

Solace

3" Shallow Square Downlights



PROJECT:

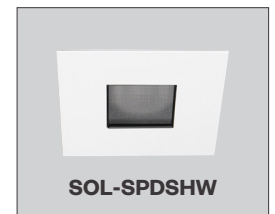
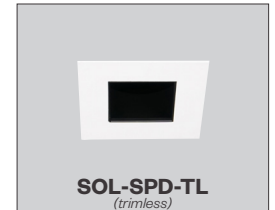
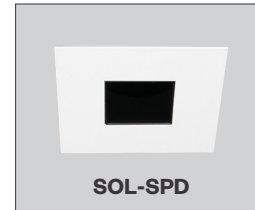
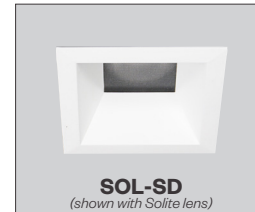
TYPE:

Features

Solace 3" Downlights are the complete downlight family for any ceiling surface and low plenum ceiling. Round or Square apertures, available as downlight, adjustable or wallwash. Optional Solite lensing provides whisper quiet aesthetics. The trim options available as trimmed, trimless or millwork. The pinhole and shower pinhole trim makes this a complete a downlight to design the entire space with the same look.

Product Overview

Type: Shallow Square Downlight
 Wattage: 8W, 12W, 17W
 Color Temp: 2700K, 3000K, 3500K, 4000K
 CRI: 90+ typ.
 3K Class A available
 Dimming: TRIAC & ELV, 5% Dim, 120/277VAC
 0-10V, 1% Dim, 120/277VAC
 Lutron Hi-lume® EcoSystem Premier, 0.1% dim with soft on & fade to black, 120/277VAC (*Consult factory for Lutron lead time*)



Certifications



5 year limited warranty
 AMERLUX LED



Fixture Summary

Fixture Type

Round/Square	New Construction	Trim	Trimless	Millwork
Yes	Yes	Yes	Yes	Yes

See separate spec sheet for Round trims.

Performance Data (see page 5 for full breakdown)

Watts	Delivered Lumens	LPW	CBCP	Color Temp-CRI
8	904	113	4188	3000K-90+
12	1339	111.6	6202	3000K-90+
17	1739	103	8054	3000K-90+

Data is based on 3000K-90+ 120V IES files available on website.

Data is based on Flood optic (no Solite). See pg 6-7 for other beam spreads.

Electrical Data

	8W		12W		17W	
Voltage	System Watts	Amps	System Watts	Amps	System Watts	Amps
120V	8	0.067	12	0.10	17	0.142
277V	8	0.029	12	0.043	17	0.061

Electronic constant current LED driver.

PROJECT:

TYPE:

Ordering Information - Housing/Frame

120/277							
1	2	3	4	5	6	7	8
1 Model SOL-SD-NC (New Construction & Insulated Ceiling (IC rated)) SOL-SD-CP (Chicago Plenum (CCEA) housing) SOL-SD-IC ^{T24} (Insulated Ceiling (IC)/air tight)	2 Style T trimmed (2" max ceiling thickness) TL trimless (5/8" max ceiling thickness) MWK millwork (for 1/2" - 1 1/16" ceiling thickness) MWK1 millwork (for 3/4" - 1-1/2" ceiling thickness) MWK2 millwork (for 1-1/2" - 2" ceiling thickness)	3 Wattage 8 (874 lm) 12 (1286 lm) 17 (1649 lm) <i>(Lumen data based on 3000K-83, FL optio. See pg 5 for other performance data)</i>	4 Voltage 120/277 <i>(universal voltage)</i>	5 Beam Spread SP spot, 15° FL flood, 25° WF wide flood, 36° VWF very wide flood, 55°	6 Color Temp <u>90+ CRI</u> 279 ^{T24} 2700K-90+ 3CLA* 3000K Class A 309 ^{T24} 3000K-90+ 359 ^{T24} 3500K-90+ 409 ^{T24*} 4000K-90+ <i>* Consult factory for lead time.</i>	7 Driver (for non-dimming, select LE/TE option) LE/TE ^{T24} TRIAC/ELV dimming O-10V ^{T24} 0-10V dimming, 1% dim HILUME-P-ECO - Lutron Hi-lume® EcoSystem Premier 0.1% dim with soft on & fade to black <i>(Consult factory for Lutron lead time)</i>	8 Options/Accessories HB49 - hanger bars from min 29" to max 49" <i>(26" hanger bars included as default options)</i> <i>Note: 26" hanger bars are included as standard. Choose HB49 option above for larger mounting spaces only.</i>

