Evoke® 4.75”

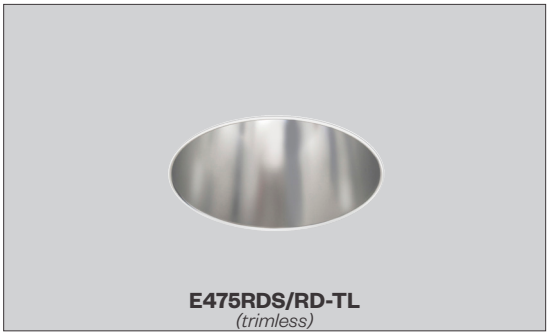
Round Downlight

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



E475RDS/RD-TL
(trimless)

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

5 year limited warranty AMERLUX LED

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

	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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PROJECT:	TYPE:

Ordering Information - Housing/Frame

_____ . _____ . _____ . _____ . _____ . _____

1 2 3 4 5 6

1	Model
	For New Construction
	E4.75R-NC-A17 *(New Construction)*
	E4.75R-CP-A17 *(Chicago Plenum, 13W, 16W & 21W only)*
	E4.75R-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
	E4.75RDS-A17 *(shallow trim)*
	E4.75RD-A17

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

3	Finish	
	For Trimmed Fixture	For Trimless Fixture
	SDW semi-diffuse, white flange	**SD** semi-diffuse
	SDC semi-diffuse, clear flange *(flange finish matches cone finish)*	**MW** matte white
	MWW matte white, white flange	
	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”

Round Downlight

PROJECT:	TYPE:

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® 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

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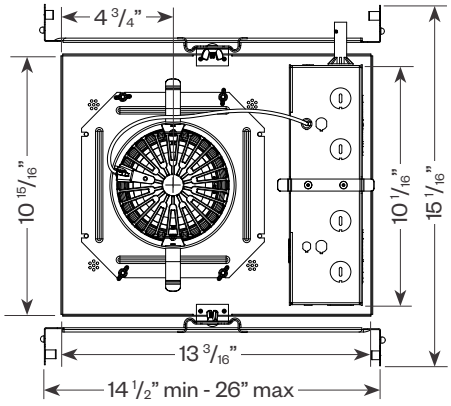
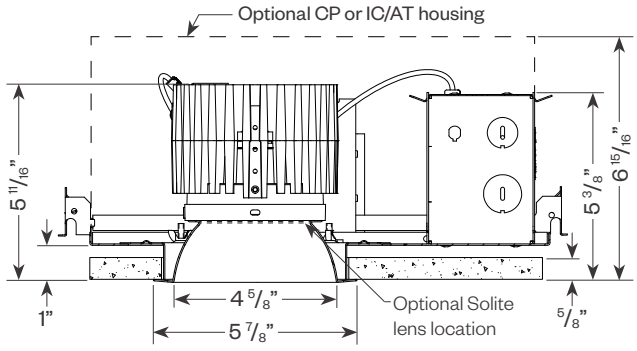
PROJECT:	TYPE:

Product Details - Round Downlight Shallow (RDS)

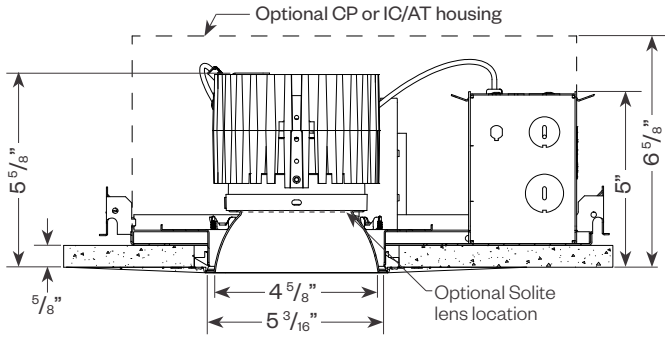


Trimmed



Ceiling cut out: 5 3/8” dia.

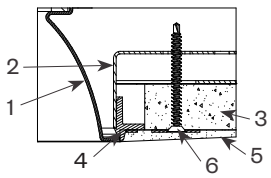
Trimless



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

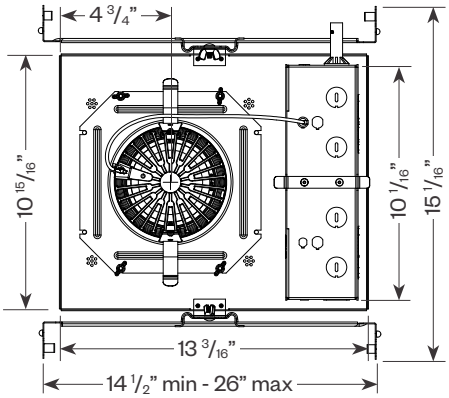


Evoke® 4.75”

