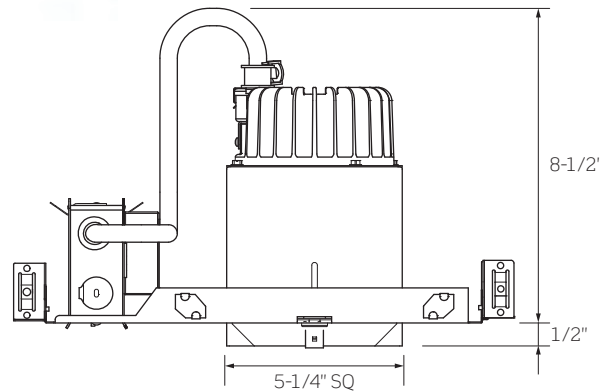


R4SQNC SERIES | 4-Inch Square Universal New Construction Downlight

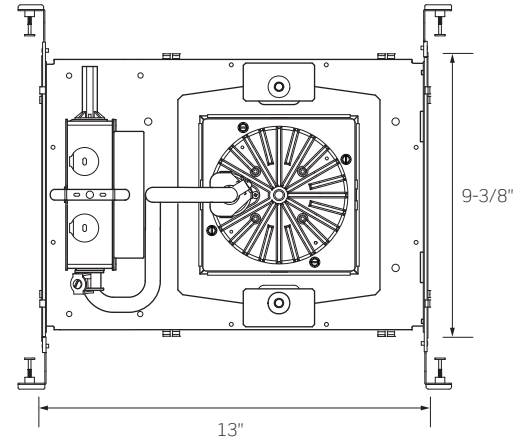


Ceiling Opening: 5-3/8"
Ceiling Thickness: 1/2" - 2"

Side View



Top View



cCSAus
Listed



Wet
Location



ENERGY STAR®
Certified



UL924
Certified

	R4SQNC1	R4SQNC2	R4SQNC3	R4SQNC4	R4SQNC5	R4SQNC6
WATTAGE	12W	16W	21W	30W	38W	45W
LUMEN OUTPUT ¹	1100Lm	1600Lm	2200Lm	3000Lm	3700Lm	4100Lm
COLOR TEMPERATURE	2700K / 3000K / 3500K / 4000K					
CRI	83 (80min) / 90+					
BEAM SPREADS	33° Narrow / 38° Medium / 62° Wide / Wall Wash					
DRIVER INPUT WATTAGE	12W	16W	21W	30W	38W	45W
INPUT CURRENT (A) 120V/277V/347V	.08/.04/.03	.12/.06/.04	.17/.08/.06	.23/.11/.08	.31/.14/.11	.36/.16/.12
INPUT VOLTAGE	120VAC / 277VAC / 347VAC, 50/60Hz					
Standard Driver	120VAC / 277VAC / 347VAC, 50/60Hz					
Lutron Eco-System® Driver	120VAC / 277VAC, 50/60Hz				N/A	N/A
eldoLED ECOdrive / SOLOdrive	120VAC / 277VAC, 50/60Hz					
DRIVER POWER FACTOR	> 0.90					
TOTAL HARMONIC DISTORTION	< 20%					
LISTINGS	cCSAus Certified to UL Standards; Suitable for Wet Locations except Wall Wash option cCSAus Certified to UL924 Standard for Emergency Lighting when specified with the Emergency Battery Backup option ENERGY STAR® Certified					
WARRANTY	Five (5) year replacement after date of purchase Emergency Battery Backup option covered by a one (1) year replacement guarantee after date of purchase					
SYSTEM RATING	50,000 Hours @ 70% Lumen Maintenance					