Ordering Information - Trim

1	2	3	4
1 Model SOL-SD ^{T24} (downlight) SOL-SPD (pinhole downlight) SOL-SPDSHW (pinhole downlight shower)	2 Style T trimmed TL trimless (not available for use with shower trim) MWK millwork (not available for use with shower trim)	3 Finish <u>SD Trim</u> <u>Trimmed</u> MBW matte black, white flange MWW matte white, white flange SLVW matte silver, white flange MBB matte black, black flange SLVS matte silver, silver flange <u>SPD/SPDSHW Trims (T/TL/MWK)</u> MB matte black MW matte white SLV matte silver	4 Options/Accessories SOL solite beam softening lens (comes standard with SPDSHW trim, not JA8/Title 24 compliant)

^{T24} JA8/Title 24 Compliant

PROJECT:

TYPE:

Specifications

Application

Retail and commercial ambient and task lighting

Housing Construction

20 ga. steel painted matte black
Extruded aluminum heatsink
Formed aperture plate with 5/8" lip (GB-standard)
Cast aluminum plaster frame with perforated face (for trimless option)
Integral adjustable locking mounting bars
Inherently protected

Reflector Trim Construction

Die-cast reflector
Pinhole trim features die cast faceplate and baffle
Pinhole shower trim features solite glass lens and silicone flange gasket

Optical

Beam Spreads: Spot, 15°; Flood, 25°; Wide Flood, 36°;
Very Wide Flood, 55°
Optional **SOL** - solite beam softening lens (up to ~5° widening of beam)

LED

Color Temp Options: 2700K, 3000K, 3500K, 4000K
CRI: 90+ typ.
Class A* 3000K (high gamut) available
R9 Values: 55 (92 CRI)
Binning: 3 MacAdam (SDCM)
Life: 50,000+ hrs, > 70% of initial lumens at 50,000 hrs
* 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: 8W, 12W, 17W
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 and over voltage damage is not covered under warranty.
Emergency option available through circuiting/inverter only

Drivers

LE/TE - Leading Edge (Triac, Forward Phase) or Trailing Edge (ELV, Reverse Phase)
0-10V and Lutron systems also available
See pages 8-9 for more dimming information

Finish (Trim)

Powder coat paint

Mounting

26" Hanger bars included. Side brackets allow for rigid conduit pipe mounting along with additional 1/2" adjustment of housing vertical position
Optional **HB49** - hanger bars from min 29" to max 49" available
Trimmed Fixture:
For use in grid or sheetrock ceilings, 5/8" - 2" standard
Trimless Fixture (not available with Shower trim):
For use in sheetrock ceilings, max ceiling thickness 5/8"
For sheetrock ceilings beyond 5/8" consult factory
Millwork Fixture:
Millwork extension collars are based on ceiling material specifications and thickness. Provides flush trim appearance level with ceiling material. Max thickness 2"

Certifications

CSA damp as tested to UL 1598 standards
Wet location (SHW trim) - for indoor, high humidity/moisture from below applications only
IC/AT rated
JA8 Title 24 compliant (see ordering page for options that apply)

