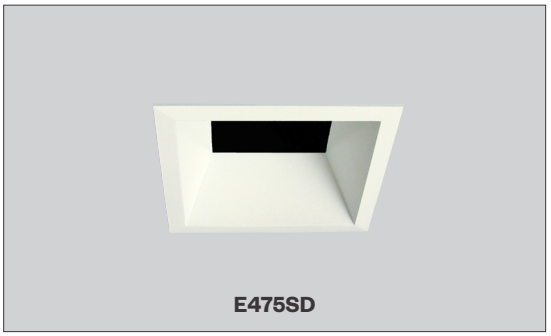
# Evoke® 4.75”

## Square Downlight

**PROJECT:** **TYPE:**

## Features

The Evoke 4.75 Downlight features the fit, finish and attention to detail of the existing Evoke line that you’ve loved since its introduction in 2006. With the current advancements in lighting technology Evoke 4.75” delivers the performance, energy savings and color you expect from a spec-grade LED downlight. Impressive performance, high lumen delivery and consistent color for sustainable lighting designs.



**E475SD**

**E475SD-TL**
*(trimless)*

## Product Overview

| | |
|---|---|
| Type: | Recessed Square Downlight |
| Wattage: | 13W, 16W, 21W, 29W |
| Color Temp: | 2200K, 2700K, 3000K, 3500K, 4000K |
| CRI: | 83 typ. *(2700K, 3000K, 3500K, 4000K)* |
| | 90+ typ. *(2200K, 2700K, 3000K, 3500K, 4000K)* |
| | CrispWhite & 3K Class A LEDs available |
| Dimming: | TRIAC & ELV, 5% Dim, 120/277VAC |
| | Lutron LDE1 Hi-lume® 1% Soft-On/Fade-to-Black, 120/277VAC |
| | 0-10V, 1% Dim, 120/277VAC |
| | DALI, 1% Dim, 120/277VAC |

## Certifications

5 year limited warranty AMERLUX LED

JA8 TITLE 24 COMPLIANT

## Fixture Summary

### Fixture Type

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

*See separate spec sheet for Square trim.*

### Performance Data

| Watts | Delivered Lumens | LPW | Color Temp-CRI |
|---|---|---|---|
| 13 | 1013 | 77.9 | 3000K-83 |
| 16 | 1183 | 75.1 | 3000K-83 |
| 21 | 1620 | 77.1 | 3000K-83 |
| 29 | 2250 | 77.3 | 3000K-83 |

*Data is based on 3000K-83 120V IES files available on website.*
*Data is based on 29W, Wide Flood optics. See pg 5-6 for other performance data..*

### Electrical Data

| | 13W | | 16W | | 21W* | | 29W* | |
|---|---|---|---|---|---|---|---|---|
| Voltage | System Watts | Amps | System Watts | Amps | System Watts | Amps | System Watts | Amps |
| 120V | 13 | 0.11 | 16 | 0.13 | 21 | 0.18 | 29 | 0.24 |
| 277V | 13 | 0.05 | 16 | 0.06 | 21 | 0.08 | 29 | 0.10 |

*Electronic constant current LED driver.*
** Includes thermal protector, 2W power consumption.*



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# Evoke® 4.75”

## Square Downlight

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| PROJECT: | TYPE: |
|---|---|

## Ordering Information - Housing/Frame

_____ . _____ . _____ . _____ . _____ . _____

1 2 3 4 5 6

| 1 | Model |
|---|---|
| | For New Construction |
| | **E4.75S-NC-A17** *(New Construction)* |
| | **E4.75S-CP-A17** *(Chicago Plenum, 13W, 16W & 21W only)* |
| | **E4.75S-IC-A17** *(Insulated Ceiling/air tight, 13W, 16W & 21W only)* |

| 2 | Style |
|---|---|
| | **T** - trimmed |
| | **TL** - trimless *(not available for use with Grid ceiling)* |

| 3 | Wattage |
|---|---|
| | **13** |
| | **16** |
| | **21** |
| | **29** *(not for use with CP or IC housings)* |

