

Solace

3" Shallow Square Downlights



PROJECT:

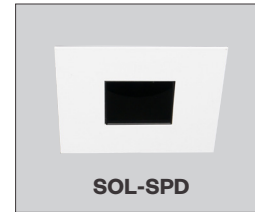
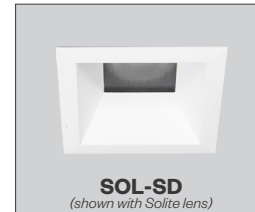
TYPE:

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: 83 typ. or 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	874	104	4049	3000K-83
12	1286	103	5958	3000K-83
17	1649	98	7639	3000K-83

Data is based on 3000K-83 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			2	Style		3	Wattage
	SOL-SD-NC (New Construction & Insulated Ceiling (IC rated))				T trimmed (2" max ceiling thickness)		8	(874 lm)
	SOL-SD-CP (Chicago Plenum (CCEA) housing)				TL trimless (5/8" max ceiling thickness)		12	(1286 lm)
	SOL-SD-IC ^{T24} (Insulated Ceiling (IC)/air tight)				MWK millwork (for 1/2" - 11/16" ceiling thickness)		17	(1649 lm)
					MWK1 millwork (for 3/4" - 1-1/2" ceiling thickness)		(Lumen data based on 3000K-83, FL optic. See pg 5 for other performance data)	
					MWK2 millwork (for 1-1/2" - 2" ceiling thickness)			
4	Voltage		5	Beam Spread		6	Color Temp	
	120/277 (universal voltage)			SP spot, 15°		83 CRI90+ CRI ^{T24}		
				FL flood, 25°		27 2700K-83279 2700K-90+3CLA* 3000K Class A		
				WF wide flood, 36°		30 3000K-83309 3000K-90+		
				VWF very wide flood, 55°		35 3500K-83359 3500K-90+		
						40* 4000K-83409* 4000K-90+		
						* Consult factory for lead time.		
7	Driver (for non-dimming, select LE/TE option)			8	Options/Accessories			
	LE/TE ^{T24} TRIAC/ELV dimming				HB49 - hanger bars from min 29" to max 49"			
	0-10V ^{T24} 0-10V dimming, 1% dim				(26" hanger bars included as default options)			
	HILUME-P-ECO - Lutron Hi-lume® EcoSystem Premier 0.1% dim with soft on & fade to black				Note: 26" hanger bars are included as standard.			
	(Consult factory for Lutron lead time)				Choose HB49 option above for larger mounting spaces only.			

Ordering Information - Trim

1 2 3 4			
1 Model	2 Style	3 Finish	
SOL-SD ^{T24} (downlight)	T trimmed	SD Trim	
SOL-SPD (pinhole downlight)	TL trimless (not available for use with shower trim)	Trimmed	Trimless/Millwork
SOL-SPDSHW (pinhole downlight shower)	MWK millwork (not available for use with shower trim)	MBW matte black, white flange	MB matte black
		MWW matte white, white flange	MW matte white
		SLVW matte silver, white flange	SLV matte silver
		MBB matte black, black flange	
		SLVS matte silver, silver flange	
		SPD/SPDSHW Trims (T/TL/MWK)	
		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: 83 typ. or 90+ typ.
Class A* 3000K (high gamut) available
R9 Values: 11 (83 CRI), 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.

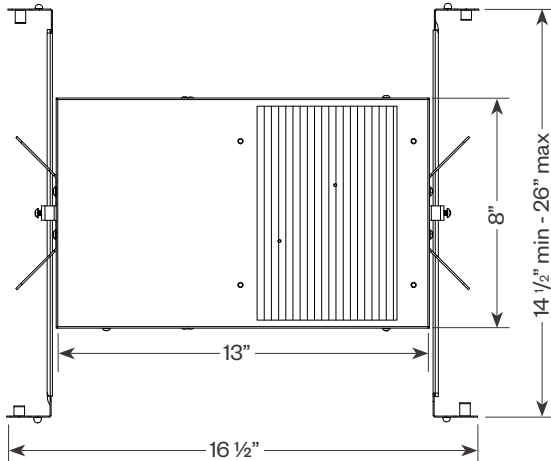


PROJECT:

TYPE:

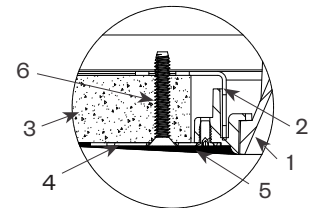
Product Details

Solace Square Downlights



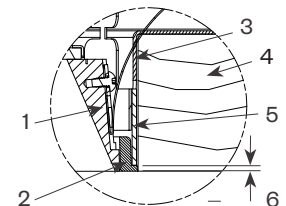
Plaster Frame Installation Detail (for trimless fixture only)