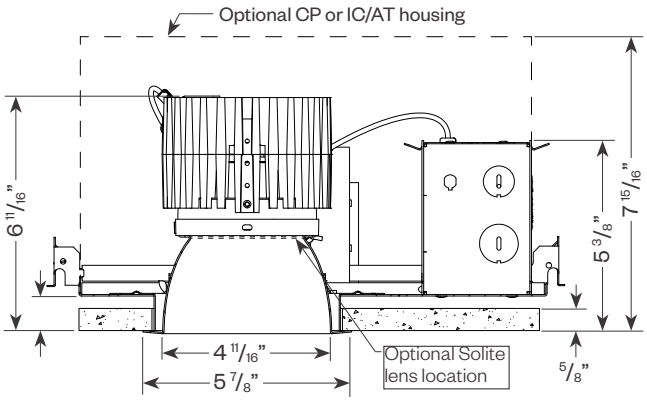
Round Downlight

PROJECT:	TYPE:

Product Details - Round Downlight (RD)

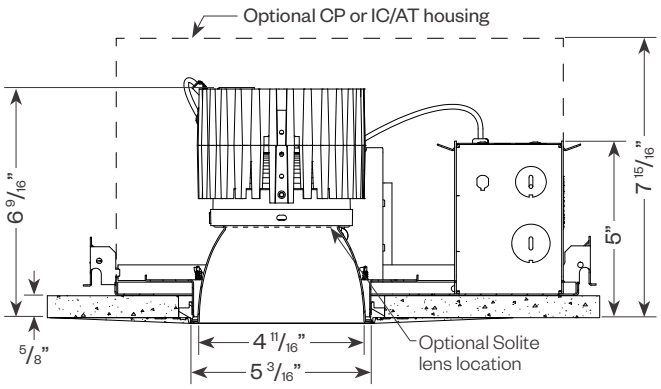


Trimmed



Ceiling cut out: 5 3/8” dia.

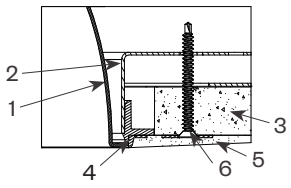
Trimless



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



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Evoke® 4.75”

Round 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

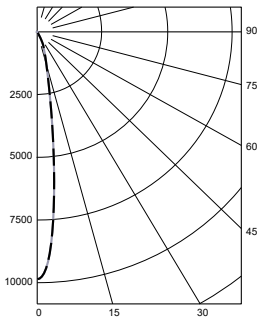
Wattage:	13W	16W	21W	29W
Factor:	0.81	1.0	1.3	*

*** 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

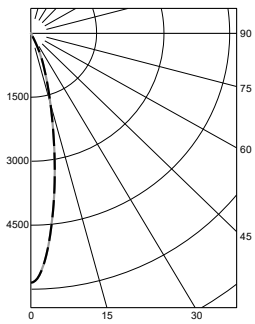
Spot (SP) Distribution, 15°
LTL #1085472
Lumens: 1,125; 72.3 lm/W



Candelas at Nadir

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

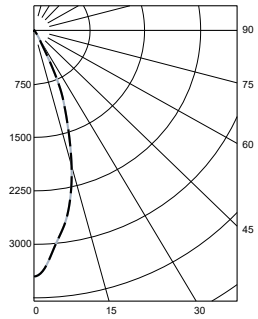
Flood (FL) Distribution, 25°
LTL#1085470
Lumens: 1,170; 75.1 lm/W



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

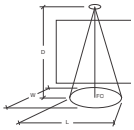


Candelas at Nadir

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

0° Aiming Angle Horizontal Footcandles

	D	FC	L	W
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

0° Aiming Angle Horizontal Footcandles

	D	FC	L	W
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

Evoke® 4.75”

Round 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

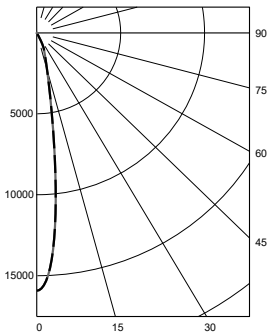
Wattage:	13W	16W	21W	29W
Factor:	0.45	*	0.72	1.0

*** 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

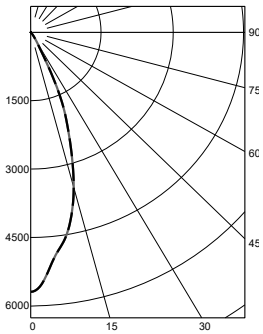
Spot (SP) Distribution, 15°
LTL #1085473
Lumens: 1,950; 66.5 lm/W



