

DATE

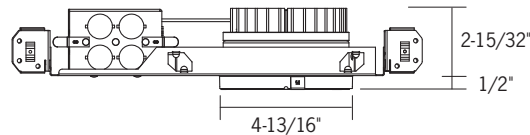
PROJECT

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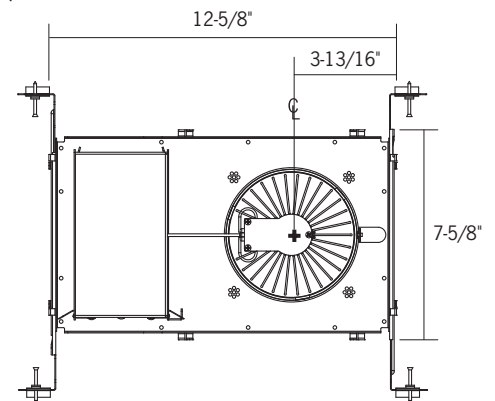
R4S SERIES | 4-Inch Shallow Downlights: R4SNC New Construction Housing



Side View



Top View



Ceiling Opening: 4-7/8-Inches
Ceiling Thickness: 1/2- to 1-1/2-Inches

	R4SNC1	R4SNC2	R4SNC3	R4SNC4
WATTAGE	9W	13W	19W	28W
LUMEN OUTPUT ¹	1100Lm	1600Lm	2200Lm	3000Lm
BEAM SPREAD	27° Medium, 45° Flood, 61° Wide Flood			
COLOR TEMPERATURE	2700K / 3000K / 3500K / 4000K			
CRI	83 (80min) / 90+			
INPUT WATTAGE	9W	13W	19W	28W
INPUT CURRENT (A) 120V/277V	.08/.04	.12/.06	.17/.08	.23/.11
INPUT VOLTAGE	120V – 277V Standard Driver			
120V – 277V Standard Driver	90 – 305VAC, 50/60Hz			
Lutron HiLume® Driver	120VAC, 50/60Hz			N/A
Lutron Eco-System® Driver	120 – 277VAC, 50/60Hz			
eldoLED ECOdrive / SOLOdrive	120 – 277VAC, 50/60Hz			
DRIVER POWER FACTOR	> 0.90			
TOTAL HARMONIC DISTORTION (THD)	< 20%			
LISTINGS	cCSAus Certified to UL Standards; Suitable for Damp Locations			
  	ENERGY STAR® Certified; Lutron and eldoLED Dimming Options are not ENERGY STAR® Certified			
	Can be used to comply with the 2016 Title 24 Part 6 JA8 High Efficacy LED Light Source Requirements			
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

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R4S SERIES | 4-Inch Shallow Downlights: R4SNC New Construction Housing

ORDERING INFORMATION

Example Order:

Housing/LED Series	Color Temp/CRI	Dimming*	Beam Distribution
R4SNC1 - 9W, 1100lm	83 (80min) CRI	MVD ¹ - 120-277V TRIAC, ELV, 0-10V Dimming	M - 27° Medium
R4SNC2 - 13W, 1600lm	27K - 2700K	12D3 ² - 120V Lutron Hi-Lume 1% 2-Wire LED Driver (120V Forward Phase Only)	F - 45° Flood
R4SNC3 - 19W, 2200lm	30K - 3000K	MVD4 - 120-277V Lutron Hi-Lume 1% EcoSystem LED Driver with Soft-On, Fade-to-Black Dimming	W - 61° Wide Flood
R4SNC4 - 28W, 3000lm	35K - 3500K	MVD6 ³ - 120-277V eldoLED ECOdrive 0-10V, 1% Dimming	
	40K - 4000K	MVD7 ³ - 120-277V eldoLED ECOdrive DALI, 1% Dimming	
	90+ CRI	MVD8 ³ - 120-277V eldoLED SOLOdrive 0-10V, 0.1% Dimming	
	27KC - 2700K	MVD9 ³ - 120-277V eldoLED SOLOdrive DALI, 0.1% Dimming	
	30KC - 3000K	MDMX ^{3,4} - 120-277V eldoLED POWERdrive DMX, 0.0% Dimming	
	35KC - 3500K		
	40KC - 4000K		

*Consult factory for 347V Option

1. Triac and ELV dimming for 120V only
2. Lutron Hi-Lume Dimming only available in 120V for Series 1 through 3 (9W through 19W) only, not available for use with LED Series 4 (28W)
3. eldoLED Drivers are programmed for linear curve dimming as standard. For logarithmic curve dimming, please consult factory.
4. Verify DMX Driver and Control System compatibility with factory prior to ordering

