

DATE

PROJECT

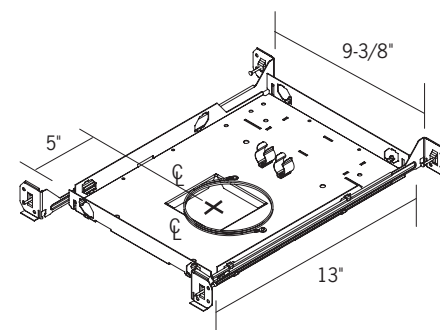
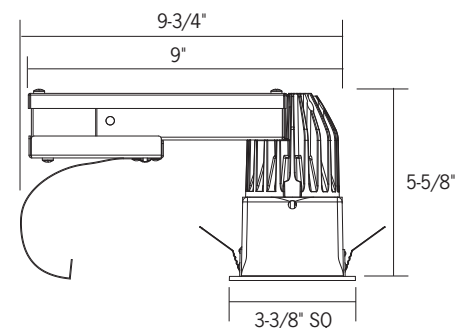
TYPE

R2SQRMWD | 2" Square Warm Dimming LED Downlight: New Construction and Remodel Housing

WATTAGE	13W
LUMEN OUTPUT ¹	800Lm
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 R2SQRMWD1 Housing using Triac, ELV, 0-10V or Lutron EcoSystem® Dimming with a Medium or Flood beam is ENERGY STAR® Certified 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



Ceiling Thickness: 1/2" - 1"



Optional Mounting Frame: NCSQF1

1. Lumen values are approximate, see photometric test results

For Ordering Information, see page 2

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Ordering Information

Example Order: R2SQRMWD1MVD4M-CP

Housing	LED Series	Electrical/Dimming	Beam Distribution	Options
R2SQRM - Non-IC, StopAire Remodel Housing	WD1 - 13W/1000lm 90 CRI	MVD ¹ - 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
- NCSQF1** - New Construction Mounting Frame
- RL-KIT** - Commercial Mounting Brackets (When Used with NCSQF1)
- 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 NCSQF1)

R2SQRMWD | 2" Square Warm Dimming LED Downlight: New Construction and Remodel Housing

Trims

Note: R2ASQWD and R2SQRMWD Series trims are NOT compatible with each other.



C2322SQ-BLK*
Matte Black Painted Reflector



C2322SQ-SL*
Satin Silver Painted Reflector



C2322SQDF-SL*
Satin Silver Painted Dead Front Reflector



C2322SQDF-WHT
Matte White Painted Dead Front Reflector



C2322SQ-WHT
Matte White Painted Reflector

C2322SQ Series Reflector Trim

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

Trim is 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.

*Available with White Painted Flange, add -WPF to part number

C2322SQDF Series

ISOWET Dead Front Square Reflector Trim

Aperture 2-5/8" SQ; Trim Fange: 3-5/8" SQ

Isolated, wet location approved thermoplastic reflector with clear glass lens. Lens is deeply regressed inside top of reflector. Cannot be used with additional lens or louver.

*Available with White Painted Flange, add -WPF to part number



C2323SQ-BLK*
Matte Black Painted Wall Wash Reflector



C2323SQ-SL*
Satin Silver Painted Wall Wash Reflector



C2323SQ-WHT
Matte White Painted Wall Wash Reflector

C2323SQ Series Wall Wash Reflector

Aperture: 2-3/8" SQ; Trim Frame: 3-3/4" SQ

Angled TIR optic enables precise light control. Cannot be used with lenses or louvers.

*Available with White Painted Flange, add -WPF to part number



C2305SQ-BLK
Matte Black Painted Pinhole Trim



C2305SQ-WHT
Matte White Painted Pinhole Trim

C2305SQ Series Pinhole Trim

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

Trim is wet location certified without the need for lensing. Cannot be used with lenses or louvers.

2-1/8" Square Lenses/Louver

FA-55 - Honeycomb Louver

LF50-** - 2-3/8" Diameter Lenses

**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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R2SQRMWD | 2" Square Warm Dimming LED Downlight: New Construction and Remodel Housing

Product Details

Features

- Housing requires minimum 3" clearance around driver kit 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
- Three spring steel friction springs provide secure support in ceiling thicknesses from 1/2" - 1". 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).
- Minimum plenum clearance required to install housing in ceiling is 6"
- 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 trim ordering information for details. **Note:** R2SQRMWD and R2ASQWD Series trims are NOT compatible with each other.

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 R2SQRM adjustable 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
- R2SQRMWD1 Housing using Triac, ELV, 0-10V or Lutron EcoSystem® Dimming with a Medium or Flood beam is ENERGY STAR® Certified:
R2SQRMWD1MVDM
R2SQRMWD1MVDF
R2SQRMWD1MVD4M
R2SQRMWD1MVD4F
- 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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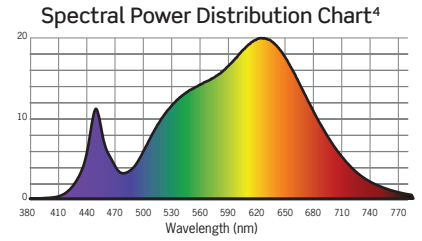
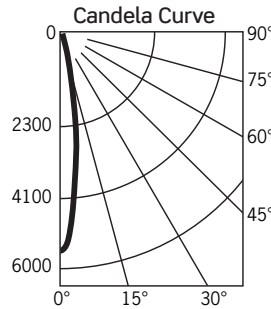
R2SQRMWD | 2" Square Warm Dimming LED Downlight: New Construction and Remodel Housing

