

DATE

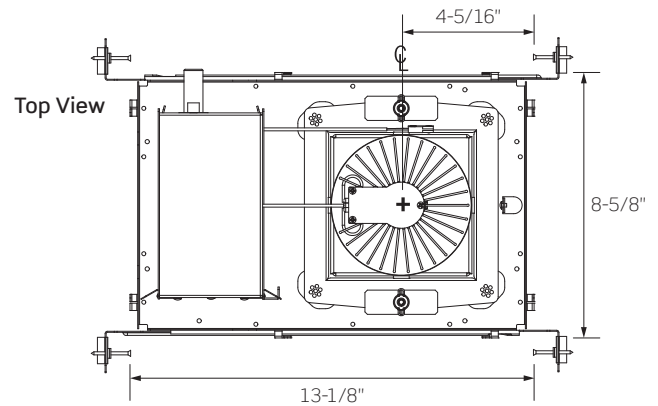
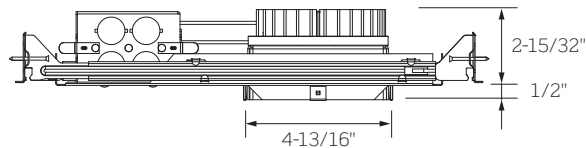
PROJECT

TYPE





R4SSQNC SERIES | 4-In. Square Shallow New Construction Downlight Housing



Side View



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

	R4SSQNC1	R4SSQNC2	R4SSQNC3	R4SSQNC4
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			
Lutron Eco-System® Driver	90 – 305VAC, 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. Approximate lumen output based on 3000K performance; see photometric test results for additional information

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R4SSQNC SERIES | 4-In. Square Shallow New Construction Downlight Housing

ORDERING INFORMATION

Example Order: R4SSQNC130KMVD4W

Housing/LED Series	Color Temp/CRI	Dimming ¹	Beam Distribution
R4SSQNC1 - 9W/1100lm	83 (80min) CRI	MVD² - 120-277V TRIAC, ELV, 0-10V Dimming	M - 27° Medium
R4SSQNC2 - 13W/1600lm	27K - 2700K	MVD4 - 120-277V Lutron Hi-Lume 1% EcoSystem LED Driver with Soft-On, Fade-to-Black Dimming	F - 45° Flood
R4SSQNC3 - 19W/2200lm	30K - 3000K	MVD6³ - 120-277V eldoLED ECOdrive 0-10V, 1% Dimming	W - 61° Wide Flood
R4SSQNC4 - 28W/3000lm	35K - 3500K	MVD7³ - 120-277V eldoLED ECOdrive DALI, 1% Dimming	
	40K - 4000K	MVD8³ - 120-277V eldoLED SOLOdrive 0-10V, 0.1% Dimming	
	90+ CRI	MVD9³ - 120-277V eldoLED SOLOdrive DALI, 0.1% Dimming	
	27KC - 2700K	MDMX^{3,4} - 120-277V eldoLED POWERdrive DMX, 0.0% Dimming	
	30KC - 3000K		
	35KC - 3500K		
	40KC - 4000K		

1. Consult Factory for 347V Option
2. TRIAC and ELV Dimming for 120V only
3. eldoLED Drivers are programmed for linear curve dimming as standard; for logarithmic curve dimming, consult Factory
4. Verify DMX Driver and Control System compatibility with Factory prior to ordering

ACCESSORY & REPLACEMENT OPTIC ORDERING INFORMATION

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

PRODUCT DETAILS

Construction

- Specification Grade 4-inch Square 16 Gauge Galvanized Steel Shallow New Construction Housing with Die-Cast Aluminum Heat Sink
- Fits into a 2-1/2-inch plenum space
- Requires minimum 3-inch clearance around fixture from insulation materials; 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 for easy installation and removal
- Drivers are fully accessible from below the ceiling; 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 one (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

