

DATE

PROJECT

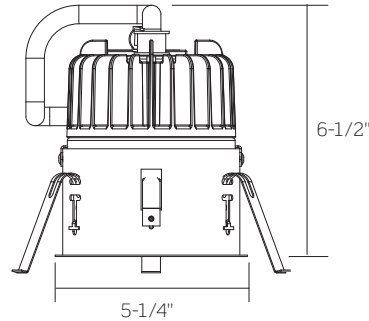
TYPE

# R4RM SERIES | 4-Inch Round Remodel Downlight Housing

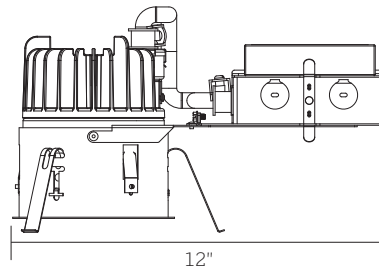
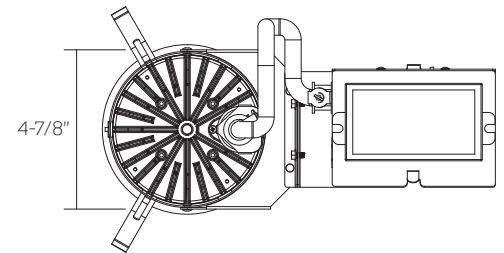


**Ceiling Opening:** 4-7/8"  
**Ceiling Thickness:** 1/2" - 5/8"

Side View



Bottom View



	R4SA1	R4SA2	R4SA3	R4SA4	R4SA5	R4SA6
WATTAGE	12W	16W	21W	30W	38W	45W
LUMEN OUTPUT <sup>1</sup>	1100Lm	1600Lm	2200Lm	3000Lm	3700Lm	4100Lm
COLOR TEMPERATURE	2700K / 3000K / 3500K / 4000K					
CRI	83 (80min) / 90+					
INPUT WATTAGE	12W	16W	21W	30W	38W	45W
INPUT CURRENT (A) 120V/277V/347V	.08/.04/.03	.12/.06/.04	.17/.08/.06	.23/.11/.08	.31/.14/.11	.36/.16/.12
INPUT VOLTAGE	120VAC / 277VAC / 347VAC, 50/60Hz					
Standard Driver	120VAC / 277VAC, 50/60Hz				N/A	N/A
Lutron Eco-System® Driver	120VAC / 277VAC, 50/60Hz				N/A	N/A
eldoLED ECOdrive / SOLOdrive	120VAC / 277VAC, 50/60Hz					
DRIVER POWER FACTOR	> 0.90					
TOTAL HARMONIC DISTORTION (THD)	< 20%					
LISTINGS	cCSAus Certified to UL Standards; Suitable for Damp Locations ENERGY STAR® Certified: – All wattage/lumen options are ENERGY STAR® Certified – ENERGY STAR® Certified Trims: C4322-PL, CN4322-PL, C4322-WHT, CN4322-WHT, C4322-CLR and CN4322-CLR (all beam distributions); –C (Clear Lens) and –SL (Sandblast Lens) Wet Location approved trim options are not ENERGY STAR® Certified – 347V Option, Lutron and eldoLED Dimming Options are not ENERGY STAR® Certified					
WARRANTY	Five (5) year replacement 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

DATE

PROJECT

TYPE

# R4RM SERIES | 4-Inch Round Remodel Downlight Housing

## ORDERING INFORMATION

Example Order:

Housing/LED Series	Color Temp/CRI	Electrical	Dimming
<b>R4RM1</b> - 12W/1100lm	83 (80min) CRI	<b>12</b> - 120V	<b>D1</b> - Triac, ELV, 0-10V
<b>R4RM2</b> - 16W/1600lm	<b>27K</b> - 2700K	<b>27</b> - 277V	<b>D2</b> <sup>2</sup> - 347V 0-10V
<b>R4RM3</b> - 21W/2200lm	<b>30K</b> - 3000K	<b>34</b> - 347V	<b>D4</b> <sup>3</sup> - Lutron Hi-lume 1% EcoSystem Driver with Soft-on, Fade-to-Black
<b>R4RM4</b> - 30W/3000lm	<b>35K</b> - 3500K		<b>D6</b> <sup>4</sup> - eldoLED ECOdrive, 0-10V, 1% Dimming
<b>R4RM5</b> - 38W/3700lm	<b>40K</b> - 4000K		<b>D7</b> <sup>4</sup> - eldoLED ECOdrive, DALI, 1% Dimming
<b>R4RM6</b> - 45W/4100lm	90+ CRI		<b>D8</b> <sup>4</sup> - eldoLED SOLOdrive, 0-10V, 0.1% Dimming
	<b>27KC</b> - 2700K		<b>D9</b> <sup>4</sup> - eldoLED SOLOdrive, DALI, 0.1% Dimming
	<b>30KC</b> - 3000K		<b>DMX</b> <sup>4,5</sup> - eldoLED POWERdrive, DMX 0.0% Dimming
	<b>35KC</b> - 3500K		
	<b>40KC</b> - 4000K		

