

DATE

PROJECT

TYPE

# RN2SQRMWD | 2" Square Warm Dimming LED Trimless Downlight: New Construction and Remodel Housing

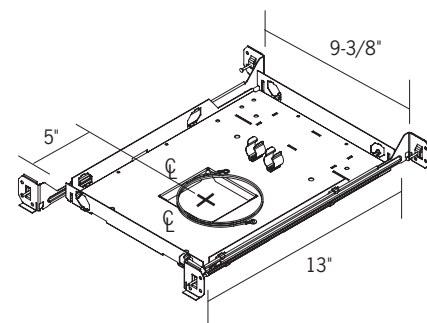
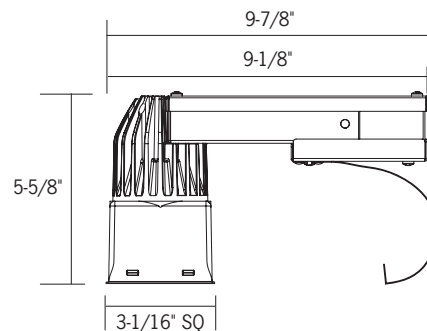
WATTAGE	13W
LUMEN OUTPUT <sup>1</sup>	1000Lm
COLOR TEMPERATURE	3000K – 1800K
CRI	90
BEAM SPREAD	17° Spot/28° Medium/37° Flood 60° Wide Flood/Wall Wash
SYSTEM RATING	50,000 Hours @ 70% Lumen Maintenance
DRIVER INPUT WATTAGE	13W
DRIVER INPUT CURRENT (A) 120/277	.10/.04
DRIVER INPUT VOLTAGE Dimming (Triac, ELV, 0-10V) Lutron EcoSystem® Dimming	90-305V AC, 50/60Hz 120-277V AC, 50/60Hz
DRIVER Power Factor THD	> 0.90 < 20%
LISTING	cCSAus Certified using U.S. (UL) and Canadian (CSA) Standards The standard Wall Wash (WW) housing/trim combination is suitable for damp locations; all other options are suitable for wet locations Conforms to Washington State Energy Code for low air infiltration; tested in accordance with ASTM E283 CP Housings are Chicago Plenum CCEA listed Assembled in the USA
WARRANTY	Five (5) year replacement after date of purchase



1. Lumen values are approximate, see photometric test results



Ceiling Thickness: 1/2" - 1"



Optional Mounting Frame: NCSQF1

For Ordering Information, see page 2

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## Ordering Information

Housing + Mud Frame + Trim = Complete System

**Example Order** Housing:  Mud Frame:   
Trim:

## Housing

Housing	LED Series	Electrical/Dimming	Beam Distribution	Options
RN2SQRM - Non-IC, StopAire Remodel Housing	WD1 - 13W/1000Lm 90 CRI	MVD <sup>1</sup> - 120/277V Triac, ELV and 0-10V Dimming MVD4 - Lutron Hi-lume 1% EcoSystem LED Driver with Soft-on, Fade-to-Black	S - 17° Spot M - 28° Medium F - 37° Flood WF - 60° Wide Flood WW - Wall Wash	CP - Chicago Plenum

1. Triac and ELV Dimming for 120V only

### Replacement Optics and Accessories

*Standard Hanger Bars Supplied with Housing*

- 2INOPTIC-S-RA2** - Spot Beam Replacement Optic
- 2INOPTIC-M** - Medium Beam Replacement Optic
- 2INOPTIC-F** - Flood Beam Replacement Optic
- 2INOPTIC-WF** - Wide Flood Beam Replacement Optic
- NCF1** - New Construction Mounting Frame
- RL-KIT** - Commercial Mounting Brackets (When Used with NCF1)
- HB-24** - 27" Flat Hanger Bars for RL-KIT
- HBC-24** - 25" C-Channel Hanger Bars for RL-KIT in Grid Ceiling Construction
- HB-30** - T-Bar Hanger Set (When Used with NCF1)

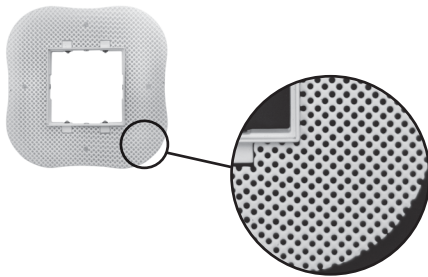
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## Mud Frame



### MF2SQ

2" Square Mud Frame

Required - Order Separately

OD: 6-3/4" SQ

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

## Trims



**CN2322SQ-BLK**

Matte Black Painted Reflector



**CN2322SQ-SL**

Satin Silver Painted Reflector



**CN2322SQ-WHT**

Matte White Painted Reflector

### **CN2322SQ Series** Reflector Trim

Aperture: 2-5/8" SQ; Trim Frame: 3-1/16" SQ

Trims are wet location certified without the need for lensing. Trim accepts one (1) FA-55 2-1/8" Square Black Honeycomb Louver or (1) LF50 2-1/8" Square Tempered Glass Lens.

