

# Evoke® 4.75"

## Round 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.



E475RDS/RD

### Product Overview

Type: Recessed Round 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



### 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	947	72.8	3000K-83
16	1170	73.1	3000K-83
21	1515	72.1	3000K-83
29	2104	71.9	3000K-83

Data is based on 3000K-83 120V IES files available on website.

Data is based on 29W, Wide Flood optics. See pg 6-7 for other performance data..

#### Electrical Data

Voltage	13W		16W		21W*		29W*	
	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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### Ordering Information - Housing/Frame

1	2	3	4	5	6
<b>1 Model</b> For New Construction <b>E4.75R-NC-A17</b> (New Construction) <b>E4.75R-CP-A17</b> (Chicago Plenum, 13W, 16W & 21W only) <b>E4.75R-IC-A17</b> (Insulated Ceiling/air tight, 13W, 16W & 21W only)	<b>2 Style</b> T - trimmed TL - trimless (not available for use with Grid ceiling)	<b>3 Wattage</b> 13 16 21 29 (not for use with CP or IC housings)	<b>4 Voltage</b> 120 277 120/277 (for use with IC housing only)	<b>5 Driver</b> (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 O-10V O-10V dimming; 1% dim DALI DALI dimming; 1% dim	<b>6 Options/Accessories</b> 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
<b>1 Model</b> E4.75RDS-A17 (shallow trim) E4.75RD-A17	<b>2 Style</b> T - trimmed TL - trimless (not available for use with Grid ceiling)	<b>3 Finish</b> For Trimmed Fixture SDW semi-diffuse, white flange SDC semi-diffuse, clear flange (flange finish matches cone finish) MWW matte white, white flange MBB matte black, black flange For Trimless Fixture SD semi-diffuse MW matte white	<b>4 Beam Spread</b> SP spot, 15° FL flood, 25° WF wide flood, 40° VWF very wide flood, 70°	<b>5 Color Temp</b> 83 CRI 90+ CRI 27 2700K-83    229 2200K-90+ 30 3000K-83    279 2700K-90+ 35 3500K-83    309 3000K-90+ 40 4000K-83    359 3500K-90+ 409 4000K-90+ CRISP CrispWhite 3CLA 3K Class A	<b>6 Options/Accessories</b> WET wet location (for trimmed fixture only) SOL solite lens

# Evolve<sup>®</sup> 4.75"

## Round Downlight



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### Specifications

#### Application

Commercial and hospitality ambient lighting

#### Housing Construction

- 20 ga. galvanized steel frame
- 18 ga. galvanized steel splice housing and hanger brackets
- Die-cast aluminum heatsink
- Cast aluminum plaster frame with perforated face (*for trimless option*)

#### Reflector Construction

Spun aluminum self-flanged reflector, anodized finish

#### Optical

- High reflectance, highly diffuse mixing chamber
- Engineered nano technology lens provide transmission while concealing LED image
- 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<sup>®</sup> 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

- Wet 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

# Evolve® 4.75"

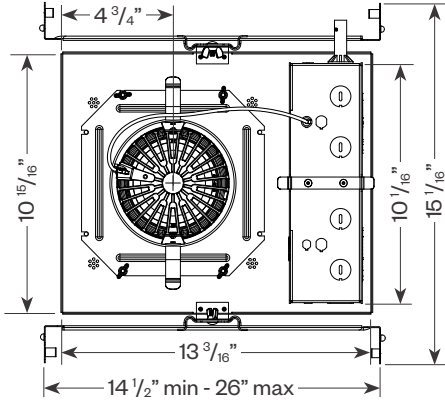
## Round Downlight



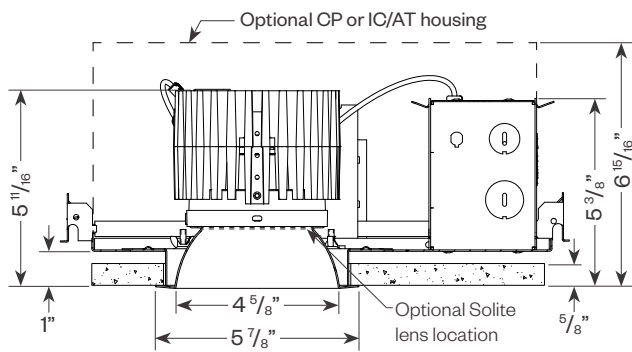
PROJECT:

TYPE:

