

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 Hi-lume® H Series/EcoSystem - 1% dim with soft on, fade to black, 120V/277V 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	597	54.2	3,379	3000K-83
18*	977	54.3	5,530	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[®] 2.9" HP

2.9" Round Adjustables



PROJECT:

TYPE:

Housing/Frame Ordering Information

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

Trim Ordering Information

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

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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[®] 2.9" HP

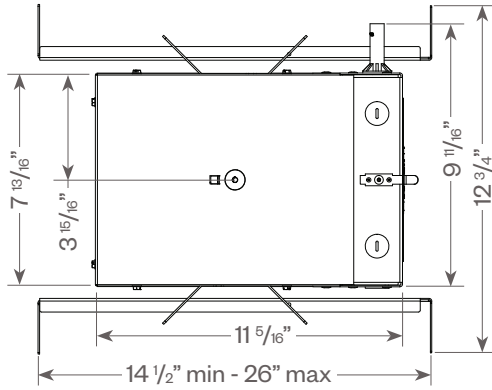
2.9" Round Adjustables



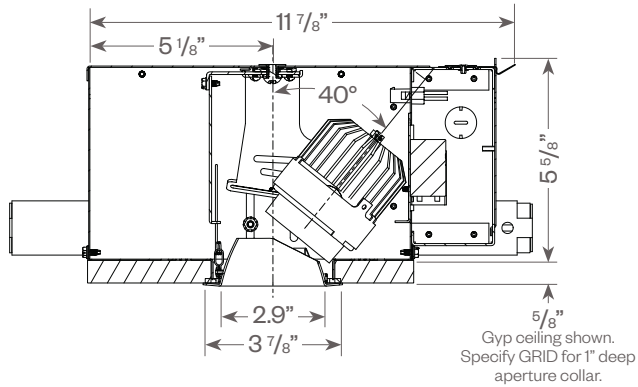
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TYPE:

Evoke HP Round Adjustables:

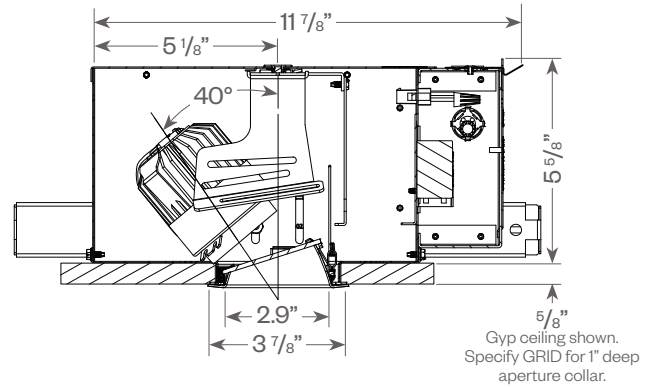


Adjustable



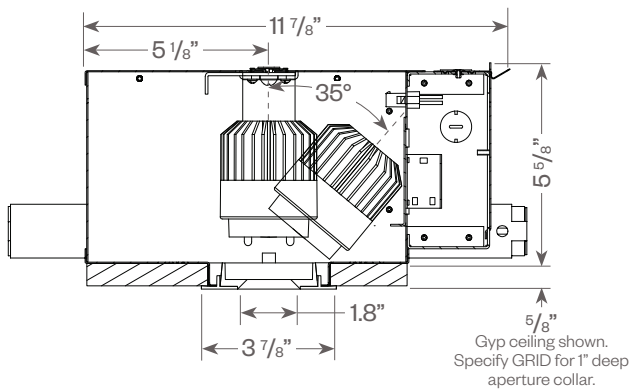
Ceiling cut out: 3 7/16" dia.

Adjustable Shower



Ceiling cut out: 3 7/16" dia.

Pinhole Adjustable



Ceiling cut out: 3 7/16" dia.