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



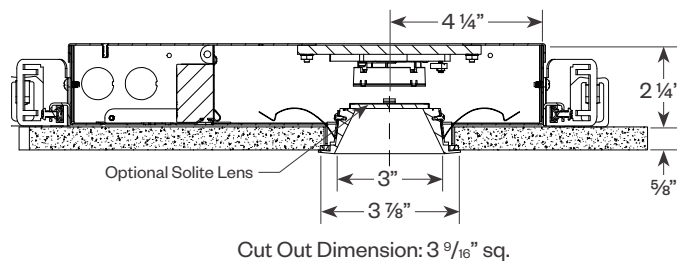
Millwork Detail

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

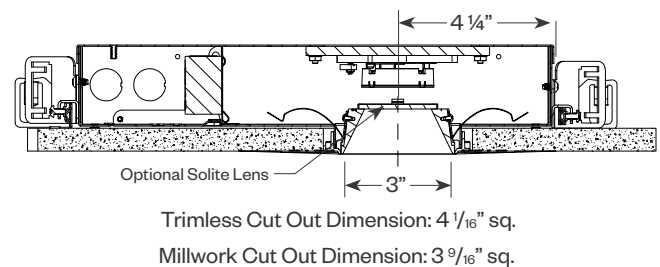


Square Downlight

Trimmed

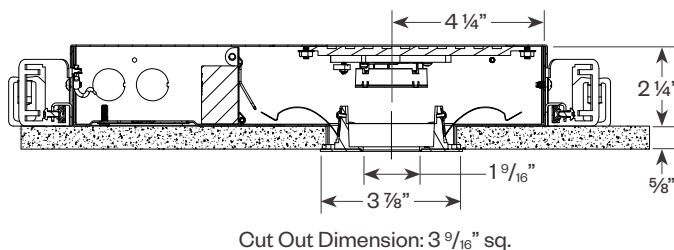


Trimless & Millwork

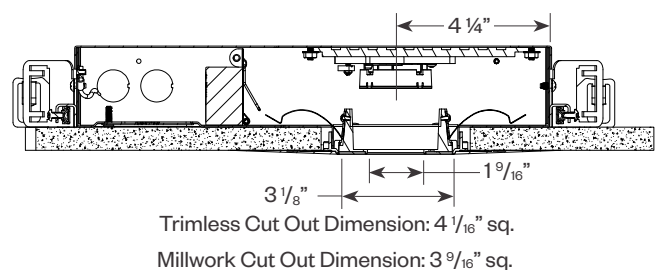


Square Pinhole Downlight

Trimmed

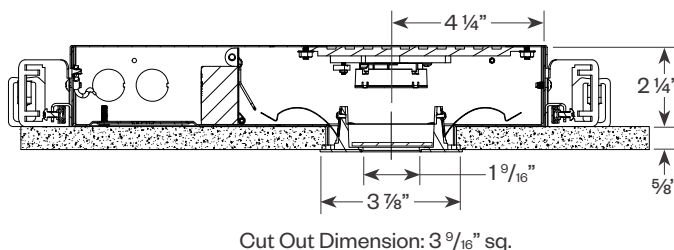


Trimless & Millwork



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	27	818	97	856	102	785	93	839	100	419	50
	30	835	99	874	104	801	95	856	102	428	51
	35	851	101	891	106	817	97	873	104	436	52
	40	876	104	918	109	841	100	899	107	449	53
	279	701	83	734	87	673	80	719	86	359	43
	309	726	86	760	91	697	83	745	89	372	44
	359	751	89	787	94	721	86	770	92	385	46
	409	751	89	787	94	721	86	770	92	385	46
	3CLA	584	70	612	73	561	67	599	71	300	36
12W	27	1204	96	1260	101	1155	92	1235	99	617	49
	30	1229	98	1286	103	1179	94	1260	101	630	50
	35	1253	100	1312	105	1202	96	1285	103	642	51
	40	1290	103	1351	108	1238	99	1323	106	661	53
	279	1032	83	1080	86	990	79	1058	85	529	42
	309	1069	86	1119	90	1025	82	1096	88	548	44
	359	1106	88	1158	93	1061	85	1134	91	567	45
	409	1106	88	1158	93	1061	85	1134	91	567	45
	3CLA	860	69	900	72	825	66	882	71	441	35
17W	27	1544	92	1616	96	1481	88	1583	94	791	47
	30	1575	94	1649	98	1511	90	1615	96	807	48
	35	1607	95	1682	100	1541	92	1647	98	823	49
	40	1654	98	1731	103	1587	94	1696	101	848	50
	279	1323	79	1385	82	1269	76	1357	81	678	40
	309	1370	81	1435	85	1315	78	1405	84	702	42
	359	1418	84	1484	88	1360	81	1454	86	727	43
	409	1418	84	1484	88	1360	81	1454	86	727	43
	3CLA	1103	66	1154	69	1058	63	1131	67	565	34