### 2-3/8" Dia. Lenses/Louver

- FA-55** - 2-1/8" Square Honeycomb Louver
- LF50-\*\*** - 2-1/8" Square Lenses and Filters

#### \*\*Color/Pattern Legend

-**A** (Amber), -**B** (Blue), -**CL** (Clear), -**DPE** (Dichroic Peach), -**G** (Green), -**LB** (Light Blue), -**R** (Red), -**RO** (Rose), -**Y** (Yellow), -**73** (Spread Lens), -**LS** (Linear Spread Lens), -**SL** (Soft Light), -**SOL** (Solite), -**UV** (Optivex UV Filter)

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## Product Details

### Features

- Housing requires minimum 3" clearance from insulation material; thermal protection provided in case of improper insulation use
- Die-cast aluminum collar and heat sink, driver compartment and junction box made from 16-gauge steel. Housing has a black painted finish.
- LED Drivers are fully accessible from below the ceiling
- Minimum plenum clearance required to install housing in ceiling is 6"
- A 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 housing.
- **NOTE:** Certain regions require the use of a housing mounting frame in conjunction with the R2SQRMWD housing. The NCSQF1 new construction mounting frame should be specified when required (ordered separately). 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.
- Pre-wired junction box with a convenient screwdriver pry-out. (1) 1/2" Pryout. A duplex electrical connector is provided to simplify daisy-chain wiring. Output over voltage, over-current and short circuit protection.
- Many trim options available to complement any design style. See ordering information for details.

### Performance Summary

- CCT Range from 3000K to 1800K, delivering up to 1000 lumens (3000K at 100%, 1800K at ≤5%)
- Light engine consists of a high output multi-chip LED array arranged into a single LED package, enabling precise optical control without requiring lensing to diffuse multiple LED sources
- Precision TIR Optics produce smooth spot, medium, flood and wide flood beam distributions. Optics are interchangeable and can be field replaced.
- The Wall Wash housing/trim combination utilizes a unique angled TIR optic mounted to the trim to create a smooth, uniform beam distribution. The Wall Wash housing is dedicated for use only with a Wall Wash trim. There is no interchangeability with other housings or optics.
- Excellent fixture to fixture color consistency within a 2-step MacAdam Ellipse tolerance
- Driver with Class 2 output, RoHS Compliant
- All RN2SQ downlights are available for non-dimming and dimming applications. For a list of compatible dimmers, refer to the Dimming Specifications sheet.
- cCSAus Certified using U.S. (UL) and Canadian (CSA) Standards
- The standard Wall Wash (WW) housing/trim combination is suitable for damp locations; all other options are suitable for wet locations
- Conforms to Washington State Energy Code for low air infiltration; tested in accordance with ASTM E283
- CP Housings are Chicago Plenum CCEA listed
- Suitable for damp locations
- Assembled in the USA

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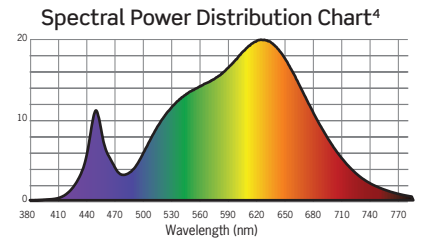
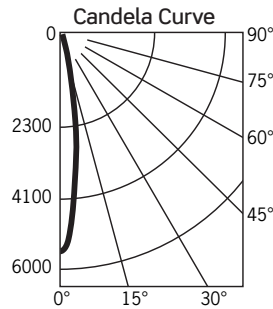
# RN2SQRMWD | 2" Square Warm Dimming LED Trimless Downlight: New Construction and Remodel Housing

## Photometrics

### R2SQRMWD1MVDS/C2322SQ-SL

Fixture Delivered Lumens: 716.4  
 Total Watts@120V: 13.5  
 Lumens Per Watt: 53.1  
 Center Beam Candle Power: 5577  
 Beam Distribution: 17°  
 Spacing Criterion: 0.29  
 Color Rendering Index (CRI)<sup>1</sup>: 91  
 Color Temperature (CCT)<sup>2</sup>: 2985K  
 Designed for 50,000 Hour Lamp Life<sup>3</sup>  
 LM-63 Test No. G20081708  
 LM-79 Test No. S20081102

