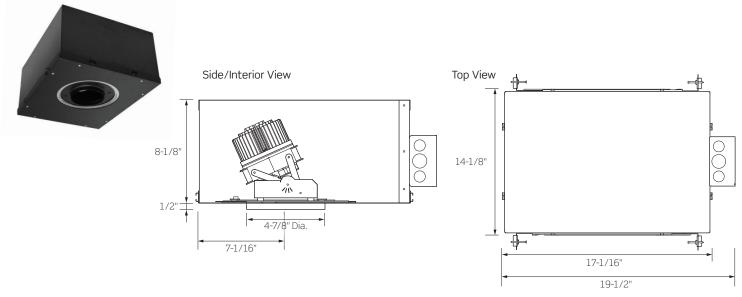


**TYPE** CATALOG NO.

# R4A SERIES | 4-Inch Round Insulated Ceiling (IC)/StopAire™ Adjustable Downlight





Listed















Ceiling Opening: 4-7/8-Inches Ceiling Thickness: 1/2- to 1-1/4-Inches

	R4AIC1	R4AIC2	R4AIC3	R4AIC4					
WATTAGE <sup>1</sup>	12W	15W	21W	29W					
LUMEN OUTPUT <sup>2</sup>	800Lm 1100Lm 1600Lm 2100Lm								
COLOR TEMPERATURE	2700K / 3000K / 3500K / 4000K								
CRI	83 (80min)/90+								
BEAM SPREAD	16° Spot / 36° Medium / 5	1° Flood							
DRIVER INPUT WATTAGE	12W	15W	21W	29W					
INPUT CURRENT (A) 120V/277V	.08A/.04A	.12A/.06A	.17A/.08A	.23A/.11A					
INPUT VOLTAGE									
Standard Driver (Phase/0-10V)	90–305VAC, 50/60Hz								
Lutron Eco-System® Driver	120-277VAC, 50/60Hz								
eldoLED ECOdrive / SOLOdrive	120–277VAC, 50/60Hz								
DRIVER POWER FACTOR	> 0.90								
TOTAL HARMONIC DISTORTION	< 20%								
LISTINGS	cCSAus Certified using US (UL) and Canadian (CSA) standards; Suitable for Damp Locations cCSAus Certified to UL924 Standard for Emergency Lighting when specified with the Emergency Battery Backup option (-ER)								
	Conforms to Washington State Energy Code (WSEC) for Low Air Infiltration; tested in accordance with ASTM E283 (2.0 CFM or less)								
	City of Chicago Environmental Air (CCEA) Rated; not for use in Insulated Ceilings (IC)								
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								

<sup>1.</sup> For 37W/2600Im and 44W/3000Im Non-IC Series, use the R4ANC Series Specification Sheet

<sup>2.</sup> Approximate lumen output based on 3000K performance; see photometric test results for additional information



TYPE CATALOG NO.

# R4A SERIES | 4-Inch Round Insulated Ceiling (IC)/StopAire™ Adjustable Downlight

# ORDERING INFORMATION

Housing/LED Series <sup>1</sup>	Color Temp/CRI	Dimming	Beam Dist.	Options
R4AIC1 12W/800lm R4AIC2 15W/1100lm R4AIC3 21W/1600lm R4AIC4 29W/2100lm	83 (80min) CRI 90 CRI 27K 2700K 27KC 2700K 30K 3000K 30KC 3000K 35K 3500K 35KC 3500K 40K 4000K 40KC 4000K	<ul> <li>MVD² Forward/Reverse Phase, 0-10V Dimming</li> <li>MVD4 Lutron Hi-lume 1% EcoSystem Driver with Soft-on, Fade-to-Black</li> <li>MVD6 eldoLED ECOdrive 0-10V 1% Dimming</li> <li>MVD7 eldoLED ECOdrive DALI 1% Dimming</li> <li>MVD8 eldoLED SOLOdrive 0-10V 0.1% Dimming</li> <li>MVD9 eldoLED SOLOdrive DALI 0.1% Dimming</li> </ul>	S 16° Spot M 36° Medium F 51° Flood	ER <sup>3,4</sup> Factory Installed 7W/200mA Emergency Battery Backup; Remote Test Switch