Warranty

5 year limited warranty

Weight

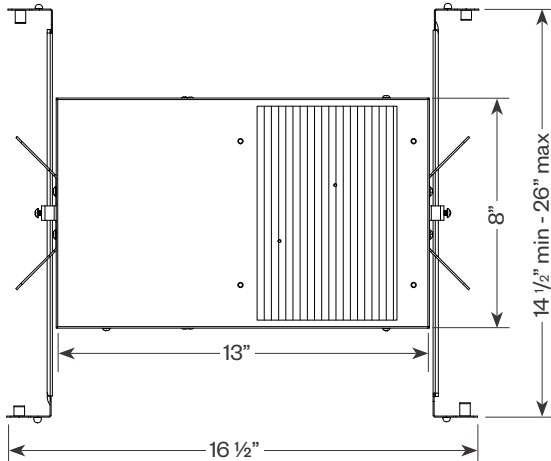
Housing and trim - 5 lbs.

PROJECT:

TYPE:

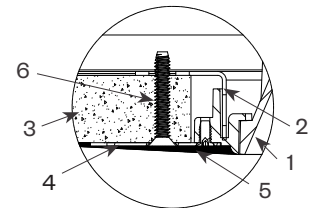
Product Details

Solace Square Downlights



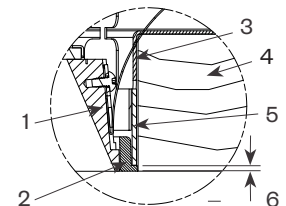
Plaster Frame Installation Detail (for trimless fixture only)

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



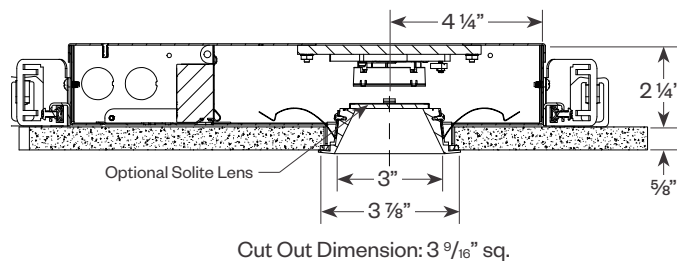
Millwork Detail

1. Reflector Trim
2. Millwork Ring
3. Aperture Plate
4. Wood Ceiling 2" Max
5. Extension collar (see ordering information for ceiling thicknesses)
6. 1/16" required for trim to be flush with ceiling

