

Evolve[®] 4.75"

Round Downlight



Downlight

Features

The Evolve 4.75 Downlight features the fit, finish and attention to detail of the existing Evolve line that you've loved since its introduction in 2006. With the current advancements in lighting technology Evolve 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.

Product Overview

Fixture Type:	Recessed Downlight
Wattage:	13, 16, 21, 29
Color Temp:	2200K, 2700K, 3000K, 3500K, 4000K
CRI:	83 typ. (2700K, 3000K, 3500K, 4000K) 90+ typ. (2200K, 2700K, 3000K, 3500K, 4000K) CrispWhite and 3K Class A LEDs available
Dimming:	ELV & TRIAC (120/277VAC) 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:



Trimless

TYPE:

Fixture Type

Round/Square	New Construction	Trim	Trimless
Yes	Yes	Yes	Yes

See separate spec sheet for Square trim

Performance Chart

Watts	Delivered Lumens	LPW	Color Temp
13	947	72.8	3000K-83
16	1,170	73.1	3000K-83
21	1,515	72.1	3000K-83
29	2,104	71.9	3000K-83

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

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

Electrical Data

	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



Evoke® 4.75"

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PROJECT:

TYPE:

Housing/Frame Ordering Information

1	2	3	4	5	6
1 <u>Model</u> 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 <u>Style</u> T - trimmed TL - trimless (not available for use with Grid ceiling)	3 <u>Wattage</u> 13 16 21 29 (not available for use with CP or IC housing)	4 <u>Voltage</u> 120 277 120/277 (for use with IC housing only)	5 <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	6 <u>Options</u> 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"

Trim Ordering Information

1	2	3	4	5	6
1 <u>Model</u> E4.75RDS-A17[†] (shallow trim) E4.75RD-A17[†]	2 <u>Style</u> T - trimmed TL - trimless (not available for use with Grid ceiling)	3 <u>Finish</u> 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	4 <u>Beam Spreads</u> SP - spot, 15° FL - flood, 25° WF - wide flood, 40° VWF - very wide flood, 70°	5 <u>Color Temp</u> 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 <u>Options/Accessories</u> WET - wet location (for trimmed fixture only) SOL - solite lens

† 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.

Evoke® 4.75"

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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* LED available
 - Class A** 3000K (high CRI, high gamut) available
- R9 Values:** 11 (83 CRI), 55 (90+ CRI)
- Binning:** 3 MacAdam (SDCM)
- *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:** 13, 16, 21, 29
- 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 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 8-9 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

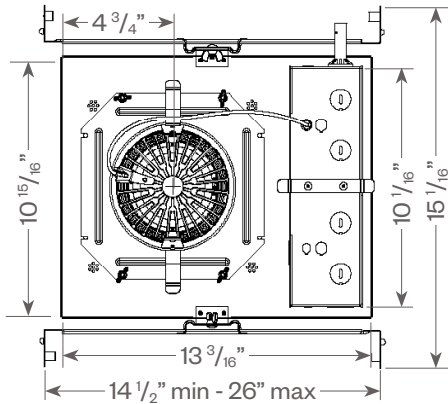
Evoke® 4.75"

4.75" Round Downlight

PROJECT:

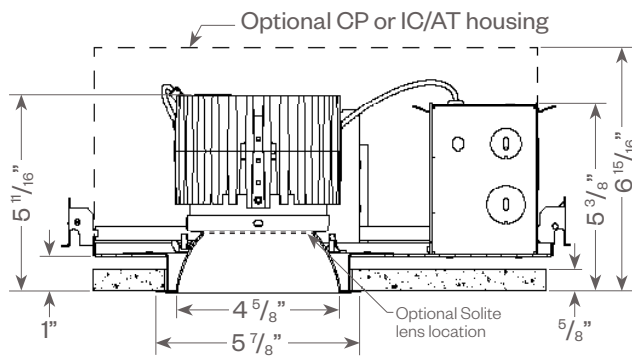
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Evoke Round Downlight Shallow:

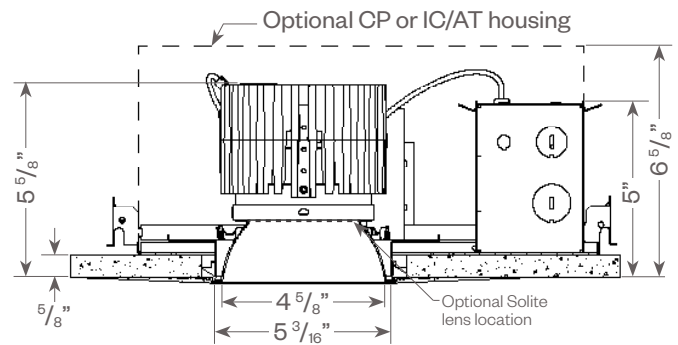


Trimmed

Trimless



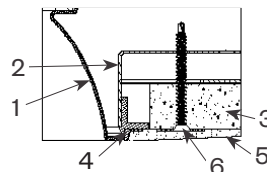
Ceiling cut out: 5 3/8" dia.



