

DATE

PROJECT

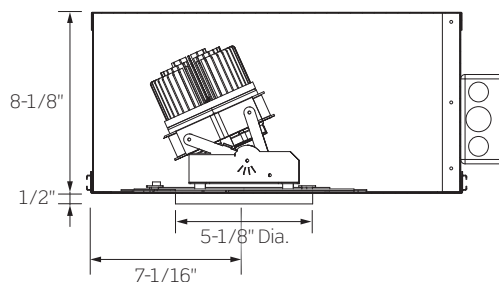
TYPE

R4ASQIC SERIES | 4-Inch Square Adjustable Downlight: Insulated Ceiling (IC)/StopAire™ Housing

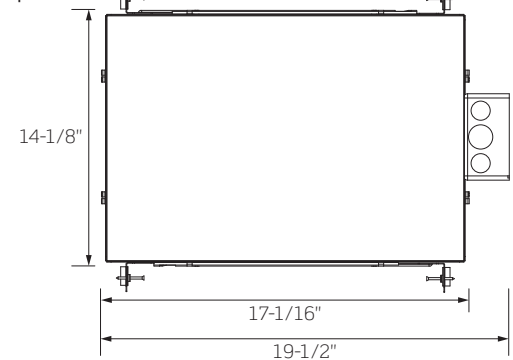


Ceiling Opening: 5-1/4" SQ
Ceiling Thickness: 1/2" - 1-1/4"

Side/Interior View



Top View



For 37W/2600lm and 44W/3000lm LED Series, use the R4ASQNC Series Specification Sheet

	R4AIC1	R4AIC2	R4AIC3	R4AIC4
WATTAGE	12W	15W	21W	29W
LUMEN OUTPUT ¹	900Lm	1200Lm	1700Lm	2400Lm
BEAM SPREAD	19° Spot / 35° Medium / 51° Flood			
COLOR TEMPERATURE	2700K / 3000K / 3500K / 4000K			
CRI	83 (80min) / 90+			
INPUT WATTAGE	12W	15W	21W	29W
INPUT CURRENT (A) 120V/277V	.08A/.04A	.12A/.06A	.17A/.08A	.23A/.11A
INPUT VOLTAGE	90-305VAC, 50/60Hz			
Standard Driver (TRIAC, ELV, 0-10V)	90-305VAC, 50/60Hz			
Lutron Eco-System® Driver	120VAC / 277VAC, 50/60Hz			
eldoLED ECOdrive	120VAC / 277VAC, 50/60Hz			
eldoLED SOLOdrive	120VAC / 277VAC, 50/60Hz			
DRIVER POWER FACTOR	> 0.90			
TOTAL HARMONIC DISTORTION (THD)	< 20%			
LISTINGS	cCSAus Certified using US (UL) and Canadian (CSA) standards; Suitable for Damp Locations cCSAus Certified to UL924 Standard for Emergency Lighting when specified with the Emergency Battery Backup option (-ER) Conforms to Washington State Energy Code (WSEC) for Low Air Infiltration; tested in accordance with ASTM E283 (2.0 CFM or less)			
WARRANTY	Five (5) year replacement after date of purchase Emergency Battery Backup option covered by a one (1) year replacement guarantee 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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R4ASQIC SERIES | 4-Inch Square Adjustable Downlight: Insulated Ceiling (IC)/StopAire™ Housing

ORDERING INFORMATION

Example Order: –

For 37W/2900lm and 44W/3700lm LED Series, use the R4ASQNC Series Specification Sheet

Housing/LED Series	CCT / CRI	Dimming	Beam Dist.	Options
R4ASQIC1 - 12W / 900lm	83 (80min) CRI	MVD1 - TRIAC, ELV, 0-10V Dimming	S - 19° Spot	ER ^{2,3} - Factory Installed
R4ASQIC2 - 15W / 1200lm	27K - 2700K	MVD4 - Lutron Hi-lume	M - 35° Medium	7W/200mA
R4ASQIC3 - 21W / 1700lm	30K - 3000K	1% EcoSystem Driver	F - 51° Flood	Emergency Battery Backup
R4ASQIC4 - 29W / 2400lm	35K - 3500K	with Soft-on, Fade-to-Black		(Remote Test Switch)
	40K - 4000K	MVD6 - eldoLED ECOdrive 0-10V		
	90+ CRI	1% Dimming		
	27KC - 2700K	MVD7 - eldoLED ECOdrive DALI		
	30KC - 3000K	1% Dimming		
	35KC - 3500K	MVD8 - eldoLED SOLOdrive 0-10V		
	40KC - 4000K	0.1% Dimming		
		MVD9 - eldoLED SOLOdrive DALI		
		0.1% Dimming		

