

R6NC

6" LED Recessed Downlight: Universal New Construction Housing

Specifications/Features

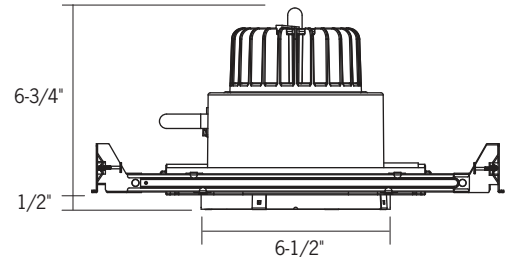
Housing/Mounting

Specification grade 6" housing, 6-1/2" aperture. 6-5/8" Ceiling opening. 16 Gauge galvanized steel housing with die-cast aluminum heat sink. Requires minimum 3" clearance around fixture from insulation material. Thermal protection provided in case of improper insulation use. Dual nailer hanger bars are adjustable for 16" and 24" center joists (14-1/4" to 24-1/2"). Nailer bars enable easy installation; may be extended to rest on T-bar ceilings. Optional clip-on T-bar hangers also available. Quick-connect LED light engine enables easy installation and removal. LED Drivers are fully accessible from below the ceiling, and can be easily removed.



Electrical

UL8750 and Class 2 Compliant, RoHS Compliant. Output over-voltage, over-current and short circuit protection. Approved for through-circuit wiring. Max: (8) 12AWG (4in/4out). Wiring rated to 90°C. Pre-wired junction box with convenient screwdriver pry-outs. (3) 1/2" and (1) 1/2" x 3/4" concentric knockout. Optional emergency battery pack with remote test switch is available.

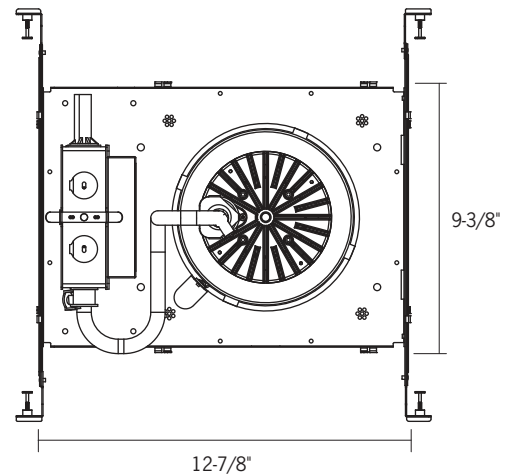


Lamp

Light engine consists of a single, high output multi-chip LED array enabling precise optical control. Excellent fixture-to-fixture color consistency with a 3-step MacAdam Ellipse tolerance. System designed and rated for 50,000 hours at 70% lumen maintenance.

Dimming

All R6 downlights are available for non-dimming and dimming applications. For a list of compatible dimmers, refer to Dimming Specification sheet.



Trims

Specification Grade trims are offered with trimmed and trimless options. Several different styles and finishes are available. Featuring a high quality Alzak™ finish; optically designed for reduced glare while maintaining maximum lumen output. See "6" LED Recessed Trims" spec sheet for information and details.

Warranty

This complete fixture is covered by ConTech's full five (5) year replacement guarantee after date of purchase. Emergency Battery option is covered by a one (1) year replacement guarantee after date of purchase.

Labels/Usage

cCSAus Certified to UL Standards. Suitable for damp locations. cCSAus Certified to UL924 Standard for Emergency Lighting. Assembled in the USA. Energy Star certified:

- Series 1 through 6.
- Certified trims only: C6322-PL, CN6322-PL, C6322-WHT, CN6322-WHT, C6322-CLR and CN6322-CLR (all beam distributions). The -C and -SL options are not Energy Star certified.
- Lutron and eldoLED dimming options are not Energy Star certified.
- 347V option is not Energy Star Certified.