Ceiling cut out: 5 7/8" dia.

Plaster Frame Installation Detail (for trimless fixture only)

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



Evoke® 4.75"

4.75" Round Downlight

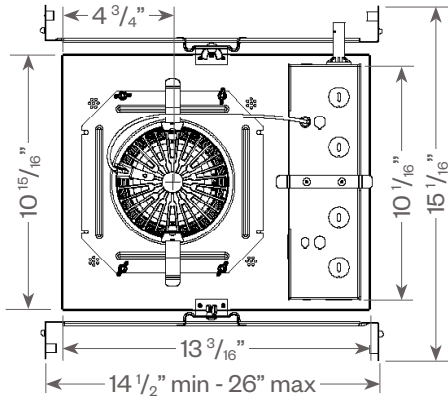


Evoke 4.75" RDS/RD

PROJECT:

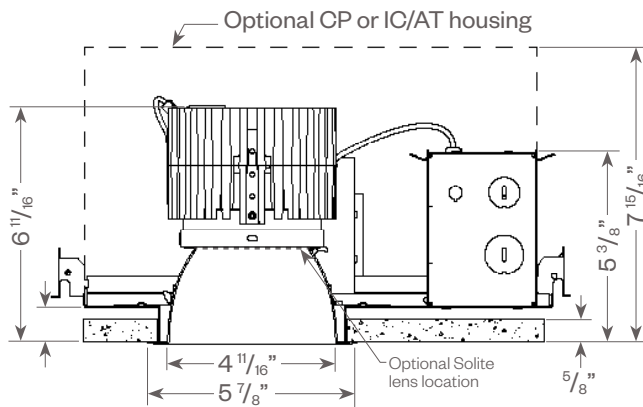
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Evoke Round Downlight:

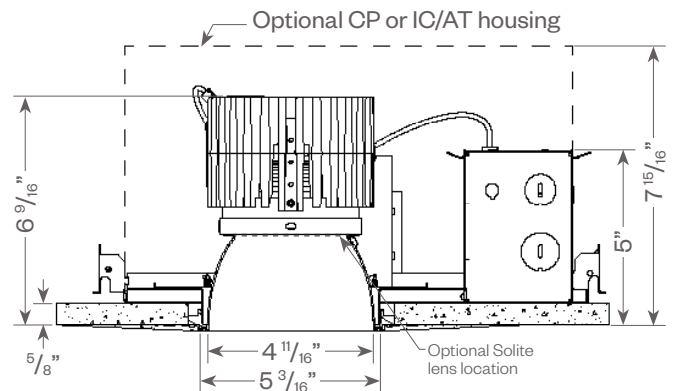


Trimmed

Trimless



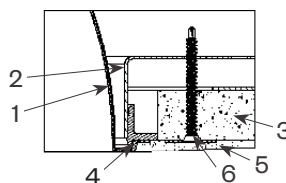
Ceiling cut out: 5 3/8" dia.



Ceiling cut out: 5 7/8" dia.

Plaster Frame Installation Detail (for trimless fixture only)

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



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PROJECT:

TYPE:

Evoke Round Downlight:

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

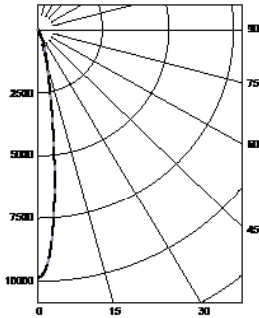
*For 29W data see page 7

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

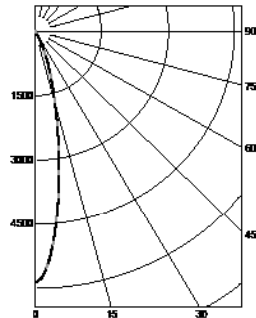
16W LED, 3000K-83

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



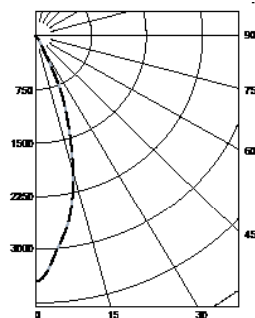
Candelas at Nadir	
Deg	Candela
0	8683
5	7029
15	1289
25	374
35	40
45	24