Performance Summary

- 2700K, 3000K, 3500K and 4000K Color Temperatures
- CRI of 80 min., 83 typical; high CRI of 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 R4SSQ Downlights are available for dimming and non-dimming applications; compatible Dimmers are found on the Dimming Specification Sheet
- Flanged or Trimless Specification Grade Trims available
- Trimless options require use of a Mud Frame (MF4SSQ, ordered separately) for securing housing and trim in 1/2- to 5/8-inch ceiling thicknesses only
- UL8750 and Class 2 Compliant; RoHS Compliant, US only

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PROJECT

TYPE

R4SSQ SERIES | Trims for 4-Inch Square Shallow Downlights

TRIMMED OPTIONS



C4322SSQDC-WHT
Matte White Reflector



C4322SSQDC Series

*Die-Cast
Specification Grade Reflector*
4-5/16-Inch SQ Aperture;
5-11/16-Inch SQ Trim Flange

Specification Grade Die-cast Aluminum Reflector. Includes Solite Lens. Wet Location approved.

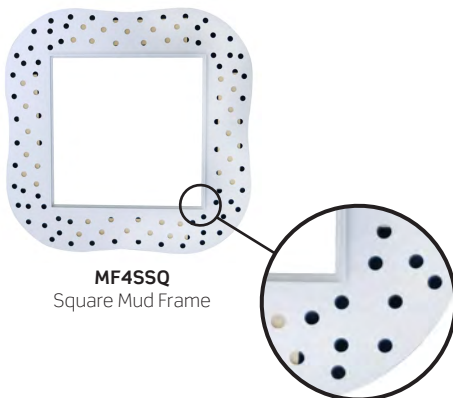
C4322SSQDC - Die-Cast Reflector

SL¹ - Satin Silver Painted
WHT - Matte White Painted

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

TRIMLESS OPTIONS

Trimless Options require use of Mud Frame accessory (MF4SSQ, ordered separately)

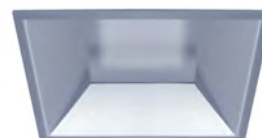


MF4SSQ
Square Mud Frame

Square Mud Frame

8-1/2-Inch SQ

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



CN4322SSQDC-SL
Painted Satin Silver
Trimless Reflector



CN4322SSQDC Series
*Specification Grade Die-Cast
Trimless Reflector*
4-5/16-Inch SQ Aperture

Specification Grade Specular Reflector. For use with 1/2- to 5/8-inch ceiling thicknesses only. Wet Location approved.

CN4322SSQDC - Trimless Specular Reflector

SL - Satin Silver Painted
WHT - Matte White Painted

MF4SSQ - Square Mud Frame

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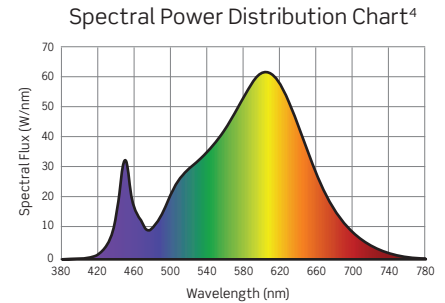
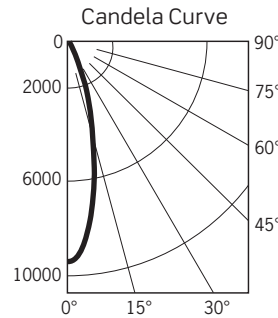
TYPE

R4SSQ SERIES | 4-Inch Square Shallow Downlight Photometrics

R4SSQNC430KMVDM / C4322SSQDC-SL

Fixture Delivered Lumens: 2818.7
 Total Watts@120V: 28.5
 Lumens Per Watt: 98.9
 Center Beam Candle Power: 9402
 Beam Distribution: 26.6°
 Spacing Criterion: 0.44
 Color Rendering Index (CRI)¹: 83.6
 Color Temperature (CCT)²: 3023K
 Designed for 50,000 Hour Lamp Life³
 LM-63 Test No. G21072306
 LM-79 Test No. S21072901

