

# Evoke® 2.9" HP

## 2.9" Round Adjustables



Adjustable/Adjustable Shower

### 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 Round Adjustable
Wattage:	11, 18, 20
Lumen Output:	1,086 max; 55.8 Lm/W (spot optic, 25° tilt)
CBCP:	6,144 (spot optic, 25° tilt)
Color Temp:	2200K, 2700K, 3000K, 3500K, 4000K
CRI:	83 typ. (2700K, 3000K, 3500K, 4000K) 90+ typ. (2200K, 2700K, 3000K, 3500K, 4000K)
Dimming:	CrispWhite (18W max) & 3K Class A available TRIAC & ELV (120V/277V) - 5% Dim Lutron A Series (120V/277V), 3-wire/EcoSystem Hi-lume® - 1% dim Lutron H Series (120V/277V), EcoSystem, Hi-lume® - 1% dim with soft on, fade to black 0-10V (120V/277V) - 1% Dim DALI dimming - 1% Dim

### PROJECT:

### TYPE:



Adjustable Trimless

### Fixture Type

Round/Square	New Construction	Trim	Trimless
Yes	Yes	Yes	Yes

See separate spec sheets for Square trim fixtures  
Shower trim not available in trimless



Pinhole Adjustable

### Performance Chart

Watts	Delivered Lumens	LPW	CBCP	Color Temp
11	678	61.6	5,460	3000K-83
18*	1,109	61.6	9,828	3000K-83
20*	1,086	55.8	6,144	3000K-83

Data is based on 3000K-83 IES files available on website  
Data is Spot optic, 25° tilt. See pages 6-7 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



# Evolve<sup>®</sup> 2.9" HP

2.9" Round Adjustables



## PROJECT:

## TYPE:

### Housing/Frame Ordering Information

1	2	3	4	5	6	7	8
<p><b>1</b> <u>Model</u> For New Construction <b>E2.9RA-HP-NC-A17*</b> (New Construction) <b>E2.9RA-HP-CP-A17*</b> (Chicago Plenum (CCEA) housing) <b>E2.9RA-HP-IC-A17*</b> (Insulated Ceiling/air tight, 11W only)</p>	<p><b>2</b> <u>Style</u> <b>T</b> - trimmed <b>TL</b> - trimless (not available for use with Grid ceiling)</p>	<p><b>3</b> <u>Wattage</u> <b>11</b> <b>18</b> (not available for use with IC housing) <b>20</b> (not available for use with IC housing)</p>	<p><b>4</b> <u>Voltage</u> <b>120</b> <b>277</b> <b>120/277</b> (for use with IC housing only)</p>	<p><b>5</b> <u>Ceiling Mounting</u> <b>GB</b> - gyb board, 5/8" deep collar <b>GRID</b> - grid, 1" deep collar (not available for use with trimless option) <i>For other, consult factory</i></p>	<p><b>6</b> <u>Beam Spreads</u> For RA Trim: <b>SP</b> - spot, 15° <b>NF</b> - narrow flood, 20° <b>MFL</b> - medium flood, 24° <b>FL</b> - flood, 28° <b>WF</b> - wide flood, 45° <b>VWF</b> - very wide flood, 60° <b>LS</b> - linear spread, 60°x10°</p>	<p><b>7</b> <u>Color Temp</u> <b>83 CRI</b>      <b>90+ CRI</b> <b>27</b> - 2700K-83    <b>229</b> - 2200K-90+    <b>CRISP</b> - CrispWhite (18W max) <b>30</b> - 3000K-83    <b>279</b> - 2700K-90+ <b>35</b> - 3500K-83    <b>309</b> - 3000K-90+    <b>3CLA</b> - 3K Class A <b>40</b> - 4000K-83    <b>359</b> - 3500K-90+                                  <b>409</b> - 4000K-90+</p>	<p><b>8</b> <u>Driver</u> (for non-dimming, select LE/TE option) <b>LE/TE</b> - TRIAC/ELV dimming <b>HILUME-A</b> - Lutron Hi-lume<sup>®</sup> A Series, 3-wire/EcoSystem, Hi-lume<sup>®</sup>, 1% dim <b>HILUME-H</b> - Lutron Hi-lume<sup>®</sup> H Series, EcoSystem Hi-lume<sup>®</sup>, 1% dim with soft on, fade to black <b>O-10V</b> - O-10V dimming; 1% dim <b>DALI</b> - DALI dimming; 1% dim</p>