- 1. For 37W/2600lm and 44W/3000lm Non-IC Series, use the R4ANC Series Specification Sheet
- 2. Forward/Reverse Phase Dimming for 120V only
- 3. Emergency Battery Backup Option cannot be used in Chicago Plenum applications
- 4. 600 Lumen nominal average for Emergency Battery Backup Option

## **ACCESSORY & REPLACEMENT OPTICS ORDERING INFORMATION**

Mounting Accessories							
Standard I	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						

Lenses and Louvers						
FA-57	Black Accessory Holder Clip; Accepts Two (2) Media					
LA-36-83MM	Black Honeycomb Louver Requires FA-57 Accessory Holder					
LF20-** 86MM	Tempered Glass Lenses; Requires FA-57 Accessory Holder					

Replacement Optics ADJOPT-S 16° Spot ADJOPT-M 36° Medium ADJOPT-F 51° Flood

See page 3 for compatible Trim information and details

Example Order: R4AIC127KMVDM-ER

\*\*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), -G (Green), -LB (Light Blue), -R (Red), -RO (Rose), -Y (Yellow)

# PRODUCT SPECIFICATIONS

#### CONSTRUCTION

- Specification Grade 4-inch round 16 gauge galvanized steel New Construction Insulated Ceiling (IC) Air Tight Housing with Die-Cast Aluminum Heat Sink
- Rated for Insulated Ceiling (IC) and StopAire™ applications; can be used in direct contact with insulation materials
- Can be used in slope ceiling applications
- Housing is painted matte black inside and out; aperture can be adjusted 1/4-inch in each direction post installation to ease fixture alignment
- Quick-connect Module design enables easy installation and removal; can be accessed from above or below the ceiling
- Class 2 Drivers are fully accessible from below the ceiling and can be easily removed
- Housing has a removable cover when Module and Driver access from above the ceiling is required
- Adjustment Mechanism is constructed of 16 gauge sheet metal and die-cast Aluminum: it is painted matte black, allows 45° of tilt, 360° rotational adjustment, and is fully lockable
- White Graduation Marks are painted every 15° on the Mechanism for consistent aiming
- Dual Nailer Hanger Bars are adjustable for 16- and 24-inch center joists (14-1/4 - to 24-1/2 - inch). Nailer Bars may be extended to rest on T-Bar ceilings; optional clip-on T-Bar Hangers available.

- Pre-wired Junction Box with eight (8) 1/2-inch Knockouts and four (4) 3/4-inch Knockouts
- Output over-voltage, over-current and short circuit protection
- Approved for Through Circuit Wiring: max. eight (8) 12 AWG (4-in/4-out), wiring rated to 90°C

## PERFORMANCE SUMMARY

- 2700K, 3000K, 3500K and 4000K CCTs; 80 CRI min., 83 typical; high CRI of 90+ available
- Excellent fixture-to-fixture color consistency with a 3-step MacAdam Ellipse tolerance
- Engineering grade thermoplastic housing with a spring steel clips support the glass optic available in 16° Spot, 36° Medium and 51° Flood beam distributions
- Optics are interchangeable and can be field replaced
- Spec Grade Trims available in several different styles and finishes; NOTE: R4A and R4 Series Trims are NOT compatible with each other
- FA-57 Black Accessory Holder Clips can support two (2) media
- All R4A Downlights are available for dimming and non-dimming applications; for compatible Dimmers, refer to the Dimming Specification Sheet
- UL8750 and Class 2 Compliant; RoHS Compliant, US only



**TYPE** CATALOG NO.

# **R4A SERIES** | Specification Grade Trims for 4-Inch Round Adjustable Downlights

# TRIM OPTIONS





# C4304 Series

# Angle-Cut Reflector with Solite Lens

- 4-3/8-Inch ID, 5-11/16-Inch OD
- Includes one (1) LF20-CL Clear Glass Lens
- Approved for Wet Locations