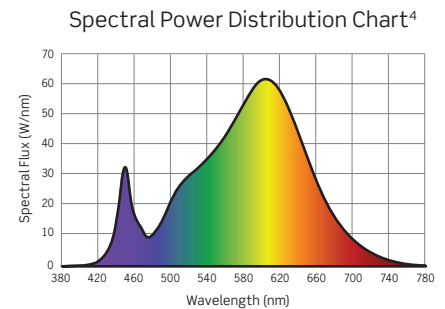
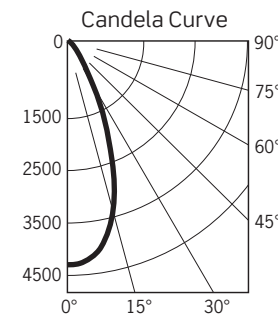
Intensity Distribution		
DISTANCE (FT.)	FOOTCANDLES (FC)	BEAM DIAMETER (FT.)
6 FT	261.2	2.8
8 FT	146.9	3.8
10 FT	94.0	4.7
12 FT	65.3	5.7
14 FT	48.0	6.6
16 FT	36.7	7.6



R4SSQNC430KMVDF / C4322SSQDC-SL

Fixture Delivered Lumens: 2837.2
 Total Watts@120V: 28.4
 Lumens Per Watt: 99.9
 Center Beam Candle Power: 4303
 Beam Distribution: 44.5°
 Spacing Criterion: 0.73
 Color Rendering Index (CRI)¹: 83.6
 Color Temperature (CCT)²: 3023K
 Designed for 50,000 Hour Lamp Life³
 LM-63 Test No. G21072302
 LM-79 Test No. S21072901

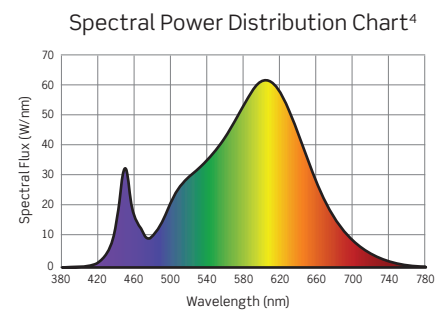
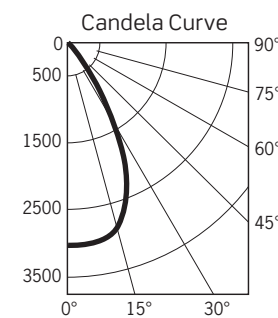
Intensity Distribution		
DISTANCE (FT.)	FOOTCANDLES (FC)	BEAM DIAMETER (FT.)
6 FT	119.5	4.9
8 FT	67.2	6.6
10 FT	43.0	8.2
12 FT	29.9	9.8
14 FT	22.0	11.5
16 FT	16.8	13.1



R4SSQNC430KMVDW / C4322SSQDC-SL

Fixture Delivered Lumens: 3017.7
 Total Watts@120V: 28.5
 Lumens Per Watt: 105.9
 Center Beam Candle Power: 3004
 Beam Distribution: 60.4°
 Spacing Criterion: 0.97
 Color Rendering Index (CRI)¹: 83.6
 Color Temperature (CCT)²: 3023K
 Designed for 50,000 Hour Lamp Life³
 LM-63 Test No. G21072307
 LM-79 Test No. S21072901

Intensity Distribution		
DISTANCE (FT.)	FOOTCANDLES (FC)	BEAM DIAMETER (FT.)
6 FT	83.4	7.0
8 FT	46.9	9.3
10 FT	30.0	11.6
12 FT	20.9	14.0
14 FT	15.3	16.3
16 FT	11.7	18.6



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	C4322SSQDC-WHT
2700K	0.94	0.70	0.38	0.54	0.73	1.04
3000K	N/A	0.75				
3500K	1.0	0.81				
4000K	1.0	0.87				

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R4SSQ SERIES | 4-Inch Square Shallow Downlight Photometrics

