

Evoke® 2.9" HP

2.9" Round Downlight



Downlight

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 Downlight
Wattage:	11, 18, 20
Lumen Output:	1,232 max; 62 Lm/W (spot optic)
CBCP:	10,920 max (spot optic)
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:



Downlight Trimless

Fixture Type

Round/Square	New Construction	Trim	Trimless
Yes	Yes	Yes	Yes

See separate spec sheet for Square trim fixture

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*	1,232	62.4	10,920	3000K-83

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

Data is Spot optic. See page 5 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



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PROJECT:

TYPE:

Housing/Frame Ordering Information

1	2	3	4	5	6
1 <u>Model</u> For New Construction E2.9RD-HP-NC-A17[†] (New Construction) E2.9RD-HP-CP-A17[†] (Chicago Plenum (CCEA) housing) E2.9RD-HP-IC-A17[†] (Insulated Ceiling/air tight, 11W only)	2 <u>Style</u> T - trimmed TL - trimless (not available for use with Grid ceiling)	3 <u>Wattage</u> 11 18 (not available for use with IC housing) 20 (not available for use with IC housing)	4 <u>Voltage</u> 120 277 120/277 (for use with IC housing only)	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 ceiling type, consult factory</i>	6 <u>Driver</u> (for non-dimming, select LE/TE option) LE/TE - TRIAC/ELV dimming HILUME-A - Lutron Hi-lume [®] A Series, 3-wire/EcoSystem, Hi-lume [®] , 1% dim HILUME-H - Lutron Hi-lume [®] H Series, EcoSystem Hi-lume [®] , 1% dim with soft on, fade to black O-10V - 0-10V dimming; 1% dim DALI - DALI dimming; 1% dim

Trim Ordering Information

E2.9RD-HP-A17					
1	2	3	4	5	6
1 <u>Model</u> E2.9RD-HP-A17[†]	2 <u>Style</u> T - trimmed TL - trimless (not available for use with Grid ceiling)	3 <u>Finish (Trimmed)</u> SDW - semi-diffuse, white flange SDC - semi-diffuse, clear flange* CLW - specular clear, white flange CLC - specular clear, clear flange* BKW - specular black, white flange BKC - specular black, clear flange* MWW - matte white, white flange *Note: On clear flange, trim finish matches cone finish	4 <u>Beam Spreads</u> 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° x 10°	5 <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+	6 <u>Options/Accessories</u> WET - wet location (not available for use with trimless option)
1 <u>Model</u> E2.9RD-HP-A17[†]	2 <u>Style</u> T - trimmed TL - trimless (not available for use with Grid ceiling)	3 <u>Finish (Trimless)</u> SD - semi-diffuse CL - specular clear			

* 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.

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PROJECT:

TYPE:

Specifications

Application

Retail and commercial ambient and task 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

Spun aluminum reflector
Variety of anodized aperture finishes in both white and clear flange
Wet location option adds clear glass lens and silicone flange gasket

Optical

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 (standard)
0-10V, Lutron and DALI systems also available
See pages 6-7 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

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
Wet location (optional)
IC/AT rated (optional, 11W only)

Warranty

5 year limited warranty

Evoke® 2.9" HP

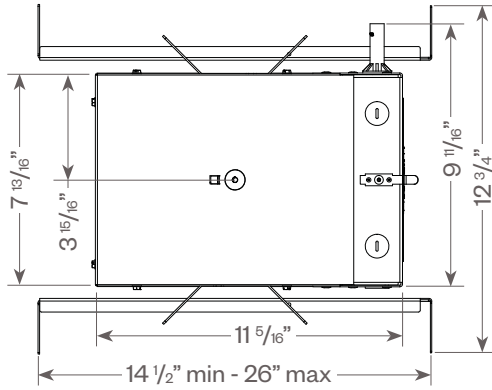
2.9" Round Downlight



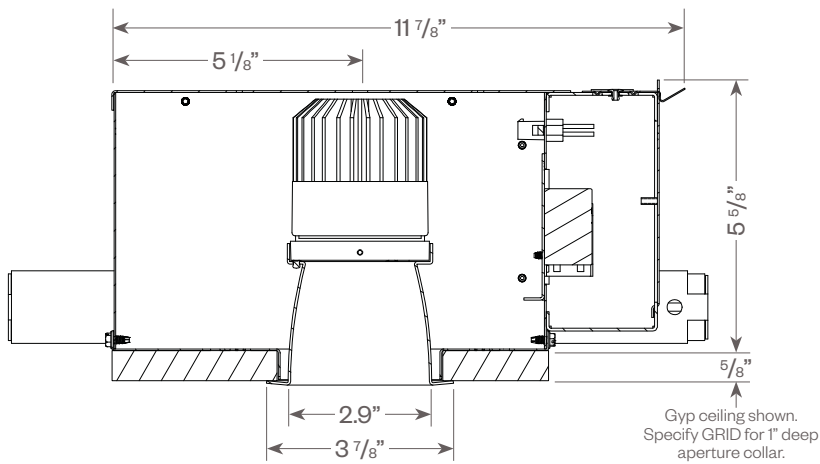
PROJECT:

TYPE:

Evoke HP Round Downlight:

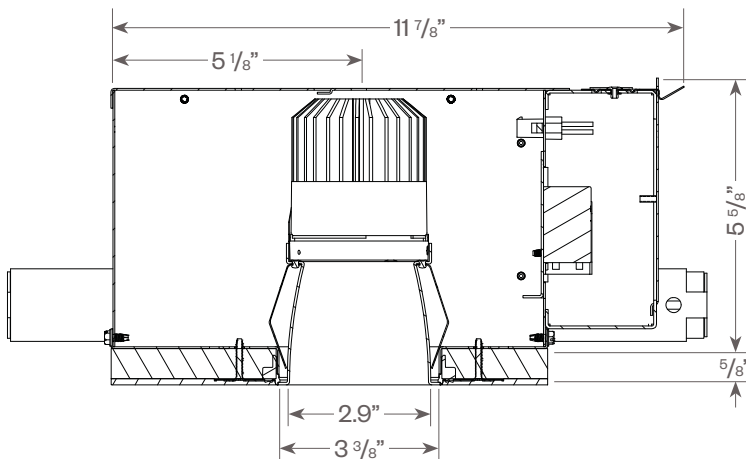


Trimmed



Ceiling cut out: 3 7/16" dia.

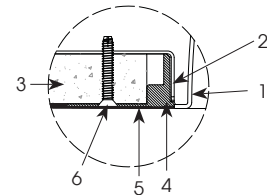
Trimless



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

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PROJECT:

TYPE:

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

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

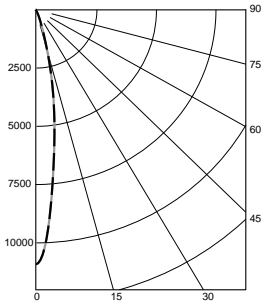
Wattage:	11W	18W	20W
Factor:	0.55	0.9	1.0

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

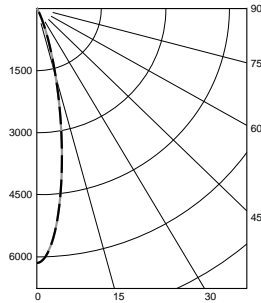
Spot (SP) Distribution, 15°
LTL #1178257
Lumens: 1,232



Candelas at Nadir

Deg	Candela
0	10920
5	7588
15	1649
25	175
35	36
45	13

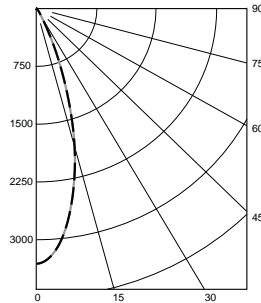
Narrow Flood (NF) Distribution, 20°
LTL #1178258
Lumens: 1,125



Candelas at Nadir

Deg	Candela
0	6147
5	5282
15	1797
25	286
35	57
45	20

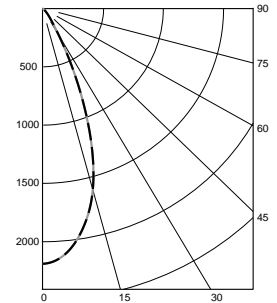
Flood (FL) Distribution, 28°
LTL # 1178260
Lumens: 1,104



Candelas at Nadir

Deg	Candela
0	3312
5	3103
15	1859
25	486
35	85
45	30

Wide Flood (WF) Distribution, 45°
LTL # 1178261
Lumens: 1,063

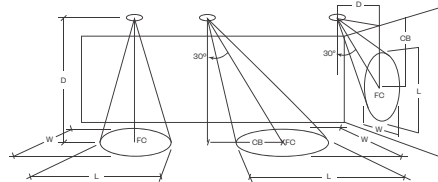


Candelas at Nadir

Deg	Candela
0	2190
5	2117
15	1599
25	634
35	129
45	43

Application Data:

	0° Aiming Angle Horizontal Footcandles			
	D	FC	L	W
Spot	5.0'	260	1.9	1.9
	7.5'	144	2.6	2.6
	10.0'	90	3.2	3.2
	12.5'	61	3.8	3.8
Narrow Flood	5.0'	183	2.3	2.3
	7.5'	94	3.1	3.1
	10.0'	56	4.0	4.0
	12.5'	37	4.9	4.9
Flood	5.0'	114	2.9	2.9
	7.5'	55	4.2	4.2
	10.0'	32	5.5	5.5
	12.5'	21	6.9	6.9
Wide Flood	5.0'	80	3.4	3.4
	7.5'	37	5.1	5.1
	10.0'	21	6.8	6.8
	12.5'	14	8.5	8.5



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.

