

R2RM

2" LED Recessed Downlight: New Construction and Remodel Housing

Specifications/Features

Housing/Mounting

Specification grade 2" downlight for remodel and new construction applications.

Three wattage/lumen packages available:

8W/800Lm: **Insulated ceiling (IC)**, Stopaire housing. Thermally protected for use in applications with direct contact with insulation materials.

10W/1100Lm: **Insulated ceiling (IC)**, Stopaire housing. Thermally protected for use in applications with direct contact with insulation materials.

14W/1400Lm: **Non-insulated ceiling (Non-IC)**, Stopaire housing. Requires minimum 3" clearance around housing from insulation material. Thermal protection provided in case of improper insulation use.

Housing employs a die-cast aluminum collar and heat sink with the 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".

Minimum plenum clearance required to install housing in ceiling is 6".

NOTE: Certain regions require the use of a housing mounting frame in conjunction with the R2RM housing. The NCF1 new construction mounting frame (refer below) should be specified when required (ordered separately).

Electrical

Driver with Class 2 output. RoHS compliant.

Output over voltage, over-current and short circuit protection.

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.

Lamp

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 12°, 27°, 40°, and 65° 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. Wall Wash housing is dedicated for use only with Wall Wash trim. There is no interchangeability with other housings or optics.

Excellent fixture-to-fixture color consistency with a 2-step MacAdam Ellipse tolerance.

System designed and rated for 50,000 hours at 70% lumen maintenance

Dimming

All R2RM downlights are available for non-dimming and dimming applications. For a list of compatible dimmers and dimming ranges, refer to the [LED Dimming Catalog](#).

Trims

Specification Grade trims are available in different styles and finishes. Featuring a high quality Alzak™ finish; optically designed for reduced glare while maintaining maximum lumen output.

Warranty

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

Labels/Usage

cCSAus Certified using US (UL) and Canadian (CSA) standards.

Wall Wash (WW) housing option is suitable for damp locations. All other housing options are suitable for wet locations.

Energy Star certified:

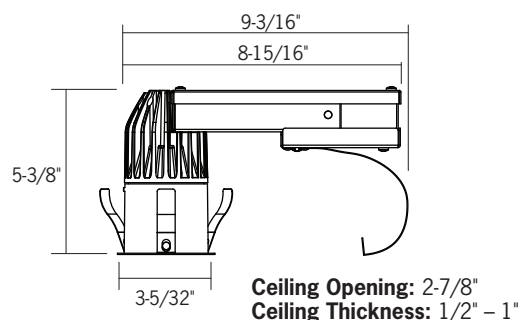
- All series: 05, 1 and 2 in S, M and F beam distributions.
- WF and WW beam distributions are not Energy Star certified.
- Certified trims only: CST2322L and CST2322LSQ (all finishes).

Conforms to Washington State Energy Code (WSEC) for low air infiltration. Tested in accordance with ASTM E283 (2.0 CFM or less).

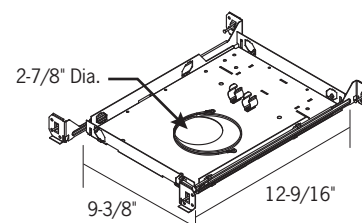
The CP housing is Chicago Plenum CCEA listed.

R2RM130KCMVDF-CP Housing with CST2322L-CLR trim can be used to comply with 2016 Title 24, Part 6 high efficacy LED light source requirements.

Assembled in the USA.



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



Optional Mounting Frame: NCF1

	Series-05	Series-1	Series-2
Input Wattage	8	10	14
Input Current (A) 120/277	.07/.03	.08/.04	.12/.05
Input Voltage	120-277V AC, 50-60Hz		
Color Temp	2700K/3000K/3500K/4000K		
CRI standard/high	83 (80min) / 90+		
Driver			
Power Factor	> 0.90		
THD	< 20%		

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Ordering Information

Example Order: R2RMI27KMVDS-CP

Housing	LED Series	Color Temp	Electrical/Dimming	Beam Dist.	
R2RM ¹	05 - 8W, 800lm, IC, Stopaire Remodel 1 - 10W, 1100lm, IC, Stopaire Remodel 2 - 14W, 1400lm, Non-IC, Stopaire Remodel	27K - 2700K 30K - 3000K 35K - 3500K 40K - 4000K 27KC - 2700K, 90+ CRI 30KC - 3000K, 90+ CRI 35KC - 3500K, 90+ CRI 40KC - 4000K, 90+ CRI	MVD ² - 120-277V Triac, ELV, 0-10V Dimming	S - 12° M - 27° F - 40° WF - 65° WW - Wall Wash	CP - Chicago Plenum

1. Series-2 is not available for use in insulated ceilings (IC).
2. 120V TRIAC and ELV dimming only.

Trim

See page 3 for trim information and details.