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

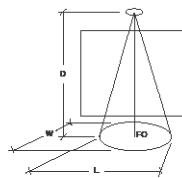
Wide Flood (WF) Distribution, 40°
LTL # 1085471
Lumens: 1,195; 76.7 Lm/W



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

Application Data:

		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	



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® 4.75"

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Evoke 4.75" RDS/RD

PROJECT:

TYPE:

Evoke Round Downlight:

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

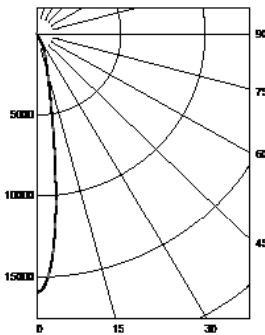
*For 16W data see page 6

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

29W LED, 3000K-83

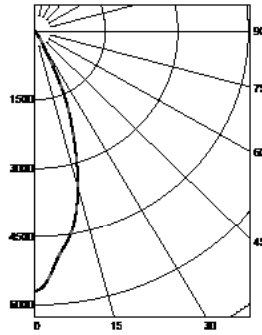
Spot (SP) Distribution, 15°
LTL #1085473
Lumens: 1,950; 66.5 Lm/W



Candelas at Nadir

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

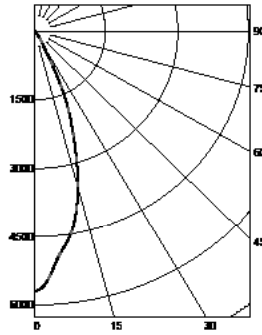
Flood (FL) Distribution, 25°
LTL #1085475
Lumens: 2,089; 71.4 Lm/W



Candelas at Nadir

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

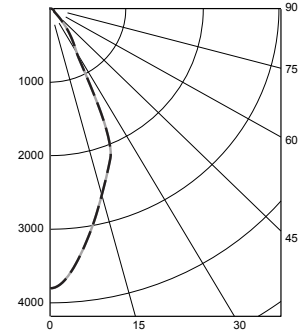
Wide Flood (WF) Distribution, 40°
LTL # 1085474
Lumens: 2,104; 71.9 Lm/W



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

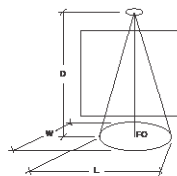


Candelas at Nadir

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.

Evoke® 4.75"

4.75" Round 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 ---

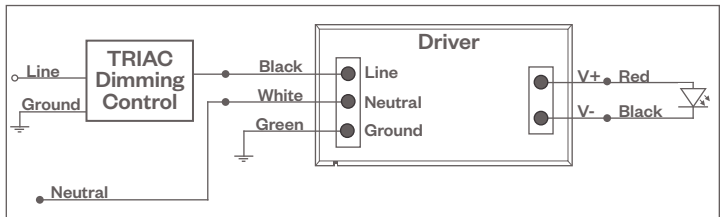
TRIAC (Forward Phase) DIMMING (Standard)

Utilizes "Standard" incandescent 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 (Incandescent Style, Wattage as required)		Central System
Lutron "Diva"	Lutron "Vareo"	Lutron "GP" Panel
Lutron "Nova-T"	Lutron "Skylark"	Lutron Grafik Eye QS
Lutron "Maestro"		

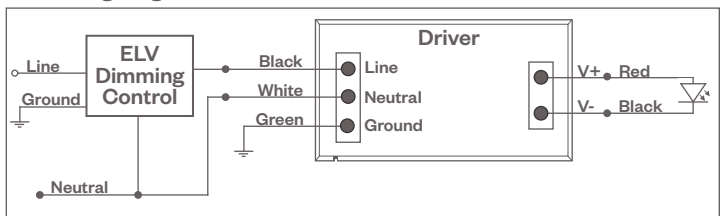
ELV - Electronic Low Voltage (Reverse Phase) DIMMING (Standard)

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 Style)		Central System
Lutron "Diva"	Leviton "Surslide"	Lutron "GP" Panel with PHPM-PA Interface
Lutron "Nova-T"	Leviton "Vizio"	Lutron Grafik Eye QS with PHPM-PA Interface
Lutron "Maestro"		
Lutron "Vareo"		
Lutron "Skylark"		

