CONTECH LIGHTING | a LEVITON company

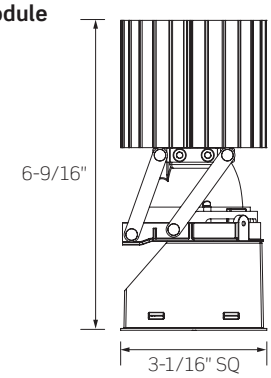
CATALOG NO.

DATE PROJECT TYPE

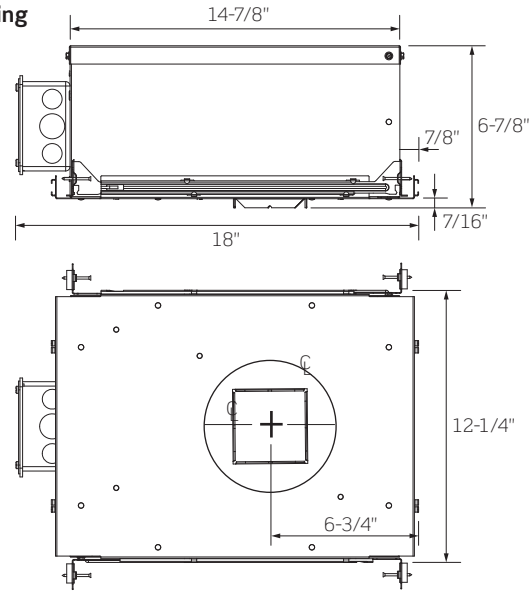
RN2ASQNCWD | 2-In. Sq. Warm Dim Trimless Adjustable Downlight: New Construction Insulated Ceiling (IC)/StopAire™

Ceiling Thickness: 1/2" - 1-1/2"

Module



Housing



	RN2ASQNCWD
WATTAGE	13W
LUMEN OUTPUT[1]	800Lm
COLOR TEMPERATURE	3000K – 1800K; 3000K at full brightness, 1800K when dimmed
CRI	90+
BEAM SPREAD	17° Spot/25° Medium/33° Flood
INPUT WATTAGE	13W
INPUT CURRENT (A) 120V / 277V	.10 / .04
INPUT VOLTAGE	
Standard Driver	90-305V AC, 50/60Hz
Lutron Eco-System® Driver	120-277V AC, 50/60Hz
eldoLED ECOdrive / SOLOdrive	120-277V AC, 50/60Hz
DRIVER POWER FACTOR	> 0.90
TOTAL HARMONIC DISTORTION (THD)	< 20%
LISTINGS cCSAus Listed · Damp Locations · WSEC Compliant · CCEA Rated	cCSAus Certified using U.S. (UL) and Canadian (CSA) Standards; Suitable for Damp Locations The RN2ASQNCWD1MVD Housing using either UMODNSQWD1M or UMODNSQWD1F LED Module can be used to comply with the 2019 Title 24 Part 6 JA8 high efficacy LED light source requirements Conforms to Washington State Energy Code for Low Air Infiltration; tested in accordance with ASTM E283 City of Chicago Environmental Air (CCEA) Approved
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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ORDERING INFORMATION

HOUSING + MODULE + TRIM + MUD FRAME = COMPLETE SYSTEM

Example Order Housing: RN2ASQNCWD1MVD Mud Frame: MF2SQ
Module: UMODNSQWD1S Trim: CN2304SQ-SL

Housing

RN2ASQNC WD1 —

Housing
RN2ASQNC - New Construction Insulated Ceiling (IC) StopAire™ Housing

LED Series
WD1 - 13W/800Lm

Electrical/Dimming
MVD[1] - 120-277V TRIAC, ELV and 0-10V Dimming
MVD4[2] - Lutron Hi-lume 1% EcoSystem LED Driver with Soft-on, Fade-to-Black
MVD6[2,3] - 120-277V eldoLED ECOdrive 0-10V, Dim to 1%
MVD7[2,3] - 120-277V eldoLED ECOdrive DALI, Dim to 1%
MVD8[2,3] - 120-277V eldoLED SOLOdrive 0-10V, Dim to 0.1%
MVD9[2,3] - 120-277V eldoLED SOLOdrive DALI, Dim to 0.1%

