R4SQ SERIES | 4-Inch Square Downlights: R4SQSA StopAire™ Housing

Side View

Top View

8-1/16"

1/2"

5-1/4" SQ

9-3/8"

13"   1-3/4"

Ceiling Opening: 5-1/2"
Ceiling Thickness: 1/2" – 2"

	R4SQSA1	R4SQSA2	R4SQSA3	R4SQSA4	R4SQSA5	R4SQSA6
WATTAGE	12W	15W	21W	30W	38W	45W
LUMEN OUTPUT[1]	1100Lm	1600Lm	2200Lm	3000Lm	3700Lm	4100Lm
BEAM SPREAD	33º Narrow / 38º Medium / 62º Wide / Wall Wash					
COLOR TEMPERATURE	2700K / 3000K / 3500K / 4000K					
CRI	83 (80min) / 90+					
INPUT WATTAGE	12W	15W	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						
Standard Driver	120VAC / 2 77VAC / 347VAC, 50/60Hz					
Lutron HiLume® Driver	120VAC, 50/60Hz				N/A	N/A
Lutron Eco-System® Driver	120VAC / 277VAC , 50/60Hz				N/A	N/A
eldoLED ECOdrive / SOLOdrive	120VAC / 277VAC , 50/60Hz					N/A
DRIVER POWER FACTOR	> 0.90					
TOTAL HARMONIC DISTORTION (THD)	< 20%					
LISTINGS	cCSAus Certified to UL Standards; Suitable for Wet Locations except Wall Wash option ENERGY STAR® Certified: – Series 1 through 6, except High CRI 2700K Color Temperature (27KC Option) – Certified trims: C4322SQ (all finishes) – 347V Option, Lutron and eldoLED Dimming Options are not ENERGY STAR® Certified Chicago Plenum CCEA Listed					
WARRANTY	Five (5) year replacement after date of purchase					
SYSTEM RATING	50,000 Hours @ 70% Lumen Maintenance					

1. Lumen values are approximate, see photometric test results

R4SQ SERIES | 4-Inch Square Downlights: R4SQSA StopAire™ Housing

ORDERING INFORMATION

Example Order: R4SQSA430K12DW

Housing/LED Series	Color Temp/CRI	Electrical	Dimming	Beam Dist.
R4SQSA1 - 12W/1100lm	*83 (80min) CRI*	**12** - 120V	**D**[1] - Triac, ELV, 0-10V	**N** - 33° Narrow
R4SQSA2 - 15W/1600lm	**27K** - 2700K	**27** - 277V	**D2**[2] - 347V 0-10V	**M** - 38° Medium
R4SQSA3 - 21W/2200lm	**30K** - 3000K	**34** - 347V	**D3**[3] - Lutron Hi-lume 1% 2-Wire LED Driver	**W** - 62° Wide
R4SQSA4 - 30W/3000lm	**35K** - 3500K		(120V Forward Phase Only)	**WW** - Wall Wash
R4SQSA5 - 38W/3700lm	**40K** - 4000K		**D4**[3] - Lutron Hi-lume 1% EcoSystem	
R4SQSA6 - 45W/4100lm	*90+ CRI*		Driver with Soft-on, Fade-to-Black	
	27KC - 2700K		**D6**[4,5] - eldoLED ECOdrive, 0-10V, 1% Dimming	
	30KC - 3000K		**D7**[4,5] - eldoLED ECOdrive, DALI, 1% Dimming	
	35KC - 3500K		**D8**[4,5] - eldoLED SOLOdrive, 0-10V, 0.1% Dimming	
	40KC - 4000K		**D9**[4,5] - eldoLED SOLOdrive, DALI, 0.1% Dimming	

1. Triac and ELV Dimming for 120V only
2. Only available for 347V Electrical option (34)
3. Lutron Hi-Lume 2-Wire Dimming available in 120V only, 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. R4SQSA6 (LED Series 6) is not available with eldoLED Dimming options
5. eldoLED Drivers are programmed for linear curve dimming as standard. For Logarithmic Curve Dimming, consult factory

Accessories
Standard Hanger Bars Supplied with Housing
HB-30 - T-Bar Hanger Set

Replacement Optics
4SQOPT-N - 33° Beam Replacement Optic
4SQOPT-M - 38° Beam Replacement Optic
4SQOPT-W - 62° Beam Replacement Optic

