

DATE

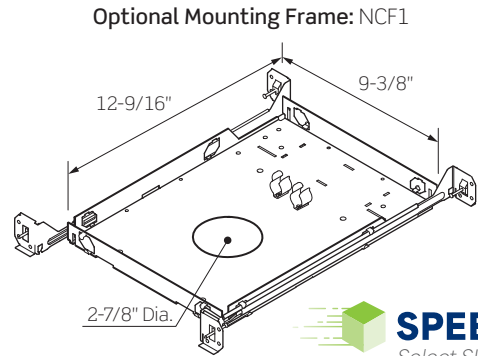
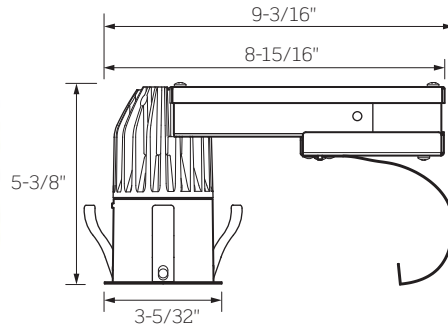
PROJECT

TYPE

R2RM | 2-Inch Static White LED Downlight: New Construction/Remodel Housing



Ceiling Opening: 2-7/8"
Ceiling Thickness: 1/2" - 1"



| | R2RM05 | R2RM1 | R2RM2 |
|---------------------------------|---|-----------|-----------|
| WATTAGE | 8W | 10W | 14W |
| LUMEN OUTPUT ¹ | 800Lm | 1000Lm | 1400Lm |
| COLOR TEMPERATURE | 2700K / 3000K / 3500K / 4000K | | |
| CRI | 83 (80min) / 90+ | | |
| BEAM SPREAD | 12° Spot / 27° Medium / 40° Flood / 65° Wide Flood / Wall Wash | | |
| INPUT WATTAGE | 8W | 10W | 14W |
| INPUT CURRENT (A) 120V / 277V | .07 / .03 | .08 / .04 | .12 / .05 |
| INPUT VOLTAGE | 90-305V AC, 50/60Hz | | |
| Triac, ELV, 0-10V Dimming | 90-305V AC, 50/60Hz | | |
| Lutron EcoSystem® Dimming | 120-277V AC, 50/60Hz | | |
| DRIVER POWER FACTOR | > 0.90 | | |
| TOTAL HARMONIC DISTORTION (THD) | < 20% | | |
| LISTINGS | <p>cCSAus Certified using U.S. (UL) and Canadian (CSA) Standards</p> <p>Spot, Medium, Flood and Wide Flood Housings are suitable for Wet Locations with and Trim; Wall Wash (WW) Housing is only suitable for Wet Locations using the CTR2323L Trim Series</p> <p>R2RM05, R2RM1 and R2RM2 Housings with Spot, Medium or Flood Beam Distributions are ENERGY STAR® Certified using the CST2322L and CST2322LSQ Series Trims</p> <p>Wide Flood and Wall Wash Beam Distributions and the Lutron Driver Option are not ENERGY STAR® Certified</p> <p>Conforms to Washington State Energy Code for Low Air Infiltration; tested in accordance with ASTM E283</p> <p>Chicago Plenum Housings are City of Chicago Environmental Air (CCEA) Approved</p> <p>R2RM130KCMVDF-CP Housing with the CST2322L-CLR trim can be used to comply with 2016 Title 24 JA8 Part 6 High Efficacy LED Light Source Requirements</p> | | |
| WARRANTY | Five (5) year replacement 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