1. Triac and ELV Dimming for 120V only
2. Only available for 347V Electrical option (34)
3. Lutron Eco-System available for both 120V and 277V. Lutron dimming options are available for Series 1 through 4 only (12W through 30W); not available for use with LED Series 5 or 6 (38W or 45W).
4. eldoLED Drivers are programmed for Linear Curve Dimming as standard; for Logarithmic Curve Dimming, consult factory
5. Verify DMX Driver and Control System compatibility with factory prior to ordering

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

## PRODUCT DETAILS

### Construction

- Specification Grade 4 inch Round 16 Gauge Galvanized Steel Remodel Housing with Die-Cast Aluminum Heat Sink
- Heavy Duty Steel Plaster Ring is secured to ceiling by three (3) Spring Clamps
- Quick-connect Light Engine
- LED Drivers are fully accessible from below the ceiling and can be easily removed
- Pre-wired Junction Box with three (3) 1/2 inch convenient Screwdriver Pry-outs and one (1) 1/2 x 3/4 inch Concentric Knockout
- Output over-voltage, over-current and short circuit protection
- Approved for Through Circuit Wiring: max. four (4) 12 AWG (2in/2out), wiring rated to 90°C
- Requires minimum 3 inch clearance around Housing from insulation material; thermal protection provided in case of improper insulation use

### Performance Summary

- 2700K, 3000K, 3500K and 4000K CCTs; 80 CRI min., 83 typical; high 90+ CRI available
- Excellent fixture-to-fixture color consistency with a 3-step MacAdam Ellipse tolerance
- All R4 Downlights are available for non-dimming and dimming applications; for compatible Dimmers, refer to the Dimming Specification Sheet
- Specification Grade Flanged Trims in several different styles and finishes available
- Trimless options cannot be used on Remodel Style Housings
- UL8750 and Class 2 Compliant; RoHS Compliant, US only
- Assembled in the USA

DATE

PROJECT

TYPE

## R4 SERIES | Trims for 4-Inch LED Downlights

### TRIMMED OPTIONS



**C4322-PL**  
Platinum Reflector



**C4322DF-SL**  
Satin Silver Painted Reflector



#### C4322 Series

*Specification Grade Reflector*

4-3/8-Inch ID, 5-11/16-Inch OD, 3-1/8-Inch Height

Specification Grade Reflector. For Wet Location approved trim, add “-C” for Clear Lens or “-SL” for Sandblast Lens after finish code.



#### C4322DF Series

*ISOWET Dead Front Reflector Trim*

4-3/8-Inch ID, 5-11/16-Inch OD, 3-1/8-Inch Height

Isolated, Wet Location approved Thermoplastic Reflector with Clear Glass Lens deeply regressed inside top of Reflector.

**C4322N-CLR\*** - 35° Narrow Beam  
Clear Specular Reflector

Quantity

**C4322M-CLR\*** - 51° Medium Beam  
Clear Specular Reflector

**C4322W-CLR\*** - 80° Wide Beam  
Clear Specular Reflector

**C4322-PL\*** - 59° Platinum Reflector

**C4322-PLWHE** - 59° Platinum Wheat Reflector

**C4322-WHT** - 70° White Reflector

\*Available with White Painted Flange, add “-WPF” to end of part number

**C4322DF-SL\*** - Satin Silver Paint

Quantity

**C4322DF-WHT** - Matte White Paint

\*Available with White Painted Flange, add “-WPF” to end of part number



**C4323-CLR**  
Clear Reflector

#### C4323 Series

*Lensed Wall Wash Reflector Trim*

4-Inch ID; 5-11/16-Inch OD



**CTR4325L-WHT-P**  
Floating Glass Disc  
White Reflector



**CTR4326L-CLR-P**  
Floating Glass Ring  
Clear Reflector

#### CTR432\*L Series

*Floating Glass Reflector*

4-3/8-Inch ID; 6-Inch OD

White Reflector with Floating Glass Disc, Clear Reflector with Floating Glass Ring; 1-1/4-inch drop from ceiling. Glass Ring has 3-1/2-inch center hole.