| 4 | Voltage |
|---|---|
| | **120** |
| | **277** |
| | **120/277** *(for use with IC housing only)* |

| 5 | Driver *(for non-dimming, select LE/TE option)* |
|---|---|
| | **LE/TE** TRIAC/ELV dimming, 5% dim |
| | **HILUME-H-ECO** Lutron LDE1 Hi-lume® 1% dim Soft-On/Fade-to-Black |
| | **0-10V** 0-10V dimming; 1% dim |
| | **DALI** DALI dimming; 1% dim |

| 6 | Options/Accessories |
|---|---|
| | **EM** emergency battery pack with remote test switch *(not available for use with CP or IC options)* |
| | **HB49** hanger bars from min 29” to max 49” |
| | *Note: 26” hanger bars are included as standard. Choose **HB49** option above for larger mounting spaces only.* |

## Ordering Information - Trim

_____ . _____ . _____ . _____ . _____ . _____

1 2 3 4 5 6

| 1 | Model |
|---|---|
| | **E4.75SD-A17** |

| 2 | Style |
|---|---|
| | **T** - trimmed |
| | **TL** - trimless *(not available for use with Grid ceiling)* |

| 3 | Finish | |
|---|---|---|
| | For Trimmed Fixture | For Trimless Fixture |
| | **MWW** matte white, white flange | **MW** matte white |
| | **MBW** matte black, white flange | **MB** matte black |
| | **SLVW** matte silver, white flange | **SLV** matte silver |
| | **MBB** matte black, black flange | |

| 4 | Beam Spread |
|---|---|
| | **SP** spot, 15° |
| | **FL** flood, 25° |
| | **WF** wide flood, 40° |
| | **VWF** very wide flood, 70° |

| 5 | Color Temp | | |
|---|---|---|---|
| | 83 CRI | 90+ CRI | |
| | **27** 2700K-83 | **229** 2200K-90+ | **CRISP** CrispWhite |
| | **30** 3000K-83 | **279** 2700K-90+ | **3CLA** 3K Class A |
| | **35** 3500K-83 | **309** 3000K-90+ | |
| | **40** 4000K-83 | **359** 3500K-90+ | |
| | | **409** 4000K-90+ | |

| 6 | Options/Accessories |
|---|---|
| | **WET** wet location *(for trimmed fixture only)* |
| | **SOL** solite lens |

# Evoke® 4.75”

## Square Downlight

| PROJECT: | TYPE: |
|---|---|

## Specifications

**Application**

Commercial and hospitality ambient lighting

**Housing Construction**

20 ga. galvanized steel frame
Formed aperture plate with 5/8” lip
Integral adjustable locking mounting bars
Thermally protected *(21W & 29W)*
Die-cast lamp housing and heatsink
Cast aluminum plaster frame with perforated face *(for trimless option)*

**Reflector Construction**

Die-cast aluminum seamless self-flanged trim
Steel mounting ring with spring clips

**Optical**

Beam Spreads: Spot, 15°; Flood, 25°; Wide Flood, 40°; Very Wide Flood, 70°
Optional Solite aperture lens

**LED**

Color Temp Options: 2200K, 2700K, 3000K, 3500K, 4000K
CRI: 83 typ. *(2700K, 3000K, 3500K, 4000K)*
90+ typ. *(2200K, 2700K, 3000K, 3500K, 4000K)*
CrispWhite* and Class A** 3000K *(high CRI, high gamut)* available
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: 13W, 16W, 21W, 29W
Electronic constant current LED driver, 120/277VAC input
***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)* or Trailing Edge *(ELV, Reverse Phase)*
0-10V, Lutron and DALI systems also available
*See pages 8-10 for more dimming information*

**Finish**

Powder coat paint
*Consult factory for custom finishes*

**Mounting**

26” Hanger bars included
Optional **HB49** - hanger bars from min 29” to max 49” available
Trimmed Fixture
For use in grid or sheetrock ceilings, max ceiling thickness 1”
Trimless Fixture
For use in sheetrock ceilings, max ceiling thickness 5/8”