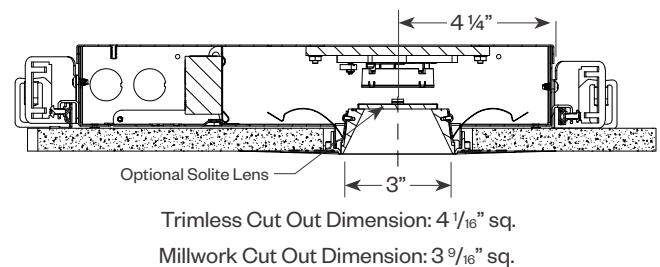


Square Downlight

Trimmed

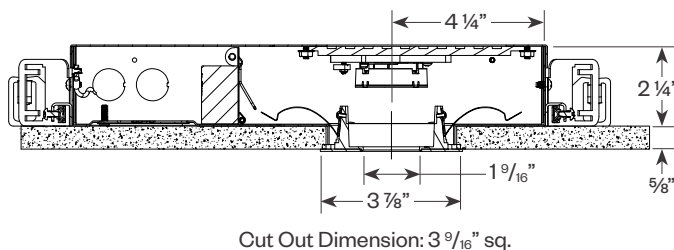


Trimless & Millwork

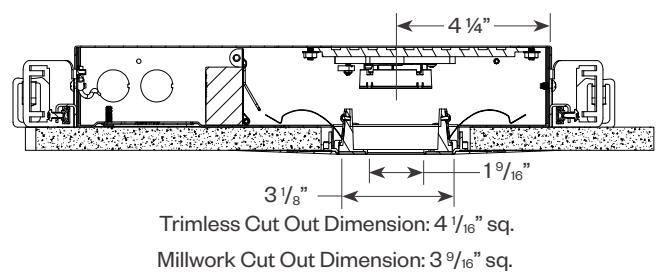


Square Pinhole Downlight

Trimmed

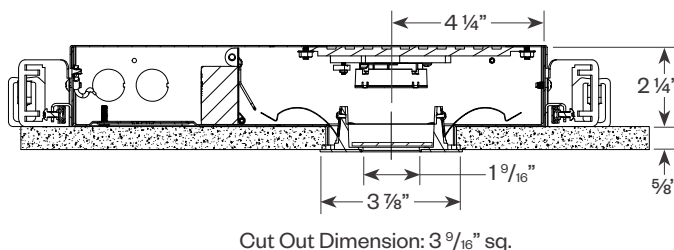


Trimless & Millwork



Square Pinhole Downlight Shower

Trimmed



PROJECT:

TYPE:

Solace Square Downlights Performance Breakdown *(without Solite lens)*

Wattage	Color Temp.	SP (15°)		FL (25°)		WF (36°)		VWF (55°)		Pinhole Spot (15°)	
		Lumens	LPW	Lumens	LPW	Lumens	LPW	Lumens	LPW	Lumens	LPW
8W	279	874	104	915	109	838	100	896	107	448	53
	309	869	103	910	108	834	99	892	106	445	53
	359	883	105	925	110	848	101	906	108	453	54
	409	895	106	937	111	858	102	917	109	458	55
	3CLA	580	69	607	72	556	66	594	71	297	35
12W	279	1280	102	1340	107	1228	98	1312	105	656	53
	309	1273	102	1333	107	1222	98	1306	105	652	52
	359	1294	104	1355	108	1241	99	1327	106	663	53
	409	1310	105	1372	110	1257	101	1344	108	671	54
	3CLA	849	68	889	71	814	65	870	70	435	35
17W	279	1669	99	1747	104	1601	95	1711	102	855	51
	309	1661	99	1739	103	1593	95	1703	101	851	51
	359	1687	100	1766	105	1619	96	1730	103	864	51
	409	1709	102	1789	106	1639	97	1752	104	876	52
	3CLA	1107	66	1159	69	1062	63	1135	68	567	34

PROJECT:

TYPE:

Performance Data - Square Downlight (SOL-SD)

Multiplying Factors: (Multiplying Factor is based on 3000K-90+ 120V IES file on website)

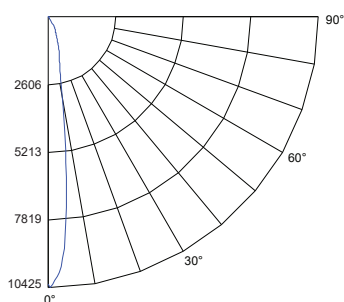
Wattage:	8W	12W	17W
Factor:	0.52	0.77	1.0

Lens:	Solite
Factor:	0.95

CCT:	2700K-90+	3000K-90+	3500K-90+	4000K-90+	3CLA
Factor:	1.005	1.000	1.016	1.029	0.667

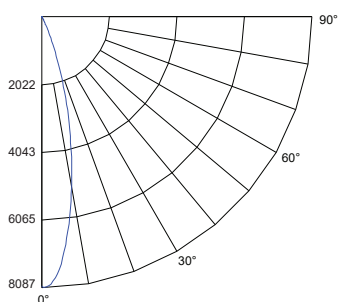
17W LED, 3000K-90+

Spot (SP) Distribution, 15°
LTL # 13659730.07
Lumens: 1660; lm/W: 99



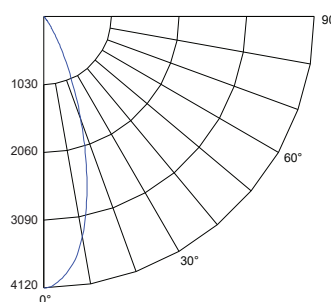
Candelas at Nadir	
Deg	Candela
0	10299
5	7956
15	1719
25	721
35	112
45	23

