

R4SSQNC

4" Shallow Square Recessed LED Downlight: New Construction Housing

Specifications/Features

Housing/Mounting

Specification grade shallow, 4" Square New Construction housing. Fits into a 2-1/2" plenum space. Can be used in trimmed or trimless applications. 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 and may be extended to rest on T-bar ceilings. Optional clip-on T-bar hangers also available. Mounting frame features a post installation mechanism that allows 1/4" adjustment in all directions, as well as 5° of rotation adjustment to ensure proper alignment. 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. Multivolt 120-277V standard. Output over voltage, over-current and short circuit protection. Approved for through-circuit wiring. Max.: (4) 12 AWG (2in/2out). Wiring rated to 90°C. Pre-wired junction box with convenient knockouts. (6) 1/2" and (1) 1/2" x 3/4" concentric knockouts.

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. Precision TIR Optics produce Medium, Flood, and Wide Flood beam distributions. Optics are interchangeable and can be field replaced. System designed and rated for 50,000 hours at 70% lumen maintenance.

Dimming

All R4S downlights are available for non-dimming and dimming applications. For a list of compatible dimmers, refer to the Dimming Specifications sheet.

Trims

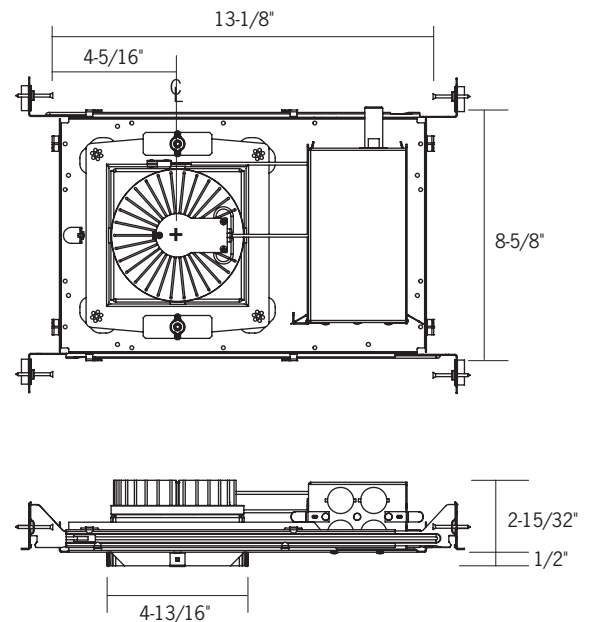
Specification Grade trims are available in different finishes for your space. Constructed of durable die-cast aluminum. Full cone trims come standard with Solite lens and have 1" regression to lens. All trims are wet location certified. Trimmed and trimless options available.

Warranty

This complete fixture is covered by ConTech's full five (5) year replacement guarantee after date of purchase.

Labels/Usage

cCSAus Certified to UL Standards. Suitable for damp locations. Energy Star certified, except for Lutron and eldoLED dimming options. Can be used to comply with the 2016 Title 24 Part 6 JA8 high efficacy LED light source requirements. Assembled in the U.S.A.



Ceiling Opening: 4-7/8"
Ceiling Thickness: 1/2" – 1-1/2"

	Series 1	Series 2	Series 3	Series 4
Input Wattage (W)	10	14	20	28
Input Current (A) 120/277	.08/.04	.12/.06	.17/.08	.23/.11
Input Voltage				
Standard Driver (120V-277V)	90-305V AC, 50/60Hz			
Lutron HiLume® Driver	120V AC, 50/60Hz			
Lutron Eco-System® Driver	120-277V AC, 50/60Hz			
eldoLED ECODrive	120-277V AC, 50/60Hz			
eldoLED SOLOdrive	120-277V AC, 50/60Hz			
Color Temp	2700K/3000K/3500K/4000K			
CRI Standard/High	83 (80min) / 90+			
Driver				
Power Factor	> 0.90			
THD	< 20%			

R4SSQNC

4" Shallow Square Recessed LED Downlight: New Construction Housing

Ordering Information

Example Order:

Housing	LED Series	Color Temp	Electrical/Dimming*	Beam Distribution
R4SSQNC	1 - 10W, 1000lm 2 - 14W, 1400lm 3 - 20W, 2000lm 4 - 28W, 2700lm	27K - 2700K 30K - 3000K 35K - 3500K 40K - 4000K 27KC - 2700K, 90+ CRI 30KC - 3000K, 90+ CRI 35KC - 3500K, 90+ CRI 40KC - 4000K, 90+ CRI	MVD¹ - 120-277V TRIAC, ELV, 0-10V Dimming 12D3² - 120V Lutron Hi-Lume 1% 2-Wire LED Driver (120V Forward Phase Only) MVD4 - 120-277V Lutron Hi-Lume 1% EcoSystem LED Driver with Soft-On, Fade-to-Black Dimming MVD6³ - 120-277V eldoLED ECOdrive, 0-10V, 1% Dimming MVD7³ - 120-277V eldoLED ECOdrive, DALI, 1% Dimming MVD8³ - 120-277V eldoLED SOLOdrive, 0-10V, 0.1% Dimming MVD9³ - 120-277V eldoLED SOLOdrive, DALI, 0.1% Dimming MDMX^{3,4} - 120-277V eldoLED POWERdrive, DMX, 0.0% Dimming	M - Medium F - Flood W - Wide Flood