Evoke® 2.9" HP

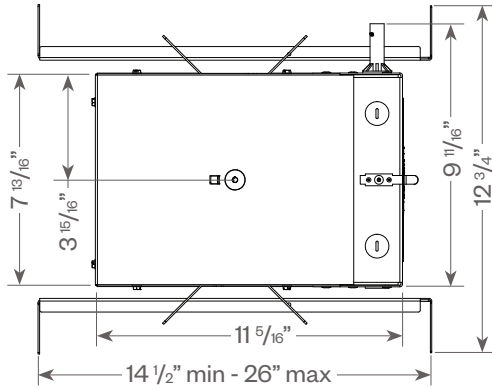
2.9" Round Adjustables



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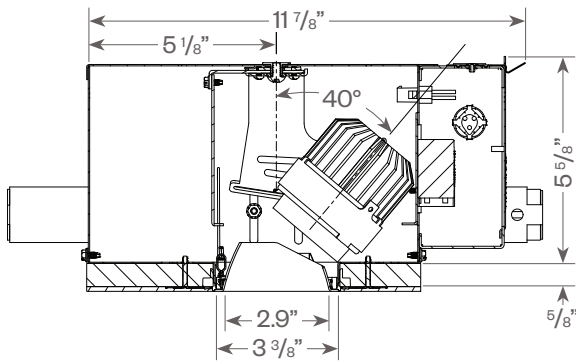
TYPE:

Evoke HP Round Adjustables Trimless:

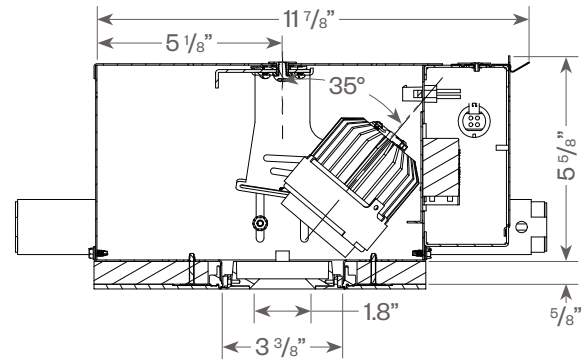


Adjustable Trimless

Pinhole Adjustable Trimless



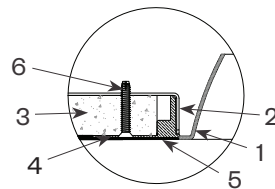
Ceiling cut out: 4 1/16" dia.



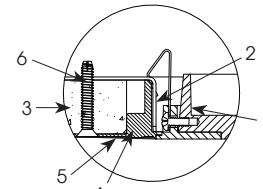
Ceiling cut out: 4 1/16" dia.

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

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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

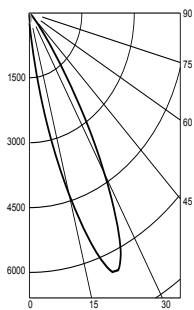
CCT:	2700K-83	3000K-83	3500K-83	4000K-83
Factor:	0.96	1.0	1.02	1.04

CCT:	2200K-90+	2700K-90+	3000K-90+	3500K-90+	4000K-90+	CRISP*	3CLA
Factor:	0.71	0.80	0.83	0.87	0.90	0.65	0.75

* Not available for use with 20W

20W LED, 3000K

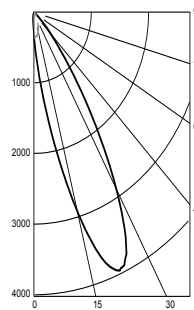
Spot (SP) Distribution, 15°
LTL #1178250
Lumens: 1,086



Candelas at Nadir

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

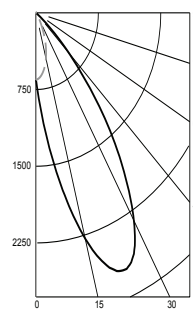
Narrow Flood (NF) Distribution, 20°
LTL #1178251
Lumens: 1,013