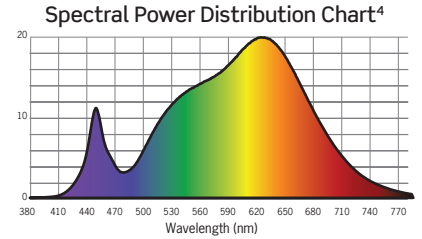
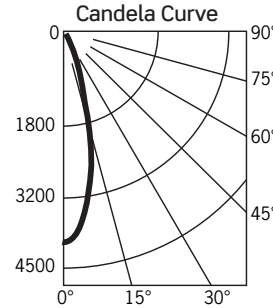
Intensity Distribution		
DISTANCE (FT.)	FOOTCANDLES (FC)	BEAM DIAMETER (FT.)
6'	154.9	1.8
8'	87.1	2.4
10'	55.8	3.0
12'	38.7	3.6
14'	28.5	4.2
16'	21.8	4.8



### R2SQRMWD1MVDM/C2322SQ-SL

Fixture Delivered Lumens: 993  
 Total Watts@120V: 13.5  
 Lumens Per Watt: 73.6  
 Center Beam Candle Power: 4015  
 Beam Distribution: 28°  
 Spacing Criterion: 0.46  
 Color Rendering Index (CRI)<sup>1</sup>: 91  
 Color Temperature (CCT)<sup>2</sup>: 2985K  
 Designed for 50,000 Hour Lamp Life<sup>3</sup>  
 LM-63 Test No. G20081806  
 LM-79 Test No. S20081102

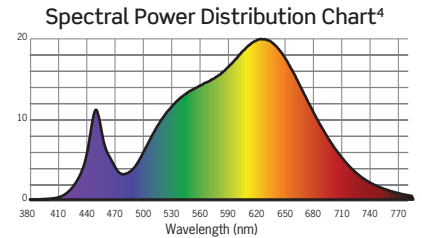
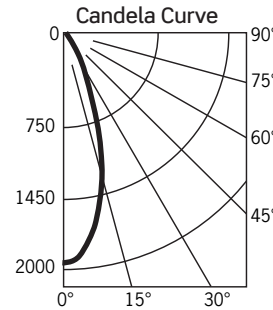
Intensity Distribution		
DISTANCE (FT.)	FOOTCANDLES (FC)	BEAM DIAMETER (FT.)
6'	111.5	3.0
8'	62.7	4.0
10'	40.2	5.0
12'	27.9	5.9
14'	20.5	6.9
16'	15.7	7.9



### R2SQRMWD1MVDF/C2322SQ-SL

Fixture Delivered Lumens: 910.1  
 Total Watts@120V: 13.5  
 Lumens Per Watt: 67.4  
 Center Beam Candle Power: 1952  
 Beam Distribution: 37°  
 Spacing Criterion: 0.61  
 Color Rendering Index (CRI)<sup>1</sup>: 91  
 Color Temperature (CCT)<sup>2</sup>: 2985K  
 Designed for 50,000 Hour Lamp Life<sup>3</sup>  
 LM-63 Test No. G20081808  
 LM-79 Test No. S20081102

Intensity Distribution		
DISTANCE (FT.)	FOOTCANDLES (FC)	BEAM DIAMETER (FT.)
6'	54.2	4.1
8'	30.5	5.5
10'	19.5	6.8
12'	13.6	8.2
14'	10.0	9.5
16'	7.6	10.9



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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## Photometrics

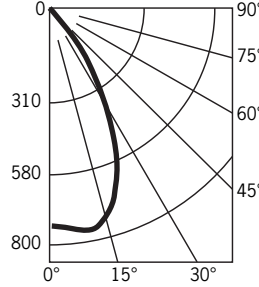
### R2SQRMWD1MVDWF/C2322SQ-SL

Fixture Delivered Lumens: 758.3  
 Total Watts@120V: 13.5  
 Lumens Per Watt: 56.2  
 Center Beam Candle Power: 732  
 Beam Distribution: 60°  
 Spacing Criterion: 0.97  
 Color Rendering Index (CRI)<sup>1</sup>: 91  
 Color Temperature (CCT)<sup>2</sup>: 2985K  
 Designed for 50,000 Hour Lamp Life<sup>3</sup>  
 LM-63 Test No. G20081812  
 LM-79 Test No. S20081102

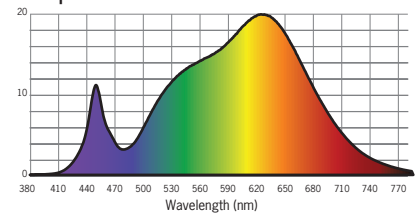
#### Intensity Distribution

DISTANCE (FT.)	FOOTCANDLES (FC)	BEAM DIAMETER (FT.)
6'	20.3	6.8
8'	11.4	9.1
10'	7.3	11.4
12'	5.1	13.7
14'	3.7	15.9
16'	2.9	18.2

#### Candela Curve



#### Spectral Power Distribution Chart<sup>4</sup>



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