**C4323-CLR\*** - Clear Reflector

Quantity

**C4323-PL\*** - Platinum Reflector

**C4323-WHT** - White Reflector

\*Available with White Painted Flange, add “-WPF” to end of part number

**CTR4325L-WHT-P** - Floating Glass Disc/  
White Reflector

Quantity

**CTR4326L-CLR-P** - Floating Glass Ring/  
Clear Reflector

: These Model Options are eligible for **SpeedShip**

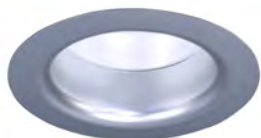
DATE

PROJECT

TYPE

## R4 SERIES | Trims for 4-Inch LED Downlights

### TRIMMED OPTIONS, CONTINUED



**C4321-WHT-PL**

White Reflector/Platinum Lower Cone



**C4321-WHT-B**

White Reflector/Black Baffle



#### C4321 Cone Series

*Two Piece Reflector with Lower Cone and Flat Lens*  
3-7/8-Inch ID; 5-11/16-Inch OD. 3-1/8-Inch Height

Two Piece Reflector: Upper Reflector with Lower Cone. Includes one (1) LF20-CL Clear Glass Lens. Approved for Wet Locations when Glass Lens is installed.



#### C4321 Baffle Series

*Two Piece Reflector with Lower Baffle and Flat Lens*  
3-7/8-Inch ID; 5-11/16-Inch OD. 3-1/8-Inch Height

Two Piece Reflector: Upper Reflector with Lower Baffle. Includes one (1) LF20-CL Clear Glass Lens. Approved for Wet Locations when Glass Lens is installed.

- |   |                 |
|---|-----------------|
| <b>C4321-CLR-CLR</b> - Clear Reflector/<br>Clear Lower Cone | <b>Quantity</b> |
| <b>C4321-CLR-PL</b> - Clear Reflector/Platinum Lower Cone   |                 |
| <b>C4321-WHT-CLR</b> - White Reflector/Clear Lower Cone     |                 |
| <b>C4321-WHT-PL</b> - White Reflector/Platinum Lower Cone   |                 |

- |   |                 |
|---|-----------------|
| <b>C4321-CLR-B</b> - Clear Reflector/Black Lower Baffle | <b>Quantity</b> |
| <b>C4321-CLR-P</b> - Clear Reflector/White Lower Baffle |                 |
| <b>C4321-WHT-B</b> - White Reflector/Black Lower Baffle |                 |
| <b>C4321-WHT-P</b> - White Reflector/White Lower Baffle |                 |



**C4327-CLR-PL**

Clear Reflector/Platinum Lower Cone/  
Regressed Prismatic Convex Lens



**C4327-CLR-P**

Clear Reflector/White Lower Baffle/  
Regressed Prismatic Convex Lens



#### C4327 Cone Series

*Two Piece Reflector:  
Lower Cone with Prismatic Convex Lens*  
3-7/8-Inch ID; 5-11/16-Inch OD. 3-1/8-Inch Height

Two Piece Reflector with Lens: Upper Reflector with Lower Cone and Prismatic Convex Lens. Lens has 1-1/2-inch regress. Wet Location Listed.



#### C4327 Baffle Series

*Two Piece Reflector:  
Lower Baffle with Prismatic Convex Lens*  
3-7/8-Inch ID; 5-11/16-Inch OD. 3-1/8-Inch Height

Two Piece Reflector with Lens: Upper Reflector with Lower Baffle and Regressed Prismatic Convex Lens. Lens has 1-1/2-inch regress. Wet Location Listed.