C4304-CLR<sup>1</sup> Clear Specular Reflector C4304-PL1 Platinum Reflector

C4304-WHT Matte White Painted Reflector

1. Finish available with White Panted Flange; add "-WPF" to end of part number





## C4302 Series

# **Full Cone Reflector**

- 4-3/8-Inch ID, 5-11/16-Inch OD
- Accepts one (1) LA-45 Black Honeycomb Louver or one (1) LF20 Tempered Glass Lens
- Approved for Wet Locations when used with LF20 Lens

# Trim

C4302-CLR<sup>1</sup> Clear Specular Full Cone Reflector C4302-PL¹ Platinum Full Cone Reflector

C4302-WHT Matte White Painted Full Cone Reflector

1. Finish available with White Panted Flange; add "-WPF" to end of part number





# C4305 Series

Pinhole Trim

• 2-1/4-Inch ID, 5-5/8-Inch OD

#### Trim

C4305-BLK Matte Black Painted Pinhole C4305-WHT Matte White Painted Pinhole



# C4304BF Series



- 4-3/8-Inch ID, 5-11/16-Inch OD
- Includes one (1) LF20-CL Clear Glass Lens
- Approved for Wet Locations

#### Trim

C4304BF-BLK Matte Black Painted Angle-Cut Baffle C4304BF-WHT Matte White Painted Angle-Cut Baffle



# C4301 Series



# Full Cone Baffle

- 4-3/8-Inch ID, 5-11/16-Inch OD
- Accepts one (1) LA-45 Black Honeycomb Louver or one (1) LF20 Tempered Glass Lens
- . Approved for Wet Locations when used with LF20 Lens

# Trim

C4301-BLK Matte Black Painted Full Cone Baffle C4301-WHT Matte White Painted Full Cone Baffle

Louvers, Lenses, and Filters



## Louvers & Lenses

LA-45 3-25/32-Inch Diameter Black Honeycomb Louver

LF20-\* 3-3/4-Inch Diameter Tempered Glass Lenses and Filters; 1/8-Inch Thick, typ.

-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)



TYPE CATALOG NO.

# R4A SERIES | 4-Inch Round Adjustable Downlight Photometrics

# R4ANC630K12DS / C4304-CLR: 3000K, 80 CRI, SPOT BEAM, CLEAR REFLECTOR

LM-63 Test No. G21101202: LM-79 Test No. S21072701

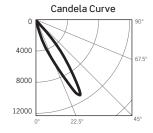
## Luminaire aimed 30° from Nadir

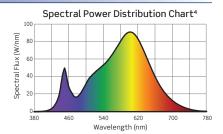
Fixture Delivered Lumens: 877.5 Total Watts@120V: 44.2 Lumens Per Watt: 19.9

Center Beam Candle Power: 11261

Beam Distribution: 15.5° Spacing Criterion: 0.50

Color Rendering Index (CRI)<sup>1</sup>: 82.8 Color Temperature (CCT)<sup>2</sup>: 3109K Designed for 50,000 Hour Lamp Life<sup>3</sup>





# R4ANC630K12DM / C4304-CLR: 3000K, 80 CRI, MEDIUM BEAM, CLEAR REFLECTOR

LM-63 Test No. G21100701 LM-79 Test No. S21072701

# Luminaire aimed 30° from Nadir

Fixture Delivered Lumens: 3129.4 Total Watts@120V: 44.3 Lumens Per Watt: 70.6

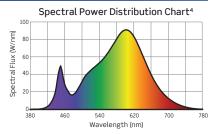
Center Beam Candle Power: 7085

Beam Distribution: 36.2° Spacing Criterion: 1.18

Color Rendering Index (CRI)<sup>1</sup>: 82.8 Color Temperature (CCT)<sup>2</sup>: 3109K Designed for 50,000 Hour Lamp Life<sup>3</sup>