Housing Accessories

Standard Hanger Bars Supplied with Housing

HB-30 - T-Bar Hanger Set

Replacement Optics

R4SOPTM - 27° Medium Beam Optic

R4SOPTF - 45° Flood Beam Optic

R4SOPTW - 61° Wide Flood Beam Optic

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R4S SERIES | 4-Inch Shallow Downlights: R4SNC New Construction Housing

PRODUCT DETAILS

Construction

- Specification Grade 4-inch Round 16 Gauge Galvanized Steel Shallow New Construction Housing with Die-Cast Aluminum Heat Sink; Fits into a 2-1/2-inch plenum space
- Quick-connect Light Engine for easy installation and removal
- LED Drivers are fully accessible from below the ceiling and can be easily removed
- 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 (1) 1/2-inch x 3/4-inch Concentric Knockout
- Multivolt 120-277V standard
- Output over-voltage, over-current and short circuit protection
- Approved for Through Circuit Wiring: max. four (4) 12 AWG (2in/2out); wiring rated to 90°C
- Requires minimum 3-inch clearance around fixture from insulation materials; thermal protection provided in case of improper insulation use

Performance Summary

- 2700K, 3000K, 3500K and 4000K Color Temperatures; CRI 80 min., 83 typical; high CRI 90+ available
- Excellent fixture-to-fixture color consistency with a 3-step MacAdam Ellipse tolerance
- Precision Optics produce 27° Medium, 45° Flood and 61° Wide Flood beam distributions; optics are interchangeable and can be field replaced
- All R4S Downlights are available for non-dimming and dimming applications; for compatible Dimmers, refer to the Dimming Specification Sheet
- Flanged or Trimless Specification Grade Trims available
- Trimless options require use of a Mud Frame (MF4, ordered separately) for securing housing and trim in 1/2- to 1-inch ceiling thicknesses only
- UL8750 and Class 2 Compliant; RoHS Compliant, US only
- Assembled in the USA

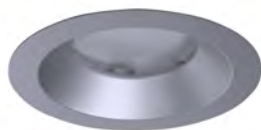
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R4S SERIES | Trims for 4-Inch Shallow LED Downlights

TRIMMED OPTIONS



C4322S-PL

Platinum Reflector



C4322S Series

Specification Grade Reflector

4-7/16-Inch ID, 5-3/4-Inch OD, 3-1/8-Inch Height

Specification Grade Reflector. Includes Solite Lens. Wet Location approved.

C4322S-CLR* - Clear Specular Reflector

C4322S-PL* - Platinum Reflector

C4322S-WHT - Painted Matte White Reflector

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

Quantity

TRIMLESS OPTIONS

Trimless Options require use of Mud Frame accessory (MF4, ordered separately)



CN4322S-CLR

Anodized Clear Trimless Reflector

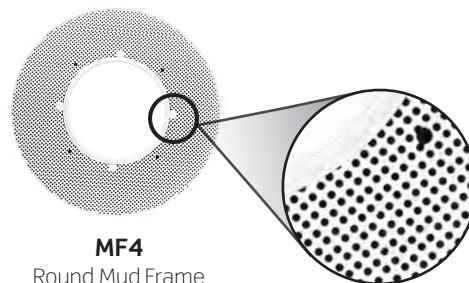


CN4322S Series

Specification Grade Trimless Reflector with Solite Lens

4-7/16-Inch Aperture

Specification Grade Specular Reflector. Includes Solite Lens. **For use with 1/2- to 1-inch ceiling thicknesses only.** Wet Location approved.



MF4

Round Mud Frame

MF4 Series

Round Mud Frame

10-Inch OD

Required for use with trimless options. Die-cast Ring with Steel Mesh Frame. Painted white.

CN4322S-CLR - Clear Specular Trimless Reflector

CN4322S-PL - Platinum Trimless Reflector

CN4322S-WHT - Painted Matte White Trimless Reflector

Quantity

MF4 - 4-Inch Mud Frame

Quantity

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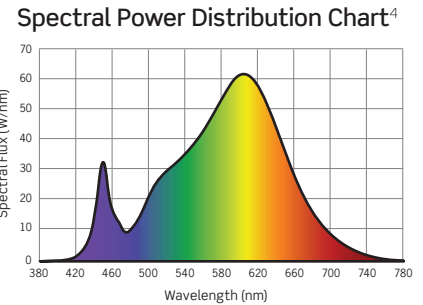
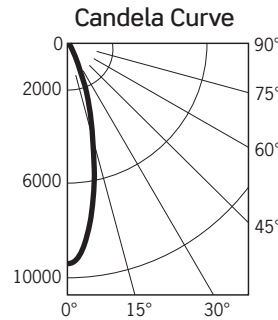
TYPE