- |   |                 |
|---|-----------------|
| <b>C4327-CLR-CLR</b> - Clear Reflector/<br>Clear Lower Cone | <b>Quantity</b> |
| <b>C4327-CLR-PL</b> - Clear Reflector/Platinum Lower Cone   |                 |
| <b>C4327-WHT-CLR</b> - White Reflector/Clear Lower Cone     |                 |
| <b>C4327-WHT-PL</b> - White Reflector/Platinum Lower Cone   |                 |

- |   |                 |
|---|-----------------|
| <b>C4327-CLR-B</b> - Clear Reflector/Black Lower Baffle | <b>Quantity</b> |
| <b>C4327-CLR-P</b> - Clear Reflector/White Lower Baffle |                 |
| <b>C4327-WHT-B</b> - White Reflector/Black Lower Baffle |                 |
| <b>C4327-WHT-P</b> - White Reflector/White Lower Baffle |                 |

DATE

PROJECT

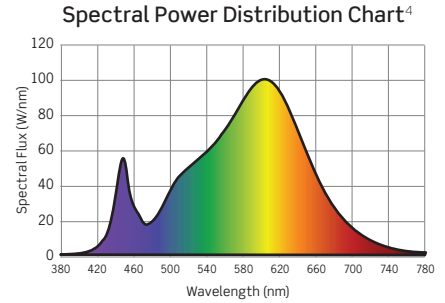
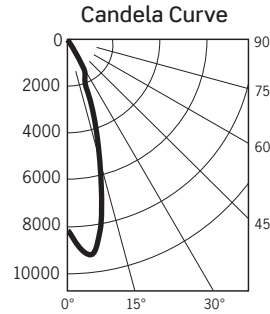
TYPE

# R4 SERIES | 4-Inch Round Downlight Photometrics

## R4NC630K12D / C4322N-CLR

Fixture Delivered Lumens: 4105.5  
 Total Watts@120V: 45.2  
 Lumens Per Watt: 90.8  
 Center Beam Candle Power: 8153  
 Beam Distribution: 35.5°  
 Spacing Criterion: 0.60  
 Color Rendering Index (CRI)<sup>1</sup>: 83.3  
 Color Temperature (CCT)<sup>2</sup>: 3079K  
 Designed for 50,000 Hour Lamp Life<sup>3</sup>  
 LM-63 Test No. G21070604  
 LM-79 Test No. S21072001

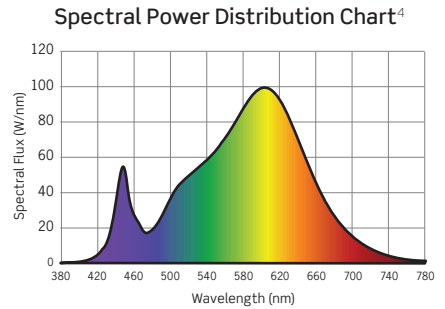
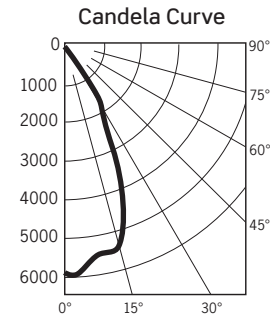
Intensity Distribution		
DISTANCE (FT.)	FOOTCANDLES (FC)	BEAM DIAMETER (FT.)
6 FT	226.5	3.8
8 FT	127.4	5.1
10 FT	81.5	6.4
12 FT	56.6	7.7
14 FT	41.6	9.0
16 FT	31.8	10.2



## R4NC630K12D / C4322M-CLR

Fixture Delivered Lumens: 4176.6  
 Total Watts@120V: 45.2  
 Lumens Per Watt: 92.4  
 Center Beam Candle Power: 5860  
 Beam Distribution: 51.2°  
 Spacing Criterion: 0.79  
 Color Rendering Index (CRI)<sup>1</sup>: 83.3  
 Color Temperature (CCT)<sup>2</sup>: 3079K  
 Designed for 50,000 Hour Lamp Life<sup>3</sup>  
 LM-63 Test No. G21070605  
 LM-79 Test No. S21072001

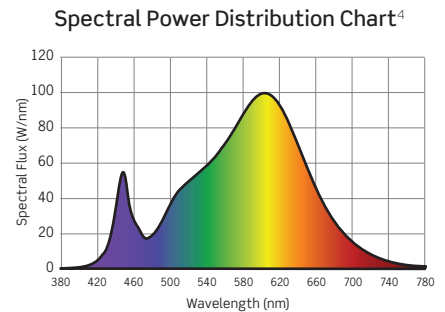
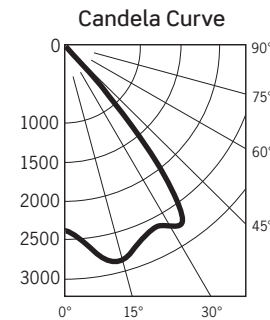
Intensity Distribution		
DISTANCE (FT.)	FOOTCANDLES (FC)	BEAM DIAMETER (FT.)
6 FT	162.8	5.8
8 FT	91.6	7.7
10 FT	58.6	9.6
12 FT	40.7	11.5
14 FT	29.9	13.4
16 FT	22.9	15.3