1. TRIAC and ELV Dimming for 120V only
2. Emergency Battery Backup Option cannot be used in Chicago Plenum applications
3. 600 Lumen nominal average for Emergency Battery Backup Option

ACCESSORY & REPLACEMENT OPTIC ORDERING INFORMATION

Housing Accessories	Replacement Optics	Lenses and Louvers
<i>Standard Hanger Bars Supplied with Housing</i>	ADJOPT-S - 16° Spot	FA-57 - Black Accessory Holder Clip
HB-30 - T-Bar Hanger Set	ADJOPT-M - 36° Medium	Accepts Two (2) Media
RL-KIT - Commercial Mounting Brackets	ADJOPT-F - 51° Flood	LA-36-83MM - Black Honeycomb Louver
HB-24 - 27-Inch Flat Hanger Bars for RL-KIT		Requires FA-57 Accessory Holder
HBC-24 - 25-Inch C-Channel Hanger Bars for RL-KIT in Grid Ceiling Construction		LF20-** 86MM - Tempered Glass Lenses;
		Requires FA-57 Accessory Holder

****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)

See “Trims for 4-Inch Adjustable LED Downlights” Specification Sheet for compatible Trim information and details

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R4ASQIC SERIES | 4-Inch Square Adjustable Downlight: Insulated Ceiling (IC)/StopAire™ Housing

PRODUCT DETAILS

Construction

- Specification Grade 4-inch Square 16 Gauge Galvanized Steel New Construction Insulated Ceiling (IC) Air Tight Housing with Die-Cast Aluminum Heat Sink
- Rated for Insulated Ceiling (IC) and StopAire™ applications; can be used in direct contact with insulation materials as well as in sloped ceiling applications
- Housing is painted matte black inside and out
- Aperture can be adjusted 1/4–inch in each direction, as well as 11° of angular adjustment (5.5° per side) post installation to ease fixture alignment
- Quick-connect Module design enables easy installation and removal; can be accessed from above or below the ceiling
- Class 2 Output Drivers are fully accessible from below the ceiling and can be easily removed
- Housing has a removable cover when Module and Driver access from above the ceiling is required
- Adjustment Mechanism is constructed of 16 Gauge sheet metal and Die-Cast Aluminum, painted matte black
- Fully lockable Adjustment Mechanism allows 45° of tilt with white graduation marks every 15° for consistent aiming plus 360° for rotational adjustment
- 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 eight (8) 1/2-inch Knockouts and four (4) 3/4-inch Knockouts
- Output over-voltage, over-current and short circuit protection
- Approved for Through Circuit Wiring: max. eight (8) 12 AWG (4in/4out), wiring rated to 90°C

Performance Summary

- 2700K, 3000K, 3500K and 4000K Color Temperatures available
- 80 CRI min., 83 typical; high CRI of 90+ available
- Excellent fixture-to-fixture color consistency with a 3-step MacAdam Ellipse tolerance
- Engineering Grade Thermoplastic Housing with Steel Spring Clip support the glass TIR Optics
- 19° Spot, 35° Medium and 51° Flood beam distributions; Optics are interchangeable and can be field replaced
- FA-57 Black Accessory Holder Clips can support two (2) media
- All R4ASQ Downlights are available for non-dimming and dimming applications; for compatible Dimmers, refer to the Dimming Specification Sheet
- Specification Grade Trims in several different styles and finishes available
- **NOTE:** R4ASQ and R4SQ Series Trims are **NOT** compatible with each other
- UL8750 and Class 2 Compliant; RoHS Compliant, US only

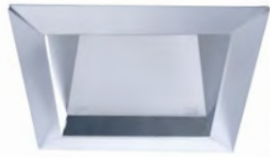
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R4ASQ SERIES | 4-Inch Square Adjustable Downlight Trims

TRIM OPTIONS



C4304SQ-CLR
Clear Specular
Angle-Cut Reflector



C4304SQ Series
Specification Grade Angle-Cut Reflector with Solite Lens

4-1/2-Inch Sq. Aperture
5-3/4-Inch Trim Flange

Specification Grade Reflector. Wet Location approved.