**Certifications**

CSA approved to UL standards as tested by CSA
Damp location
Chicago Plenum *(CCEA)* option *(13W, 16W & 21W only)*
IC/AT rated option *(13W, 16W & 21W only)*
Wet location option *(adds clear lens and trim gasket)*
Title 24 compliant *(13W & 16W only)*

**Warranty**

5 year limited warranty

**Emergency Battery Pack *(EM)***

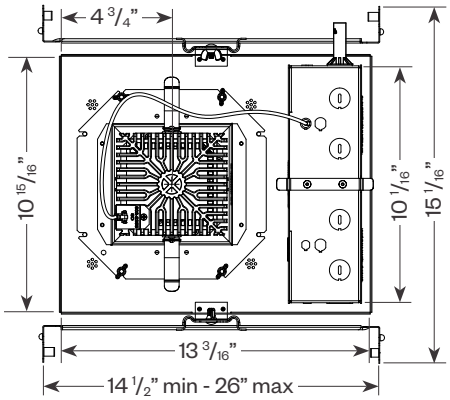
IOTA ILB-CP05 Emergency battery pack with remote test switch, output of 5W *(approx. 300 lumens)* for 90 minutes

# Evoke® 4.75”

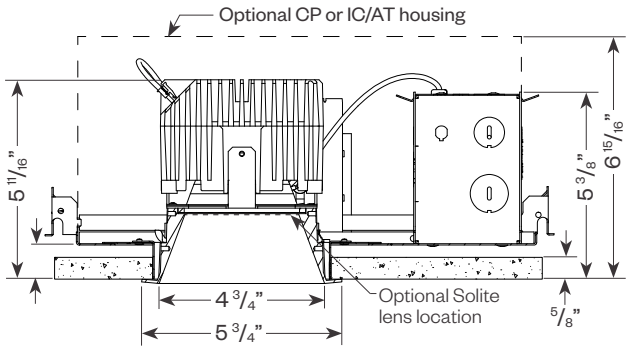
## Square Downlight

| PROJECT: | TYPE: |
|---|---|

## Product Details - Square Downlight (SD)

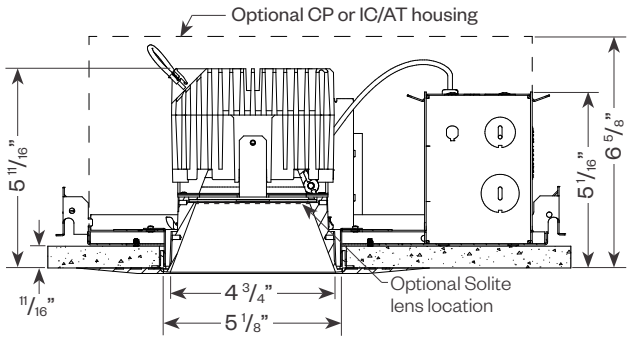



Trimmed




**Ceiling cut out:** 5 1/8” sq.

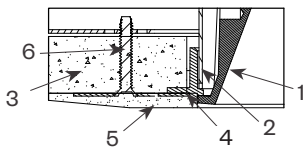
Trimless




**Ceiling cut out:** 5 7/8” sq.

## 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



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# Evoke® 4.75”

## Square Downlight

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| PROJECT: | TYPE: |
|---|---|

## Performance Data

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

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

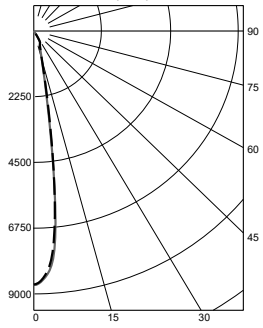
| Wattage: | 13W | 16W | 21W | 29W |
|---|---|---|---|---|
| Factor: | 0.81 | 1.0 | 1.3 | * |