Options
ER[4] - Factory Installed 7W/200mA Emergency Battery Backup (Remote Test Switch)

Accessories
Standard Hanger Bars Supplied with Housing
HB-30 - T-Bar Hanger Set
RL-KIT - Commercial Mounting Brackets
HB-24 - 27–Inch Flat Hanger Bars for RL-KIT
HBC-24 - 25–Inch C-Channel Hanger Bars for RL-KIT in Grid Ceiling Construction

1. TRIAC and ELV Dimming for 120V only
2. Lutron and eldoLED Dimming Options require above ceiling driver access
3. eldo LED Drivers are programmed for Linear Curve Dimming as standard; for Logarithmic Curve Dimming, consult factory
4. Emergency Backup Option cannot be used in an IC (Insulated Ceiling) application and requires above ceiling battery access; 500 lumen nominal average

LED Module

UMODNSQ WD1

LED Module
UMODNSQ - 2-Inch Sqare Trimless Universal LED Module

Color Temp/CRI
WD1 - 3000K – 1800K 90 CRI

Beam Distribution
S - 17° Spot
M - 25° Medium
F - 33° Flood

Module Accessories
FA-47 - Black Accessory Holder; Accepts Two (2) Media

Accessories require the FA-47 Holder
R2ASNR1-B - Black Dual Ring Snoot: 60MM OD X 1 Inch Long
FA-16 60MM - Black Honeycomb Louver
LF16- 60MM** - 2-3/8 In. Dia. Lenses

Replacement Optics
2INOPTIC-S - 14° Spot
2INOPTIC-M - 26° Medium
2INOPTIC-F - 33° Flood

***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)

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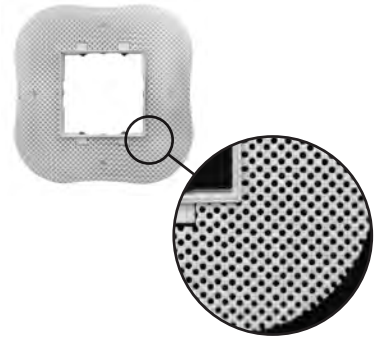
MUD FRAME



MF2SQ
Square Mud Frame
6-3/4-Inch Sq

Die-cast collar with steel mesh frame, painted white. REQUIRED - ORDER SEPARATELY.

MF2SQ

TRIM OPTIONS

NOTE: RN2ASQ and RN2RMSQ Series Trims are NOT compatible with each other

CN2322SQ-BLK

CN2322SQ Series
Trimless Reflector
2-5/8-In. Sq Aperture
3-1/16-In. Sq Trim Frame

Wet Location Certified when used with LF50 Lens. Accepts one (1) FA-55 Black Honeycomb Square Louver or one (1) LF50 Tempered Glass Square Lens.

CN2322SQ - Trimless Reflector

BLK - Matte Black Painted
SL - Satin Silver Painted
WHT - Matte White Painted

CN2304SQ-SL

CN2304SQ Series
Trimless Angle Cut Reflector
2-5/8-In. Sq Aperture
3-1/16-In. Sq Trim Frame

Specification Grade Angle Cut Reflector

CN2304SQ - Trimless Angle Cut Reflector

BLK - Matte Black Painted
SL - Satin Silver Painted
WHT - Matte White Painted

CN2304SQWL-WHT

C2304SQWL Series
Wet Location Trimless Angle Cut Reflector
2-5/8-In. Sq Aperture
3-1/16-In. Sq Trim Frame

Specification Grade Angle Cut Reflector; Clear Glass Lens provides Wet Location Certification