*Consult factory for 347V option and/or Emergency Back-Up option

Accessories

Standard hanger bars supplied with housing



- HB-30** - 30" T-Bar Hanger Set
- MF4SSQ** - 4" Square Mud Frame
- R4SOPTM** - Medium Beam Optic
- R4SOPTF** - Flood Beam Optic
- R4SOPTW** - Wide Flood Beam Optic

1. Triac and ELV dimming for 120V only.
2. Lutron Hi-Lume dimming only available in 120V.
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.

Trims

Important Notes: Trimless option requires use of accessory mud frame (MF4SSQ – ordered separately).
Trimless option for use with 1/2" – 5/8" ceiling thicknesses only.

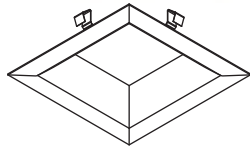


Specification Grade Reflector Trim

Die-cast aluminum reflector is available in painted satin silver and matte white finishes. Solite lens standard. Trims are wet location certified.

Trim Flange: 5-11/16" square; Aperture: 4-5/16" square

- C4322SSQDC-SL** - Satin Silver Reflector
- C4322SSQDC-SL-WPF** - Satin Silver Reflector with White Painted Flange
- C4322SSQDC-WHT** - Matte White Reflector

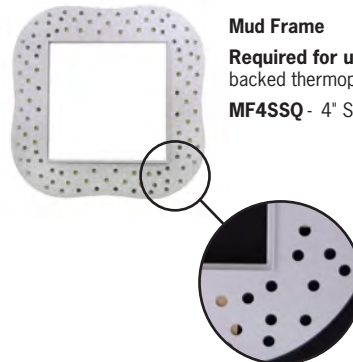
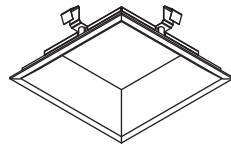


Trimless Specification Grade Reflector

Note: Trimless option requires use of accessory mud frame (MF4SSQ – ordered separately).

Die-cast aluminum reflector is available in painted satin silver and matte white finishes. Solite lens standard. Trims are wet location certified. Aperture: 4-5/16" square

- CN4322SSQDC-SL** - Satin Silver Reflector
- CN4322SSQDC-WHT** - Matte White Reflector



Mud Frame

Required for use with Trimless trim option. Adhesive backed thermoplastic mesh frame – white. 8-1/2" SQ.

MF4SSQ - 4" Square Mud Frame

R4SSQNC

4" Shallow Square Recessed LED Downlight Photometrics: New Construction Housing

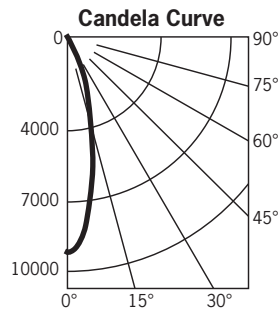
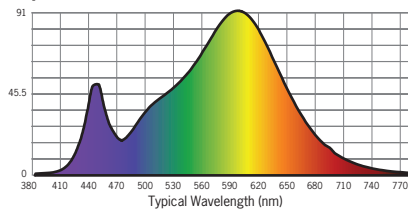
Multiplication Factors

CCT	STD CRI	HIGH CRI	SERIES 1	SERIES 2	SERIES 3	WHT REFLECTOR
2700K	0.94	0.70	0.39	0.54	0.74	1.0
3000K	N/A	0.75	0.39	0.54	0.74	1.0
3500K	1.0	0.81	0.39	0.54	0.74	1.0
4000K	1.0	0.87	0.39	0.54	0.74	1.0

R4SSQNC430KMVDM/C4322SSQDC-SL

Designed for 50,000 Hour Lamp Life*; LM-63 Test No. G19072303

Light Output (Fixture Delivered Lumens): 2530
Total Watts@120V: 27.6
Lumens Per Watt: 91.7
Color Rendering Index (CRI)¹: 81
Color Temperature (CCT)²: 3126K
Spectral Power Distribution Chart³



