

Evolve[®] 4.75"

Square Downlight

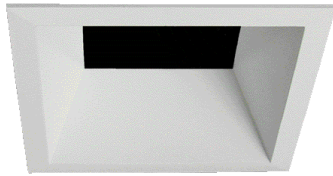


Features

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
ORI:	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



Downlight

PROJECT:

TYPE:



Trimless

Fixture Type

Round/Square	New Construction	Trim	Trimless
Yes	Yes	Yes	Yes

See separate spec sheet for Round trim

Performance Chart

Watts	Delivered Lumens	LPW	Color Temp
13	1,013	77.9	3000K-83
16	1,183	75.1	3000K-83
21	1,620	77.1	3000K-83
29	2,250	77.3	3000K-83

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

Data is base on 29W, Wide Flood optics. See pages 5-6 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"

4.75" Square Downlight



PROJECT:

TYPE:

Housing/Frame Ordering Information

1	2	3	4	5	6
1 <u>Model</u> For New Construction E4.75S-NC-A17[†] (New Construction) E4.75S-CP-A17[†] (Chicago Plenum 13W, 16W, & 21W only) E4.75S-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

E4.75SD-A17					
1	2	3	4	5	6
1 <u>Model</u> E4.75SD-A17 [†]	2 <u>Style</u> T - trimmed TL - trimless (not available for use with Grid ceiling)	3 <u>Finish</u> For Trimmed Fixture MWW - matte white, white flange MBW - matte black, white flange SLVW - matte silver, white flange MBB - matte black, black flange For Trimless Fixture MW - matte white MB - matte black SLV - matte silver	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 27 - 2700K-83 30 - 3000K-83 35 - 3500K-83 40 - 4000K-83 90+ CRI 229 - 2200K-90+ 279 - 2700K-90+ 309 - 3000K-90+ 359 - 3500K-90+ 409 - 4000K-90+ CRISP - CrispWhite 3CLA - 3K Class A	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"

4.75" Square Downlight



PROJECT:

TYPE:

Specifications

Application

Commercial and hospitality ambient lighting

Housing Construction

20 ga. galvanized steel frame
Formed aperture plate with 5/8" lip
Integral adjustable locking mounting bars
Thermally protected (21W & 29W)
Die-cast lamp housing and heatsink

Reflector Construction

Die-cast aluminum seamless self-flanged trim
Steel mounting ring with spring clips

Optical

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)

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

0-10V, Lutron and DALI systems also available

See pages 8-9 for more dimming information

Finish

Powder coat 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" Square Downlight

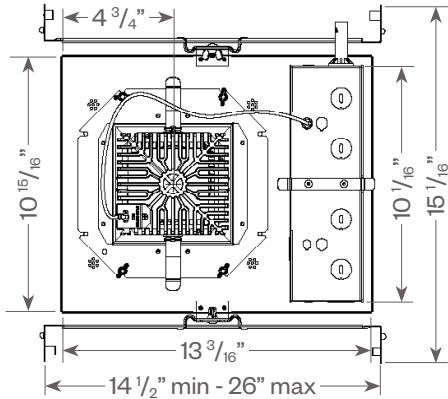


Evoke 4.75" SD

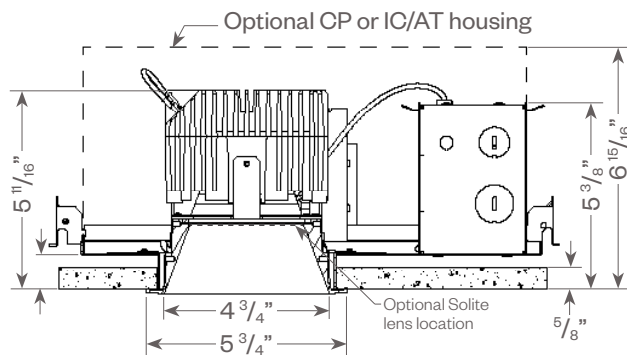
PROJECT:

TYPE:

Evoke Square Downlight:

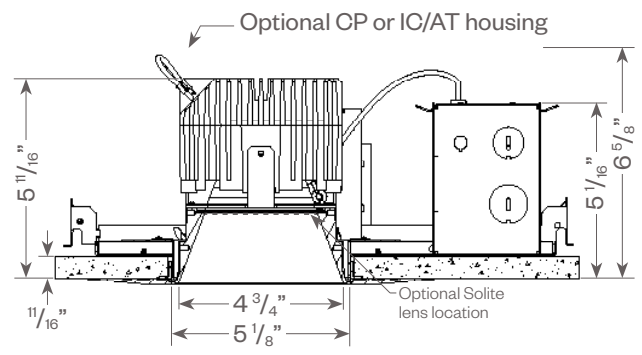


Trimmed



Ceiling cut out: 5 1/8" sq.

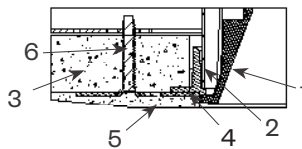
Trimless



Ceiling cut out: 5 7/8" sq.

