T-grid or sheetrock ceilings, 5/8" - 1" standard

For Trimless fixture:

For use in sheetrock ceilings, ceiling thickness 5/8"

Consult factory for other ceiling thicknesses or for use in millwork ceilings

Certifications

CSA damp as tested to UL 1598 standards

Damp location

Wet location (optional)

IC/AT (insulated ceiling) rated, 11W only, optional

Warranty

5 year limited warranty

Evoke[®] 2.9" HP

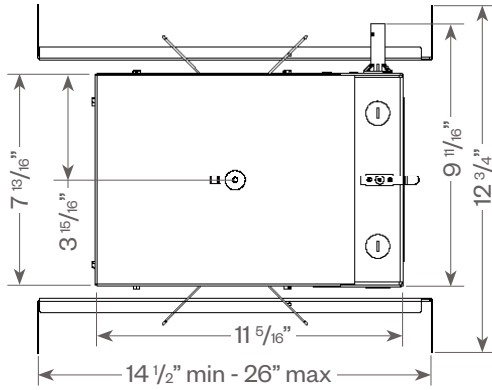
2.9" Square Downlight



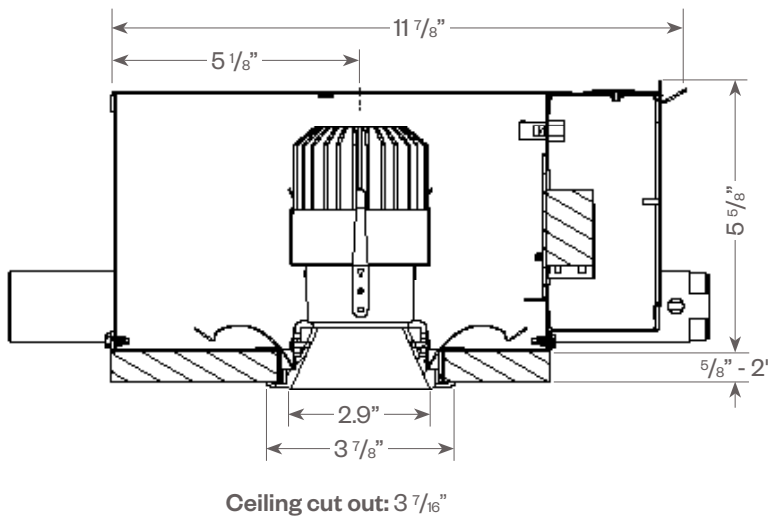
PROJECT:

TYPE:

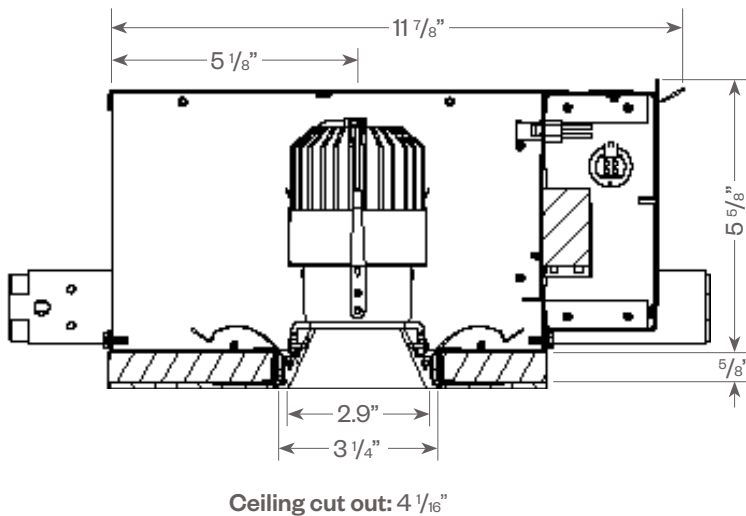
Evoke HP Square Downlight:



Trimmed

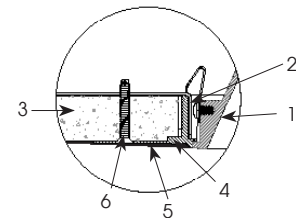


Trimless



Plaster Frame Installation Detail

(for trimless fixture only)



1. Reflector Trim
2. Aperture plate
3. Ceiling 5/8"
4. Cast Aluminum Plaster Frame
5. Plaster Skim Coat (by others)
6. 6-32 Type F Thread Cutting Screw

Evoke[®] 2.9" HP

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PROJECT:

TYPE:

FIXTURE DATA: (Complete photometric data (.ies format) available upon request)

MULTIPLYING FACTORS: (Multiplying Factor is based on 3000K-83 120V IES file on website)

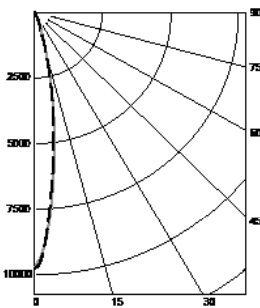
| Wattage: | 11W | 18W | 20W |
|----------|------|-----|-----|
| Factor: | 0.55 | 0.9 | 1.0 |

| CCT: | 2700K-83 | 3000K-83 | 3500K-83 | 4000K-83 |
|---------|----------|----------|----------|----------|
| Factor: | 0.96 | 1.0 | 1.02 | 1.04 |

| CCT: | 2200K-90+ | 2700K-90+ | 3000K-90+ | 3500K-90+ | 4000K-90+ | CRISP | 3CLA |
|---------|-----------|-----------|-----------|-----------|-----------|-------|------|
| Factor: | 0.71 | 0.80 | 0.83 | 0.87 | 0.90 | 0.65 | 0.75 |

20W LED, 3000K

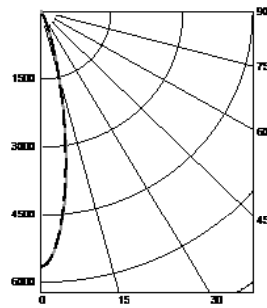
Spot (SP) Distribution, 15°
LTL #1178277
Lumens: 1,100



Candelas at Nadir

| Deg | Candela |
|-----|---------|
| 0 | 9764 |
| 5 | 7059 |
| 15 | 1462 |
| 25 | 189 |
| 35 | 9 |
| 45 | 2 |

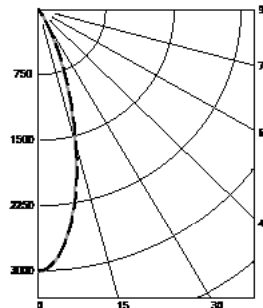
Narrow Flood (NF) Distribution, 20°
LTL #1178278
Lumens: 1,013



Candelas at Nadir

| Deg | Candela |
|-----|---------|
| 0 | 5663 |
| 5 | 4861 |
| 15 | 1589 |
| 25 | 274 |
| 35 | 17 |
| 45 | 3 |

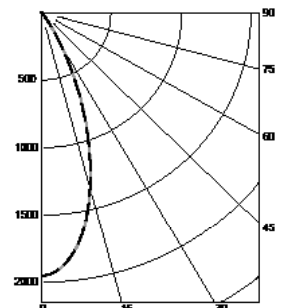
Flood (FL) Distribution, 28°
LTL # 1178280
Lumens: 973



Candelas at Nadir

| Deg | Candela |
|-----|---------|
| 0 | 3004 |
| 5 | 2802 |
| 15 | 1568 |
| 25 | 457 |
| 35 | 31 |
| 45 | 5 |

Wide Flood (WF) Distribution, 45°
LTL # 1178281
Lumens: 916



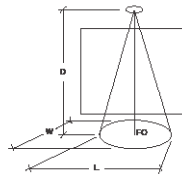
Candelas at Nadir

| Deg | Candela |
|-----|---------|
| 0 | 1953 |
| 5 | 1877 |
| 15 | 1341 |
| 25 | 592 |
| 35 | 75 |
| 45 | 8 |

Application Data:

0° Aiming Angle Horizontal Footcandles

| | D | FC | L | W |
|---------------------|-------|-----|-----|-----|
| Spot | 5.0' | 237 | 1.9 | 1.9 |
| | 7.5' | 130 | 2.6 | 2.6 |
| | 10.0' | 81 | 3.3 | 3.2 |
| | 12.5' | 54 | 3.9 | 3.8 |
| Narrow Flood | 5.0' | 168 | 2.3 | 2.3 |
| | 7.5' | 87 | 3.1 | 3.1 |
| | 10.0' | 52 | 3.9 | 3.9 |
| | 12.5' | 34 | 4.9 | 4.8 |
| Flood | 5.0' | 102 | 2.9 | 2.9 |
| | 7.5' | 49 | 4.0 | 4.1 |
| | 10.0' | 29 | 5.3 | 5.5 |
| | 12.5' | 19 | 6.6 | 6.8 |
| Wide Flood | 5.0' | 70 | 3.4 | 3.4 |
| | 7.5' | 33 | 5.0 | 4.9 |
| | 10.0' | 19 | 6.6 | 6.6 |
| | 12.5' | 12 | 8.1 | 8.2 |



Notes and Definitions:

Beam spread is to 50% center beam candlepower (CBCP).