Candelas at Nadir

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

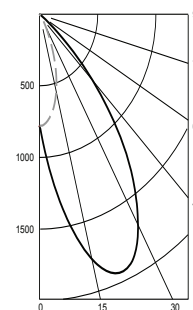
Flood (FL) Distribution, 28°
LTL # 1178253
Lumens: 968



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

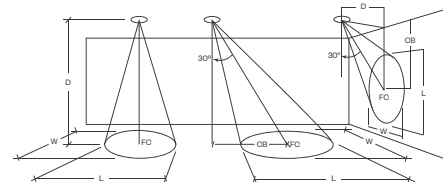


Candelas at Nadir

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
Spot	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
Narrow Flood	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
Flood	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
Wide Flood	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

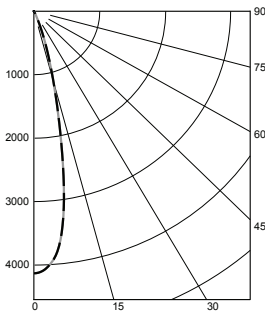
CCT:	2700K-83	3000K-83	3500K-83	4000K-83
Factor:	0.96	1.0	1.02	1.04

CCT:	2200K-90+	2700K-90+	3000K-90+	3500K-90+	4000K-90+	CRISP*	3CLA
Factor:	0.71	0.80	0.83	0.87	0.90	0.65	0.75

* Not available for use with 20W

20W LED, 3000K

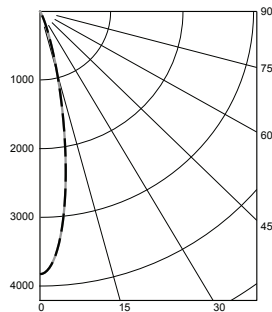
Spot (SP) Distribution, 15°
LTL #1178265
Lumens: 745



Candelas at Nadir

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

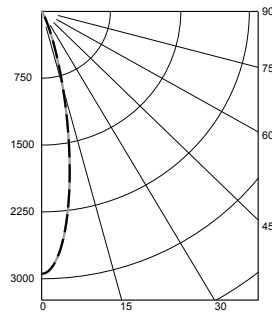
Narrow Flood (NF) Distribution, 20°
LTL #1178266
Lumens: 599



Candelas at Nadir

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

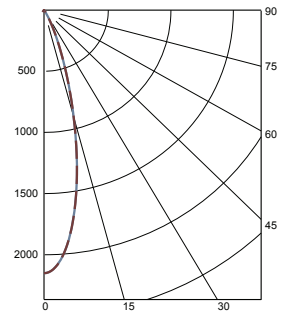
Medium Flood (MFL) Distribution, 24°
LTL #1178267
Lumens: 562



Candelas at Nadir

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

Flood (FL) Distribution, 28°
LTL #1178268
Lumens: 533



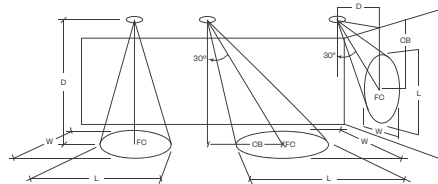
Candelas at Nadir

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.

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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 ---

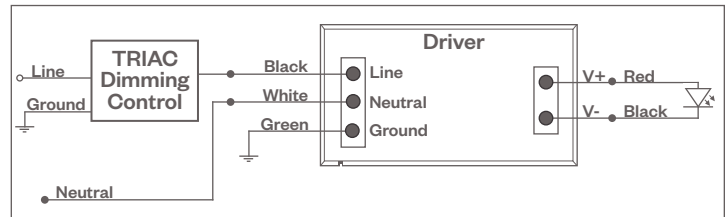
TRIAC (Forward Phase) DIMMING (Standard)

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)		Central System
Lutron "Diva"	Lutron "Vareo"	Lutron "GP" Panel
Lutron "Nova-T"	Lutron "Skylark"	Lutron Grafik Eye QS
Lutron "Maestro"		