Ceiling Opening: 6-5/8"
Ceiling Thickness: 1/2" – 2"

	Series 1	Series 2	Series 3	Series 4	Series 5	Series 6
Input Wattage (W)	10	14	20	28	37	43
Input Current (A) 120/277/347	.08/.04/.03	.12/.06/.04	.17/.08/.06	.23/.11/.08	.31/.14/.11	.36/.16/.12
Input Voltage						
Standard Driver (120V & 277V)	120V AC, 50/60Hz					
	277V AC, 50/60Hz					
Standard Driver (347V)	347V AC, 50/60Hz					
Lutron HiLume® Driver	120V AC, 50/60Hz					
Lutron Eco-System® Driver	120V AC, 50/60Hz					
	277V AC, 50/60Hz					
eldoLED ECOdrive / SOLOdrive	120V AC, 50/60Hz					
	277V AC, 50/60Hz					
Color Temp	2700K/3000K/3500K/4000K					
CRI Standard/High	83 (80min) / 90+					
Driver						
Power Factor	> 0.90					
THD	< 20%					

R6NC

6" LED Recessed Downlight: Universal New Construction Housing

Ordering Information

Example Order: —

Housing	LED Series	Color Temp	Electrical	Dimming	Options
<input type="text" value="R6NC"/>	<input type="text" value="1 - 10W, 1000lm"/>	<input type="text" value="27K - 2700K"/>	<input type="text" value="12 - 120V"/>	<input type="text" value="D2 - Triac, ELV, 0-10V Dimming"/>	<input type="text" value="ER6 - Factory Installed 7W/200mA Emergency Battery Backup [Remote Test Switch]"/>
	<input type="text" value="2 - 14W, 1400lm"/>	<input type="text" value="30K - 3000K"/>	<input type="text" value="27 - 277V"/>	<input type="text" value="D21 - 347V, 0-10V Dimming Only"/>	
	<input type="text" value="3 - 20W, 2000lm"/>	<input type="text" value="35K - 3500K"/>	<input type="text" value="341 - 347V"/>	<input type="text" value="D33 - Lutron Hi-lume 1% 2-Wire LED Driver (120V Forward Phase Only)"/>	
	<input type="text" value="4 - 28W, 2600lm"/>	<input type="text" value="40K - 4000K"/>		<input type="text" value="D4 - Lutron Hi-lume 1% EcoSystem LED Driver with Soft-on, Fade-to-Black"/>	
	<input type="text" value="5 - 37W, 3200lm"/>	<input type="text" value="27KC - 2700K, 90+ CRI"/>		<input type="text" value="D64 - eldoLED ECOdrive, 0-10V, 1% Dimming"/>	
	<input type="text" value="6 - 43W, 3600lm"/>	<input type="text" value="30KC - 3000K, 90+ CRI"/>		<input type="text" value="D74 - eldoLED ECOdrive, DALI, 1% Dimming"/>	
		<input type="text" value="35KC - 3500K, 90+ CRI"/>		<input type="text" value="D84 - eldoLED SOLOdrive, 0-10V, 0.1% Dimming"/>	
		<input type="text" value="40KC - 4000K, 90+ CRI"/>		<input type="text" value="D94 - eldoLED SOLOdrive, DALI, 0.1% Dimming"/>	
				<input type="text" value="DMX4,5 - eldoLED POWERdrive, DMX 0.0% Dimming"/>	

For Intellect™ Enabled housing, refer to R6NCIE specification sheet.

Accessories (Standard Hanger Bars Supplied with Housing)

- MF6** - 6" Mud Frame
- RL-KIT** - Commercial Mounting Brackets
- HB-24** - 27" Flat Hanger Bars for RL-KIT
- HBC-24** - 25" C-Channel Hanger Bars for RL-KIT in Grid Ceiling Construction
- HB-30** - T-Bar Hanger Set
- RSA6L-5-WHT** - 6" Slope Ceiling Adapter, 5° Pitch
- RSA6L-10-WHT** - 6" Slope Ceiling Adapter, 10° Pitch
- RSA6L-15-WHT** - 6" Slope Ceiling Adapter, 15° Pitch
- RSA6L-20-WHT** - 6" Slope Ceiling Adapter, 20° Pitch
- RSA6L-25-WHT** - 6" Slope Ceiling Adapter, 25° Pitch
- RSA6L-30-WHT** - 6" Slope Ceiling Adapter, 30° Pitch

Trims

See "6" LED Recessed Trims" sheet for trim information and details.