### Trim Ordering Information

1	2	3
<p><b>1</b> <u>Model</u> <b>E2.9RA-HP-A17*</b> (Adjustable) <b>E2.9RPA-HP-A17*</b> (Pinhole Adjustable) <b>E2.9RASHW-HP-A17*</b> (Adjustable Shower, not available for use with trimless option)</p>	<p><b>2</b> <u>Style</u> <b>T</b> - trimmed <b>TL</b> - trimless (not available for use with Grid ceiling and/or not available for use with Shower trim)</p>	<p><b>3</b> <u>Finish</u> For RA/RASHW Trims (Trimmed): <b>SDW</b> - semi-diffuse, white flange <b>SDC</b> - semi-diffuse, clear flange* <b>CLW</b> - specular clear, white flange <b>CLC</b> - specular clear, clear flange* <b>MWW</b> - matte white, white flange *Note: On clear flange, trim finish matches cone finish</p> <p>For RA Trim (Trimless): <b>SD</b> - semi-diffuse <b>CL</b> - specular clear</p> <p>For RPA Trim (Trimmed &amp; Trimless): <u>Faceplate with black baffle</u> <b>MW</b> - matte white</p>

\* 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® 2.9" HP

2.9" Round Adjustables



## PROJECT:

## TYPE:

### Specifications

#### Application

Retail and commercial accent 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

##### For Adjustable & Adjustable Shower Trim:

Spun aluminum reflector  
Variety of anodized aperture finishes in both white and clear flange  
Adjustable Shower Trim also contains a clear glass lens and silicone flange gasket

##### For Pinhole Trim:

Die-cast aluminum faceplate painted matte white  
Die-cast knife-edge baffle painted matte black  
Spring steel mounting clips

#### Optical

Cam adjustment mechanism provides lockable 0-40° tilt (0-35° for Pinhole trim); 360° rotation

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, 120V or 277V 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

0-10V, Lutron and DALI systems also available

See pages 8-9 for more dimming information

#### Finish (Trim)

Wet paint

#### Mounting

##### For Trimmed fixture:

GRID: 1" deep aperture collar

GB (gyp board): 5/8" deep aperture collar

Extra thick ceiling ring available for ceilings over 1" thick, consult factory

**Note:** Tilt adjustment reduced to 30° (15° for Pinhole trim) in ceilings 1-1/4" thick

##### 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

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

#### Warranty

5 year limited warranty

# Evoke<sup>®</sup> 2.9" HP

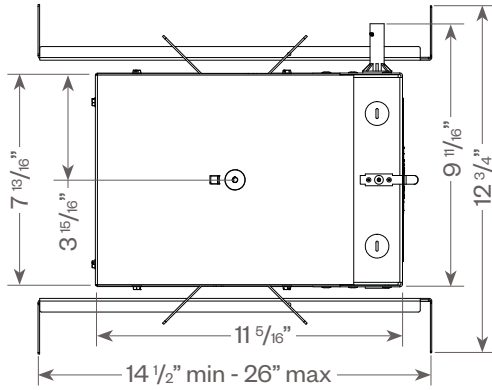
2.9" Round Adjustables



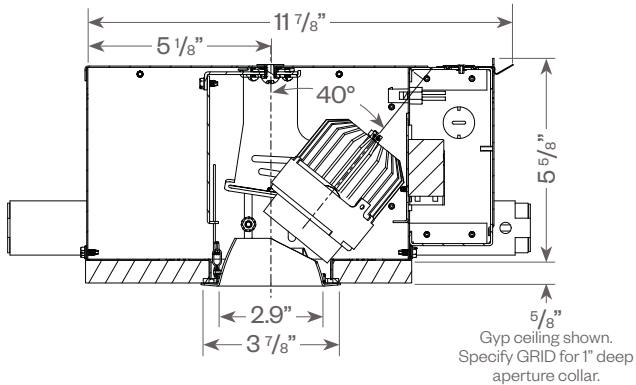
PROJECT:

TYPE:

Evoke HP Round Adjustables:

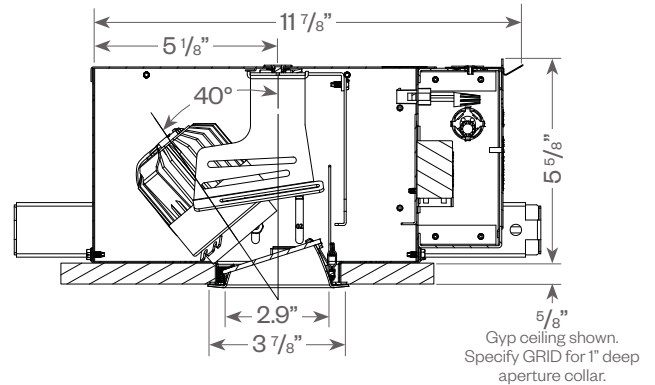


## Adjustable



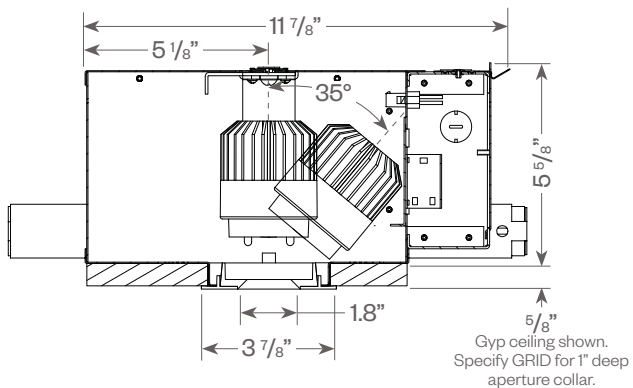
Ceiling cut out: 3 7/16" dia.

## Adjustable Shower



Ceiling cut out: 3 7/16" dia.

## Pinhole Adjustable



Ceiling cut out: 3 7/16" dia.