1. Approximate lumen output based on 3000K performance; see photometric test results for additional information

R4SQNC SERIES | 4-Inch Square Universal New Construction Downlight

ORDERING INFORMATION

Example Order: R4SQNC130K12DW-ER

Housing/LED Series	Color Temp/CRI	Electrical	Dimming	Beam Dist.	Options
R4SQNC1 12W/1100lm	83 (80min) CRI	12 120V	D¹ Forward/Reverse Phase/0-10V Dimming	N 33° Narrow	ER⁶ Factory Installed
R4SQNC2 16W/1600lm	27K 2700K	27 277V	D2² 347V 0-10V Dimming	M 38° Medium	7W/200mA
R4SQNC3 21W/2200lm	30K 3000K	34¹ 347V	D4³ Lutron Hi-lume 1% EcoSystem Driver with Soft-on, Fade-to-Black	W 62° Wide	Emergency
R4SQNC4 30W/3000lm	35K 3500K		D6⁴ eldoLED ECOdrive, 0-10V, 1% Dimming	WW Wall Wash	Battery Backup;
R4SQNC5 38W/3700lm	40K 4000K		D7⁴ eldoLED ECOdrive, DALI, 1% Dimming		Remote Test Switch
R4SQNC6 45W/4100lm	90 CRI		D8⁴ eldoLED SOLOdrive, 0-10V, 0.1% Dimming		
	27KC 2700K		D9⁴ eldoLED SOLOdrive, DALI, 0.1% Dimming		
	30KC 3000K		DMX^{4,5} eldoLED POWERdrive, DMX 0.0% Dimming		
	35KC 3500K				
	40KC 4000K				

1. Forward/Reverse Phase Dimming for 120V only

2. 0-10V Dimming only dimming available for 347V option; cannot be used with Emergency Battery Backup option

3. Lutron Eco-System available for both 120V and 277V. Lutron Dimming Options are available for Series 1 through 4 only (12W through 30W); not available for use with LED Series 5 or 6 (38W or 45W).

4. eldoLED Drivers are programmed for Linear Curve Dimming as standard; for Logarithmic Curve Dimming, consult factory

5. Verify DMX Driver and Control System compatibility with factory prior to ordering

6. Emergency Battery Backup option: 725 lumen nominal average for all wattages

ACCESSORY ORDERING INFORMATION

Mounting Accessories	Replacement Optics
<i>Standard Hanger Bars Supplied with Housing</i>	4SQOPT-N 33° Beam Optic
HB-30 T-Bar Hanger Set	4SQOPT-M 38° Beam Optic
RL-KIT Commercial Mounting Brackets	4SQOPT-W 62° Beam Optic
HB-24 27-Inch Flat Hanger Bars for RL-KIT	
HBC-24 25-Inch C-Channel Hanger Bars for RL-KIT in Grid Ceiling Construction	

See page 3 for compatible Trim information and details

PRODUCT SPECIFICATIONS

CONSTRUCTION

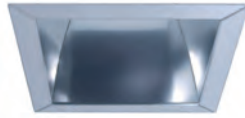
- Specification Grade 4-inch square 16 gauge Galvanized Steel New Construction Housing with Die-Cast Aluminum Heat Sink
- Requires minimum 3-inch clearance around Housing from insulation material; thermal protection provided in case of improper insulation use
- Mounting Frame features a Post Installation Mechanism that allows 1/4-inch adjustment in all directions, as well as 5° of rotation adjustment to ensure proper alignment
- Quick-connect Light Engine; Drivers are fully accessible from below the ceiling
- Dual Nailer Hanger Bars are adjustable for 16- and 24-inch center joists (14-1/4- to 24-1/2-inch). Nailer Bars may be extended to rest on T-Bar ceilings; optional clip-on T-Bar Hangers available.
- Pre-wired Junction Box with convenient Screwdriver Pry-outs plus four (4) 1/2-inch Knockouts and one (1) 1/2-inch x 3/4-inch Concentric K.O.
- Output over-voltage, over-current and short circuit protection
- Approved for through circuit wiring: max. eight (8) 12 AWG (4 in/4 out), wiring rated to 90°C