### Product Details - Round Downlight Shallow (RDS)

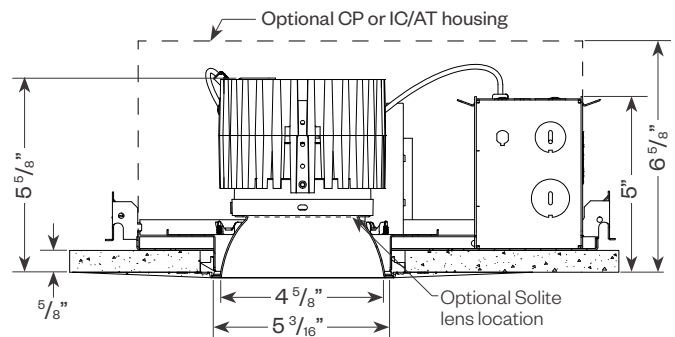


#### Trimmed



Ceiling cut out: 5 3/8" dia.

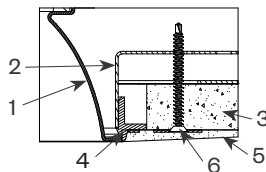
#### Trimless



Ceiling cut out: 5 7/8" dia.

### 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



# Evolve<sup>®</sup> 4.75"

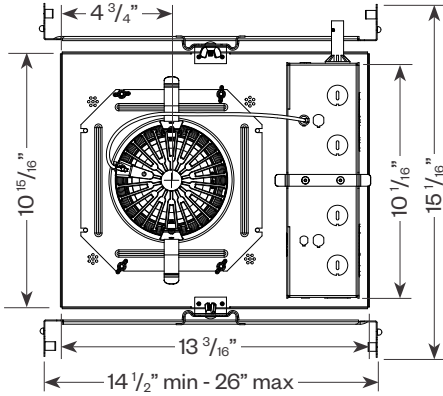
## Round Downlight



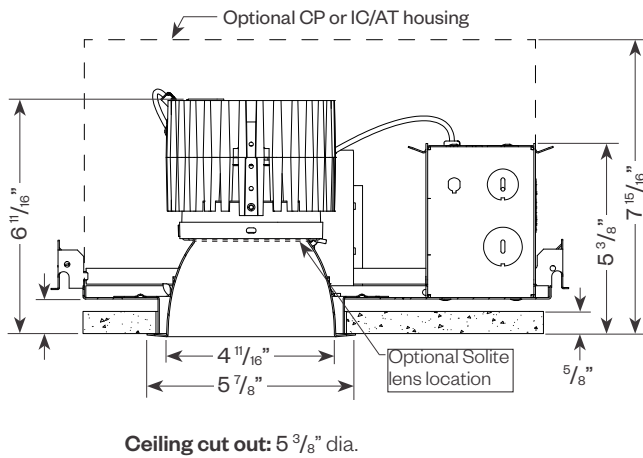
PROJECT:

TYPE:

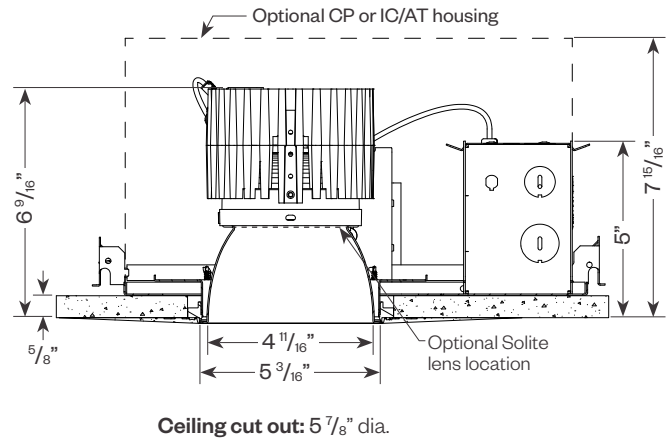
### Product Details - Round Downlight (RD)



#### Trimmed

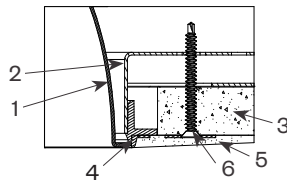


#### Trimless



### 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



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### 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

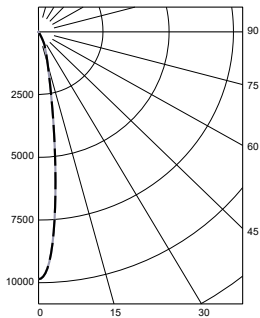
Wattage:	13W	16W	21W	29W
Factor:	0.81	1.0	1.3	*