## R4NC630K12D / C4322W-CLR

Fixture Delivered Lumens: 4220.8  
 Total Watts@120V: 45.2  
 Lumens Per Watt: 93.4  
 Center Beam Candle Power: 2402  
 Beam Distribution: 80.0°  
 Spacing Criterion: 1.2  
 Color Rendering Index (CRI)<sup>1</sup>: 83.3  
 Color Temperature (CCT)<sup>2</sup>: 3079K  
 Designed for 50,000 Hour Lamp Life<sup>3</sup>  
 LM-63 Test No. G21070602  
 LM-79 Test No. S21072001

Intensity Distribution		
DISTANCE (FT.)	FOOTCANDLES (FC)	BEAM DIAMETER (FT.)
6 FT	66.7	10.1
8 FT	37.5	13.4
10 FT	24.0	16.8
12 FT	16.7	20.2
14 FT	12.3	23.5
16 FT	9.4	26.9



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	16W/SERIES 2	21W/SERIES 3	30W/SERIES 4	38W/SERIES 5	C4322-PL	C4322-WHT
2700K	0.94	0.70	0.28	0.39	0.54	0.72	0.89	0.91	0.93
3000K	N/A	0.75							
3500K	1.0	0.81							
4000K	1.0	0.87							

DATE

PROJECT

TYPE

# R4 SERIES | 4-Inch Round Downlight Photometrics

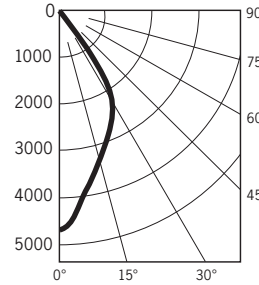
## R4NC630K12D / C4322-PL

Fixture Delivered Lumens: 3781.4  
 Total Watts@120V: 45.2  
 Lumens Per Watt: 83.7  
 Center Beam Candle Power: 4724  
 Beam Distribution: 59.0°  
 Spacing Criterion: 0.91  
 Color Rendering Index (CRI)<sup>1</sup>: 83.3  
 Color Temperature (CCT)<sup>2</sup>: 3079K  
 Designed for 50,000 Hour Lamp Life<sup>3</sup>  
 LM-63 Test No. G21070601  
 LM-79 Test No. S21072001

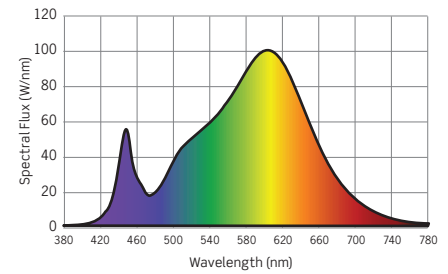
### Intensity Distribution

DISTANCE (FT.)	FOOTCANDLES (FC)	BEAM DIAMETER (FT.)
6 FT	131.2	6.8
8 FT	73.8	9.0
10 FT	47.2	11.3
12 FT	32.8	13.5
14 FT	24.1	15.8
16 FT	18.5	18.1

### 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

## 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	16W/SERIES 2	21W/SERIES 3	30W/SERIES 4	38W/SERIES 5	C4322-PL	C4322-WHT
2700K	0.94	0.70	0.28	0.39	0.54	0.72	0.89	0.91	0.93
3000K	N/A	0.75							
3500K	1.0	0.81							
4000K	1.0	0.87							