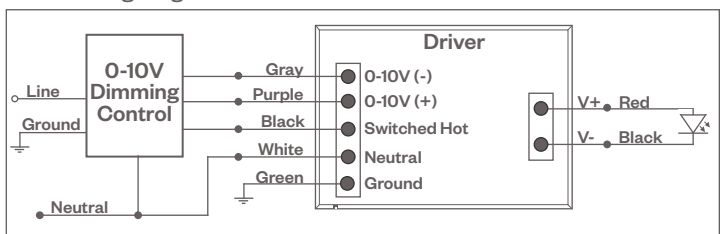
0-10V - DIMMING (-0-10V Option)

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" - DVTV with PP-120H Interface	Leviton Renoir II 0-10V
	Lutron Grafik Eye with GRX-TVI Interface

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:

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 ---

LUTRON H-SERIES / ECOSYSTEM (-HILUME-H-ECO Option)

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!

Compatible Dimmers†:

Lutron ECO System

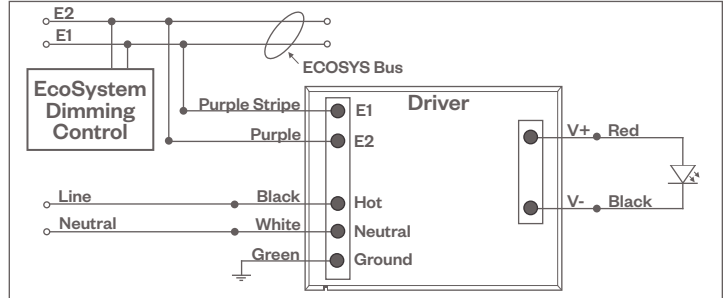
- Pow Pak Dimming Modules
- Energi Savr Node
- Grafik Eye QS/Homeworks
- QS Control Unit
- Quantum Hub
- Homeworks QS/My Room

Central System

Lutron EcoSystem compatible controls

HILUME-H-ECO, HILUME-5-ECO

EcoSystem Digital Control Wiring Diagram



DALI DIMMING (-DALI OPTION)

Digital control protocol allows individual fixture control

Notes:

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

Compatible Dimmers†:

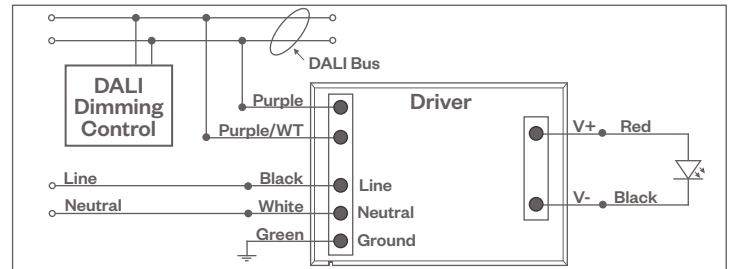
Wall Box (3-Wire Fluorescent)

Leviton CD250 Controller

Central System

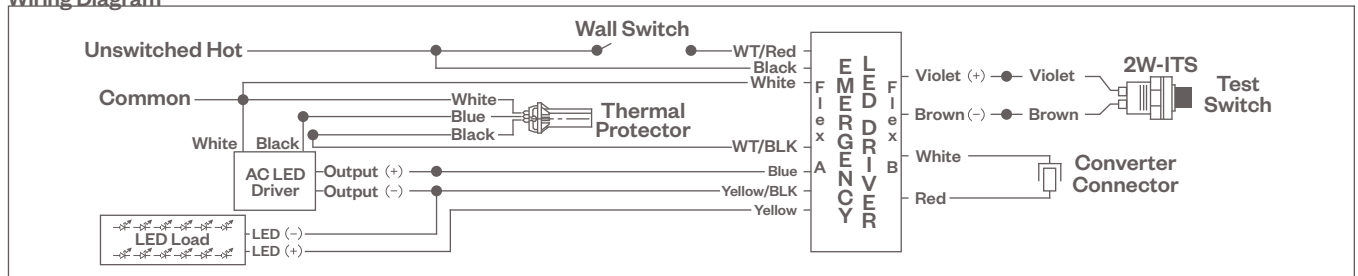
Dynalite
Fifth Light

DALI Wiring Diagram



EMERGENCY DIMMING (-EM OPTION)

Wiring Diagram



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.