PERFORMANCE SUMMARY

- 2700K, 3000K, 3500K and 4000K CCTs; 80 CRI min., 83 typical; high CRI of 90+ available
- Excellent fixture-to-fixture color consistency with a 3-step MacAdam Ellipse tolerance
- Glass TIR Optics provide smooth, uniform beams; maximizing output and minimizing glare. Available in 33° Narrow, 38° Medium, and 62° Wide; Optics are interchangeable and can be field replaced
- A high efficiency, soft-focus, field removable film is installed for even greater softening of the beam
- Wall Wash distribution provides a smooth, wide beam with excellent uniformity; well suited for any wall lighting application
- R4SQ Downlights are available for non-dimming and dimming applications; for compatible Dimmers, refer to the Dimming Specification Sheet
- Flanged or Trimless Specification Grade Trims in several different styles and finishes available
- Trimless options require use of a Mud Frame (MF4SQ, ordered separately) for securing Downlight and Trim in a 1/2- to 5/8-inch ceiling thickness only
- Trimless options cannot be used on Remodel Style Housings (R4RM)
- UL8750 and Class 2 Compliant; RoHS Compliant, US only

R4SQ SERIES | Trims for 4-Inch Square Downlights

TRIMMED OPTIONS



C4322SQ-CLR



C4322SQDF-SL



C4322SQ Series

Specification Grade Reflector

- 4-1/2-Inch Square Aperture, 5-3/4-Inch Square Trim Flange
- Wet Location approved
- White Painted Flange available for -CLR and -PL finish trims; add "WPF" to the end of the part number



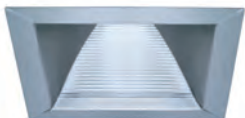
C4322SQD Series

Die-Cast (DC) or ISOWET Dead Front (DF) Reflector

- 4-1/2-Inch Square Aperture, 5-3/4-Inch Square Trim Flange
- Specification Grade Die-Cast Reflector
- Wet Location approved
- White Painted Flange available for -SL finish; add "WPF" to the end of the part number

Trim	
C4322SQ-CLR ¹	Anodized Clear Reflector
C4322SQ-PL ¹	Anodized Platinum Reflector
C4322SQ-WHT	Matte White Painted Reflector
1. Finish available with White Painted Flange; add "WPF" to end of part number	

Trim	
C4322SQDC-SL ¹	Satin Silver Painted Die-Cast Reflector
C4322SQDC-WHT	Matte White Painted Die-Cast Reflector
C4322SQDF-SL ¹	Satin Silver Painted Dead Front Reflector
C4322SQDF-WHT	Matte White Painted Dead Front Reflector
1. Finish available with White Painted Flange; add "WPF" to end of part number	



C4323SQ-PL



C4323SQDC-SL



C4323SQ Series

Lensed Wall Wash Trim

- 4-1/2-Inch Square Aperture, 5-3/4-Inch Square Trim Flange
- Angled Diffuse Glass Spread Lens
- Wet Location approved
- White Painted Flange available for -CLR and -PL finish trims; add "WPF" to the end of the part number



C4323SQDC Series

Die-Cast Lensed Wall Wash Trim

- 4-1/2-Inch Square Aperture, 5-3/4-Inch Square Trim Flange
- Wet Location approved
- White Painted Flange available for -SL finish; add "WPF" to the end of the part number

Trim	
C4323SQ-CLR ¹	Anodized Clear Wall Wash
C4323SQ-PL ¹	Anodized Platinum Wall Wash
C4323SQ-WHT	Matte White Painted Wall Wash
1. Finish available with White Painted Flange; add "WPF" to end of part number	

Trim	
C4323SQDC-SL ¹	Satin Silver Painted Die-Cast Reflector
C4323SQDC-WHT	Matte White Painted Die-Cast Reflector
1. Finish available with White Painted Flange; add "WPF" to end of part number	