DATE

PROJECT

TYPE

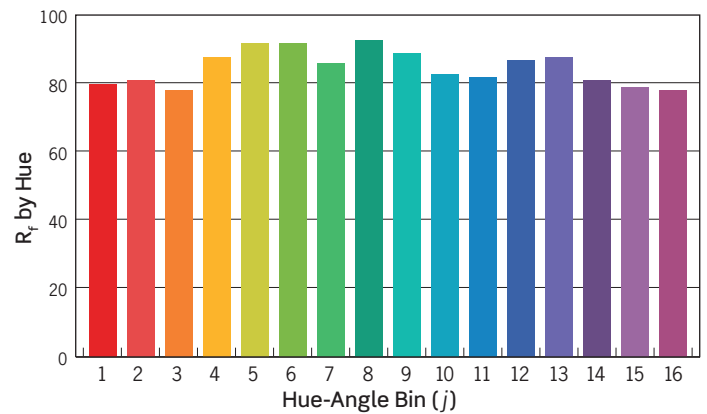
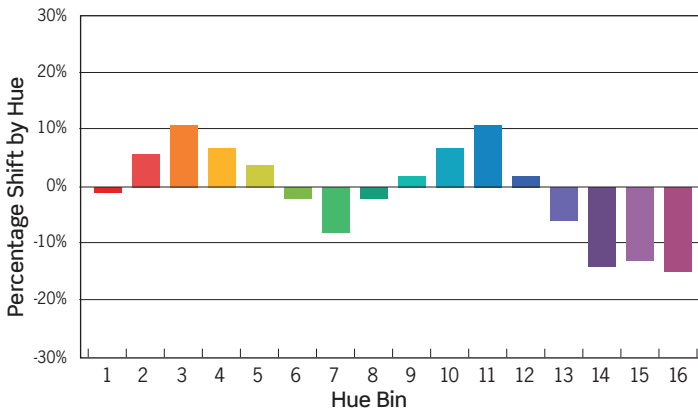
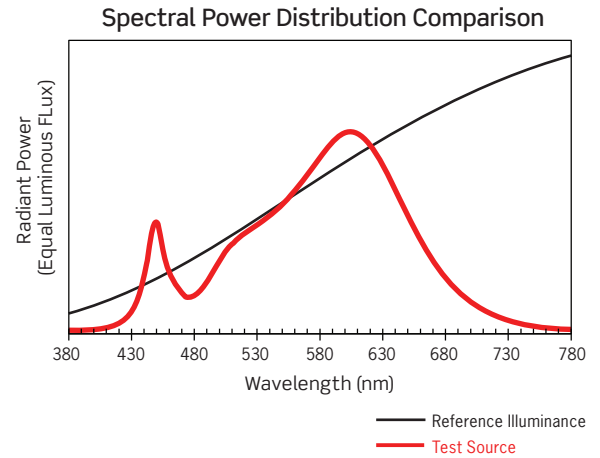
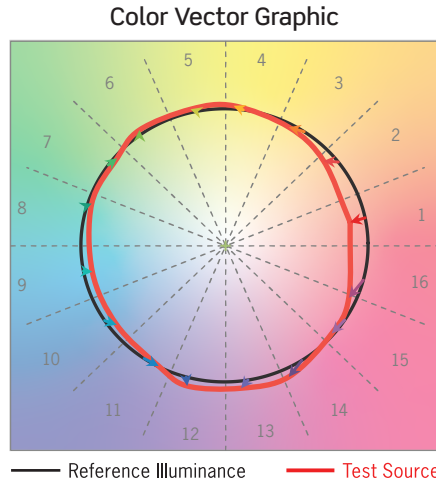
# R4 SERIES | 4-Inch Round Downlight Photometrics

## TM-30 DATA: R4NC630K12D / C4322M-CLR

ANSI/IES TM-30-18 Color Rendition Report Test No. S21072001

Colors are for visual orientation purposes only

$R_f$	86
$R_g$	97
CCT(K)	3079K
$D_{uv}$	0.0016
$u^l$	0.2473
$v^l$	0.5220



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%	-8%	-2%	2%	7%	11%	2%	-6%	-14%	-13%	-15%
$R_f$ VALUE	81	82	79	89	93	93	87	94	90	84	83	88	89	82	80	79

DATE

PROJECT

TYPE

## R4 SERIES | 4-Inch Round 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 120V AC 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 to the Dimmer (120V or 277V AC). 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 Violet and Pink/Gray.
- Lutron EcoSystem Drivers provide continuous dimming from 1%–100%. For a complete list of compatible Dimmers and Controls, visit [www.lutron.com](http://www.lutron.com)
- Use DALI approved Controls for dimming eldoLED ECOdrive, 1% Dimming (Dimming Option D7 or MVD7) and eldoLED SOLOdrive, 0.1% Dimming (Dimming Option D9 or MVD9).

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