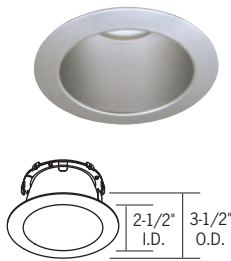
Accessories

- 2INOPTIC-S-RA2** - 12° Beam Optic
- 2INOPTIC-M** - 27° Beam Optic
- 2INOPTIC-F** - 40° Beam Optic
- 2INOPTIC-WF** - 65° Beam 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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Trims and Accessories



WET **Specification Grade Reflector Trim**

Reflector is available in anodized clear specular, anodized platinum, anodized platinum wheat, painted matte white, and painted matte black finishes. Trim is wet location certified **without** the need for lensing. Trim accepts one (1) FA-16 60MM 2-3/8" Dia. Black Honeycomb Louver or (1) LF16 60MM 2-3/8" Dia. Tempered Glass Lens.
OD: 3-1/2"; ID 2-1/2"

- CST2322L-BLK** - Painted Black Matte Reflector
- CST2322L-CLR*** - Anodized Clear Reflector
- CST2322L-PL*** - Anodized Platinum Reflector
- CST2322L-PLWHE*** - Anodized Platinum Wheat Reflector

- CST2322L-WHT** - Painted White Matte Reflector

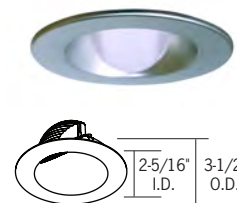
*Available with White Painted Flange, add "WPF" to part number.



WET **ISOWET Dead Front Reflector Trim**

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.
OD: 3-1/2"; ID 2-1/2"

- CST2322LDF-SL** - Satin Silver Paint
- CST2322LDF-SL-WPF** - Satin Silver Paint with White Painted Flange
- CST2322LDF-WHT** - Matte White Paint



Wall Wash Trim

An angled TIR optic enables precise light control. Reflector is available in anodized clear specular, anodized platinum, painted matte white, and painted matte black finishes. Cannot be used with lenses or louvers. OD: 3-1/2"; ID 2-5/16"

- CTR2323L-BLK** - Painted Matte Black
- CTR2323L-CLR*** - Anodized Clear Specular
- CTR2323L-PL*** - Anodized Platinum
- CTR2323L-WHT** - Painted Matte White

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

2-3/8" Dia. Lenses/Louvers

- FA-16 60MM** - Honeycomb Louver
- LF16-A 60MM** - Amber
- LF16-B 60MM** - Blue
- LF16-G 60MM** - Green
- LF16-LB 60MM** - Light Blue
- LF16-R 60MM** - Red
- LF16-RO 60MM** - Rose
- LF16-Y 60MM** - Yellow
- LF16-73 60MM** - Prismatic Spread
- LF16-CL 60MM** - Clear
- LF16-LS 60MM** - Linear Spread
- LF16-SL 60MM** - Soft Light Sandblasted
- LF16-SOL 60MM** - Solite
- LF16-UV 60MM** - Optivex UV Filter



WET **Specification Grade Reflector with Square Trim Plate**

Reflector available in anodized clear specular, anodized platinum, painted matte white, and painted matte black. Trim Plate is available in painted matte black and painted matte white. Trim is wet location certified **without** the need for lensing. Accepts one (1) FA-16 60MM 2-3/8" Dia. Black Honeycomb Louver or (1) LF16 60MM 2-3/8" Dia. Tempered Glass Lens.



- CST2322LSQ-CLR-B**

Clear Specular Reflector, Black Trim Plate

- CST2322LSQ-CLR-P**

Clear Specular Reflector, White Trim Plate

- CST2322LSQ-PL-B**

Platinum Reflector, Black Trim Plate

- CST2322LSQ-PL-P**

Platinum Reflector, White Trim Plate

- CST2322LSQ-WHT-P**

White Reflector, White Trim Plate

- CST2322LSQ-BLK-B**

Black Reflector, Black Trim Plate

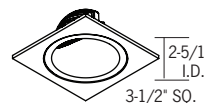
- CST2322LSQ-BLK-P**

Black Reflector, White Trim Plate



Wall Wash Trim with Square Trim Plate

An angled TIR optic enables precise light control. Reflector is available in anodized clear specular, anodized platinum, painted matte white, and painted matte black finishes. Trim Plate is available in painted matte white and painted matte black finishes. Cannot be used with lenses or louvers.