R4SQ SERIES | Trims for 4-Inch Square Downlights

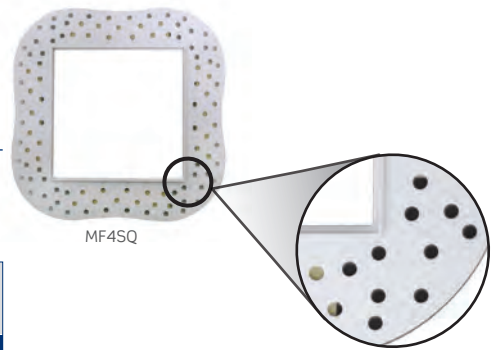
MUD FRAME

NOTE: The Mud Frame is required for trimless applications

Mud Frame

- Adhesive backed Thermoplastic Mesh Frame
- 8-1/2-Inch Square
- Required for trimless applications

Mud Frame
MF4SQ



TRIMLESS OPTIONS



CN4322SQDC-SL



CN4322SQDC Series

Specification Grade Die-Cast Trimless Reflector

- 4-1/2-Inch Square Aperture, 5-3/4-Inch Square Trim Flange
- Wet Location approved
- For use with 1/2- to 5/8-inch ceiling thicknesses only
- **Trim cannot be used on Remodel Housings (R4SQRM)**

Trim
<div> <div>CN4322SQDC-SL</div> <div>Satin Silver Painted Trimless Reflector</div> </div> <div> <div>CN4322SQDC-WHT</div> <div>Matte White Painted Trimless Reflector</div> </div>

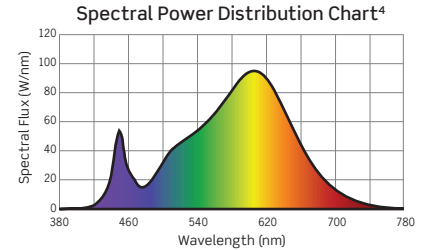
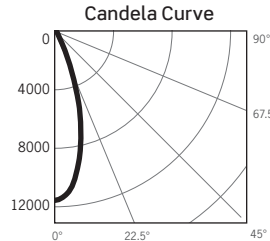
R4SQ SERIES | 4-Inch Square Downlight Photometrics

R4SQNC630K12DN / C4322SQ-CLR: 3000K, 80 CRI, NARROW BEAM, CLEAR REFLECTOR

LM-63 Test No. G21072004; LM-79 Test No. S21071503

Fixture Delivered Lumens: 4207.7
Total Watts@120V: 44.7
Lumens Per Watt: 94.1
Center Beam Candle Power: 11502
Beam Distribution: 33.7°
Spacing Criterion: 0.55
Color Rendering Index (CRI)¹: 83.3
Color Temperature (CCT)²: 3053K
Designed for 50,000 Hour Lamp Life³

Intensity Distribution		
DISTANCE (FT.)	FOOTCANDLES (FC)	BEAM DIA. (FT.)
6 FT	319.5	3.6
8 FT	179.7	4.8
10 FT	115.0	6.0
12 FT	79.9	7.2
14 FT	58.7	8.4
16 FT	44.9	9.7

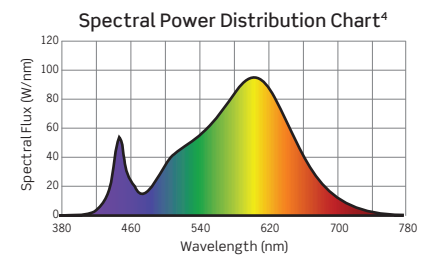
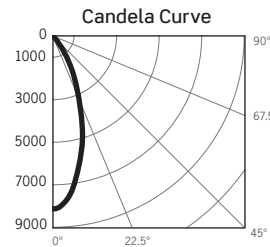


R4SQNC630K12DM / C4322SQ-CLR: 3000K, 80 CRI, MEDIUM BEAM, CLEAR REFLECTOR

LM-63 Test No. G21071405; LM-79 Test No. S21071503

Fixture Delivered Lumens: 4454.1
Total Watts@120V: 44.7
Lumens Per Watt: 99.6
Center Beam Candle Power: 8124
Beam Distribution: 38.0°
Spacing Criterion: 0.61
Color Rendering Index (CRI)¹: 83.3
Color Temperature (CCT)²: 3053K
Designed for 50,000 Hour Lamp Life³