*** For 29W data see page 7**

| 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 |

### 16W LED, 3000K-83

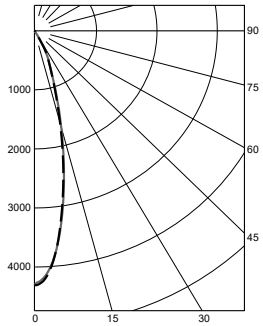
**Spot (SP) Distribution, 15°**
**LTL #1085464**
**Lumens: 1,170; 74.2 Lm/W**




**Candelas at Nadir**

| Deg | Candela |
|---|---|
| 0 | 8683 |
| 5 | 7514 |
| 15 | 956 |
| 25 | 466 |
| 35 | 25 |
| 45 | 23 |

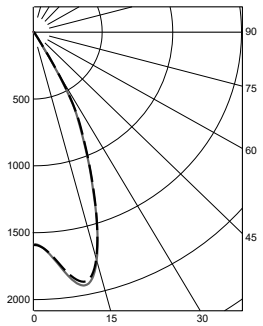
**Flood (FL) Distribution, 25°**
**LTL#1085465**
**Lumens: 1,187; 75.4 Lm/W**




**Candelas at Nadir**

| Deg | Candela |
|---|---|
| 0 | 4305 |
| 5 | 3828 |
| 15 | 1733 |
| 25 | 549 |
| 35 | 24 |
| 45 | 18 |

**Wide Flood (WF) Distribution, 40°**
**LTL # 1085466**
**Lumens: 1,183; 75.1 Lm/W**

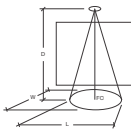



**Candelas at Nadir**

| Deg | Candela |
|---|---|
| 0 | 1592 |
| 5 | 1703 |
| 15 | 1763 |
| 25 | 813 |
| 35 | 62 |
| 45 | 19 |

## Application Data

**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.



**0° Aiming Angle Horizontal Footcandles**

| | D | FC | L | W |
|---|---|---|---|---|
| Spot | 5.0’ | 394 | 1.2 | 1.2 |
| | 7.5’ | 168 | 1.9 | 1.9 |
| | 10.0’ | 93 | 2.9 | 2.9 |
| | 12.5’ | 59 | 3.4 | 3.4 |

**0° Aiming Angle Horizontal Footcandles**

| | D | FC | L | W |
|---|---|---|---|---|
| Flood | 5.0’ | 195 | 2.0 | 2.0 |
| | 7.5’ | 83 | 3.2 | 3.2 |
| | 10.0’ | 46 | 4.2 | 4.1 |
| | 12.5’ | 29 | 5.3 | 5.2 |

**0° Aiming Angle Horizontal Footcandles**

| | D | FC | L | W |
|---|---|---|---|---|
| Wide Flood | 5.0’ | 82 | 3.7 | 3.8 |
| | 7.5’ | 35 | 5.7 | 5.7 |
| | 10.0’ | 19 | 7.7 | 7.7 |
| | 12.5’ | 13 | 9.6 | 9.7 |

# Evoke® 4.75”

## Square Downlight

**PROJECT:** **TYPE:**

## Performance Data

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

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

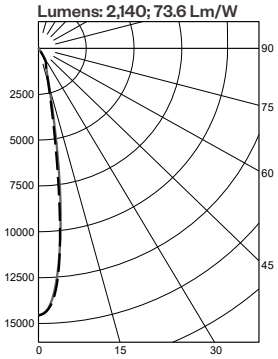
| Wattage: | 13W | 16W | 21W | 29W |
|---|---|---|---|---|
| Factor: | 0.45 | * | 0.72 | 1.0 |

*** For 16W data see page 6**

| 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 |

### 29W LED, 3000K-83

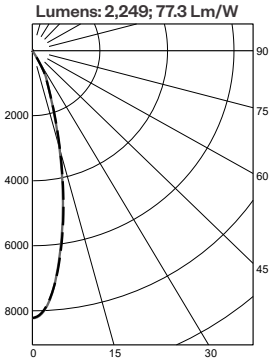
**Spot (SP) Distribution, 15º**
**LTL #1085469**
**Lumens: 2,140; 73.6 Lm/W**