- CTR2323LSQ-CLR-B**

Clear Reflector, Black Trim Plate

- CTR2323LSQ-CLR-P**

Clear Reflector, White Trim Plate

- CTR2323LSQ-PL-B**

Platinum Reflector, Black Trim Plate

- CTR2323LSQ-PL-P**

Platinum Reflector, White Trim Plate

- CTR2323LSQ-WHT-P**

White Reflector, White Trim Plate

- CST2323LSQ-BLK-B**

Black Reflector, Black Trim Plate

- CTR2323LSQ-BLK-P**

Black Reflector, White Trim Plate

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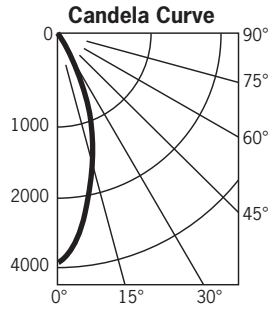
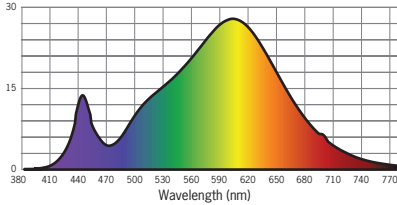
2" LED Recessed Downlight: New Construction and Remodel Housing

Photometrics

R2RM230KMVDF/CST2322L-CLR

Designed for 50,000 Hour Lamp Life*; LM-63 Test No. G17030603

Light Output (Fixture Delivered Lumens): 1443
Total Watts@120V: 13.9W
Lumens Per Watt: 103.8
Color Rendering Index (CRI)¹: 84
Color Temperature (CCT)²: 2941K
Spectral Power Distribution Chart³



Candlepower Summary

FROM 0	CANDELA	LUMENS
0	3974	
5	3556	363
15	2360	669
25	927	429
35	67	42
45	9	7
55	1	1
65	0	0
75	0	0
85	0	0
95	0	0

Intensity Distribution

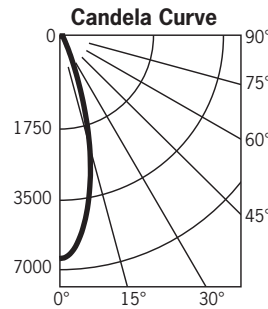
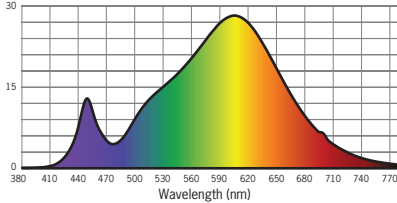
DISTANCE (FT.)	FOOTCANDELS (FC)	BEAM DIAMETER (FT.)
4'	248.4	2.6
6'	110.4	3.9
8'	62.1	5.2
10'	39.7	6.5
12'	27.6	7.8
14'	20.3	9.1

Beam Distribution: 36°
Spacing Criteria: 0.60

R2RM230KMVDM/CST2322L-CLR

Designed for 50,000 Hour Lamp Life*; LM-63 Test No. G17030612

Light Output (Fixture Delivered Lumens): 1442
Total Watts@120V: 13.9W
Lumens Per Watt: 103.7
Color Rendering Index (CRI)¹: 84
Color Temperature (CCT)²: 2934K
Spectral Power Distribution Chart³



Candlepower Summary

FROM 0	CANDELA	LUMENS
0	6569	
5	5929	605
15	2769	785
25	267	123
35	25	16
45	8	6
55	1	1
65	0	0
75	0	0
85	0	0
95	0	0

Intensity Distribution

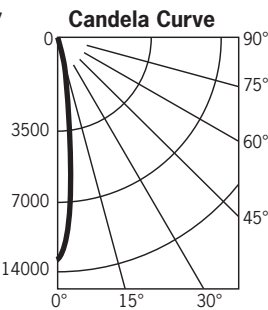
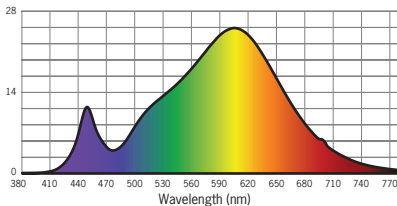
DISTANCE (FT.)	FOOTCANDELS (FC)	BEAM DIAMETER (FT.)
4'	410.6	1.9
6'	182.5	2.9
8'	102.6	3.9
10'	65.7	4.8
12'	45.6	5.8
14'	33.5	6.8