| DATE | PROJECT | TYPE |
|------|---------|------|
|------|---------|------|

R2RM | 2-Inch Static White LED Downlight: New Construction/Remodel Housing

ORDERING INFORMATION

Example Order: -

| Housing/LED Series | Color Temp/CRI | Electrical/Dimming | Beam Distribution | Options |
|---|--|---|---|----------------------------|
| R2RM05 - 8W, 800Lm IC/StopAire™ Rated | 83 (80min) CRI 27K - 2700K | MVD² - 120/277V Triac/ELV/0-10V Dimming | S - 12° Spot M - 27° Medium F - 40° Flood | CP - Chicago Plenum |
| R2RM1 - 10W, 1100Lm IC/Stopaire™ Rated | 30K - 3000K 35K - 3500K 40K - 4000K | MVD4 - Lutron Hi-lume 1% EcoSystem LED Driver with Soft-on Fade-to-Black | WF - 65° Wide Flood WW - Wall Wash For use with CTR2323L trims | |
| R2RM2¹ - 14W, 1400Lm Non-IC/StopAire™ Rated | 90 CRI 27KC - 2700K 30KC - 3000K 35KC - 3500K 40KC - 4000K | | | |

 : These Model Options are eligible for **SpeedShip**

1. Series 2 is not available for use in Insulated Ceilings (IC)
2. 120V TRIAC and ELV dimming only

Replacement Optics

- 2INOPTIC-S-RA2** - Spot Beam Replacement Optic
- 2INOPTIC-M** - Medium Beam Replacement Optic
- 2INOPTIC-F** - Flood Beam Replacement Optic
- 2INOPTIC-WF** - Wide Flood Beam Replacement Optic

Accessories

Standard Hanger Bars Supplied with Housing

- HB-24** - 27" Flat Hanger Bars for RL-KIT
- HBC-24** - 25" C-Channel Hanger Bars for RL-KIT
in Grid Ceiling Construction
- NCF1** - New Construction Mounting Frame
- RL-KIT** - Commercial Mounting Brackets, used with NCF1
- HB-30** - T-Bar Hanger Set, used with NCF1

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|------|---------|------|
|------|---------|------|

R2RM | 2-Inch Static White LED Downlight: New Construction/Remodel Housing

ROUND TRIM PLATE OPTIONS

NOTE: R2A and R2RM Series Trims are NOT compatible with each other



CST2322L-CLR



CST2322L Series
Specification Grade Reflector
2-1/2-Inch ID, 3-1/2-Inch OD

Wet Location Certified without the need for lensing. Accepts one (1) FA-16 60MM 2-3/8-inch Dia. Black Honeycomb Louver or one (1) LF16 60MM 2-3/8-inch Dia. Tempered Glass Lens.



CTR2323-BLK



CTR2323L Series
Wall Wash Reflector
2-5/16-Inch ID, 3-1/2-Inch OD

Angled TIR optic enables precise light control. Cannot be used with lenses or louvers.

CST2322L - Specification Grade Reflector

- BLK** - Matte Black
- CLR¹** - Clear
- PL¹** - Platinum
- PLWHE** - Platinum Wheat
- WHT** - Matte White

1. Available with White Painted Flange: add -WPF to part number

CTR2323L - Wall Wash Reflector

- | | |
|----------------------------------|------------|
| BLK - Matte Black | QTY |
| CLR¹ - Clear | |
| PL¹ - Platinum | |
| WHT - Matte White | |

1. Available with White Painted Flange: add -WPF to part number



CST2322LDF-SL



CST2322LDF Series
ISOWET Dead Front Reflector
2-1/2-Inch ID, 3-1/2-Inch OD

Isolated, Wet Location Approved Thermoplastic Reflector with Clear Glass Lens that is deeply regressed inside the top of Reflector. Cannot be used with additional Lens or Louver.