See "Trims for 4-Inch Square Downlights" Specification Sheet for compatible Trim information and details

R4SQ SERIES | 4-Inch Square Downlights: R4SQSA StopAire™ Housing

PRODUCT DETAILS

Construction

- Specification Grade 4–inch Square 16 Gauge Galvanized Steel StopAire Housing with Die-Cast Aluminum Heat Sink
- 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
- LED 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 six (6) 1/2–inch Knockouts and one (1) 1/2–inch x 3/4– inch Concentric Knockout
- Output over-voltage, over-current and short circuit protection
- Approved for Through Circuit Wiring: max. six (6) 12 AWG (3in/3out), wiring rated to 90ºC
- Requires minimum 3–inch clearance around Housing from insulation material; thermal protection provided in case of improper insulation use

Performance Summary

- Glass TIR Optics provide smooth, uniform beams; maximizing output and minimizing glare. Available in 33° Narrow, 38° Medium, 62° Wide and Wall Wash distributions
- 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
- All 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 housing and trim in 1/2- to 5/8–inch ceiling thicknesses only
- Trimless options cannot be used on Remodel Style Housings (R4SQRM)
- UL8750 and Class 2 Compliant; RoHS Compliant, US only
- Assembled in the USA

CATALOG NO.

DATE	PROJECT	TYPE

R4SQ SERIES | 4-Inch Square Downlights: Trims

TRIMMED OPTIONS

C4322SQ-PL
Platinum Reflector

C4322SQ Series
Specification Grade Square Reflector
4-1/2–Inch SQ Aperture, 5-3/4–Inch SQ Trim Flange
Specification Grade Segmented Reflectors. Wet Location approved.

	Quantity
C4322SQ-CLR* - Anodized Clear Specular Reflector	
C4322SQ-PL* - Anodized Platinum Reflector	
C4322SQ-WHT - Matte White Painted Reflector	

*Available with White Panted Flange, add "–WPF" to end of part number*

C4322SQDC-SL
Satin Silver Painted Reflector

C4322SQDC Series
Die-Cast Specification Grade Square Reflector

C4322SQDF Series
ISOWET Dead Front Square Reflector
4-1/2–Inch SQ Aperture, 5-3/4–Inch SQ Trim Flange
Specification Grade Die-Cast or Isolated Thermoplastic Reflectors. Wet Location approved.

	Quantity
C4322SQDC-SL* - Satin Silver Painted Die-Cast Reflector	
C4322SQDC-WHT - Matte White Painted Die-Cast Reflector	
C4322SQDF-SL* - Satin Silver Painted ISOWET Dead Front Reflector	
C4322SQDF-WHT - Matte White Painted ISOWET Dead Front Reflector	

Available with White Panted Flange, add "–WPF" to end of part number
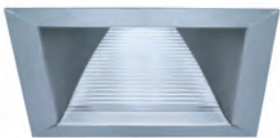
C4323SQ-PL
Anodized Platinum Wall Wash

C4323SQ Series
Lensed Wall Wash Trim
4-1/2–Inch SQ Aperture, 5-3/4–Inch SQ Trim Flange
Angled Diffuse Glass Spread Lens. Wet Location approved.

	Quantity
C4323SQ-CLR* - Anodized Clear Wall Wash	
C4323SQ-PL* - Anodized Platinum Wall Wash	
C4323SQ-WHT - Matte White Painted Wall Wash	

Available with White Panted Flange, add "–WPF" to end of part number

C4323SQDC-SL
Satin Silver Painted Wall Wash

C4323SQDC Series
Die-Cast Lensed Wall Wash Trim
4-1/2–Inch SQ Aperture, 5-3/4–Inch SQ Trim Flange
Lensed Wall Wash Trim. Wet Location approved.