Beam Distribution: 27°
Spacing Criteria: 0.44

R2RM230KMVDS/CST2322L-CLR

Designed for 50,000 Hour Lamp Life*; LM-63 Test No. G17030704

Light Output (Fixture Delivered Lumens): 1199.7
Total Watts@120V: 13.9W
Lumens Per Watt: 86.3
Color Rendering Index (CRI)¹: 84
Color Temperature (CCT)²: 2939K
Spectral Power Distribution Chart³



Candlepower Summary

FROM 0	CANDELA	LUMENS
0	13157	
5	9344	971
15	1540	437
25	85	39
35	21	13
45	21	16
55	2	2
65	1	1
75	0	0
85	0	0
95	0	0

Intensity Distribution

DISTANCE (FT.)	FOOTCANDELS (FC)	BEAM DIAMETER (FT.)
4'	822.3	1.0
6'	365.5	1.5
8'	205.6	2.0
10'	131.6	2.5
12'	91.4	3.0
14'	67.1	3.4

Beam Distribution: 14°
Spacing Criteria: 0.27

Multiplication Factors

CCT	STANDARD CRI	HIGH CRI	SERIES 05, 8W	SERIES 1, 10W	WHT/PL/PLWHE REFL	BLK REFL
2700K	0.94	0.70	0.61	0.74	1.0	0.94
3000K	N/A	0.75	0.61	0.74	1.0	0.94
3500K	1.0	0.81	0.61	0.74	1.0	0.94
4000K	1.0	0.87	0.61	0.74	1.0	0.94

*Dependent on surrounding temperatures

1. Accuracy of rendering colors
2. Color appearance of light source
3. Colors present within the light source

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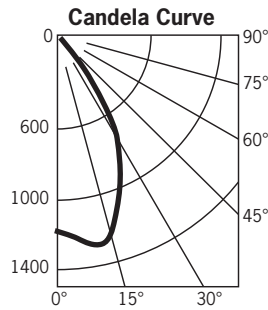
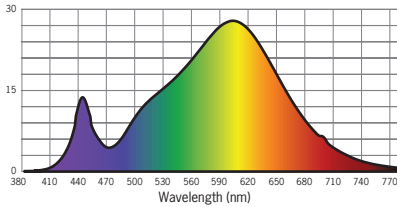
2" LED Recessed Downlight: New Construction and Remodel Housing

Photometrics

R2RM230KMVDWF/CST2322L-CLR

Designed for 50,000 Hour Lamp Life*; LM-63 Test No. G17071105

Light Output (Fixture Delivered Lumens): 1229
 Total Watts@120V: 14W
 Lumens Per Watt: 87.2
 Color Rendering Index (CRI)¹: 84
 Color Temperature (CCT)²: 2941K
 Spectral Power Distribution Chart³



Candlepower Summary

FROM 0	CANDELA	LUMENS
0	1179	
5	1206	122
15	1232	349
25	906	419
35	492	309
45	49	38
55	3	3
65	1	1
75	0	1
85	0	0
95	0	

Intensity Distribution

DISTANCE (FT.)	FOOTCANDLES (FC)	BEAM DIAMETER (FT.)
4'	73.7	5.1
6'	32.8	7.6
8'	18.4	10.1
10'	11.8	12.6
12'	8.2	15.2
14'	6.0	17.7

Beam Distribution: 65°
 Spacing Criteria: 0.97

Multiplication Factors

CCT	STANDARD CRI	HIGH CRI	SERIES 05, 8W	SERIES 1, 10W	WHT/PL/PLWHE REFL	BLK REFL
2700K	0.94	0.70	0.61	0.74	1.0	0.94
3000K	N/A	0.75	0.61	0.74	1.0	0.94
3500K	1.0	0.81	0.61	0.74	1.0	0.94
4000K	1.0	0.87	0.61	0.74	1.0	0.94

*Dependent on surrounding temperatures

1. Accuracy of rendering colors
 2. Color appearance of light source
 3. Colors present within the light source