D=Distance to floor or wall.

FC=Footcandles on floor or wall at center beam aiming location.

L=Effective Visual Beam length in feet (50% of maximum footcandle level).

W=Effective Visual Beam width in feet (50% of maximum footcandle level).

CB=Distance across or down to center beam location.

Evoke[®] 2.9" HP

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PROJECT:

TYPE:

DIMMING COMPATIBILITY:

Amerlux[®] Evoke fixtures are compatible with all major dimming protocols prevalent in the United States. Please see below for general compatibilities and wiring diagrams. Amerlux recommends testing your unique dimming configuration as the exact full configuration (Dimmer, Fixture Quantity, Voltage, etc) may affect dimming performance.

--- NOTE: INFORMATION BELOW IS FOR WIRED DIMMERS ONLY. FOR WIRELESS DIMMERS, CONSULT FACTORY ---

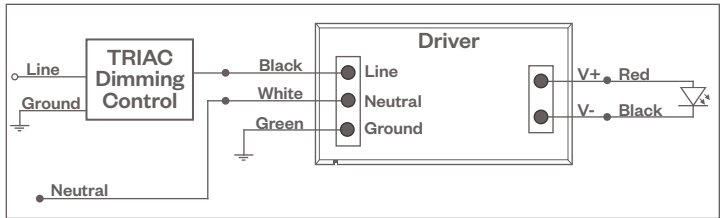
TRIAC (Forward Phase) DIMMING (Standard)

Utilizes standard TRIAC dimmers that are in wide use in installations across the US. Best for retrofit applications where TRIAC dimmers are installed.

Notes:

- 120VAC or 277VAC*
- Dims down to 5% light output (most cases)
- Consult Dimming manufacturer for installation instructions - DO NOT SHARE NEUTRALS!
- Must meet dimmer Minimum Load Requirements per dimming manufacturer

TRIAC Wiring Diagram



Compatible Dimmers†:

| Wall Box (TRIAC 120VAC) | Central System |
|-------------------------|----------------------|
| Lutron "Diva" | Lutron "GP" Panel |
| Lutron "Nova-T" | Lutron Grafik Eye QS |
| Lutron "Maestro" | |
| Lutron "Vareo" | |
| Lutron "Skylark" | |

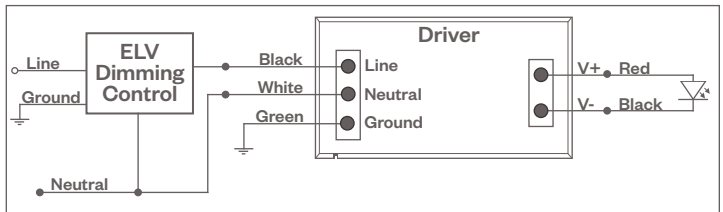
ELV - Electronic Low Voltage (Reverse Phase) DIMMING (Standard)

Utilizes specialized "ELV" dimmers.

Notes:

- 120VAC or 277VAC*
- Dims down to 5% light output (most cases)
- Consult Dimming manufacturer for installation instructions - DO NOT SHARE NEUTRALS!
- Must meet dimmer Minimum Load Requirements

ELV Wiring Diagram



Compatible Dimmers†:

| Wall Box (ELV 120VAC) | Wall Box (ELV 277VAC) | Central System |
|-----------------------|---------------------------|--|
| Lutron "Diva" | Leviton Revoir II AWSMT-E | Lutron "GP" Panel with PHPM-PA 120/277VAC |
| Lutron "Nova-T" | | Lutron Grafik Eye QS with PHPM-PA 120/277VAC |
| Lutron "Maestro" | | |
| Lutron "Vareo" | | |
| Lutron "Skylark" | | |
| Leviton "Surslide" | | |
| Leviton "Vizio" | | |

Notes:

- * Driver is 277VAC dimmable with appropriate dimmer (by others). All provided wiring diagrams show 120VAC wiring colors and method. Please refer to 277VAC dimmer manufacturer installation instructions for 277VAC wiring diagrams.
- † The absence of a dimmer from the lists above does not imply incompatibility. Please consult factory for compatibility inquiries.