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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 ---

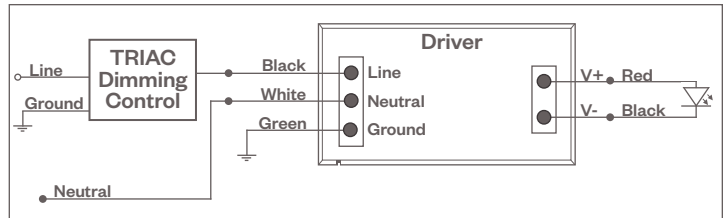
TRIAC (Forward Phase) DIMMING (Standard)

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

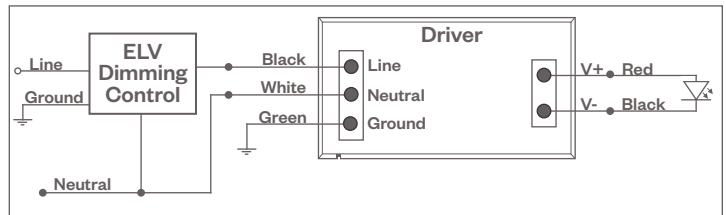
ELV - Electronic Low Voltage (Reverse Phase) DIMMING (Standard)

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

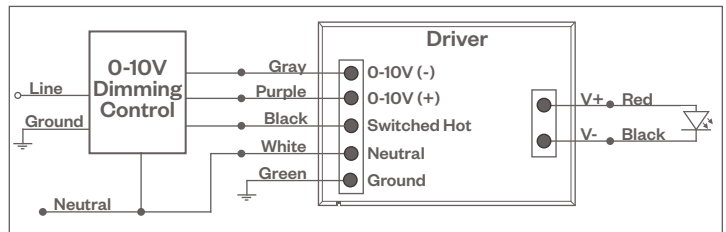
0-10V - DIMMING (-0-10V Option)

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" - DDTV with PP-120H Interface	Leviton Renoir II 0-10V
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Central System

Lutron Grafik Eye with GRX-TV1 Interface
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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.

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TYPE:

DIMMING COMPATIBILITY:

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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

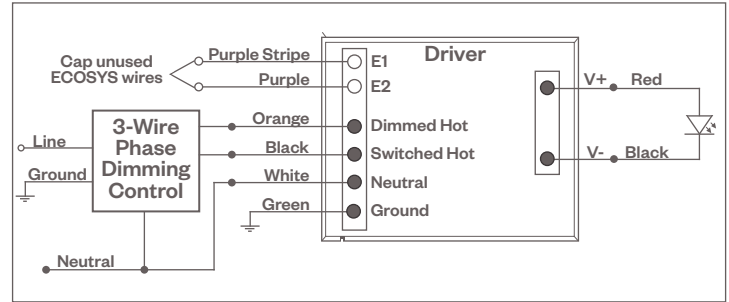
Wall Box (3-Wire Fluorescent)

- DIVA
- Maestro
- Nova T
- Vareo

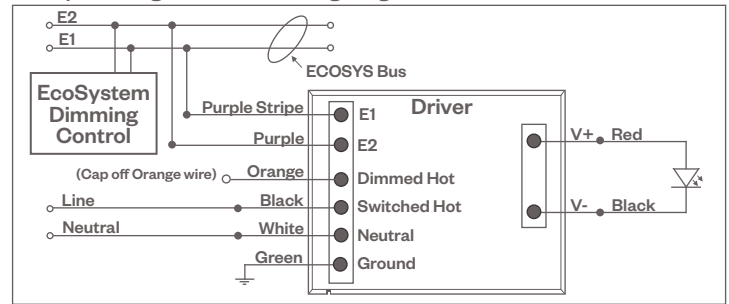
Central System

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

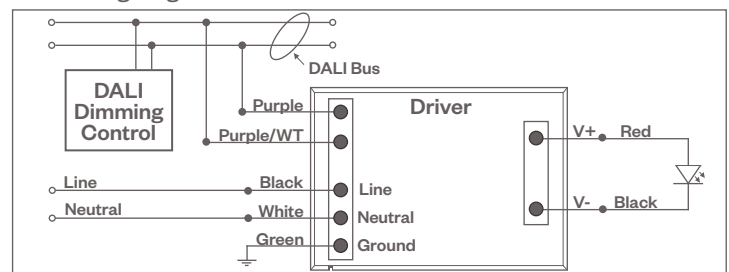
Wall Box (3-Wire Fluorescent)

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.