**Candelas at Nadir**

| Deg | Candela |
|---|---|
| 0 | 14560 |
| 5 | 11710 |
| 15 | 1994 |
| 25 | 896 |
| 35 | 66 |
| 45 | 44 |

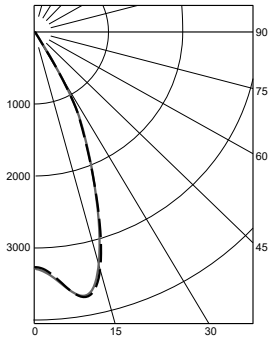
**Flood (FL) Distribution, 25º**
**LTL#1085468**
**Lumens: 2,249; 77.3 Lm/W**




**Candelas at Nadir**

| Deg | Candela |
|---|---|
| 0 | 8226 |
| 5 | 7332 |
| 15 | 3186 |
| 25 | 1035 |
| 35 | 44 |
| 45 | 33 |

**Wide Flood (WF) Distribution, 40º**
**LTL # 1085467**
**Lumens: 2,250; 77.3 Lm/W**

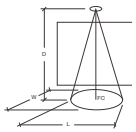



**Candelas at Nadir**

| Deg | Candela |
|---|---|
| 0 | 3267 |
| 5 | 3461 |
| 15 | 3302 |
| 25 | 1551 |
| 35 | 124 |
| 45 | 35 |

## Application Data

**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.



**0º Aiming Angle Horizontal Footcandles**

| | D | FC | L | W |
|---|---|---|---|---|
| Spot | 5.0’ | 661 | 1.3 | 1.3 |
| | 7.5’ | 282 | 2.1 | 2.0 |
| | 10.0’ | 155 | 2.9 | 2.9 |
| | 12.5’ | 98 | 3.5 | 3.4 |

**0º Aiming Angle Horizontal Footcandles**

| | D | FC | L | W |
|---|---|---|---|---|
| Flood | 5.0’ | 374 | 2.0 | 2.0 |
| | 7.5’ | 159 | 3.1 | 3.2 |
| | 10.0’ | 88 | 4.2 | 4.2 |
| | 12.5’ | 56 | 5.2 | 5.3 |

**0º Aiming Angle Horizontal Footcandles**

| | D | FC | L | W |
|---|---|---|---|---|
| Wide Flood | 5.0’ | 158 | 3.7 | 3.7 |
| | 7.5’ | 69 | 5.6 | 5.6 |
| | 10.0’ | 38 | 7.6 | 7.5 |
| | 12.5’ | 24 | 9.5 | 9.5 |

# Evoke® 4.75”

## 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.

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

### TRIAC *(Forward Phase)* Dimming

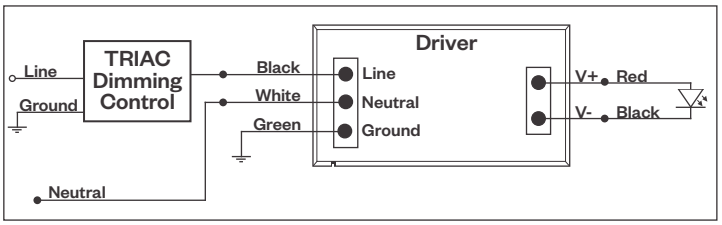
Utilizes standard TRIAC dimmers that are in wide use in installations across the US. Best for retrofit applications where TRIAC dimmers are installed.