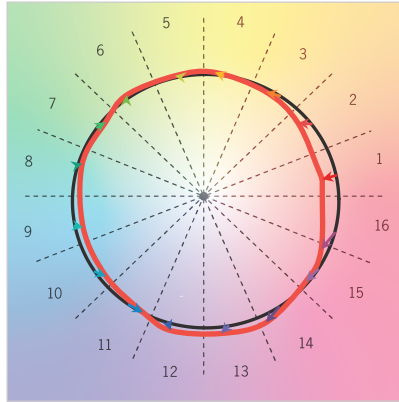
TM-30 DATA: R4SSQNC430KMVDF / C4322SSQDC-SL

ANSI/IES TM-30-18 Color Rendition Report Test No. S21072901

Colors are for visual orientation purposes only

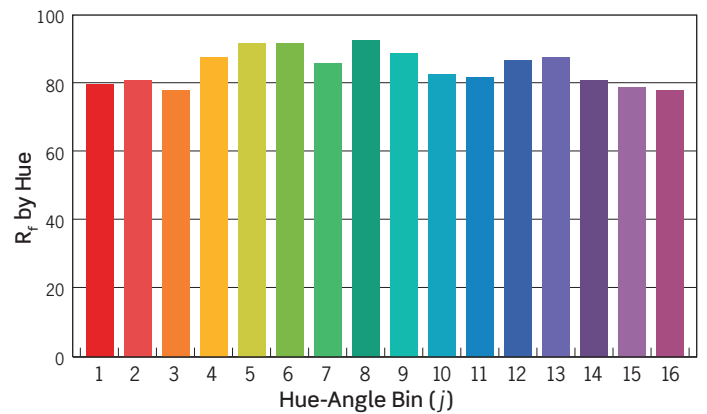
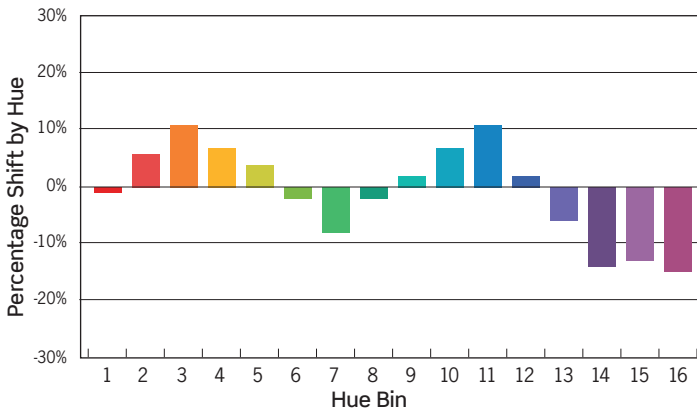
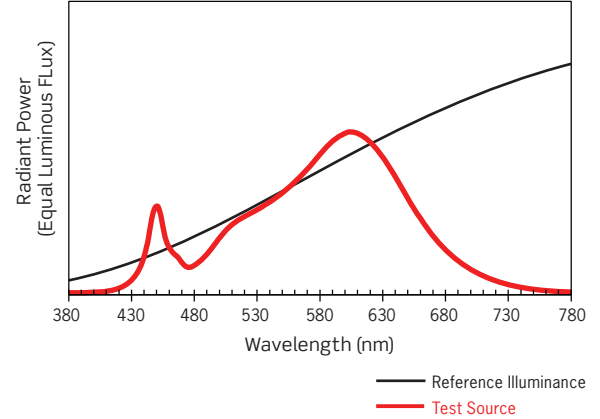
R_f	86
R_g	96
CCT(K)	3023K
D_{uv}	0.0016
u^l	0.2492
v^l	0.5231

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%	-2%	2%	8%	12%	3%	-6%	-14%	-13%	-15%
R _f VALUE	81	83	80	90	93	94	88	94	90	84	83	86	89	81	80	79

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R4SSQ SERIES | 4-Inch Square 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 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.