CST2322LDF - Dead Front Reflector

- SL¹** - Satin Silver Painted
- WHT** - Matte White Painted

1. Available with White Painted Flange: add -WPF to part number

ACCESSORY ORDERING INFORMATION

Accessories

- FA-16 60MM** - 2-3/8 In. Diameter Honeycomb Louver
- LF16-X² 60MM** - 2-3/8 In. Diameter Lenses

2. Lens Color/Pattern Legend

- 73** (Spread Lens), **-LS** (Linear Spread Lens), **-SL** (Soft Light), **-SOL** (Solite), **-UV** (Optivex UV Filter),
- A** (Amber), **-B** (Blue), **-CL** (Clear), **-DPE** (Dichroic Peach), **-G** (Green), **-LB** (Light Blue), **-R** (Red),
- RO** (Rose), **-Y** (Yellow)

Quantity

: These Model Options are eligible for **SpeedShip**

DATE

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R2RM | 2-Inch Static White LED Downlight: New Construction/Remodel Housing

SQUARE TRIM PLATE OPTIONS

NOTE: R2A and R2RM Series Trims are NOT compatible with each other



CST2322LSQ-CLR-B



CST2322LSQ Series
Specification Grade Angle Cut
Reflector with Square Trim Plate
2-1/2-Inch ID, 3-1/2-Inch SQ

Wet Location Certified without the need for
lensing. Accepts one (1) FA-16 60MM
2-3/8-inch Dia. Black Honeycomb Louver or
one (1) LF16 60MM 2-3/8-inch Dia. Tempered
Glass Lens.

Trim Base

CST2322LSQ - Specification Grade
Reflector with
Square Trim Plate

Reflector

BLK - Matte Black
CLR - Clear
PL - Platinum
WHT - Matte White

Trim Plate

B - Black
P - White

QTY



CTR2323LSQ-WHT-P



CTR2323LSQ Series
Wall Wash Trim
with Square Trim Plate
2-5/16-Inch ID, 3-1/2-Inch SQ

Angled TIR optic enables precise light control.
Cannot be used with lenses or louvers.
Suitable for wet locations.

Trim Base

CTR2323LSQ - Wall Wash Trim with
Square Trim Plate

Reflector

BLK - Matte Black
CLR - Clear
PL - Platinum
WHT - Matte White

Trim Plate

B - Black
P - White

QTY

ACCESSORY ORDERING INFORMATION

Accessories

FA-16 60MM - 2-3/8 In. Diameter Honeycomb Louver
LF16-X² 60MM - 2-3/8 In. Diameter Lenses

2. Lens Color/Pattern Legend

-73 (Spread Lens), **-LS** (Linear Spread Lens), **-SL** (Soft Light), **-SOL** (Solite), **-UV** (Optivex UV Filter),
-A (Amber), **-B** (Blue), **-CL** (Clear), **-DPE** (Dichroic Peach), **-G** (Green), **-LB** (Light Blue), **-R** (Red),
-RO (Rose), **-Y** (Yellow)

Quantity

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PROJECT

TYPE

R2RM | 2-Inch Static White LED Downlight: New Construction/Remodel Housing

PRODUCT DETAILS

Construction

- LED Series 05 (8W/800lm) and 1 (10W/1100lm) are Insulated Ceiling (IC), Stopaire housings; thermally protected for use in applications with direct contact with insulation materials
- LED Series 2 (14W/1400lm) is a Non-Insulated Ceiling (Non-IC), Stopaire housing, requiring minimum 3" clearance around housing from insulation material. Thermal protection provided in case of improper insulation use.
- Die-cast aluminum collar and heat sink, driver compartment and junction box made from 16-gauge steel. Housing has a black painted finish.
- LED Drivers are fully accessible from below the ceiling
- Three spring steel friction springs provide secure support in ceiling thicknesses from 1/2- to 1-inch.
NOTE: Certain regions require the use of a housing mounting frame in conjunction with the R2RM housing. The NCF1 new construction mounting frame should be specified when required (ordered separately).
- Minimum Plenum Clearance required to install housing is 6-inches
- Pre-wired junction box with a convenient screwdriver pry-out and one (1) 1/2-inch Pryout.
- Duplex Electrical Connector to simplify daisy-chain wiring.
- Output over voltage, over-current and short circuit protection.