\* 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

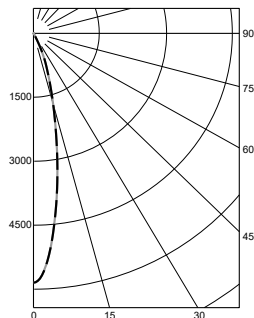
### 16W LED, 3000K-83

Spot (SP) Distribution, 15°  
LTL #1085472  
Lumens: 1,125; 72.3 lm/W



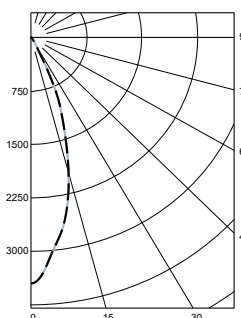
Candelas at Nadir	
Deg	Candela
0	8683
5	7029
15	1289
25	374
35	40
45	24

Flood (FL) Distribution, 25°  
LTL #1085470  
Lumens: 1,170; 75.1 lm/W



Candelas at Nadir	
Deg	Candela
0	5849
5	4894
15	1813
25	430
35	45
45	17

Wide Flood (WF) Distribution, 40°  
LTL # 1085471  
Lumens: 1,195; 76.7 lm/W



Candelas at Nadir	
Deg	Candela
0	3451
5	3074
15	1972
25	671
35	78
45	19

### Application Data

#### Notes and Definitions:

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

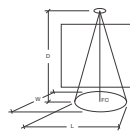
D=Distance to floor or wall.

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'	395	1.3	1.3
	7.5'	176	1.8	1.8
	10.0'	99	2.6	2.6
	12.5'	63	3.2	3.2
Flood	5.0'	235	1.8	1.8
	7.5'	104	2.9	2.9
	10.0'	59	3.7	3.7
	12.5'	38	4.7	4.7
Wide Flood	5.0'	138	2.8	2.8
	7.5'	62	4.1	4.1
	10.0'	35	5.5	5.5
	12.5'	22	6.9	6.9

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### 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

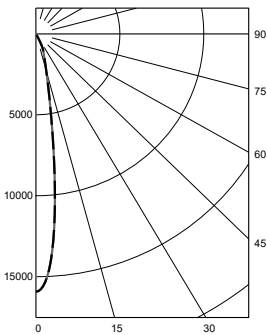
Wattage:	13W	16W	21W	29W
Factor:	0.45	*	0.72	1.0

\* 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

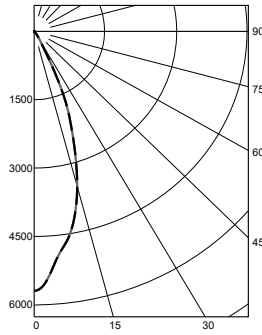
### 29W LED, 3000K-83

Spot (SP) Distribution, 15°  
LTL #1085473  
Lumens: 1,950; 66.5 lm/W



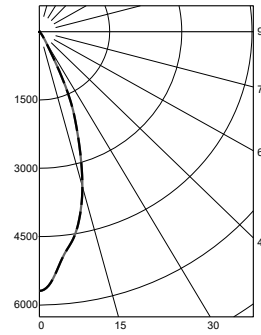
Candelas at Nadir	
Deg	Candela
0	15930
5	12010
15	2227
25	698
35	74
45	34

Flood (FL) Distribution, 25°  
LTL #1085475  
Lumens: 2,089; 71.4 lm/W



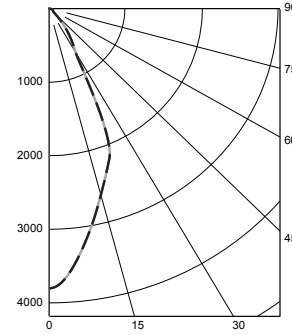
Candelas at Nadir	
Deg	Candela
0	10520
5	8749
15	3274
25	801
35	69
45	25

Wide Flood (WF) Distribution, 40°  
LTL # 1085474  
Lumens: 2,104; 71.9 lm/W



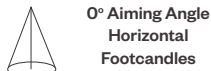
Candelas at Nadir	
Deg	Candela
0	5693
5	5088
15	3518
25	1239
35	135
45	27

Very Wide Flood (VWF) Distribution, 70°  
LTL # 11644246.01  
Lumens: 2,311; 75.9 lm/W



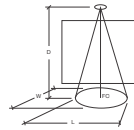
Candelas at Nadir	
Deg	Candela
0	3803
5	3533
15	2608
25	1566
35	481
45	158