CN2304SQWL - Wet Location Trimless Angle Cut Reflector

BLK - Matte Black Painted
SL - Satin Silver Painted
WHT - Matte White Painted

ACCESSORY ORDERING INFORMATION

Accessories
FA-55 - Honeycomb Louver
LF50[2] - Tempered Glass Lenses

2. Lens 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)

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RN2ASQNCWD | 2-In. Sq. Warm Dim Trimless Adjustable Downlight: New Construction Insulated Ceiling (IC)/StopAire™

PRODUCT DETAILS

Construction

- Housing rated for Insulated Ceiling (IC) and StopAire™ applications; for use in direct contact with insulation materials
- 16-Gauge Galvanized Steel Housing painted Matte Black inside and out
- 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
- Spring Latch Tether provides secondary support of the Universal LED Module; four (4) Spring Steel Supports secure module into housing/ceiling
- Quick-connect design enables easy installation and removal of Universal LED Module; three (3) Spring Steel Supports secure Module into Housing/ceiling
- Approved for through-circuit wiring: Max. (8) 12 AWG (4in/4out)
- Pre-wired Junction Box with Knockouts: seven (7) 1/2 inch Concentric Knockouts
- Removable cover for Driver access
- For MVD Dimming Option, 120-277V TRIAC, ELV and 0-10V; Drivers are fully accessible from above or below the ceiling
- For MVD4, MVD6, MVD7, MVD8 and MVD9 Dimming Options, Drivers are only accessible from above the ceiling
- Output over voltage, over current and short circuit protection
- Matte Black painted Adjustment Mechanism is constructed of 16-gauge Sheet Metal, Aluminum Die-cast Heat Sink, Acrylic TIR Optic and Thermoplastic Optic Holder. White Graduation Marks painted every 15° for consistent aiming, as well as a Set Screw to lock tilt adjustment in place.
- Module features rotational adjustability of 30° per side (60° total). Adjusts to 45° when installed in a 1/2 to 1-inch thick ceiling, to 30° in 1-1/2-inch ceiling. Using the optional FA-47 Accessory Holder Clip with two (2) Lenses/Louvers, Module adjusts to 45° in 3/4-inch thick ceiling.
- Dual Extension Nailer Bars are adjustable for 16 and 24 inch center joists (14-1/4 – 24-1/2 inches). Nailer Bars enable easy installation and may be extended to rest on T-bar ceilings. Optional clip-on T-bar Hangers available.
- Many Trim options available to complement any design style. See ordering information for details.
- Metal perforated mud frame is required (MF2SQ, ordered separately). When fastened to the ceiling, mud frame utilizes three spring and ball detent points to securely support module.
- **Note:** RN2ASQ series and RN2RMSQ series trims are not compatible with each other.

Performance Summary

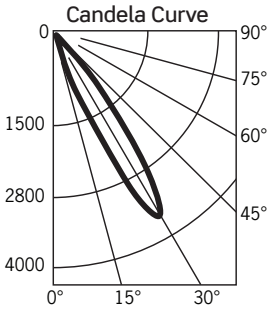
- CCT Range from 3000K to 1800K, delivering up to 700 lumens (3000K at 100%, 1800K at ≤5%)
- High output multi-chip LED array arranged into a single LED package, enabling precise optical control
- Excellent fixture to fixture color consistency within a 2-step MacAdam Ellipse tolerance
- Precision optics produce smooth Spot, Medium and Flood beam distributions; optics are interchangeable and can be field replaced
- Driver with Class 2 output, RoHS Compliant
- All RN2ASQ Trimless Adjustable Downlights are available for non-dimming and dimming applications; for a list of compatible dimmers, refer to the Dimming Specification sheet

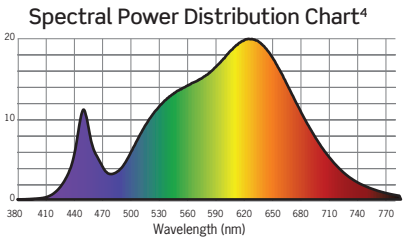
RN2ASQNCWD | 2-In. Sq. Warm Dim Trimless Adjustable Downlight: New Construction Insulated Ceiling (IC)/StopAire™