1. Only available for 347V Dimming option (D2). Cannot be used with Emergency Battery Backup option.
2. Triac and ELV dimming for 120V only
3. Lutron Hi-Lume dimming only available in 120V
4. eldoLED Drivers are programmed for linear curve dimming as standard. For logarithmic curve dimming, please 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 any Series 1 through 6.

R6 Series

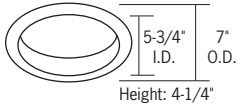
6" LED Recessed Downlight Trims

Trimmed Options



Specification Grade Specular Reflector

Specification grade specular reflector: narrow beam clear, medium beam clear, wide beam clear, platinum, platinum wheat, or white. OD: 7"; ID: 5-3/4"
Add "C" (clear lens) or "SL" (sandblast lens) after finish code for wet location approved trim.



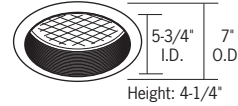
- C6322N-CLR*** - 34° Clear Reflector
- C6322M-CLR*** - 65° Clear Reflector
- C6322W-CLR*** - 75° Clear Reflector
- C6322-PL*** - 69° Platinum Reflector
- C6322-PLWHE** - 69° Platinum Wheat Reflector
- C6322-WHT** - 72° White Reflector

*Available with White Painted Flange, add "-WPF" to part number.



Two Piece Reflector/Baffle Trim with Lens

Two piece aluminum reflector and baffle with lens: Clear or white upper reflector, black or white lower baffle with regressed prismatic convex glass lens; 1-1/2" Regress. Wet Location Listed. OD: 7"; ID: 5-3/4"



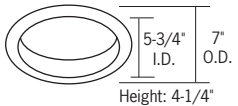
- C6327-CLR-(B,P)** - Clear Reflector/Black or White Lower Baffle
- C6327-WHT-(B,P)** - White Reflector/Black or White Lower Baffle



Two Piece Reflector Trim

Two piece reflector: clear or white upper reflector, clear or platinum lower cone; Includes (1) LF38-CL glass lens. OD: 7"; ID: 5-3/4"

Approved for dry/damp locations. Approved for wet locations when glass lens is installed.

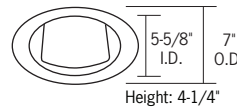


- C6321-CLR-(CLR,PL)** - Clear Reflector/Clear or Platinum Lower Cone
- C6321-WHT-(CLR,PL)** - White Reflector/Clear or Platinum Lower Cone



Lensed Wall Wash Trim

Lensed Wall Wash Trim; Clear, Platinum or White Reflector. OD: 7"; ID: 5-5/8"



- C6323-CLR*** - Clear Reflector
- C6323-PL*** - Platinum Reflector
- C6323-WHT** - White Reflector

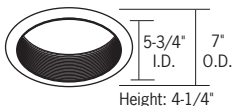
*Available with White Painted Flange, add "-WPF" to part number.



Two Piece Reflector/Baffle Trim

Two piece reflector/baffle: clear or white upper reflector, black or white lower baffle; Includes (1) LF38-CL glass lens. OD: 7"; ID: 5-3/4"

Approved for dry/damp locations. Approved for wet locations when glass lens is installed.



- C6321-CLR-(B,P)** - Clear Reflector/Black or White Lower Baffle
- C6321-WHT-(B,P)** - White Reflector/Black or White Lower Baffle



Floating Glass Trim

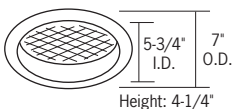
Floating glass disc; clear or white reflector. 1-1/4" Drop from ceiling. Glass OD: 8-3/4".