Candelas at Nadir

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

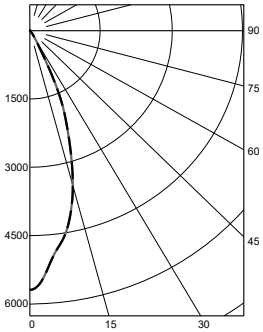
Flood (FL) Distribution, 25°
LTL#1085475
Lumens: 2,089; 71.4 lm/W



Candelas at Nadir

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

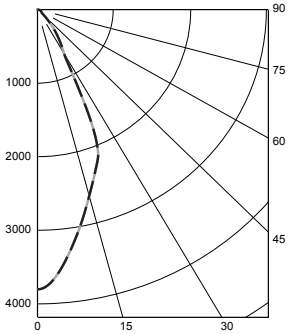
Wide Flood (WF) Distribution, 40°
LTL # 1085474
Lumens: 2,104; 71.9 lm/W



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

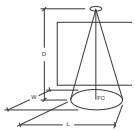


Candelas at Nadir

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

Application Data

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’	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

0° Aiming Angle Horizontal Footcandles

	D	FC	L	W
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

0° Aiming Angle Horizontal Footcandles

	D	FC	L	W
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

0° Aiming Angle Horizontal Footcandles

	D	FC	L	W
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

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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

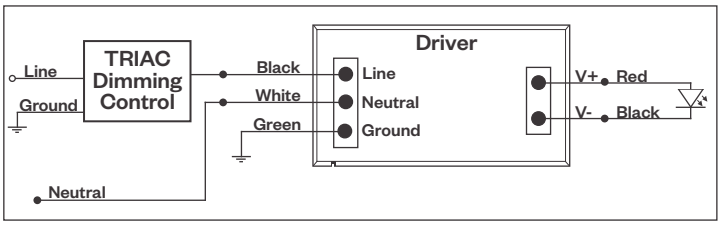
Utilizes standard TRIAC dimmers that are in wide use in installations across the US. Best for retrofit applications where TRIAC dimmers are installed.

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



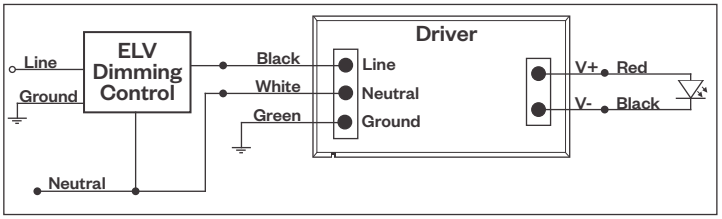
ELV - Electronic Low Voltage *(Reverse Phase)* Dimming

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.

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PROJECT:	TYPE:

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 ---

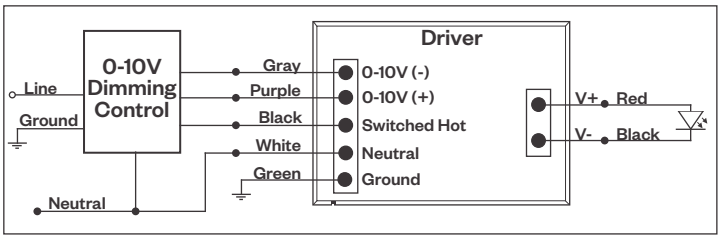
0-10V Dimming

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

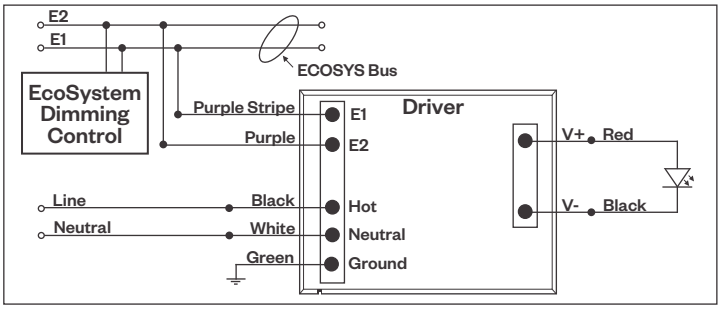
Lutron LDE1 Dimming

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	

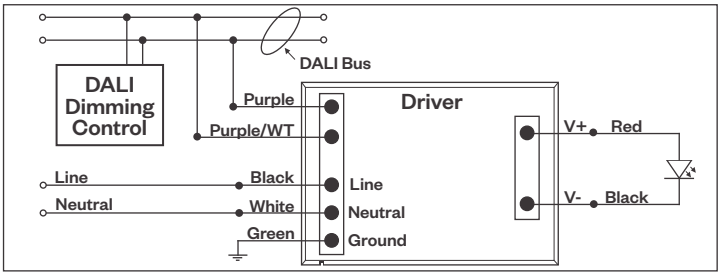
DALI Dimming

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”

Round Downlight

PROJECT:	TYPE:

Emergency Battery Pack

Wiring Diagram