PHOTOMETRICS

RN2ASQNCWD1MVD/UMODNSQWD1S/CN2304SQ-SL

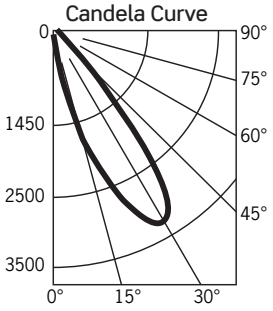
Fixture Aimed at 30° from Nadir
Fixture Delivered Lumens: 400.5
Total Watts@120V: 13.5
Lumens Per Watt: 29.7
Center Beam Candle Power: 36
Beam Distribution: 17°
Color Rendering Index (CRI)[1]: 91
Color Temperature (CCT)[2]: 2985K
Designed for 50,000 Hour Lamp Life[3]
LM-63 Test No. G20081411
LM-79 Test No. S20081102

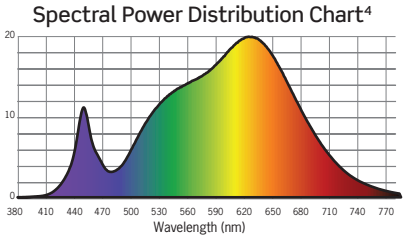




RN2ASQNCWD1MVD/UMODNSQWD1M/CN2304SQ-SL

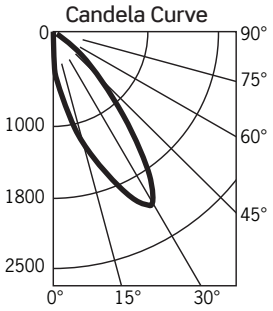
Fixture Aimed at 30° from Nadir
Fixture Delivered Lumens: 699.8
Total Watts@120V: 13.5
Lumens Per Watt: 51.8
Center Beam Candle Power: 87
Beam Distribution: 25°
Color Rendering Index (CRI)[1]: 91
Color Temperature (CCT)[2]: 2985K
Designed for 50,000 Hour Lamp Life[3]
LM-63 Test No. G20081414
LM-79 Test No. S20081102

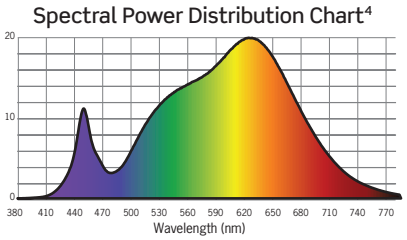




RN2ASQNCWD1MVD/UMODNSQWD1F/CN2304SQ-SL

Fixture Aimed at 30° from Nadir
Fixture Delivered Lumens: 660.3
Total Watts@120V: 13.5
Lumens Per Watt: 48.9
Center Beam Candle Power: 338
Beam Distribution: 33°
Color Rendering Index (CRI)[1]: 91
Color Temperature (CCT)[2]: 2985K
Designed for 50,000 Hour Lamp Life[3]
LM-63 Test No. G20081408
LM-79 Test No. S20081102





1. Accuracy of rendering colors 2. Color appearance of light source 3. Dependent on surrounding temperatures 4. Colors present within the light source

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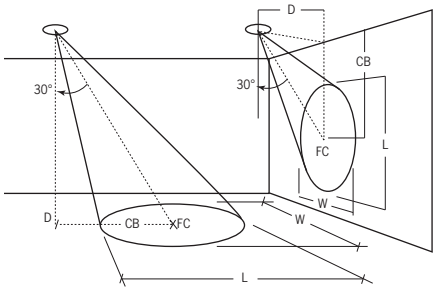
RN2ASQNCWD | 2-In. Sq. Warm Dim Trimless Adjustable Downlight: New Construction Insulated Ceiling (IC)/StopAire™

PHOTOMETRICS

Application Data Notes Based Upon RN2ASQNCWD1MVD/UMODNSQWD1(S,M,F)/CN2304SQ-SL:



D: Offset distance between the Luminaire to the Illuminated Plane, in feet

CB: Projected distance between the Luminaire and the Center Point where the Beam is aimed, in feet

FC: Horizontal or Vertical Illuminance at the Center Point where the Beam is aimed, in footcandles

L: Beam Length corresponding to the Perimeter where the Luminous Intensity is 50% of Center Beam Candlepower (CBCP), in feet

W: Beam Width corresponding to the Perimeter where the Luminous Intensity is 50% of Center Beam Candlepower (CBCP), in feet

Luminaires Aimed at 30° from Nadir

	ILLUMINANCE ON HORIZONTAL PLANE						ILLUMINANCE ON VERTICAL PLANE				
	D	CB	FC	L	W		D	CB	FC	L	W
SPOT	5	2.9	93	2.0	1.7		3	5.2	50	3.8	1.8
	7.5	4.3	41	3.0	2.6		4	6.9	28	5.1	2.4
	10	5.8	23	4.0	3.5		5	8.7	18	6.4	3.0
	12.5	7.2	15	5.0	4.3		6	10.4	12	7.7	3.6
MEDIUM	D	CB	FC	L	W		D	CB	FC	L	W
	5	2.9	85	3.0	2.6		3	5.2	46	6.2	2.7
	7.5	4.3	38	4.5	3.8		4	6.9	26	8.3	3.5
	10	5.8	21	6.0	5.1		5	8.7	16	10.4	4.4
	12.5	7.2	14	7.5	6.4		6	10.4	11	12.5	5.3
FLOOD	D	CB	FC	L	W		D	CB	FC	L	W
	5	2.9	43	4.1	3.4		3	5.2	23	9.6	3.6
	7.5	4.3	19	6.1	5.1		4	6.9	13	12.9	4.7
	10	5.8	11	8.1	6.8		5	8.7	8	16.1	5.9
	12.5	7.2	7	10.2	8.6		6	10.4	6	19.3	7.1

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R2A & RN2A SERIES | 2-Inch Adjustable 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 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 (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 (120V or 277V AC) 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 (2) low voltage control wires (color coded Purple and Pink/Gray).
- Lutron EcoSystem Drivers provide continuous dimming from 1% to 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.

R2A, RN2A, R2AWD, RN2AWD, R2ASQ, RN2ASQ, R2ASQWD and RN2ASQWD Series*

Manufacturer	Product	Model	Dim. Options: 12D, 27D, MVD Light Output	Dim. Option: MVD6 Light Output	Dim. Option: MVD8 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	4%-100%	NA	NA
Leviton	Decora	6161	15%-100%	NA	NA
Leviton	SureSlide	6633-P	0%-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	4%-100%	NA	NA
Lutron	Ariadni	TG-600P	11%-100%	NA	NA
Lutron	Diva	DVCL-153P	0%-100%	NA	NA
Lutron	Diva	DV600P	0%-100%	NA	NA
Lutron	Diva	DVELV303P	6%-100%	NA	NA
Lutron	Diva	DVTV	NA	1%-100%	0.1%-100%
Lutron	Faedra	FAELV500	12%-100%	NA	NA
Lutron	Lumea	LG600P	5%-100%	NA	NA
Lutron	Maestro	MAELV600	11%-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	4%-96%	NA	NA
Lutron	Skylark	S600P	1%-100%	NA	NA
Lutron	Skylark	SELV300P	7%-100%	NA	NA
Lutron	Skylark	CT103P	9%-100%	NA	NA

*277V TRIAC Dimming is not available

NOTES

1. If light is measured, then the dimming range is based on light output. If light is not measured, then the dimming range is based on the percentage of output current.
2. Testing was performed with a single fixture connected to dimmer.
3. Testing has been performed on these dimmers, but this does not imply any warranty of compatibility.
4. Dimming performance can be influenced by different loads, as well as variations in dimmer switches within the same model.
5. Dimmer maximum load rating with LED may differ from published traditional source dimmer ratings. Consult manufacturer for maximum dimmer information.
6. Consult factory for additional dimming information.