R4S SERIES | 4-Inch Round Shallow Downlight Photometrics

R4SNC430KMVDM / C4322S-CLR

Fixture Delivered Lumens: 2949.2
 Total Watts@120V: 28.4
 Lumens Per Watt: 103.8
 Center Beam Candle Power: 9461
 Beam Distribution: 26.8°
 Spacing Criterion: 0.47
 Color Rendering Index (CRI)¹: 83.3
 Color Temperature (CCT)²: 3047K
 Designed for 50,000 Hour Lamp Life³
 LM-63 Test No. G21072705
 LM-79 Test No. S21072902

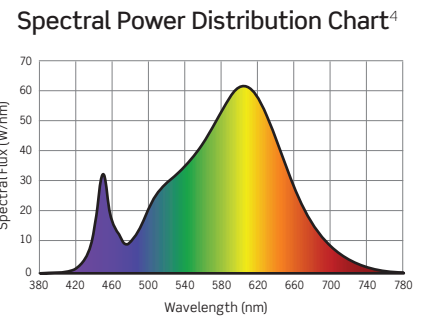
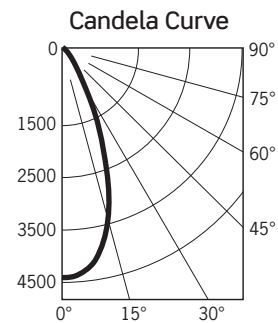
DISTANCE (FT.)	FOOTCANDLES (FC)	BEAM DIAMETER (FT.)
6 FT	262.8	2.9
8 FT	147.8	3.8
10 FT	94.6	4.8
12 FT	65.7	5.7
14 FT	48.3	6.7
16 FT	37.0	7.6



R4SNC430KMVDF / C4322S-CLR

Fixture Delivered Lumens: 3007.2
 Total Watts@120V: 28.4
 Lumens Per Watt: 105.9
 Center Beam Candle Power: 4418
 Beam Distribution: 44.8°
 Spacing Criterion: 0.70
 Color Rendering Index (CRI)¹: 83.3
 Color Temperature (CCT)²: 3047K
 Designed for 50,000 Hour Lamp Life³
 LM-63 Test No. G21072701
 LM-79 Test No. S21072902

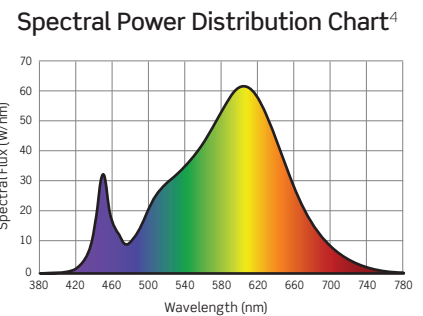
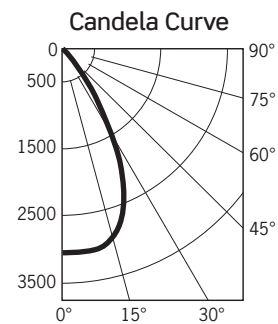
DISTANCE (FT.)	FOOTCANDLES (FC)	BEAM DIAMETER (FT.)
6 FT	122.7	5.0
8 FT	69.0	6.6
10 FT	44.2	8.3
12 FT	30.7	9.9
14 FT	22.5	11.5
16 FT	17.3	13.2



R4SNC430KMVDW / C4322S-CLR

Fixture Delivered Lumens: 3119.4
 Total Watts@120V: 28.4
 Lumens Per Watt: 109.8
 Center Beam Candle Power: 3061
 Beam Distribution: 60.6°
 Spacing Criterion: 0.89
 Color Rendering Index (CRI)¹: 83.3
 Color Temperature (CCT)²: 3047K
 Designed for 50,000 Hour Lamp Life³
 LM-63 Test No. G21072706
 LM-79 Test No. S21072902

DISTANCE (FT.)	FOOTCANDLES (FC)	BEAM DIAMETER (FT.)
6 FT	85.0	7.0
8 FT	47.8	9.4
10 FT	30.6	11.7
12 FT	21.3	14.0
14 FT	15.6	16.4
16 FT	12.0	18.7