Intensity Distribution		
DISTANCE (FT.)	FOOTCANDLES (FC)	BEAM DIA. (FT.)
6 FT	225.7	4.2
8 FT	126.9	5.6
10 FT	81.2	7.0
12 FT	56.4	8.4
14 FT	41.4	9.9
16 FT	31.7	11.3

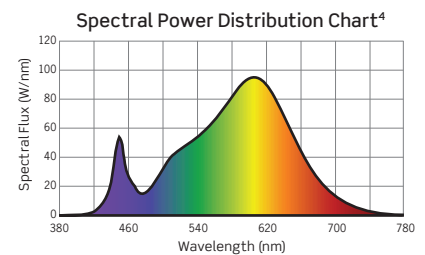
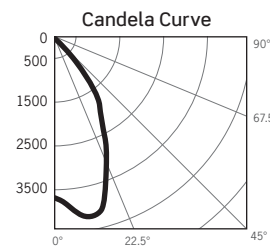


R4SQNC630K12DW / C4322SQ-CLR: 3000K, 80 CRI, WIDE BEAM, CLEAR REFLECTOR

LM-63 Test No. G21071403; LM-79 Test No. S21071503

Fixture Delivered Lumens: 4295.6
Total Watts@120V: 44.7
Lumens Per Watt: 96.1
Center Beam Candle Power: 3684
Beam Distribution: 61.7°
Spacing Criterion: 1.0
Color Rendering Index (CRI)¹: 83.3
Color Temperature (CCT)²: 3053K
Designed for 50,000 Hour Lamp Life³

Intensity Distribution		
DISTANCE (FT.)	FOOTCANDLES (FC)	BEAM DIA. (FT.)
6 FT	102.3	7.2
8 FT	57.6	9.6
10 FT	36.8	11.9
12 FT	25.6	14.3
14 FT	18.8	16.7
16 FT	14.4	19.1



1. Accuracy of Rendering Colors 2. Color Appearance of Light Source 3. Dependent on Surrounding Temperatures 4. Colors Present within the Light Source

PHOTOMETRIC MULTIPLICATION FACTORS

Lumen output values fluctuate based on Color Temperature, Luminaire Wattage/Output and Trim Selection. To estimate lumen output of the various CCT/CRI options, multiply 3000K (80 CRI min) results by the following:

CCT MULTIPLIERS		
CCT	STD. CRI	HIGH CRI
2700K	0.94	0.70
3000K	1.00	0.75
3500K	1.02	0.81
4000K	1.04	0.87

OUTPUT MULTIPLIERS				
12W/SERIES 1	16W/SERIES 2	21W/SERIES 3	30W/SERIES 4	38W/SERIES 5
0.27	0.37	0.52	0.71	0.88

TRIM MULTIPLIERS	
C4322SQDC-SL	C4322SQDF-SL
0.93	0.94

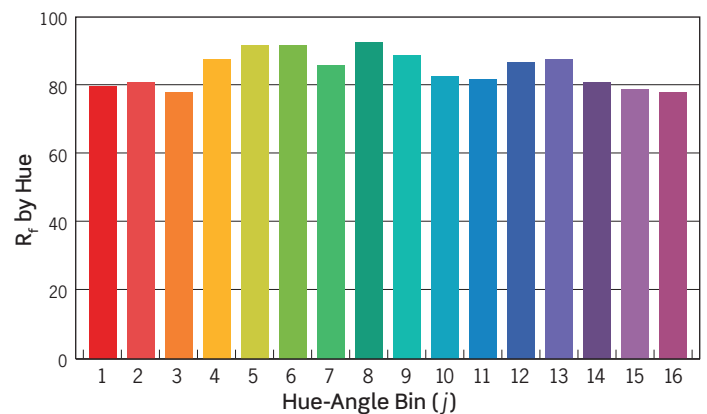
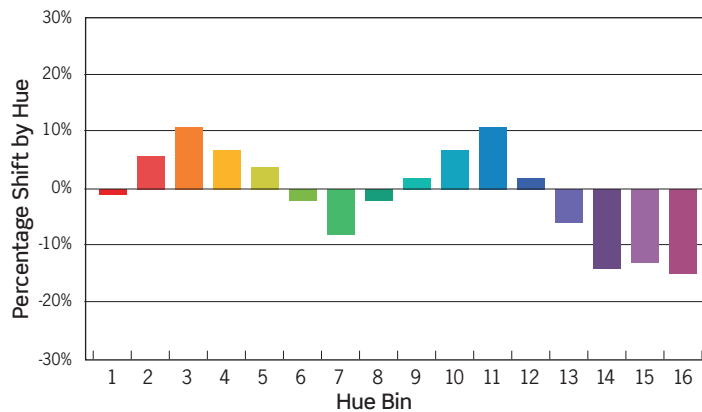
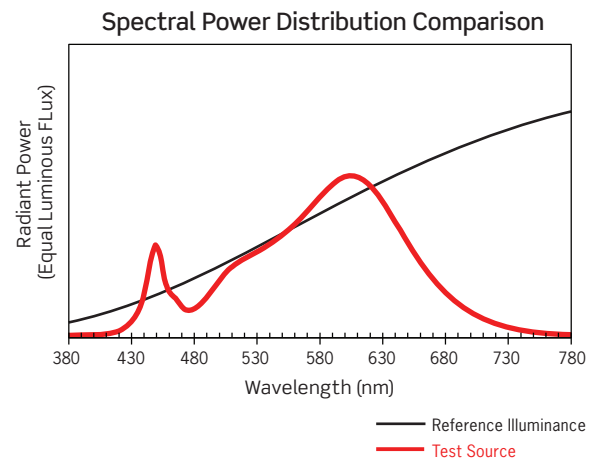
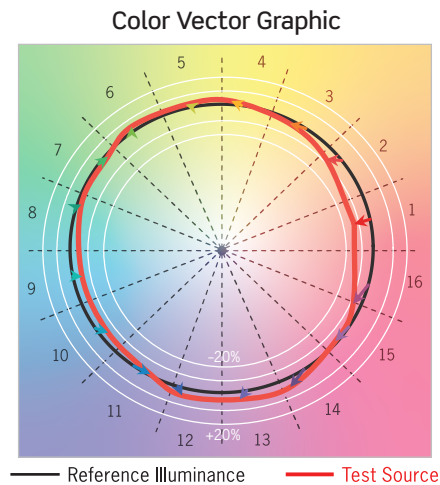
R4SQ SERIES | 4-Inch Square Downlight Photometrics

TM-30 DATA: R4SQNC630K12DM / C4322SQ-CLR

ANSI/IES TM-30-18 Color Rendition Report Test No. S21071503

Colors are for visual orientation purposes only

R_f	86
R_g	97
CCT(K)	3053K
D_{uv}	0.0014
u^l	0.2482
v^l	0.5223



HUE BIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
HUE SHIFT	-1%	6%	11%	7%	4%	-2%	-8%	-2%	2%	7%	12%	4%	-6%	-14%	-13%	-15%
R _f VALUE	81	82	79	88	93	93	87	94	90	84	83	86	89	82	80	79