PROJECT:

TYPE:

Performance Data - Square Downlight (SOL-SD)

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

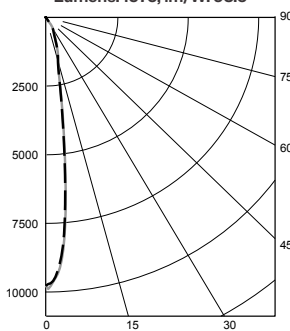
Wattage:	8W	12W	17W
Factor:	0.53	0.78	1.0

Lens:	Solite
Factor:	0.95

CCT:	2700K-83	3000K-83	3500K-83	4000K-83	2700K-90+	3000K-90+	3500K-90+	4000K-90+	3CLA
Factor:	0.98	1.0	1.02	1.04	0.84	0.87	0.90	0.91	0.70

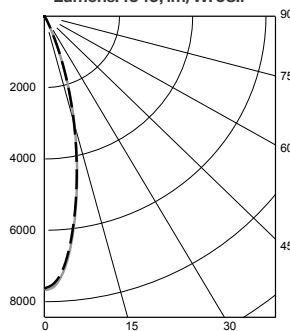
17W LED, 3000K-83

Spot (SP) Distribution, 15°
LTL # 13659730.07
Lumens: 1575; lm/W: 93.6



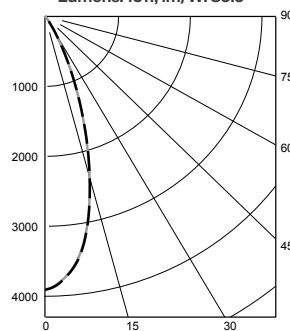
Candelas at Nadir	
Deg	Candela
0	9768
5	7546
15	1630
25	684
35	107
45	22

Flood (FL) Distribution, 25°
LTL # 13659730.08
Lumens: 1649; lm/W: 98.1



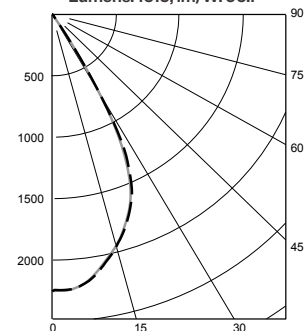
Candelas at Nadir	
Deg	Candela
0	7639
5	6858
15	2933
25	392
35	52
45	10

Wide Flood (WF) Distribution, 36°
LTL # 13659730.09
Lumens: 1511; lm/W: 89.9



Candelas at Nadir	
Deg	Candela
0	3907
5	3694
15	2381
25	830
35	129
45	19

Very Wide Flood (VWF) Distribution, 55°
LTL # 13659730.10
Lumens: 1615; lm/W: 96.1



Candelas at Nadir	
Deg	Candela
0	2254
5	2231
15	1938
25	1384
35	81
45	17

Application Data - Square Downlight (SOL-SD)

Notes and Definitions:

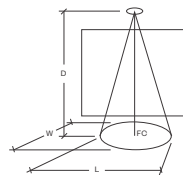
Beam spread is to 50% center beam candlepower (CBCP).

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'	391	1.3	1.3
	7.5'	174	1.9	1.9
	10.0'	98	2.8	2.8
	12.5'	63	3.4	3.4

	0° Aiming Angle Horizontal Footcandles			
	D	FC	L	W
Flood	5.0'	306	2.1	2.1
	7.5'	136	3.2	3.2
	10.0'	77	4.3	4.3
	12.5'	49	5.4	5.4

	0° Aiming Angle Horizontal Footcandles			
	D	FC	L	W
Wide Flood	5.0'	167	2.9	2.9
	7.5'	70	4.4	4.4
	10.0'	39	5.7	5.7
	12.5'	25	7.2	7.2

	0° Aiming Angle Horizontal Footcandles			
	D	FC	L	W
Very Wide Flood	5.0'	91	4.4	4.4
	7.5'	40	6.6	6.6
	10.0'	23	8.9	9.0
	12.5'	15	11.1	11.3