# Evoke® 2.9" HP

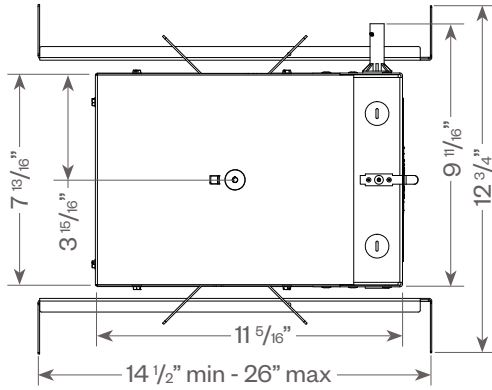
2.9" Round Adjustables



**PROJECT:**

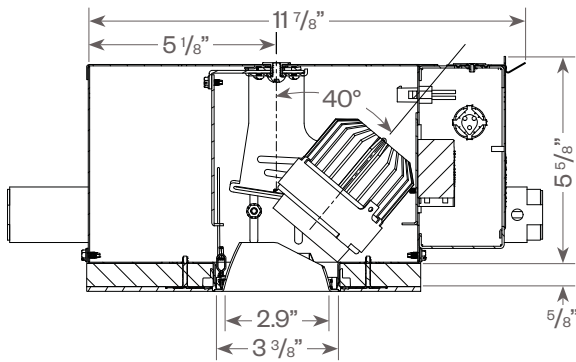
**TYPE:**

**Evoke HP Round Adjustables Trimless:**

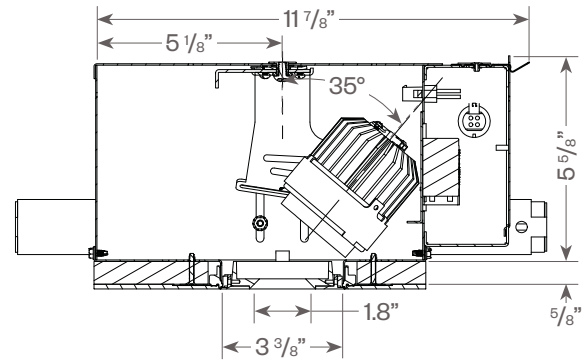


**Adjustable Trimless**

**Pinhole Adjustable Trimless**



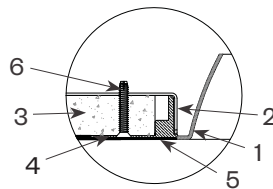
Ceiling cut out: 4 1/16" dia.



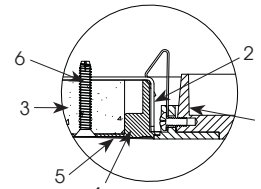
Ceiling cut out: 4 1/16" dia.

**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



**Adjustable**



**Pinhole**

# Evoke® 2.9" HP

2.9" Round Adjustables



**PROJECT:**

**TYPE:**

**Evoke HP Round Adjustable:**

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

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

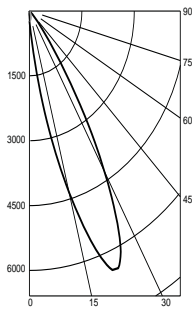
Wattage:	11W	18W	20W
Factor:	0.55	0.9	1.0

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+	CRISP
Factor:	0.71	0.80	0.83	0.65

**20W LED, 3000K**

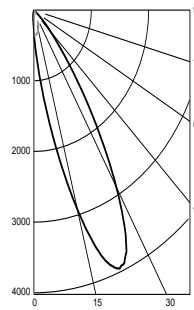
**Spot (SP) Distribution, 15°**  
LTL #1178250  
Lumens: 1,086



**Candelas at Nadir**

Deg	Candela
0	231
5	586
15	4328
20	6141
25	6144
35	2023
45	269

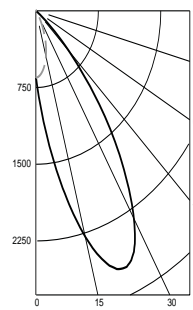
**Narrow Flood (NF) Distribution, 20°**  
LTL #1178251  
Lumens: 1,013



**Candelas at Nadir**

Deg	Candela
0	364
5	781
15	2882
20	3812
25	3825
35	1749
45	358

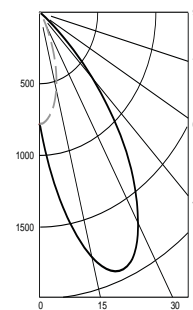
**Flood (FL) Distribution, 28°**  
LTL # 1178253  
Lumens: 968