	Quantity
C4323SQDC-SL* - Satin Silver Painted	
C4323SQDC-WHT - Matte White Painted	

Available with White Panted Flange, add "–WPF" to end of part number

R4SQ SERIES | 4-Inch Square Downlights: Trims

TRIMLESS OPTIONS

**Trimless Options require use of Mud Frame accessory (MF4SQ, ordered separately)**

CN4322SQDC-SL
Painted Satin Silver Trimless Reflector

CN4322SQDC Series
Specification Grade Die-Cast Square Trimless Reflector
4-3/4–Inch SQ Aperture, 5-3/16–Inch SQ Trim Flange

Specification Grade Specular Reflector. **Trim cannot be used on Remodel Housings (R4SQRM). For use with 1/2- to 5/8-inch ceiling thicknesses only.** Wet Location approved.
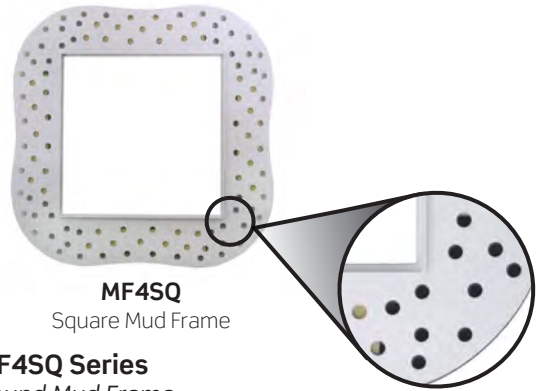
MF4SQ
Square Mud Frame

MF4SQ Series
Round Mud Frame
8-1/2-Inch SQ

Required for use with trimless options. Adhesive backed Thermoplastic Mesh Frame, White.

		Quantity
CN4322SQDC-SL	- Satin Silver Painted Square Trimless Reflector	
CN4322SQDC-WHT	- Matte White Painted Square Trimless Reflector	

|	Quantity
MF4SQ - 4-Inch Square Mud Frame	

R4SQ SERIES | 4-Inch Square Downlights

PHOTOMETRICS

R4SQNC630K12DN / C4322SQ-CLR

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 Life[3]
LM-63 Test No. G21072004
LM-79 Test No. S21071503

Intensity Distribution

DISTANCE (FT.)	FOOTCANDLES (FC)	BEAM DIAMETER (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

Candela Curve

Spectral Power Distribution Chart[4]
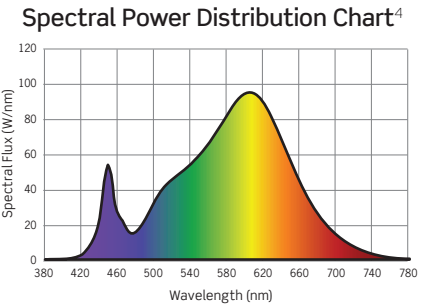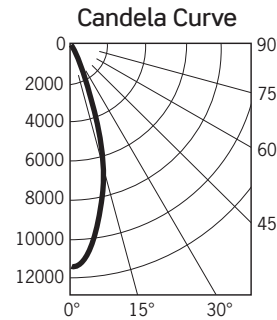
R4SQNC630K12DM / C4322SQ-CLR

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 Life[3]
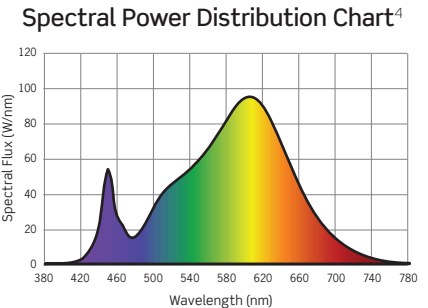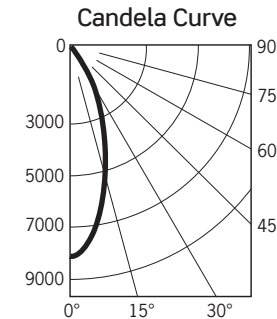LM-63 Test No. G21071405
LM-79 Test No. S21071503

Intensity Distribution

DISTANCE (FT.)	FOOTCANDLES (FC)	BEAM DIAMETER (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

Candela Curve

Spectral Power Distribution Chart[4]