Performance Summary

- Light engine consists of a high output multi-chip LED array arranged into a single LED package, enabling precise optical control without requiring lensing to diffuse multiple LED sources
- Precision TIR Optics produce 12°, 27°, 40°, and 65° beam distributions. Optics are interchangeable and can be field replaced.
- Many trim options available to complement any design style. See ordering information for details.
- The Wall Wash housing/trim combination utilizes a unique angled TIR optic mounted to the trim to create a smooth, uniform beam distribution. Wall Wash housing is dedicated for use only with Wall Wash trim. There is no interchangeability with other housings or optics.
- Excellent fixture to fixture color consistency within a 2-step MacAdam Ellipse tolerance
- Driver with Class 2 output, RoHS Compliant
- All R2RM downlights are available for non-dimming and dimming applications. For a list of compatible dimmers, refer to the Dimming Specifications sheet.



The following Modelss are eligible for **SpeedShip**:

Housing: R2RM227KCMVDF

Trims: CST2322L-PL
CST2322L-WHT

Optional Mounting Frame: NCF1

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PHOTOMETRICS

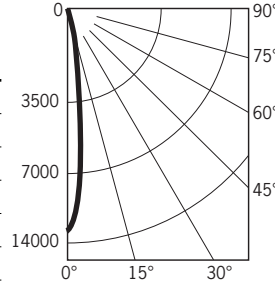
R2RM230KMVDS / CST2322L-CLR

Fixture Delivered Lumens: 1200
 Total Watts@120V: 13.9
 Lumens Per Watt: 86.3
 Center Beam Candle Power: 13157
 Beam Distribution: 14°
 Spacing Criterion: 0.27
 Color Rendering Index (CRI)¹: 84
 Color Temperature (CCT)²: 2939K
 Designed for 50,000 Hour Lamp Life³
 LM-63 Test No. G17030704
 LM-79 Test No. S17030704

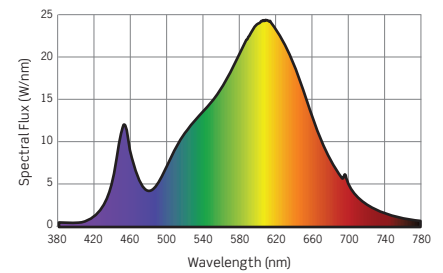
Intensity Distribution

| DISTANCE (FT.) | FOOT CANDLES (FC) | BEAM DIAMETER (FT.) |
|----------------|-------------------|---------------------|
| 6 FT | 365.5 | 1.5 |
| 8 FT | 205.6 | 2.0 |
| 10 FT | 131.6 | 2.5 |
| 12 FT | 91.4 | 3.0 |
| 14 FT | 67.1 | 3.4 |
| 16 FT | 51.4 | 3.9 |

Candela Curve



Spectral Power Distribution Chart⁴



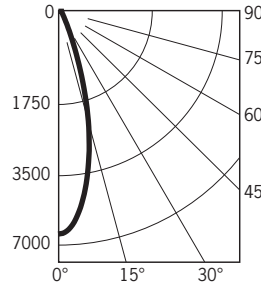
R2RM230KMVDM / CST2322L-CLR

Fixture Delivered Lumens: 1442
 Total Watts@120V: 13.9
 Lumens Per Watt: 103.7
 Center Beam Candle Power: 6569
 Beam Distribution: 27°
 Spacing Criterion: 0.44
 Color Rendering Index (CRI)¹: 84
 Color Temperature (CCT)²: 2934K
 Designed for 50,000 Hour Lamp Life³
 LM-63 Test No. G17030612
 LM-79 Test No. S17030612

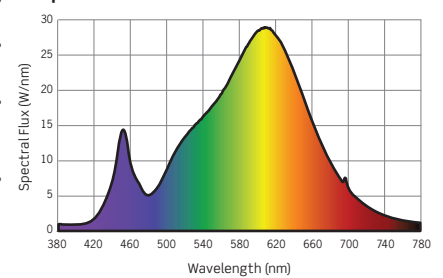
Intensity Distribution

| DISTANCE (FT.) | FOOT CANDLES (FC) | BEAM DIAMETER (FT.) |
|----------------|-------------------|---------------------|
| 6 FT | 182.5 | 2.9 |
| 8 FT | 102.6 | 3.9 |
| 10 FT | 65.7 | 4.8 |
| 12 FT | 45.6 | 5.8 |
| 14 FT | 33.5 | 6.8 |
| 16 FT | 25.7 | 7.7 |