**Candelas at Nadir**

Deg	Candela
0	657
5	1097
15	2287
20	2663
25	2698
35	1783
45	578

**Wide Flood (WF) Distribution, 45°**  
LTL # 1178254  
Lumens: 914

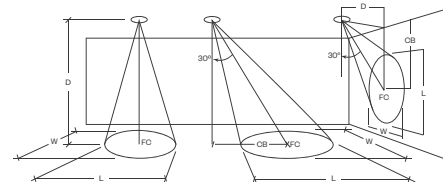


**Candelas at Nadir**

Deg	Candela
0	783
5	1120
15	1775
20	1925
25	1901
35	1413
45	640

**Application Data:**

	25° Aiming Angle Horizontal Footcandles					25° Aiming Angle Vertical Footcandles				
	D	FC	L	W	CB	D	FC	L	W	CB
<b>Spot</b>	5.0'	228	1.9	2.2	2.0	3.0'	52	4.4	3.0	5.5
	7.5'	98	2.8	3.3	3.0	4.0'	30	5.9	3.8	7.5
	10.0'	54	3.8	4.5	4.0	5.0'	20	7.4	4.7	9.5
	12.5'	35	4.8	5.6	5.0	6.0'	14	8.8	5.5	10.5
<b>Narrow Flood</b>	5.0'	126	2.3	3.0	2.0	3.0'	37	4.6	3.4	5.5
	7.5'	56	3.4	4.3	3.0	4.0'	21	6.1	4.6	6.5
	10.0'	32	4.5	5.7	4.0	5.0'	14	7.6	5.6	8.5
	12.5'	20	5.6	7.2	5.0	6.0'	10	9.2	6.7	10.5
<b>Flood</b>	5.0'	87	3.0	3.1	2.0	3.0'	33	3.3	4.4	4.5
	7.5'	39	4.5	4.7	3.0	4.0'	20	5.6	4.3	5.5
	10.0'	22	5.9	6.2	4.0	5.0'	13	7.1	5.3	7.5
	12.5'	14	7.4	7.7	4.0	6.0'	9	8.5	6.3	8.5
<b>Wide Flood</b>	5.0'	62	3.6	3.6	2.0	3.0'	26	4.3	3.5	4.5
	7.5'	29	5.2	5.2	2.0	4.0'	16	5.5	4.5	5.5
	10.0'	16	6.8	7.0	3.0	5.0'	11	6.8	5.5	6.5
	12.5'	11	8.6	8.9	4.0	6.0'	8	8.2	6.6	7.5



**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

2.9" Round Adjustables



**PROJECT:**

**TYPE:**

**Evoke HP Round Pinhole Adjustable:**

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

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

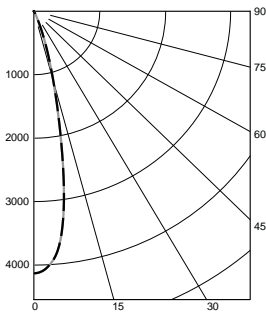
Wattage:	11W	18W	20W
Factor:	0.55	0.9	1.0

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+	CRISP
Factor:	0.71	0.80	0.83	0.65

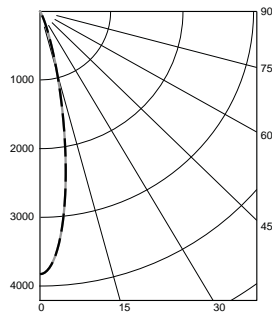
**20W LED, 3000K**

**Spot (SP) Distribution, 15°**  
LTL #1178265  
Lumens:



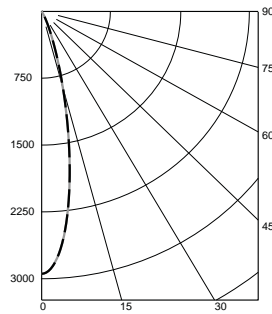
Candelas at Nadir	
Deg	Candela
0	4131
5	3867
15	1199
25	110
35	7
45	1

**Narrow Flood (NF) Distribution, 20°**  
LTL #1178266  
Lumens:



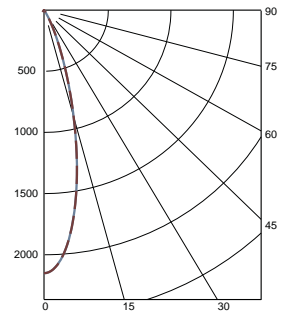
Candelas at Nadir	
Deg	Candela
0	3828
5	3291
15	921
25	108
35	9
45	1

**Medium Flood (MFL) Distribution, 24°**  
LTL #1178267  
Lumens: 1,193



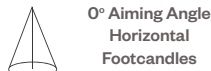
Candelas at Nadir	
Deg	Candela
0	2945
5	2608
15	932
25	141
35	11
45	1