CTR6325L2-(CLR,WHT)-P



Two Piece Reflector Trim with Lens

Two piece reflector: Clear or white upper reflector, clear or platinum lower cone; regressed prismatic convex lens, Wet Location Listed. OD: 7"; ID: 5-3/4"



- C6327-CLR-(CLR,PL)** - Clear Reflector/Clear or Platinum Lower Cone
- C6327-WHT-(CLR,PL)** - White Reflector/Clear or Platinum Lower Cone



Floating Glass Ring

Floating glass ring; clear or white reflector. 1-1/4" Drop from ceiling; 3-1/2" center hole. Glass OD: 8-3/4".

CTR6326L2-(CLR,WHT)-P

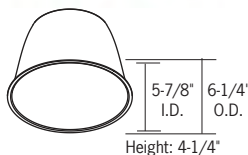


R6 Series

6" LED Recessed Downlight Trims

Trimless Options

Important Notes: Trimless option requires use of accessory mud frame (**MF6** – ordered separately).
Trimless option CANNOT be used on Remodel (R6RM) style housings.
Trimless option for use with 1/2" - 1" ceiling thicknesses only.



Specification Grade Specular Reflector

Specification grade reflector: narrow beam clear, medium beam clear, wide beam clear, platinum, or white. ID: 6"

Add "-C" (clear lens) or "-SL" (sandblast lens) after finish code for wet location approved trim.

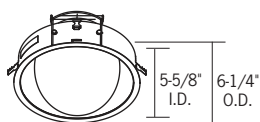
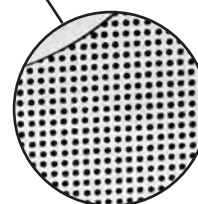
- CN6322N-CLR** - 34° Clear Reflector
- CN6322M-CLR** - 65° Clear Reflector
- CN6322W-CLR** - 75° Clear Reflector
- CN6322-PL** - 69° Platinum Reflector
- CN6322-WHT** - 72° White Reflector



Mud Frame

Required for use with Trimless trim option. Die-cast ring with steel mesh frame – painted white. OD: 12"

MF6 - 6" Mud Frame



Lensed Wall Wash Trim

Lensed Wall Wash Trim; Clear, Platinum or White Reflector.

ID: 5-5/8"

- CN6323-CLR** - Clear Reflector
- CN6323-PL** - Platinum Reflector
- CN6323-WHT** - White Reflector

R6NC

6" LED Recessed Downlight: Universal New Construction Housing

Photometrics

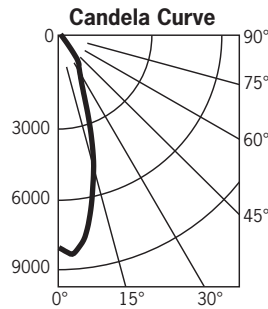
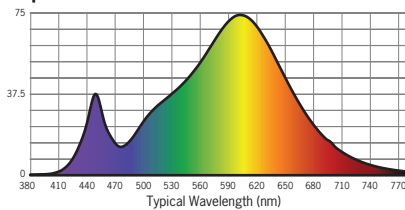
Multiplication Factors

CCT	STD CRI	HIGH CRI	SERIES 1	SERIES 2	SERIES 3	SERIES 4	SERIES 5	WHT/PL REFLECTORS
2700K	0.94	0.70	0.29	0.39	0.53	0.73	0.90	1.0
3000K	N/A	0.75	0.29	0.39	0.53	0.73	0.90	1.0
3500K	1.0	0.81	0.29	0.39	0.53	0.73	0.90	1.0
4000K	1.0	0.87	0.29	0.39	0.53	0.73	0.90	1.0

R6NC630K12D/C6322N-CLR

Designed for 50,000 Hour Lamp Life*; LM-63 Test No. 85531

Light Output (Fixture Delivered Lumens): 3544
 Total Watts@120V: 43.0
 Lumens Per Watt: 82.4
 Color Rendering Index (CRI)¹: 83
 Color Temperature (CCT)²: 3034K
 Spectral Power Distribution Chart³