Flood (FL) Distribution, 25°
LTL # 13659730.08
Lumens: 1739; lm/W: 103



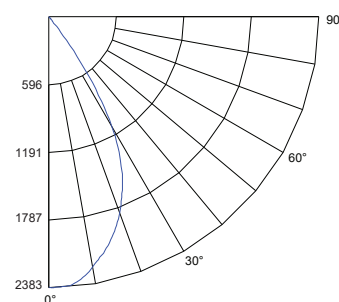
Candelas at Nadir	
Deg	Candela
0	8054
5	7231
15	3092
25	414
35	55
45	11

Wide Flood (WF) Distribution, 36°
LTL # 13659730.09
Lumens: 1593; lm/W: 95



Candelas at Nadir	
Deg	Candela
0	4119
5	3895
15	2510
25	875
35	136
45	20

Very Wide Flood (VWF) Distribution, 55°
LTL # 13659730.10
Lumens: 1703; lm/W: 101



Candelas at Nadir	
Deg	Candela
0	2376
5	2352
15	2043
25	1459
35	86
45	18

Application Data - Square Downlight (SOL-SD)

Notes and Definitions:

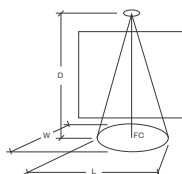
Beam spread is to 50% center beam candlepower (CBCP).

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).



	0° Aiming Angle Horizontal Footcandles			
	D	FC	L	W
Spot	5.0'	413	1.3	1.3
	7.5'	184	1.9	1.9
	10.0'	103	2.8	2.8
	12.5'	66	3.4	3.4

	0° Aiming Angle Horizontal Footcandles			
	D	FC	L	W
Flood	5.0'	323	2.2	2.2
	7.5'	144	3.3	3.3
	10.0'	81	4.3	4.3
	12.5'	52	5.4	5.4

	0° Aiming Angle Horizontal Footcandles			
	D	FC	L	W
Wide Flood	5.0'	166	3.0	3.0
	7.5'	74	4.4	4.4
	10.0'	42	5.8	5.8
	12.5'	27	7.2	7.2

	0° Aiming Angle Horizontal Footcandles			
	D	FC	L	W
Very Wide Flood	5.0'	96	4.4	4.4
	7.5'	43	6.6	6.6
	10.0'	24	8.9	8.9
	12.5'	16	11.2	11.2

PROJECT:

TYPE:

Performance Data - Square Pinhole Downlight (SOL-SPD)

Multiplying Factors: (Multiplying Factor is based on 3000K-90+ 120V IES file on website)

Wattage:	8W	12W	17W
Factor:	0.52	0.77	1.0

Lens:	Solite
Factor:	0.95

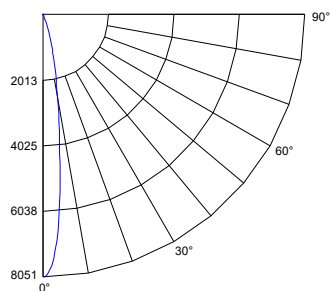
CCT:	2700K-90+	3000K-90+	3500K-90+	4000K-90+	3CLA
Factor:	1.005	1.000	1.016	1.029	0.667

17W LED, 3000K-90+

Spot (SP) Distribution, 15°

LTL # 13659730.11

Lumens: 851; lm/W: 51



Candelas at Nadir

Deg	Candela
0	8051
5	5859
15	1120
25	48
35	10
45	5

Application Data - Square Pinhole Downlight (SOL-SPD)

Notes and Definitions:

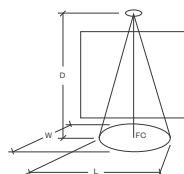
Beam spread is to 50% center beam candlepower (CBCP).

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).