C4305SQ-BLK
Matte Black Painted
Pinhole Trim

C4305SQ Series
Pinhole Trim

2-1/4-Inch Sq. Aperture
5-5/8-Inch Trim Flange

C4304SQ - Angle-Cut Reflector

CLR - Clear Specular
PL - Platinum
WHT - Matte White Painted

C4305SQ - Pinhole Trim

BLK - Matte Black Painted
WHT - Matte White Painted

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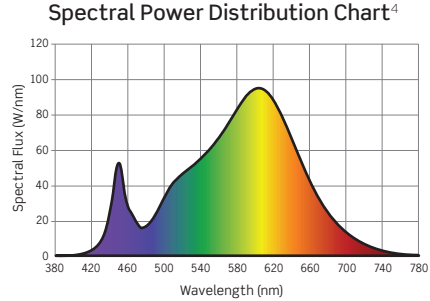
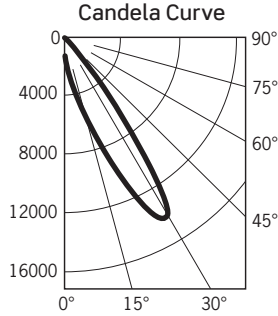
PROJECT

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R4ASQ SERIES | 4-In. Square Adjustable Downlight Photometrics

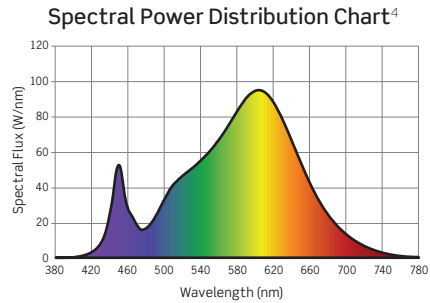
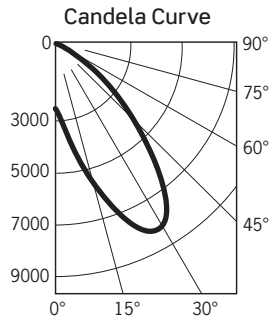
R4ASQNC630K12DS / C4304SQ-CLR

Luminaire aimed 30° from Nadir
 Fixture Delivered Lumens: 2096.0
 Total Watts@120V: 44.2
 Lumens Per Watt: 47.4
 Center Beam Candle Power: 14252
 Beam Distribution: 19.4°
 Color Rendering Index (CRI)¹: 83.1
 Color Temperature (CCT)²: 3088K
 Designed for 50,000 Hour Lamp Life³
 LM-63 Test No. G21101204
 LM-79 Test No. S21072703



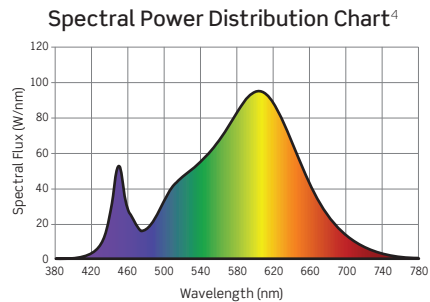
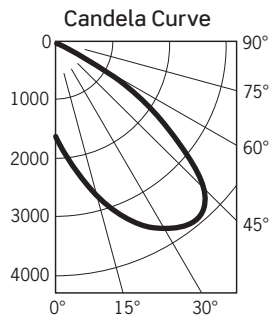
R4ASQNC630K12DM / C4304SQ-CLR

Luminaire aimed 30° from Nadir
 Fixture Delivered Lumens: 3705.4
 Total Watts@120V: 44.4
 Lumens Per Watt: 83.5
 Center Beam Candle Power: 8230
 Beam Distribution: 34.6°
 Color Rendering Index (CRI)¹: 83.1
 Color Temperature (CCT)²: 3088K
 Designed for 50,000 Hour Lamp Life³
 LM-63 Test No. G21100702
 LM-79 Test No. S21072703



R4ASQNC630K12DF / C4304SQ-CLR

Luminaire aimed 30° from Nadir
 Fixture Delivered Lumens: 3144.3
 Total Watts@120V: 44.4
 Lumens Per Watt: 70.8
 Center Beam Candle Power: 3661
 Beam Distribution: 50.8°
 Color Rendering Index (CRI)¹: 83.1
 Color Temperature (CCT)²: 3088K
 Designed for 50,000 Hour Lamp Life³
 LM-63 Test No. G21080202
 LM-79 Test No. S21072703



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	12W/SERIES 1	15W/SERIES 2	21W/SERIES 3	29W/SERIES 4	38W/SERIES 5	C4304-PL	C4305-WHT	C4302-CLR
2700K	0.94	0.70	0.25	0.34	0.48	0.65	0.79	0.89	0.88	0.58
3000K	N/A	0.75								
3500K	1.0	0.81								
4000K	1.0	0.87								