R4SQNC630K12DW / C4322SQ-CLR

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 Life[3]
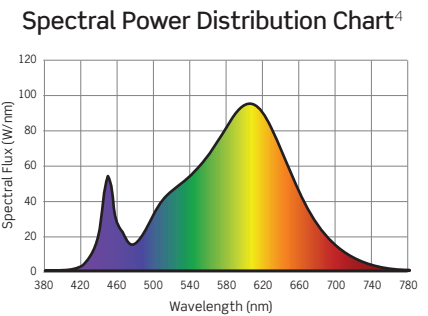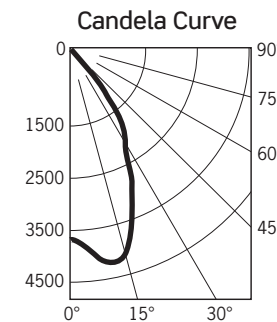LM-63 Test No. G21071403
LM-79 Test No. S21071503

Intensity Distribution

DISTANCE (FT.)	FOOTCANDLES (FC)	BEAM DIAMETER (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

Candela Curve

Spectral Power Distribution Chart[4]

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 these various options, multiply 3000K results by the following:

CCT MULTIPLIERS			OUTPUT MULTIPLIERS					TRIM MULTIPLIERS	
CCT	STD CRI	HIGH CRI	SERIES 1	SERIES 2	SERIES 3	SERIES 4	SERIES 5	C4322SQDC-SL	C4322SQDF-SL
2700K	0.94	0.70	0.27	0.37	0.52	0.71	0.88	0.93	0.94
3000K	N/A	0.75							
3500K	1.0	0.81							
4000K	1.0	0.87							

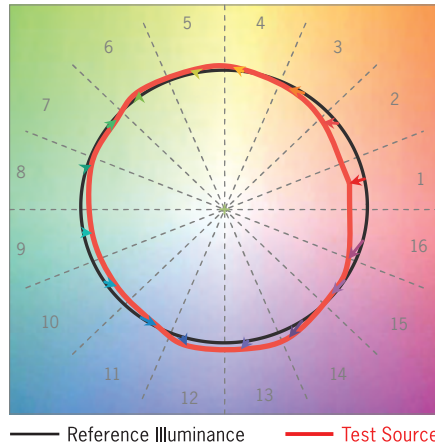| DATE	PROJECT		TYPE

R4SQ SERIES | 4-Inch Square Downlights

TM-30 DATA: R4SQNC630K12DM / C4322SQ-CLR

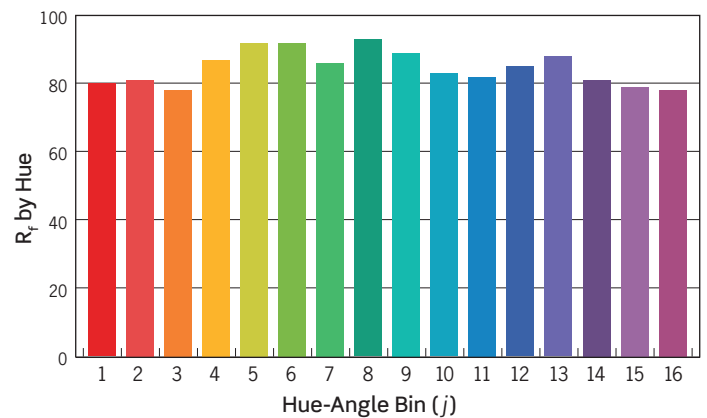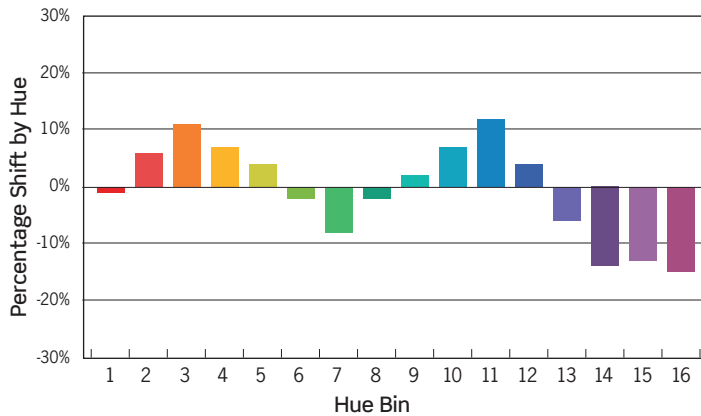ANSI/IES TM-30-18 Color Rendition Report Test No. S21071503