**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

| **Compatible Dimmers†:** | |
|---|---|
| **Wall Box** *(TRIAC 120VAC)* | **Central System** |
| Lutron “Diva” | Lutron “GP” Panel |
| Lutron “Nova-T” | Lutron Grafik Eye QS |
| Lutron “Maestro" | |
| Lutron “Skylark” | |

### TRIAC Wiring Diagram



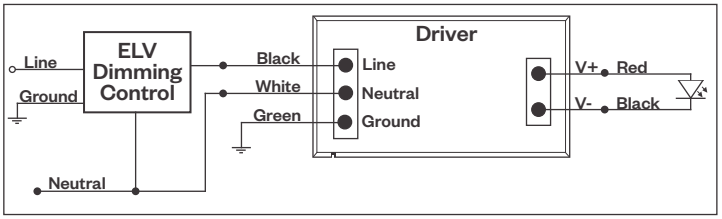

### ELV - Electronic Low Voltage *(Reverse Phase)* Dimming

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 per dimming manufacturer

### 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 “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 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.

## Dimming Compatibility *(continued)*

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 ---**

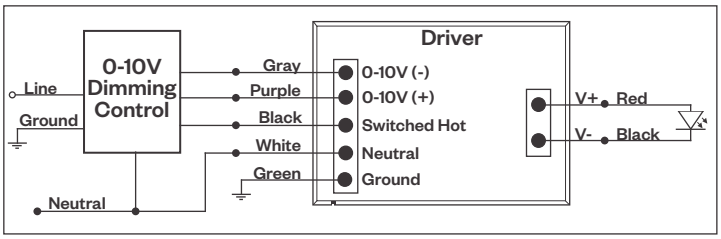
### 0-10V Dimming

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** | | **Central System** |
| Lutron “Diva” - DVSTV | Leviton Renoir II 0-10V | Lutron Grafik Eye with GRX-TVI Interface |

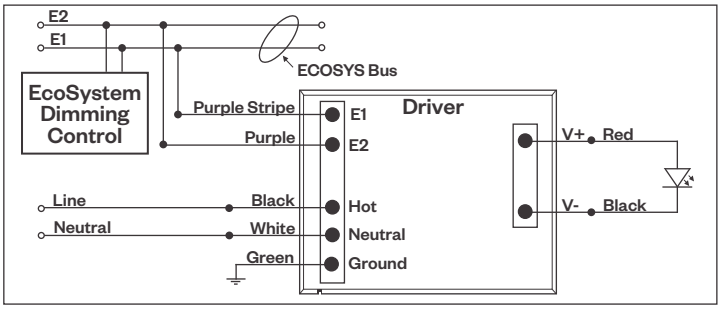
### Lutron LDE1 Dimming

Integrates into Lutron EcoSystem building management

**Notes:**

- 120VAC or 277VAC*
- Dims down to 1% Soft-On/Fade-to-Black
- EcoSystem Control
- Consult Dimming manufacturer for installation instructions - **DO NOT SHARE NEUTRALS!**

### LDE1 *(HILUME-H-ECO)* EcoSystem Digital Control Wiring Diagram




| Compatible Dimmers†: | |
|---|---|
| **Lutron ECO System** | **Central System** |
| Pow Pak Dimming Modules | Lutron EcoSystem compatible controls |
| Energi Savr Node | |
| Grafik Eye QS/Homeworks | |
| QS Control Unit | |
| Quantum Hub | |
| Homeworks QS/My Room | |

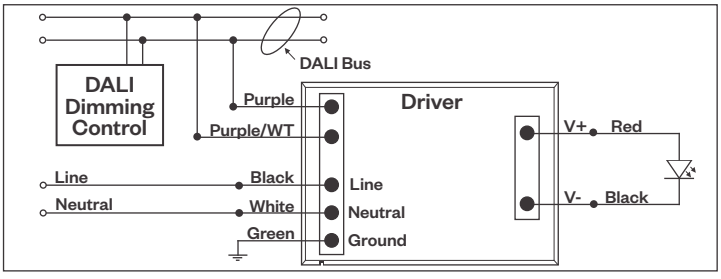
### DALI Dimming

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)* | **Central System** |
| Leviton CD250 Controller | 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 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® 4.75”

## Square Downlight

| PROJECT: | TYPE: |
|---|---|

## Emergency Battery Pack

**Wiring Diagram**