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R4ASQ SERIES | 4-In. Square Adjustable Downlight Photometrics

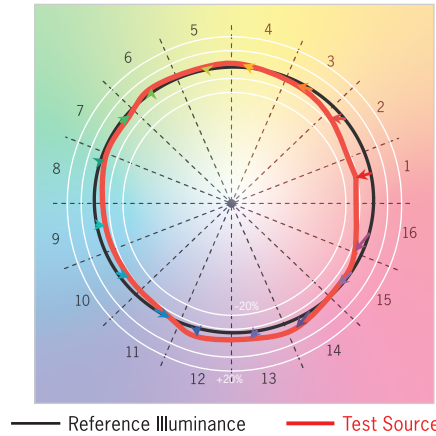
TM-30 DATA: R4ASQNC630K12DM / C4304SQ-CLR

ANSI/IES TM-30-18 Color Rendition Report Test No. S21072703

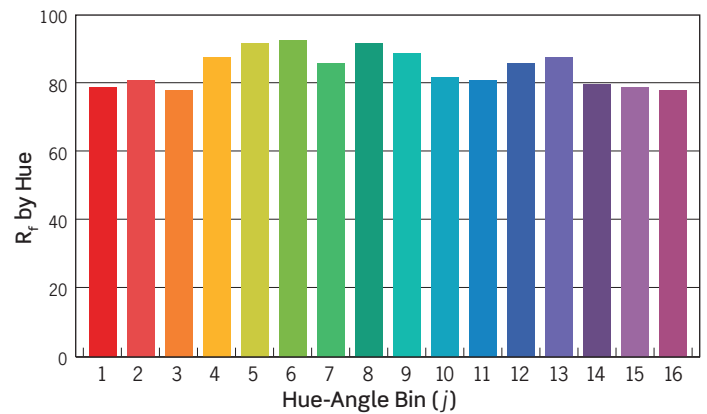
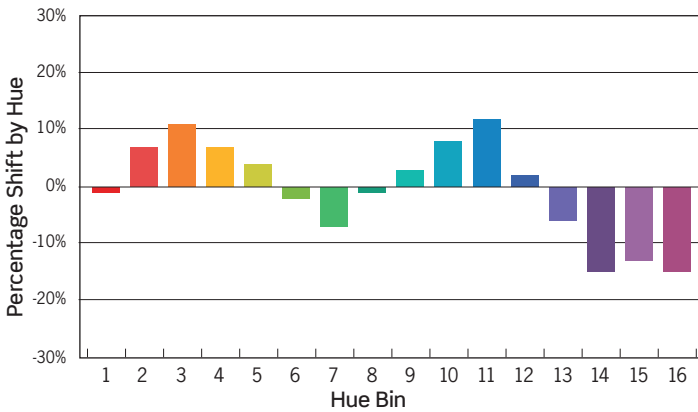
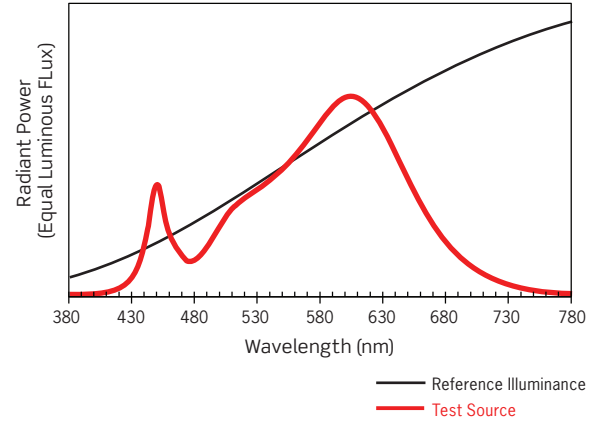
Colors are for visual orientation purposes only

R_f	86
R_g	96
CCT(K)	3088K
D_{uv}	0.0018
u^I	0.2469
v^I	0.5221

Color Vector Graphic



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%	11%	7%	4%	-2%	-7%	-2%	2%	8%	12%	2%	-6%	-14%	-13%	-15%
R _f VALUE	81	82	79	89	93	93	87	94	90	84	82	88	89	82	80	79

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R4ASQ SERIES | 4-Inch Square Adjustable Downlights: Dimming Specifications

- 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 Purple and Pink/Grey).
- Lutron 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.

Manufacturer	Product	Model	TRIAC, ELV, 0-10V*	eldoLED ECoDrive 0-10V	eldoLED SOLOdrive 0-10V
			(12D, 27D, MVD)	(12D6, 27D6, MVD6)	(12D8, 27D8, MVD8)
			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.