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 - 9W	SERIES 2 - 13W	SERIES 3 - 19W	C4322S-PL	C4322S-WHT
2700K	0.94	0.70	0.39	0.54	0.73	0.99	1.00
3000K	N/A	0.75					
3500K	1.0	0.81					
4000K	1.0	0.87					

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R4S SERIES | 4-Inch Round Shallow Downlight Photometrics

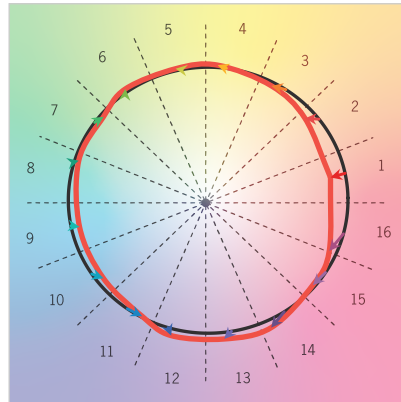
TM-30 DATA: R4SNC430KMVDF / C4322S-CLR

ANSI/IES TM-30-18 Color Rendition Report Test No. S21072902

Colors are for visual orientation purposes only

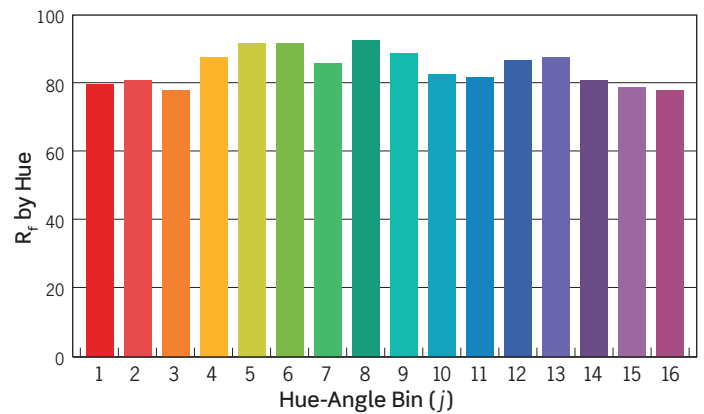
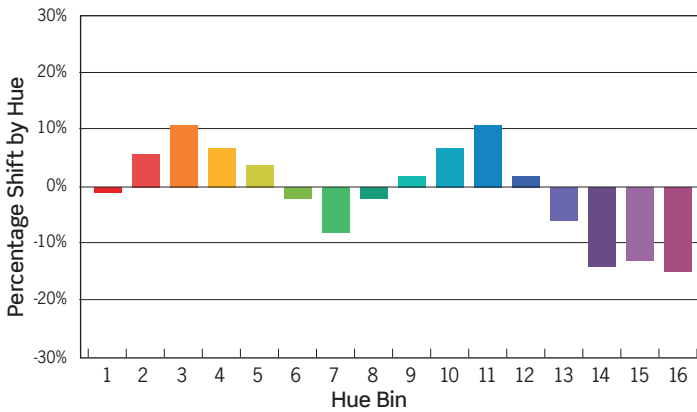
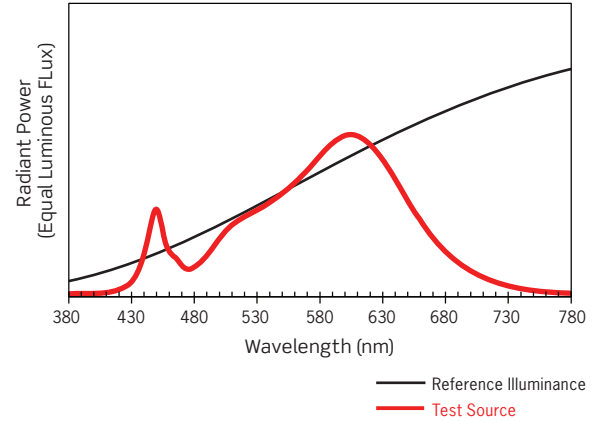
R_f	86
R_g	96
CCT(K)	3047K
D_{uv}	0.0024
u^l	0.2480
v^l	0.5238

Color Vector Graphic



— Reference Illuminance — Test Source

Spectral Power Distribution Comparison



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

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R4S SERIES | 4-Inch Round Shallow 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 Purple and Pink/Gray.
- 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 MVD7) and eldoLED SOLOdrive, 0.1% Dimming (Dimming Option MVD9)

Manufacturer	Product	Model	TRIAC, ELV, 0-10V DIMMING	eldoLED ECOdrive 0-10V	eldoLED SOLOdrive 0-10V
			(MVD Option*)	(MVD6 Option)	(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	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

*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.