Candlepower Summary

FROM 0	CANDELA	LUMENS
0	8149	
5	8114	731
15	4969	1336
25	1863	898
35	1073	530
45	35	28
55	15	14
65	6	6
75	2	2
85	0	0
95	0	

Intensity Distribution

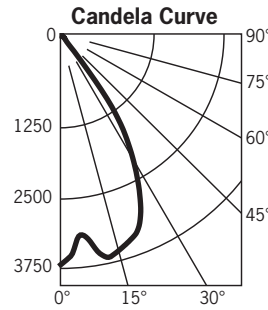
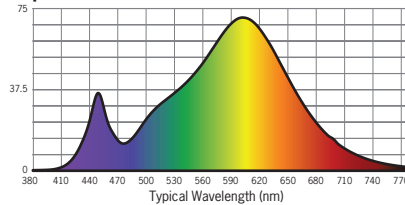
DISTANCE (FT.)	FOOTCANDLES (FC)	BEAM DIAMETER (FT.)
6'	226.4	3.4
8'	127.3	4.6
10'	81.5	5.7
12'	56.6	6.9
14'	41.6	8.0
16'	31.8	9.1

Beam Distribution: 34°
 Spacing Criteria: 0.56

R6NC630K12D/C6322M-CLR

Designed for 50,000 Hour Lamp Life*; LM-63 Test No. 85912

Light Output (Fixture Delivered Lumens): 3539
 Total Watts@120V: 43.3
 Lumens Per Watt: 81.7
 Color Rendering Index (CRI)¹: 82
 Color Temperature (CCT)²: 3088K
 Spectral Power Distribution Chart³



Candlepower Summary

FROM 0	CANDELA	LUMENS
0	3647	
5	3210	320
15	3537	994
25	2954	1328
35	1389	761
45	95	76
55	43	39
65	15	16
75	4	5
85	1	1
95	0	

Intensity Distribution

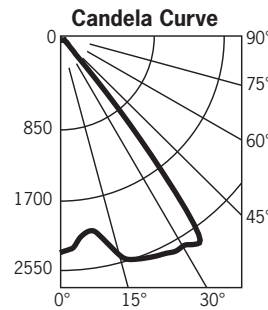
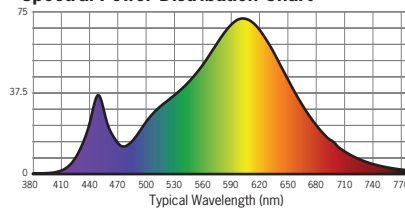
DISTANCE (FT.)	FOOTCANDLES (FC)	BEAM DIAMETER (FT.)
6'	101.3	6.2
8'	57.0	8.3
10'	36.5	10.4
12'	25.3	12.5
14'	18.6	14.6
16'	14.2	16.7

Beam Distribution: 66°
 Spacing Criteria: 0.95

R6NC630K12D/C6322W-CLR

Designed for 50,000 Hour Lamp Life*; LM-63 Test No. 85700

Light Output (Fixture Delivered Lumens): 3521
 Total Watts@120V: 44.0
 Lumens Per Watt: 80.0
 Color Rendering Index (CRI)¹: 82
 Color Temperature (CCT)²: 3075K
 Spectral Power Distribution Chart³



Candlepower Summary

FROM 0	CANDELA	LUMENS
0	2330	
5	2183	208
15	2469	691
25	2596	1203
35	2475	1235
45	114	118
55	49	44
65	16	17
75	4	5
85	1	1
95	0	

Intensity Distribution

DISTANCE (FT.)	FOOTCANDLES (FC)	BEAM DIAMETER (FT.)
6'	64.7	8.6
8'	36.4	11.5
10'	23.3	14.4
12'	16.2	17.3
14'	11.9	20.1
16'	9.1	23.0