Candela Curve



Spectral Power Distribution Chart⁴



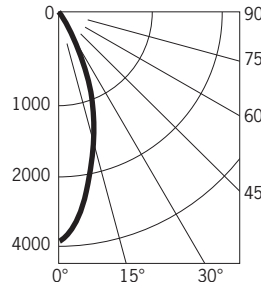
R2RM230KMVDF / CST2322L-CLR

Fixture Delivered Lumens: 1443
 Total Watts@120V: 13.9
 Lumens Per Watt: 103.8
 Center Beam Candle Power: 3974
 Beam Distribution: 36°
 Spacing Criterion: 0.60
 Color Rendering Index (CRI)¹: 84
 Color Temperature (CCT)²: 2941K
 Designed for 50,000 Hour Lamp Life³
 LM-63 Test No. G17030603
 LM-79 Test No. S17030603

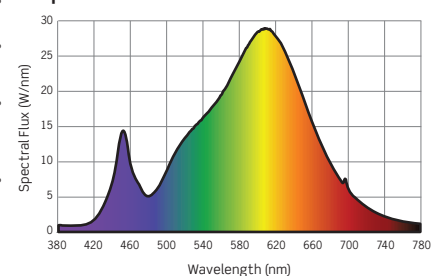
Intensity Distribution

| DISTANCE (FT.) | FOOT CANDLES (FC) | BEAM DIAMETER (FT.) |
|----------------|-------------------|---------------------|
| 6 FT | 110.4 | 3.9 |
| 8 FT | 62.1 | 5.2 |
| 10 FT | 39.7 | 6.5 |
| 12 FT | 27.6 | 7.8 |
| 14 FT | 20.3 | 9.1 |
| 16 FT | 15.5 | 10.4 |

Candela Curve



Spectral Power Distribution Chart⁴



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 Shade Finish. 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 | 8W/SERIES 05 | 10W/SERIES 1 | CST2322L-PL/WHT/PLWHE | CST2322L-BLK |
| 2700K | 0.94 | 0.70 | 0.61 | 0.74 | 1.0 | .94 |
| 3000K | N/A | 0.75 | | | | |
| 3500K | 1.0 | 0.81 | | | | |
| 4000K | 1.0 | 0.87 | | | | |

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R2RM | 2-Inch Static White LED Downlight: New Construction/Remodel Housing

PHOTOMETRICS

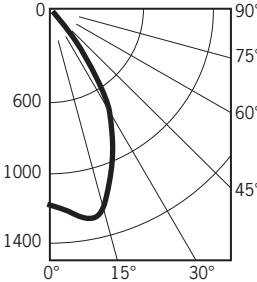
R2RM230KMVDWF / CST2322L-CLR

Fixture Delivered Lumens: 1229.3
 Total Watts@120V: 14.1
 Lumens Per Watt: 87.2
 Center Beam Candle Power: 1179
 Beam Distribution: 65°
 Spacing Criterion: 0.97
 Color Rendering Index (CRI)¹: 84
 Color Temperature (CCT)²: 2941K
 Designed for 50,000 Hour Lamp Life³
 LM-63 Test No. G17071105
 LM-79 Test No. S17030603

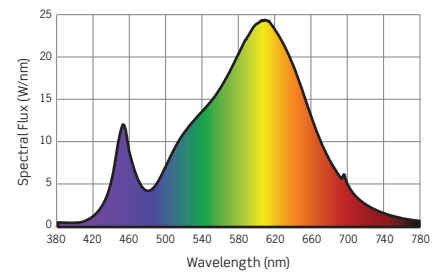
Intensity Distribution

| DISTANCE (FT.) | FOOTCANDLES (FC) | BEAM DIAMETER (FT.) |
|----------------|------------------|---------------------|
| 6 FT | 32.8 | 7.6 |
| 8 FT | 18.4 | 10.1 |
| 10 FT | 11.8 | 12.6 |
| 12 FT | 8.2 | 15.2 |
| 14 FT | 6.0 | 17.7 |
| 16 FT | 4.6 | 20.2 |