R4SQ SERIES | 4-Inch Square Downlights: Dimming Specifications

Manufacturer	Product	Model	PHASE/0-10V DIMMING (D, D2, or MVD Option*)	eldoLED ECOdrive 0-10V (D6, D8, MVD6, or MVD8 Option)	eldoLED SOLOdrive 0-10V (D7, D9, MVD7, or MVD9 Option)
			Light Output	Light Output	Light Output
Leviton	IllumaTech	IPI06-1LZ	1%-100%	N/A	N/A
Leviton	SureSlide	6631-2	1%-100%	N/A	N/A
Leviton	Vizia	VPE06	9%-100%	N/A	N/A
Leviton	Trimatron	6683-IW	6%-100%	N/A	N/A
Leviton	Decora	6161	15%-100%	N/A	N/A
Leviton	SureSlide	6633-P	1%-100%	N/A	N/A
Leviton	IllumaTech	IPE04	6%-100%	N/A	N/A
Leviton	IllumaTech	IP710-DLX	N/A	1%-100%	0.1%-100%
Cooper	Devine	DLC03P	1%-100%	N/A	N/A
Cooper	Skye	SLC03P	0%-100%	N/A	N/A
Cooper	Decorator	DAL06P	0%-100%	N/A	N/A
Pass & Seymour	Titan	CD4FB-W	N/A	1%-100%	0.1%-100%
Synergy		ISD BC	N/A	1%-100%	0.1%-100%
Watt Stopper	Miro Decorator	DCLV1	N/A	1%-100%	0.1%-100%
Lutron	Ariadni	TGCL-153P	1%-100%	N/A	N/A
Lutron	Ariadni	TG-600P	13%-100%	N/A	N/A
Lutron	Diva	DVCL-153P	1%-100%	N/A	N/A
Lutron	Diva	DV600P	6%-100%	N/A	N/A
Lutron	Diva	DVELV303P	6%-100%	N/A	N/A
Lutron	Diva	DVTV	N/A	1%-100%	0.1%-100%
Lutron	Faedra	FAELV500	12%-100%	N/A	N/A
Lutron	Lumea	LG600P	8%-100%	N/A	N/A
Lutron	Maestro	MAELV600	16%-100%	N/A	N/A
Lutron	Nova	NFTV	N/A	1%-100%	0.1%-100%
Lutron	Nova T	NTFTV	N/A	1%-100%	0.1%-100%
Lutron	Skylark	S-603PG	5%-96%	N/A	N/A
Lutron	Skylark	S600P	5%-100%	N/A	N/A
Lutron	Skylark	SELV300P	10%-100%	N/A	N/A
Lutron	Skylark	CT103P	9%-100%	N/A	N/A

*277V Phase Dimming is not available

PHASE DIMMING

- Incandescent 120V AC Dimmers adjust the light with *Forward Phase Control*, where the Dimmer “chops” the forward part of the AC Wave to deliver less or more power to the light source. No Neutral Wire Connection required.
- Electronic Low Voltage 120V AC Dimmers adjust the light with *Reverse Phase Control*, where the Dimmer “chops” the back part of the AC Wave to deliver less or more power to the light source. Neutral Wire Connection required.

0-10V DIMMING

- 0–10V DC Low Voltage Dimmers operate using two (2) Low Voltage Dimming Wires that are separate from the 120V or 277V AC Power. The Dimmer sends a Variable Output Voltage to the luminaire based upon the dimming level. 10V Corresponds to undimmed operation, 5V to 50% and so on. Switching On/Off is controlled with the Line Voltage Power Input to the Dimmer (120V or 277V AC). Dimming operation is controlled with the 0–10V DC Low Voltage Wiring Connection between the Dimmer and the LED Driver. The Control Signal runs on two (2) low voltage control wires color coded Violet and Pink/Gray.

EcoSystem/ECOdrive DIMMING

- Lutron EcoSystem Drivers provide continuous dimming from 1%–100%. For a complete list of compatible Dimmers and Controls, visit www.lutron.com
- Use DALI approved Controls for dimming eldoLED ECOdrive, 1% Dimming (Dimming Option D7 or MVD7) and eldoLED SOLOdrive, 0.1% Dimming (Dimming Option D9 or MVD9).

NOTES

- Testing was performed with a single luminaire connected to Dimmer.
- Testing has been performed on these Dimmers, but this does not imply any warranty of compatibility.
- Dimming performance can be influenced by different Loads, as well as variations in Dimmer Switches within the same Model.
- Dimmer Maximum Load Rating with LED may differ from published Traditional Source Dimmer Ratings. Consult manufacturer for maximum Dimmer information.
- Consult factory for additional dimming information.