**Flood (FL) Distribution, 28°**  
LTL #1178268  
Lumens:

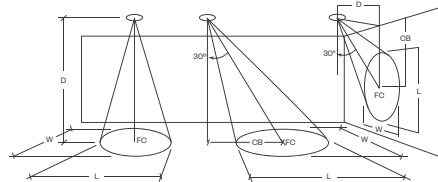


Candelas at Nadir	
Deg	Candela
0	2151
5	1964
15	919
25	196
35	17
45	2

**Application Data:**



	0° Aiming Angle Horizontal Footcandles			
	D	FC	L	W
Spot	5.0'	135	2.3	2.3
	7.5'	68	3.2	3.2
	10.0'	39	4.1	4.1
	12.5'	26	5.1	5.1
Narrow Flood	5.0'	113	2.1	2.1
	7.5'	59	3.0	3.0
	10.0'	35	3.7	3.7
	12.5'	23	4.7	4.7
Medium Flood	5.0'	91	2.4	2.4
	7.5'	46	3.2	3.2
	10.0'	27	4.1	4.1
	12.5'	18	5.1	5.1
Flood	5.0'	70	2.6	2.6
	7.5'	35	3.6	3.6
	10.0'	20	4.8	4.8
	12.5'	13	5.9	5.9



**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<sup>®</sup> 2.9" HP

2.9" Round Adjustables



**PROJECT:**

**TYPE:**

**DIMMING COMPATIBILITY:**

Amerlux<sup>®</sup> 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 ---**

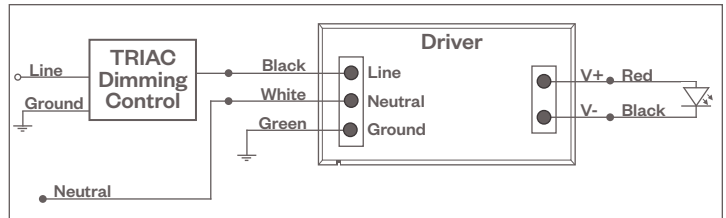
**TRIAC (Forward Phase) DIMMING (Standard)**

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

**Notes:**

- 120V or 277V\*
- Dims down to less than 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)**

Lutron "Diva"	Lutron "Vareo"
Lutron "Nova-T"	Lutron "Skylark"
Lutron "Maestro"	

**Central System**

Lutron "GP" Panel
Lutron Grafik Eye QS

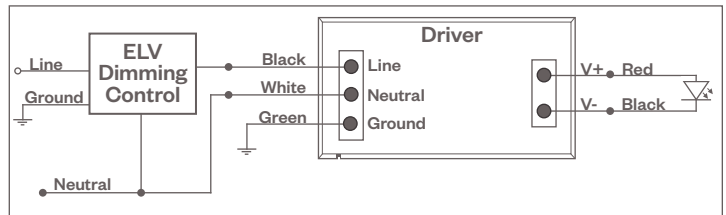
**ELV - Electronic Low Voltage (Reverse Phase) DIMMING (Standard)**

Utilizes specialized "ELV" dimmers. Best for New Construction applications

**Notes:**

- 120V or 277V\*
- Dims down to less than 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)**

Lutron "Diva"	Lutron "Vareo"
Lutron "Nova-T"	Lutron "Skylark"
Lutron "Maestro"	
Leviton "Surslide"	Leviton "Vizio"

**Central System**

Lutron "GP" Panel with PHPM-PA Interface
Lutron Grafik Eye QS with PHPM-PA Interface