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" Square Downlight



Evoke 4.75" SD

PROJECT:

TYPE:

Evoke Square 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	*

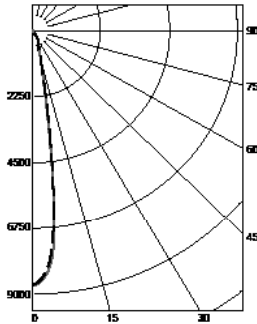
*For 29W data see page 6

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

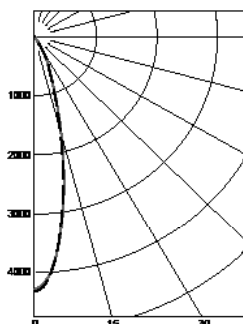
16W LED, 3000K-83

Spot (SP) Distribution, 15°
LTL #1085464
Lumens: 1,170; 74.2 Lm/W



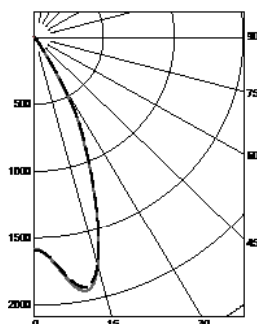
Candelas at Nadir	
Deg	Candela
0	8683
5	7514
15	956
25	466
35	25
45	23

Flood (FL) Distribution, 25°
LTL #1085465
Lumens: 1,187; 75.4 Lm/W



Candelas at Nadir	
Deg	Candela
0	4305
5	3828
15	1733
25	549
35	24
45	18

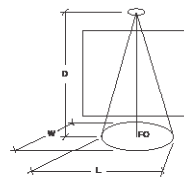
Wide Flood (WF) Distribution, 40°
LTL # 1085466
Lumens: 1,183; 75.1 Lm/W



Candelas at Nadir	
Deg	Candela
0	1592
5	1703
15	1763
25	813
35	62
45	19

Application Data:

		0° Aiming Angle Horizontal Footcandles			
		D	FC	L	W
Spot	5.0'	394	1.2	1.2	
	7.5'	168	1.9	1.9	
	10.0'	93	2.9	2.9	
	12.5'	59	3.4	3.4	
Flood	5.0'	195	2.0	2.0	
	7.5'	83	3.2	3.2	
	10.0'	46	4.2	4.1	
	12.5'	29	5.3	5.2	
Wide Flood	5.0'	82	3.7	3.8	
	7.5'	35	5.7	5.7	
	10.0'	19	7.7	7.7	
	12.5'	13	9.6	9.7	



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" Square Downlight



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

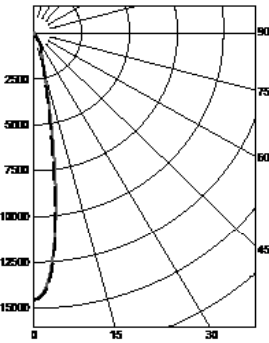
*For 16W data see page 5

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

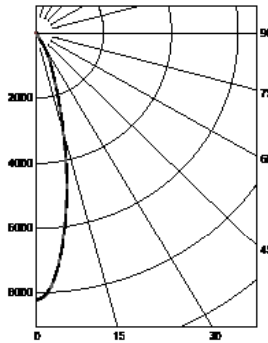
Spot (SP) Distribution, 15°
LTL #1085469
Lumens: 2,140; 73.6 Lm/W



Candelas at Nadir

Deg	Candela
0	14560
5	11710
15	1994
25	896
35	66
45	44

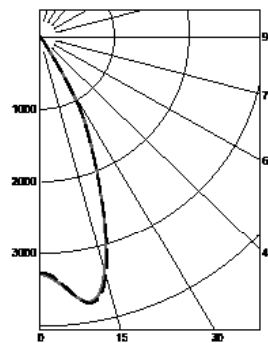
Flood (FL) Distribution, 25°
LTL #1085468
Lumens: 2,249; 77.3 Lm/W



Candelas at Nadir

Deg	Candela
0	8226
5	7332
15	3186
25	1035
35	44
45	33

Wide Flood (WF) Distribution, 40°
LTL # 1085467
Lumens: 2,250; 77.3 Lm/W



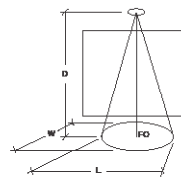
Candelas at Nadir

Deg	Candela
0	3267
5	3461
15	3302
25	1551
35	124
45	35

Application Data:

0° Aiming Angle
Horizontal
Footcandles

	D	FC	L	W
Spot	5.0'	661	1.3	1.3
	7.5'	282	2.1	2.0
	10.0'	155	2.9	2.9
	12.5'	98	3.5	3.4
Flood	5.0'	374	2.0	2.0
	7.5'	159	3.1	3.2
	10.0'	88	4.2	4.2
	12.5'	56	5.2	5.3
Wide Flood	5.0'	158	3.7	3.7
	7.5'	69	5.6	5.6
	10.0'	38	7.6	7.5
	12.5'	24	9.5	9.5



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® 4.75"