Colors are for visual orientation purposes only

R$_f$	86
R$_g$	97
CCT(K)	3053K
D$_{uv}$	0.0014
u^I	0.2482
v^I	0.5223

Color Vector Graphic

Reference Illuminance — Test Source

Spectral Power Distribution Comparison

Reference Illuminance
Test Source

Percentage Shift by Hue / Hue Bin

R$_f$ by Hue / Hue-Angle Bin (j)
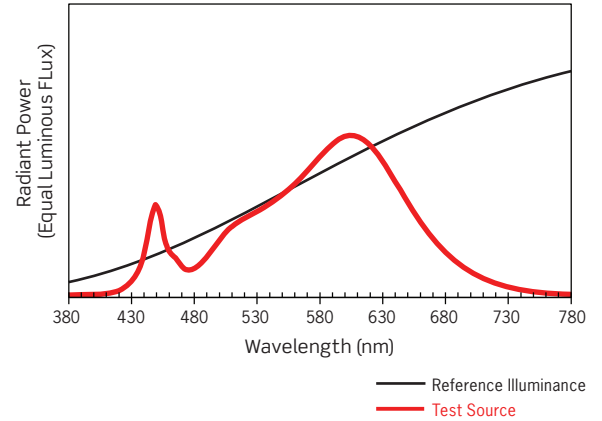
HUE BIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
HUE SHIFT	−1%	6%	11%	7%	4%	−2%	−8%	−2%	2%	7%	12%	4%	−6%	−14%	−13%	−15%
R$_f$ VALUE	81	82	79	88	93	93	87	94	90	84	83	86	89	82	80	79

R4SQ SERIES | 4-Inch Square Downlights: Dimming Specifications

- 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 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/Grey.
- Lutron HiLume and 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).

Manufacturer	Product	Model	TRIAC, ELV, 0-10V DIMMING (12D, 27D or MVD Option*)	eldoLED ECOdrive 0-10V (12D6, 27D6 or MVD6 Option)	eldoLED SOLOdrive 0-10V (12D8, 27D8 or MVD8 Option)
			Light Output	Light Output	Light Output
Leviton	IllumaTech	IPI06-1LZ	1%-100%	NA	NA
Leviton	SureSlide	6631-2	1%-100%	NA	NA
Leviton	Vizia	VPE06	9%-100%	NA	NA
Leviton	Trimatron	6683-IW	6%-100%	NA	NA
Leviton	Decora	6161	15%-100%	NA	NA
Leviton	SureSlide	6633-P	1%-100%	NA	NA
Leviton	IllumaTech	IPE04	6%-100%	NA	NA
Leviton	IllumaTech	IP710-DLX	NA	1%-100%	0.1%-100%
Cooper	Devine	DLC03P	1%-100%	NA	NA
Cooper	Skye	SLC03P	0%-100%	NA	NA
Cooper	Decorator	DAL06P	0%-100%	NA	NA
Pass & Seymour	Titan	CD4FB-W	NA	1%-100%	0.1%-100%
Synergy		ISD BC	NA	1%-100%	0.1%-100%
Watt Stopper	Miro Decorator	DCLV1	NA	1%-100%	0.1%-100%
Lutron	Ariadni	TGCL-153P	1%-100%	NA	NA
Lutron	Ariadni	TG-600P	13%-100%	NA	NA
Lutron	Diva	DVCL-153P	1%-100%	NA	NA
Lutron	Diva	DV600P	6%-100%	NA	NA
Lutron	Diva	DVELV303P	6%-100%	NA	NA
Lutron	Diva	DVTV	NA	1%-100%	0.1%-100%
Lutron	Faedra	FAELV500	12%-100%	NA	NA
Lutron	Lumea	LG600P	8%-100%	NA	NA
Lutron	Maestro	MAELV600	16%-100%	NA	NA
Lutron	Nova	NFTV	NA	1%-100%	0.1%-100%
Lutron	Nova T	NTFTV	NA	1%-100%	0.1%-100%
Lutron	Skylark	S-603PG	5%-96%	NA	NA
Lutron	Skylark	S600P	5%-100%	NA	NA
Lutron	Skylark	SELV300P	10%-100%	NA	NA
Lutron	Skylark	CT103P	9%-100%	NA	NA

277V Triac Dimming is not available

NOTES

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