### Application Data



0° Aiming Angle Horizontal Footcandles				
	D	FC	L	W
Spot	5.0'	722	1.3	1.3
	7.5'	308	1.8	1.8
	10.0'	170	2.7	2.7
	12.5'	107	3.3	3.3
Flood	5.0'	477	1.7	1.7
	7.5'	203	2.8	2.8
	10.0'	112	3.6	3.6
	12.5'	71	4.6	4.6
Wide Flood	5.0'	259	2.8	2.8
	7.5'	110	4.2	4.2
	10.0'	61	5.6	5.6
	12.5'	39	7.2	7.2
Very Wide Flood	5.0'	159	3.5	3.5
	7.5'	70	5.3	5.3
	10.0'	39	7.1	7.1
	12.5'	25	9.0	9.0

**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.



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### 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 ---

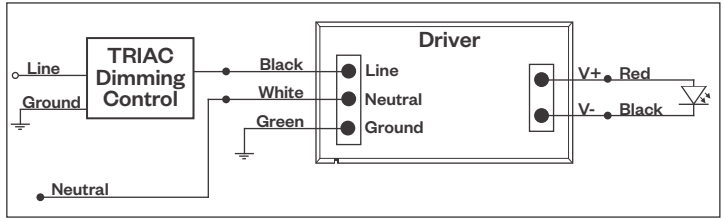
#### TRIAC (Forward Phase) Dimming

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

#### 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 "Skylark"	

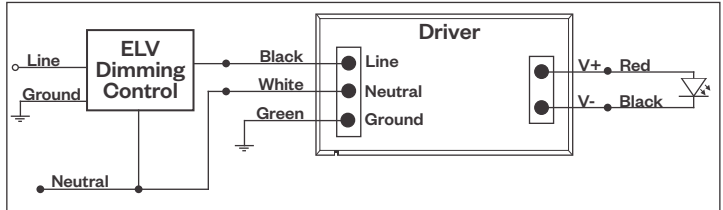
#### ELV - Electronic Low Voltage (Reverse Phase) Dimming

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.



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### 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.

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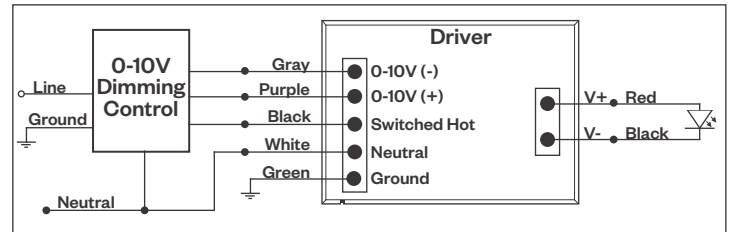
#### 0-10V Dimming

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**

**Central System**

Lutron "Diva" - DVSTV	Leviton Renoir II 0-10V	Lutron Grafik Eye with GRX-TVI Interface
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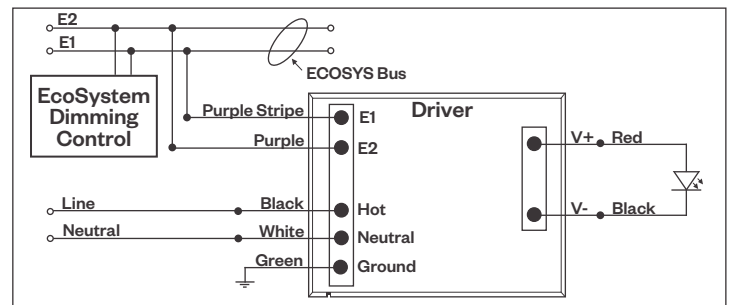
#### Lutron LDE1 Dimming

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	

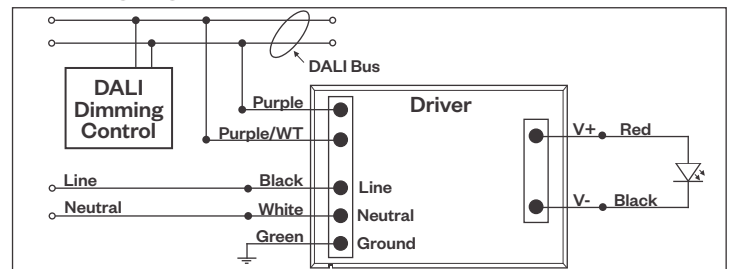
#### DALI Dimming

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.

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## Emergency Battery Pack

Wiring Diagram