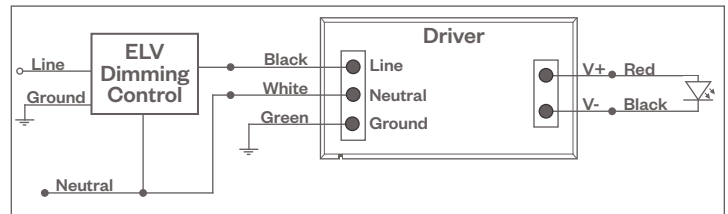
ELV - Electronic Low Voltage (Reverse Phase) DIMMING (Standard)

Utilizes specialized "ELV" dimmers.

Notes:

- 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)		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"		

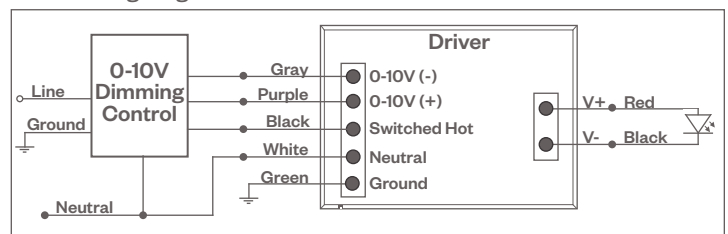
0-10V - DIMMING (-0-10V Option)

Integrates into a variety of building management and daylighting controls

Notes:

- 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	Central System
Lutron "Diva" - DVTV with PP-120H Interface	Leviton Renoir II 0-10V
	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 dimmer installation instructions for 277V 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:

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

Integrates into Lutron EcoSystem building management

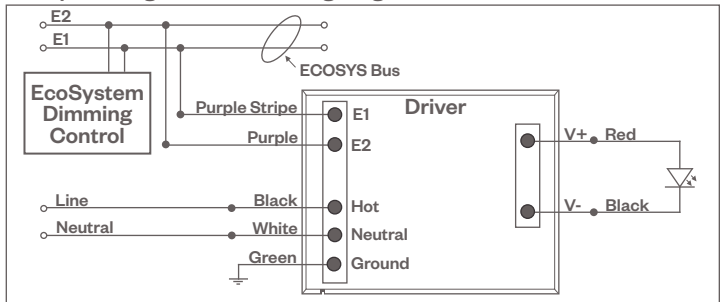
Notes:

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

Compatible Dimmers†:

Wall Box	Central System
Lutron "Diva"	Lutron EcoSystem compatible controls
Lutron "Nova-T"	
Lutron "Maestro"	
Lutron "Vareo"	

**HILUME-H-ECO, HILUME-5-ECO
EcoSystem Digital Control Wiring Diagram**



DALI DIMMING (-DALI OPTION)

Digital control protocol allows individual fixture control

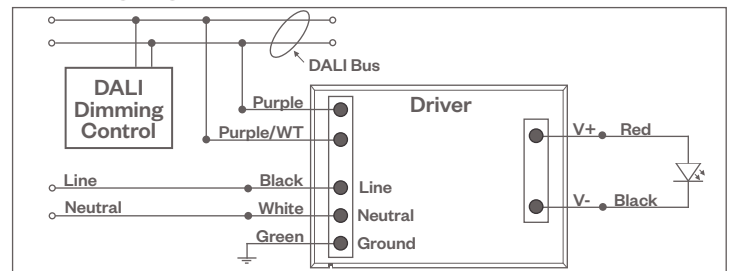
Notes:

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

Compatible Dimmers†:

Wall Box (3-Wire Fluorescent)	Central System
Leviton CD250 Controller	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 dimmer installation instructions for 277V wiring diagrams.
- † The absence of a dimmer from the lists above does not imply incompatibility. Please consult factory for compatibility inquiries.