# Candela Curve 90° 3000 67.5′

7000



# R4ANC630K12DF / C4304-CLR: 3000K, 80 CRI, FLOOD BEAM, CLEAR REFLECTOR

LM-63 Test No. G21072003: LM-79 Test No. S21072701

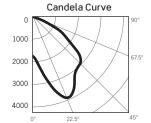
# Luminaire aimed 30° from Nadir

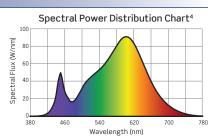
Fixture Delivered Lumens: 2943.8 Total Watts@120V: 44.4 Lumens Per Watt: 66.3 Center Beam Candle Power: 3603

Beam Distribution: 51.3°

Spacing Criterion: 1.25

Color Rendering Index (CRI)<sup>1</sup>: 82.8 Color Temperature (CCT)<sup>2</sup>: 3109K Designed for 50,000 Hour Lamp Life<sup>3</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 the various CCT/CRI options, multiply 3000K (80 CRI min) results by the following:

CCT MULTIPLIERS								
CCT	STANDARD CRI	HIGH (90+) CRI						
2700K	0.94	0.70						
3000K	1.00	0.75						
3500K	1.02	0.81						
4000K	1.04	0.87						

OUTPUT MULTIPLIERS									
12W/SERIES 1	1 16W/SERIES 2 21W/SERIES 3 30W/SERIES 4 38W/SERIES 5								
0.26	0.36	0.50	0.68	0.83					

TRIM MULTIPLIERS							
C4302-CLR	C4304-PL	C4305-WHT					
1.24	0.94	0.68					



TYPE CATALOG NO.

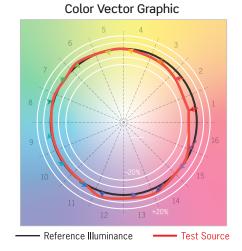
# R4A SERIES | 4-Inch Round Adjustable Downlight Photometrics

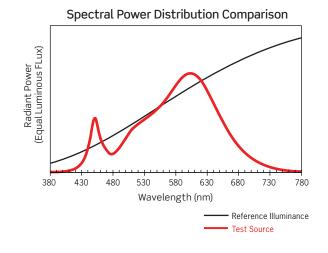
# TM-30 DATA: R4ANC630K12DM / C4304-CLR

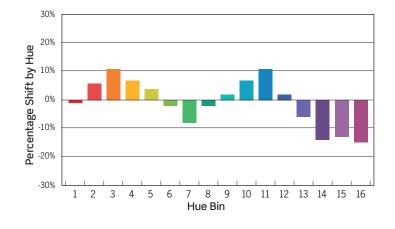
ANSI/IES TM-30-18 Color Rendition Report Test No. S21072701

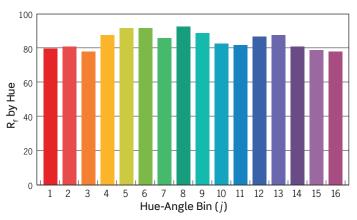
Colors are for visual orientation purposes only

$R_{\rm f}$	85
$R_{g}$	96
CCT(K)	3109K
D <sub>uv</sub>	0.0015
u¹	0.2463
V <sup>I</sup>	0.5212









HUE BIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
HUE SHIFT	-1%	7%	11%	7%	4%	-2%	-7%	-1%	3%	8%	12%	2%	-6%	-15%	-13%	-15%
R <sub>f</sub> VALUE	80	82	79	89	93	94	87	93	90	83	82	87	89	81	80	79



TYPE

# R4A SERIES | 4-Inch Round Adjustable Downlights: Dimming Specifications

CATALOG NO.

			PHASE/0-10V DIMMING (D or MVD Option*)	eldoLED ECOdrive 0-10V (D6 or MVD6 Option)	eldoLED SOLOdrive 0-10V (D8 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	Faedra	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 Phase Dimming is not available

## PHASE DIMMING

- 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 DIMMING

• 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.

# EcoSystem/ECOdrive DIMMING

- Lutron EcoSystem Drivers provide continuous dimming from 1%-100%. For a complete list of compatible Dimmers and Controls, visit 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).

#### **NOTES**

- 1. Testing was performed with a single luminaire connected to Dimmer.
- 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.
- 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.