Candela Curve



Spectral Power Distribution Chart⁴



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 Shade Finish. To estimate lumen output of these various options, multiply 3000K results by the following:

| CCT | CCT MULTIPLIERS | | OUTPUT MULTIPLIERS | | TRIM MULTIPLIERS | |
|-------|-----------------|----------|--------------------|--------------|-----------------------|--------------|
| | STD CRI | HIGH CRI | 8W/SERIES 05 | 10W/SERIES 1 | CST2322L-PL/WHT/PLWHE | CST2322L-BLK |
| 2700K | 0.94 | 0.70 | 0.61 | 0.74 | 1.0 | .94 |
| 3000K | N/A | 0.75 | | | | |
| 3500K | 1.0 | 0.81 | | | | |
| 4000K | 1.0 | 0.87 | | | | |

DIMMING SPECIFICATIONS | R2RM, R2RMWD, RN2RM, RN2RMWD, R2SQRM, R2SQRMWD, RN2SQRM and RN2SQRMWD Series

- Incandescent 120VAC 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 120VAC 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 low voltage dimming wires that are separate from the 120V or 277V AC power. The dimmer sends a variable output voltage to the fixture 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 (120V or 277V AC) input to the dimmer and then 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 low voltage control wires (color coded violet and gray).

| | | | R2RM*, RN2RM*, R2RMWD*, RN2RMWD* R2SQRM*, RN2SQRM*, R2SQRMWD*, RN2SQRMWD* Dimming Option MVD |
|----------------|----------------|-----------|--|
| Manufacturer | Product | Model | Light Output |
| Leviton | IllumaTech | IPI06-1LZ | 1%-100% |
| Leviton | SureSlide | 6631-2 | 1%-100% |
| Leviton | Renoir | AWSMT7 | 22%-100% |
| Leviton | Vizia | VPE06 | 9%-100% |
| Leviton | Trimatron | 6683-IW | 4%-100% |
| Leviton | Decora | 6161 | 15%-100% |
| Leviton | SureSlide | 6633-P | 0%-100% |
| Leviton | IllumaTech | IPE04 | 6%-100% |
| Leviton | IllumaTech | IP710-DLX | NA |
| Cooper | Devine | DLC03P | 1%-100% |
| Cooper | Skye | SLC03P | 0%-100% |
| Cooper | Decorator | DAL06P | 0%-100% |
| Pass & Seymour | Titan | CD4FB-W | NA |
| Synergy | | ISD BC | NA |
| Watt Stopper | Miro Decorator | DCLV1 | NA |
| Lutron | Ariadni | TGCL-153P | 4%-100% |
| Lutron | Ariadni | TG-600P | 11%-100% |
| Lutron | Diva | DVCL-153P | 0%-100% |
| Lutron | Diva | DV600P | 0%-100% |
| Lutron | Diva | DVELV303P | 6%-100% |
| Lutron | Diva | DVTV | NA |
| Lutron | Diva | DVSTWH | 8%-100% |
| Lutron | Faetra | FAELV500 | 12%-100% |
| Lutron | Lumea | LG600P | 5%-100% |
| Lutron | Maestro | MAELV600 | 11%-100% |
| Lutron | Nova | NFTV | NA |
| Lutron | Nova T | NFTTV | NA |
| Lutron | Skylark | S-603PG | 4%-96% |
| Lutron | Skylark | S600P | 1%-100% |
| Lutron | Skylark | SELV300P | 7%-100% |
| Lutron | Skylark | CT103P | 9%-100% |

*277V Triac and ELV dimming is not available

Notes

1. Testing was performed with a single fixture 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.