Candlepower Summary

FROM 0	CANDELA	LUMENS
0	9210	
5	8207	839
15	3515	1013
25	853	410
35	269	170
45	154	116
55	74	68
65	21	22
75	2	2
85	0	0
95	0	

Intensity Distribution

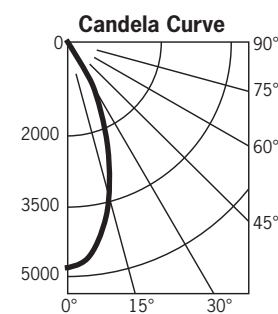
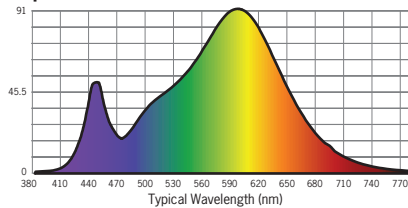
DISTANCE (FT.)	FOOTCANDLES (FC)	BEAM DIAMETER (FT.)
6'	255.8	2.7
8'	143.9	3.6
10'	92.1	4.4
12'	64.0	5.3
14'	47.0	6.2
16'	36.0	7.1

Beam Distribution: 25°
Spacing Criteria: 0.42

R4SSQNC430KMVDF/C4322SSQDC-SL

Designed for 50,000 Hour Lamp Life*; LM-63 Test No. G19072307

Light Output (Fixture Delivered Lumens): 2667
Total Watts@120V: 27.6
Lumens Per Watt: 96.6
Color Rendering Index (CRI)¹: 81
Color Temperature (CCT)²: 3139K
Spectral Power Distribution Chart³



Candlepower Summary

FROM 0	CANDELA	LUMENS
0	4853	
5	4675	475
15	3379	957
25	1544	711
35	482	291
45	218	164
55	113	99
65	20	21
75	2	2
85	0	0
95	0	

Intensity Distribution

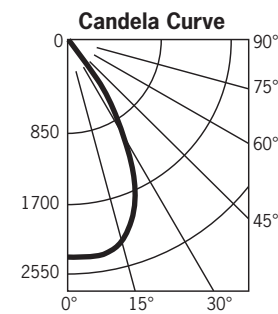
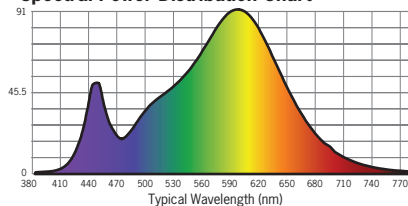
DISTANCE (FT.)	FOOTCANDLES (FC)	BEAM DIAMETER (FT.)
6'	134.8	4.4
8'	75.8	5.9
10'	48.5	7.4
12'	33.7	8.8
14'	24.8	10.3
16'	19.0	11.8

Beam Distribution: 41°
Spacing Criteria: 0.65

R4SSQNC430KMVDW/C4322SSQDC-SL

Designed for 50,000 Hour Lamp Life*; LM-63 Test No. G19072404

Light Output (Fixture Delivered Lumens): 2771
Total Watts@120V: 27.6
Lumens Per Watt: 100.4
Color Rendering Index (CRI)¹: 81
Color Temperature (CCT)²: 3135K
Spectral Power Distribution Chart³



Candlepower Summary

FROM 0	CANDELA	LUMENS
0	2816	
5	2815	286
15	2696	771
25	2059	957
35	822	509
45	233	175
55	91	79
65	22	22
75	1	1
85	0	0
95	0	

Intensity Distribution

DISTANCE (FT.)	FOOTCANDLES (FC)	BEAM DIAMETER (FT.)
6'	78.2	7.0
8'	44.0	9.4
10'	28.2	11.7
12'	19.6	14.0
14'	14.4	16.4
16'	11.0	18.7

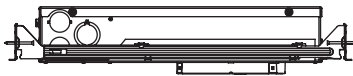
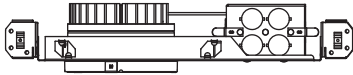
Beam Distribution: 61°
Spacing Criteria: 0.98

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" Shallow Recessed LED Downlight Series: **R4SNC, R4SIC, R4SSQNC, R4SSQIC**

- 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 vov 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.



			R4S Series* R4SSQ Series* Dimming Option MVD Dimming Range	R4S Series, R4SSQ Series eldoLED ECoDrive 0-10V Dimming Option MVD6 Dimming Range	R4S Series, R4SSQ Series eldoLED SOLOdrive 0-10V Dimming Option MVD8 Dimming Range
Manufacturer	Product	Model	Light Output	Light Output	Light Output
Leviton	IlumaTech	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	IlumaTech	IPE04	6%-100%	NA	NA
Leviton	IlumaTech	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 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.