0° Aiming Angle
Horizontal
Footcandles

Spot	D	FC	L	W
	5.0'	323	1.3	1.3
	7.5'	143	1.9	1.9
	10.0'	81	2.7	2.7
	12.5'	52	3.3	3.3

Solace

3" Shallow Square Downlights



PROJECT:

TYPE:

Dimming Compatibility

Amerlux® Solace 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 ---

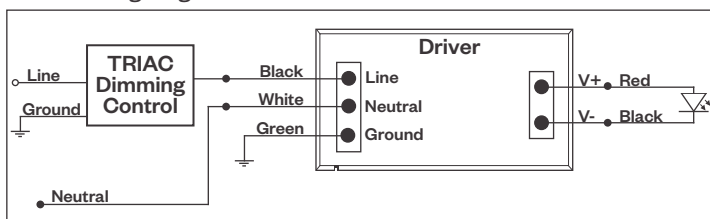
TRIAC (Forward Phase) DIMMING (Standard)

Utilizes standard TRIAC 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 (TRIAC 120VAC)	Central System
Lutron "Diva"	Lutron "GP" Panel
Lutron "Nova-T"	Lutron Grafik Eye QS
Lutron "Maestro"	
Lutron "Skylark"	

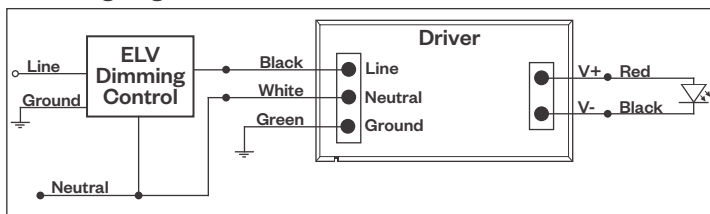
ELV - Electronic Low Voltage (Reverse Phase) DIMMING (Standard)

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 per dimming manufacturer

ELV Wiring Diagram



Compatible Dimmers†:		
Wall Box (ELV 120VAC)	Wall Box (ELV 277VAC)	Central System
Lutron "Diva"	Leviton Revoir II AWSMT-E	Lutron "GP" Panel with PHPM-PA 120/277VAC
Lutron "Nova-T"		Lutron Grafik Eye QS with PHPM-PA 120/277VAC
Lutron "Maestro"		
Lutron "Skylark"		
Leviton "Surslide"		
Leviton "Vizio"		

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.

Solace

3" Shallow Square Downlights



PROJECT:

TYPE:

Dimming Compatibility *(continued)*

Amerlux® Solace 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.

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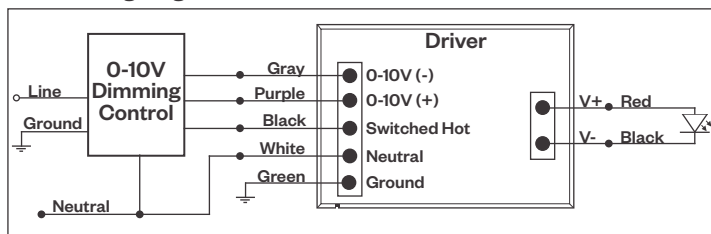
0-10V DIMMING

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" - DVSTV Leviton Renoir II 0-10V	Lutron Grafik Eye with GRX-TVI Interface

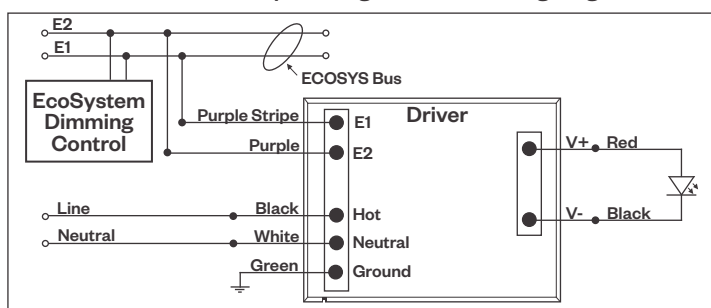
LUTRON LDE1 DIMMING

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!**

LDE1 (HILUME-H-ECO) EcoSystem Digital Control Wiring Diagram



Compatible Dimmers*:

Lutron ECO System	Central System
Pow Pak Dimming Modules	Lutron EcoSystem compatible controls
Energj Savr Node	
Grafik Eye QS/Homeworks	
QS Control Unit	
Quantum Hub	
Homeworks QS/My Room	

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.