PROJECT:

TYPE:

Performance Data - Square Pinhole Downlight (SOL-SPD)

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

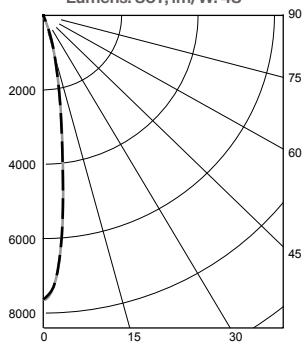
Wattage:	8W	12W	17W
Factor:	0.53	0.78	1.0

Lens:	Solite
Factor:	0.95

CCT:	2700K-83	3000K-83	3500K-83	4000K-83	2700K-90+	3000K-90+	3500K-90+	4000K-90+	3CLA
Factor:	0.98	1.0	1.02	1.04	0.84	0.87	0.90	0.91	0.70

17W LED, 3000K-83

Spot (SP) Distribution, 15°
LTL # 13659730.11
Lumens: 807; lm/W: 48



Candelas at Nadir

Deg	Candela
0	7636
5	5557
15	1062
25	45
35	10
45	4

Application Data - Square Pinhole Downlight (SOL-SPD)

Notes and Definitions:

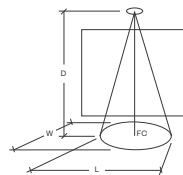
Beam spread is to 50% center beam candlepower (CBCP).

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'	305	1.3	1.3
	7.5'	136	1.9	1.9
	10.0'	77	2.7	2.7
	12.5'	49	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 ---

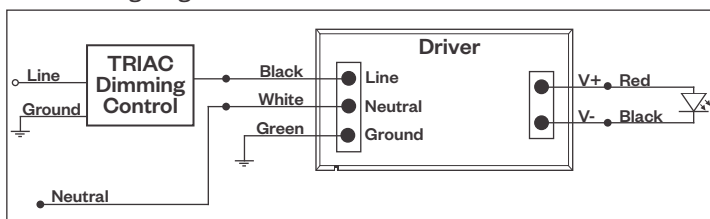
TRIAC (Forward Phase) DIMMING (Standard)

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"	

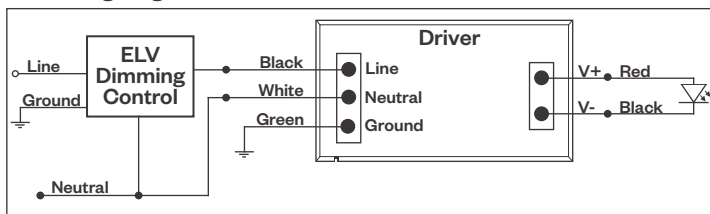
ELV - Electronic Low Voltage (Reverse Phase) DIMMING (Standard)

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.

--- NOTE: INFORMATION BELOW IS FOR WIRED DIMMERS ONLY. FOR WIRELESS DIMMERS, CONSULT FACTORY ---

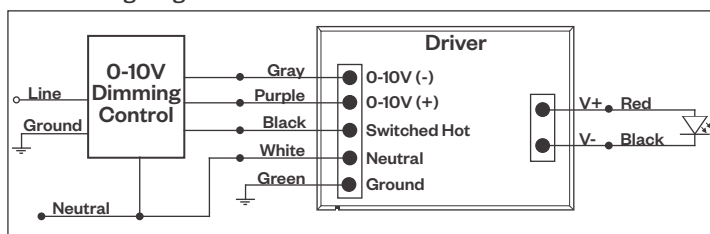
0-10V DIMMING

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

Lutron "Diva" - DVSTV | Leviton Renoir II 0-10V

Central System

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!**

Compatible Dimmers*:

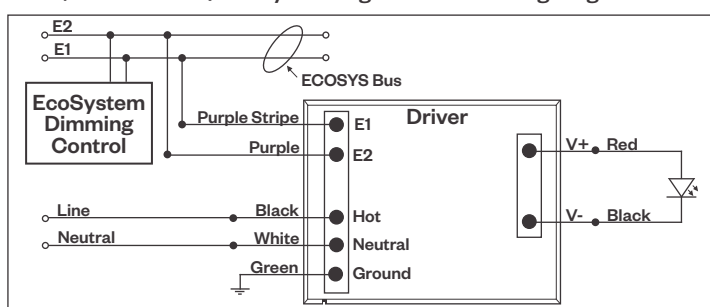
Lutron ECO System

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

LDE1 (HILUME-H-ECO) EcoSystem Digital Control 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.