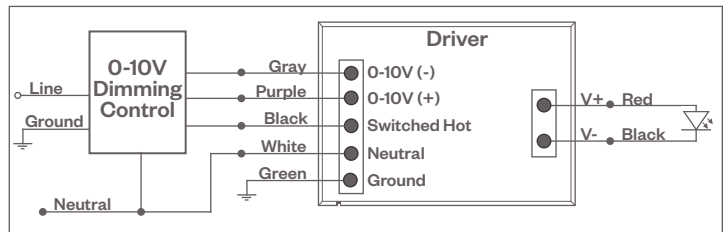
**0-10V - DIMMING (-0-10V Option)**

Integrates into a variety of building management and daylighting controls

**Notes:**

- 120V or 277V\*
- 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" - DTVT with PP-120H Interface	Leviton Renoir II 0-10V
---	-------------------------

**Central System**

Lutron Grafik Eye with GRX-TVI Interface
--

**Notes:**

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



# Evoke<sup>®</sup> 2.9" HP

2.9" Round Adjustables



**PROJECT:**

**TYPE:**

**DIMMING COMPATIBILITY:**

Amerlux<sup>®</sup> 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 A-SERIES HI-LUME / ECOSYSTEM (-DIM-HILUME Option)**

Integrates into Lutron EcoSystem building management

**Notes:**

- 120V or 277V\*
- Dims down to less than 5% light output
- May use 3-Wire or EcoSystem Control
- Consult Dimming manufacturer for installation instructions - DO NOT SHARE NEUTRALS!

**Compatible Dimmers**

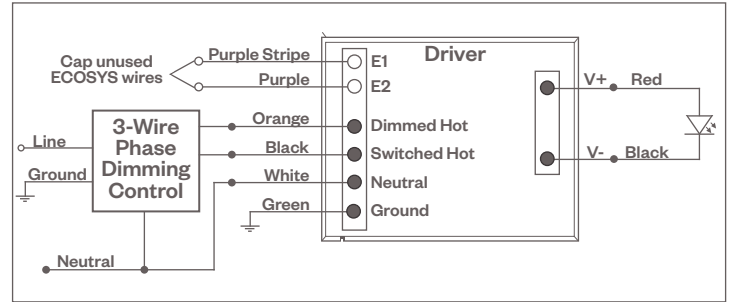
**Wall Box (3-Wire Fluorescent)**

- DIVA
- Maestro
- Nova T
- Vareo

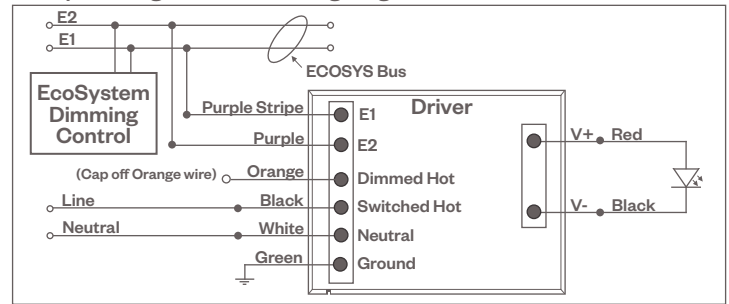
**Central System**

Lutron EcoSystem compatible controls

**3-Wire Wiring Diagram**



**EcoSystem Digital Control Wiring Diagram**



**DALI DIMMING (-DALI OPTION)**

Digital control protocol allows individual fixture control

**Notes:**

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

**Compatible Dimmers**

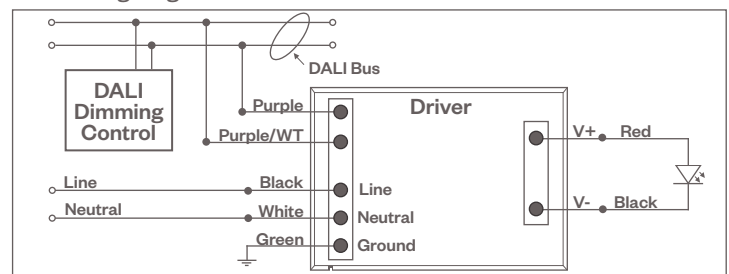
**Wall Box (3-Wire Fluorescent)**

Leviton CD250 Controller

**Central System**

- Dynalite
- Fifth Light

**DALI Wiring Diagram**



**Notes:**

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