Beam Distribution: 75°
 Spacing Criteria: 1.11

1. Accuracy of rendering colors
 2. Color appearance of light source
 3. Colors present within the light source

*Dependent on surrounding temperatures

R6NC

6" LED Recessed Downlight: Universal New Construction Housing

Photometrics

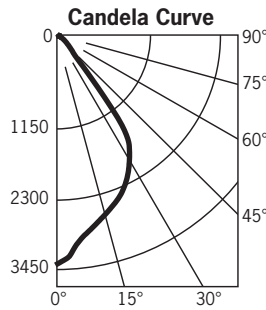
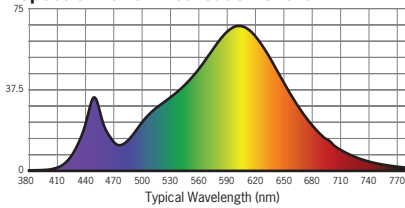
Multiplication Factors

CCT	STD CRI	HIGH CRI	SERIES 1	SERIES 2	SERIES 3	SERIES 4	SERIES 5	WHT/PL REFLECTORS
2700K	0.94	0.70	0.29	0.39	0.53	0.73	0.90	1.0
3000K	N/A	0.75	0.29	0.39	0.53	0.73	0.90	1.0
3500K	1.0	0.81	0.29	0.39	0.53	0.73	0.90	1.0
4000K	1.0	0.87	0.29	0.39	0.53	0.73	0.90	1.0

R6NC630K12D/C6322-PL

Designed for 50,000 Hour Lamp Life*; LM-63 Test No. 86084

Light Output (Fixture Delivered Lumens): 3304
 Total Watts@120V: 43.2
 Lumens Per Watt: 76.5
 Color Rendering Index (CRI)¹: 82
 Color Temperature (CCT)²: 3030K
 Spectral Power Distribution Chart³



Candlepower Summary

FROM 0	CANDELA	LUMENS
0	3359	
5	3092	289
15	2708	764
25	2346	1073
35	1612	852
45	244	194
55	95	88
65	31	32
75	9	10
85	1	2
95	0	

Intensity Distribution

DISTANCE (FT.)	FOOTCANDLES (FC)	BEAM DIAMETER (FT.)
6'	93.3	5.8
8'	52.5	7.7
10'	33.6	9.7
12'	23.3	11.6
14'	17.1	13.6
16'	13.1	15.5

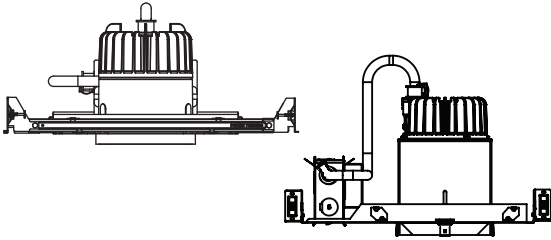
Beam Distribution: 69°
 Spacing Criteria: 0.97

1. Accuracy of rendering colors
 2. Color appearance of light source
 3. Colors present within the light source

*Dependent on surrounding temperatures

For ConTech Lighting 4" and 6" LED Downlights: **R4SQ Series, R4 Series, and R6 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).
- Lutron HiLume and EcoSystem drivers provide continuous dimming from 1%-100%. For a complete list of compatible dimmers and controls, please visit www.lutron.com
- Use DALI approved controls for dimming eLdoLED MVD7 (1%-100%) and MVD9 (0.1%-100%) options.



			R4SQ Series* R4*/R6 Series* Dimming Options 12D, 27D, MVD Dimming Range	R4SQ Series, R4/R6 Series eLdoLED ECOdrive 0-10V Dimming Options 12D6, 27D6, MVD6 Dimming Range	R4SQ Series, R4/R6 Series eLdoLED SOLOdrive 0-10V Dimming Options 12D8, 27D8, MVD8 Dimming Range
Manufacturer	Product	Model	Light Output	Light Output	Light Output
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	Faetra	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
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%
Pass & Seymour	Titan	CD4FB-W	NA	1%-100%	0.1%-100%
Watt Stopper	Miro Decorator	DCLV1	NA	1%-100%	0.1%-100%
Synergy		ISD BC	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

*277V Triac 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.