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)¹: 91
 Color Temperature (CCT)²: 2985K
 Designed for 50,000 Hour Lamp Life³
 LM-63 Test No. G20081708
 LM-79 Test No. S20081102

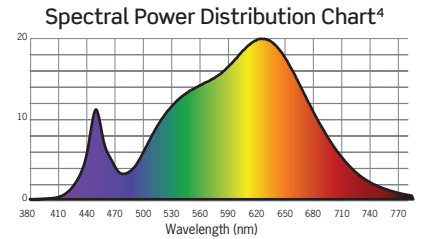
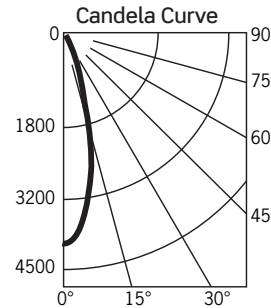
Intensity Distribution		
DISTANCE (FT.)	FOOTCANDLES (FC)	BEAM DIAMETER (FT.)
6'	154.9	1.8
8'	87.1	2.4
10'	55.8	3.0
12'	38.7	3.6
14'	28.5	4.2
16'	21.8	4.8



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)¹: 91
 Color Temperature (CCT)²: 2985K
 Designed for 50,000 Hour Lamp Life³
 LM-63 Test No. G20081806
 LM-79 Test No. S20081102

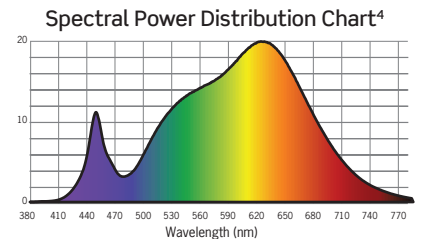
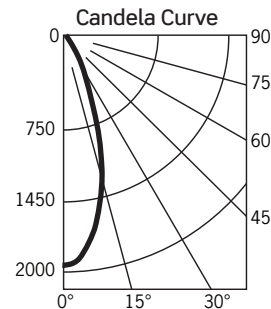
Intensity Distribution		
DISTANCE (FT.)	FOOTCANDLES (FC)	BEAM DIAMETER (FT.)
6'	111.5	3.0
8'	62.7	4.0
10'	40.2	5.0
12'	27.9	5.9
14'	20.5	6.9
16'	15.7	7.9



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)¹: 91
 Color Temperature (CCT)²: 2985K
 Designed for 50,000 Hour Lamp Life³
 LM-63 Test No. G20081808
 LM-79 Test No. S20081102

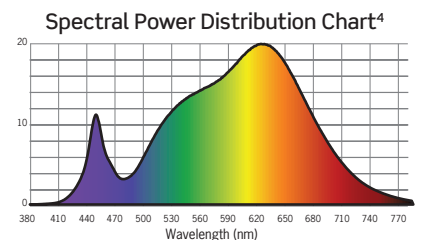
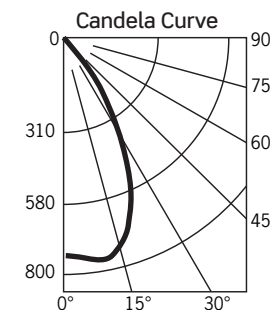
Intensity Distribution		
DISTANCE (FT.)	FOOTCANDLES (FC)	BEAM DIAMETER (FT.)
6'	54.2	4.1
8'	30.5	5.5
10'	19.5	6.8
12'	13.6	8.2
14'	10.0	9.5
16'	7.6	10.9



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)¹: 91
 Color Temperature (CCT)²: 2985K
 Designed for 50,000 Hour Lamp Life³
 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



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

DIMMING SPECIFICATIONS | R2RM, R2RMWD, RN2RM, RN2RMWD, R2SQRM, R2SQRMWD, RN2SQRM and RN2SQRMWD Series

- 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 violet and gray).

			R2RM*, RN2RM*, R2RMWD*, RN2RMWD* R2SQRM*, RN2SQRM*, R2SQRMWD*, RN2SQRMWD* Dimming Option MVD
Manufacturer	Product	Model	Light Output
Leviton	IllumaTech	IPI06-1LZ	1%-100%
Leviton	SureSlide	6631-2	1%-100%
Leviton	Renoir	AWSMT7	22%-100%
Leviton	Vizia	VPE06	9%-100%
Leviton	Trimatron	6683-IW	4%-100%
Leviton	Decora	6161	15%-100%
Leviton	SureSlide	6633-P	0%-100%
Leviton	IllumaTech	IPE04	6%-100%
Leviton	IllumaTech	IP710-DLX	NA
Cooper	Devine	DLC03P	1%-100%
Cooper	Skye	SLC03P	0%-100%
Cooper	Decorator	DAL06P	0%-100%
Pass & Seymour	Titan	CD4FB-W	NA
Synergy		ISD BC	NA
Watt Stopper	Miro Decorator	DCLV1	NA
Lutron	Ariadni	TGCL-153P	4%-100%
Lutron	Ariadni	TG-600P	11%-100%
Lutron	Diva	DVCL-153P	0%-100%
Lutron	Diva	DV600P	0%-100%
Lutron	Diva	DVELV303P	6%-100%
Lutron	Diva	DVTV	NA
Lutron	Diva	DVSTWH	8%-100%
Lutron	Faedra	FAELV500	12%-100%
Lutron	Lumea	LG600P	5%-100%
Lutron	Maestro	MAELV600	11%-100%
Lutron	Nova	NFTV	NA
Lutron	Nova T	NFTTV	NA
Lutron	Skylark	S-603PG	4%-96%
Lutron	Skylark	S600P	1%-100%
Lutron	Skylark	SELV300P	7%-100%
Lutron	Skylark	CT103P	9%-100%

*277V Triac and ELV 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.