Evoke[®] 2.9" HP

2.9" Square Downlight



PROJECT:

TYPE:

DIMMING COMPATIBILITY:

Amerlux[®] Evoke fixtures are compatible with all major dimming protocols prevalent in the United States. Please see below for general compatibilities and wiring diagrams. Amerlux recommends testing your unique dimming configuration as the exact full configuration (Dimmer, Fixture Quantity, Voltage, etc) may affect dimming performance.

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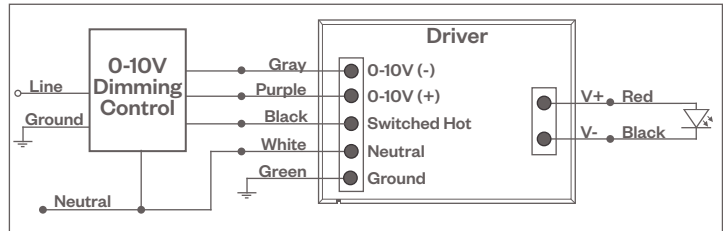
0-10V DIMMING

Integrates into a variety of building management and daylighting controls

Notes:

- 120VAC or 277VAC*
- Dims down to 1% light output
- Requires interface to turn off power to driver
- Consult Dimming manufacturer for installation instructions - DO NOT SHARE NEUTRALS!

0-10V Wiring Diagram



Compatible Dimmers*:

Wall Box

Lutron "Diva" - DTVV with PP-120H Interface

Leviton Renoir II 0-10V

Central System

Lutron Grafik Eye with GRX-TV1 Interface

LUTRON H-SERIES / ECOSYSTEM DIMMING

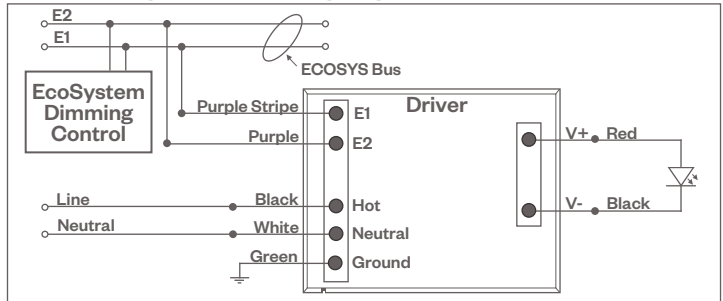
Integrates into Lutron EcoSystem building management

Notes:

- 120VAC or 277VAC*
- Dims down to 1% light output
- EcoSystem Control
- Consult Dimming manufacturer for installation instructions - DO NOT SHARE NEUTRALS!

HILUME-H-ECO, HILUME-5-ECO

EcoSystem Digital Control Wiring Diagram



Compatible Dimmers*:

Lutron ECO System

Pow Pak Dimming Modules
Energj Savr Node
Grafik Eye QS/Homeworks
QS Control Unit
Quantum Hub
Homeworks QS/My Room

Central System

Lutron EcoSystem compatible controls

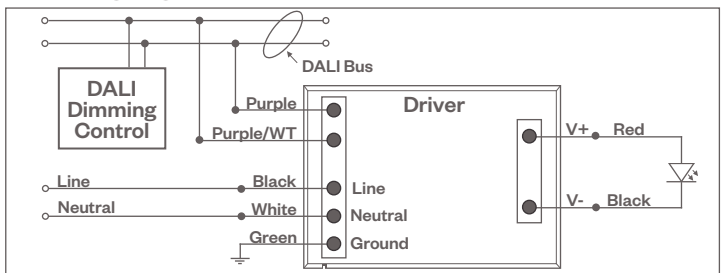
DALI DIMMING

Digital control protocol allows individual fixture control

Notes:

- 120VAC - 277VAC*
- Dims down to 1% light output in most cases

DALI Wiring Diagram



Compatible Dimmers*:

Wall Box (3-Wire Fluorescent)

Leviton CD250 Controller

Central System

Dynalite
Fifth Light

Notes:

* Driver is 277VAC dimmable with appropriate dimmer (by others). All provided wiring diagrams show 120VAC wiring colors and method. Please refer to 277VAC dimmer manufacturer installation instructions for 277VAC wiring diagrams.

† The absence of a dimmer from the lists above does not imply incompatibility. Please consult factory for compatibility inquiries.