4.75" Square 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 ---

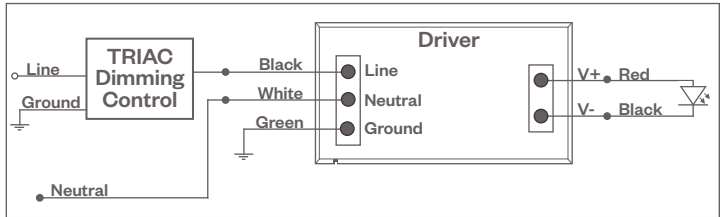
TRIAC (Forward Phase) DIMMING (Standard)

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 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"		

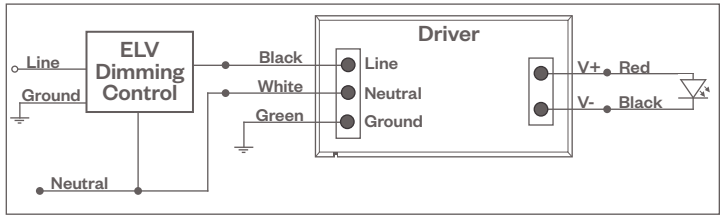
ELV - Electronic Low Voltage (Reverse Phase) DIMMING (Standard)

Utilizes specialized "ELV" dimmers.

Notes:

- 120VAC or 277VAC*
- 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"		

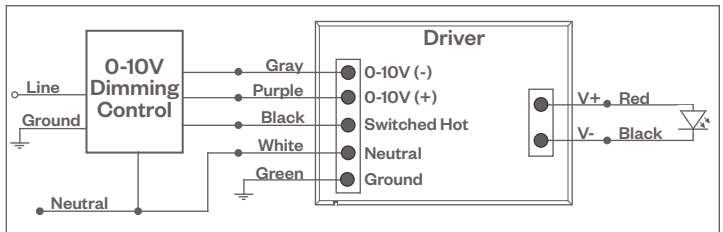
0-10V - DIMMING (-0-10V Option)

Integrates into a variety of building management and daylighting controls

Notes:

- 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.

Evoke[®] 4.75"

4.75" Square 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 ---

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

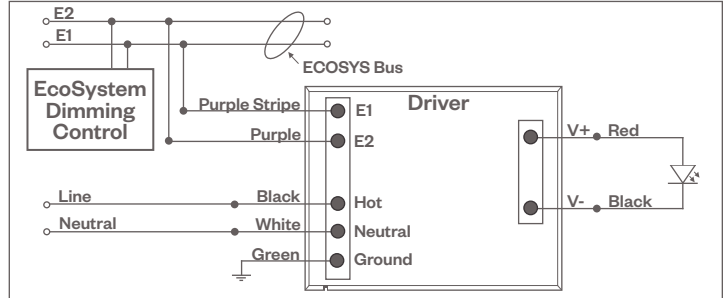
Pow Pak Dimming Modules
Energi Savr Node
Grafik Eye QS/Homeworks
QS Control Unit
Quantum Hub
Homeworks QS/My Room

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†:

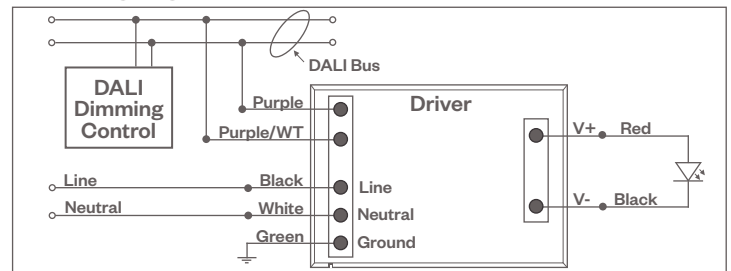
Wall Box (3-Wire Fluorescent)

Leviton CD250 Controller

Central System

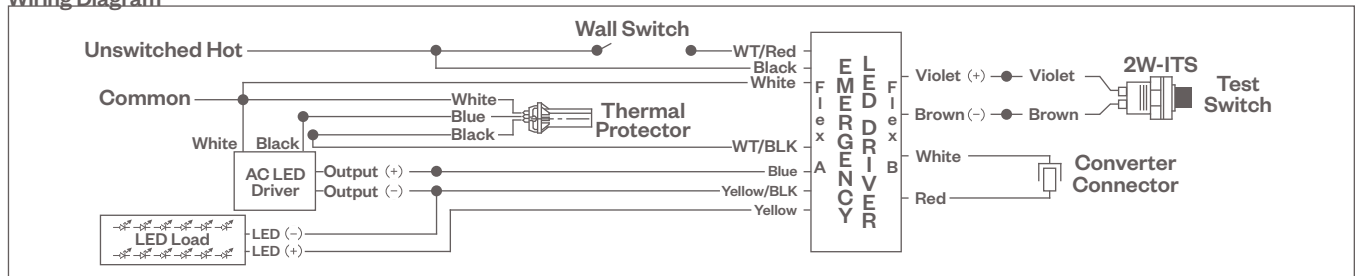
Dynalite
Fifth Light

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.