

# CR Series

CR4™ LED Downlight – 4" (102mm)

## Product Description

The CR4™ LED downlight delivers 575 lumens of exceptional 90+ CRI light while achieving over 60 lumens per watt. This breakthrough performance is achieved by combining the high efficacy and high-quality light of Cree TrueWhite® Technology. The CR4 is available in warm and cool color temperatures, and easily installs into most standard four-inch recessed IC or non-IC housings.

**Applications:** New construction or upgrade for residential and commercial lighting

## Performance Summary

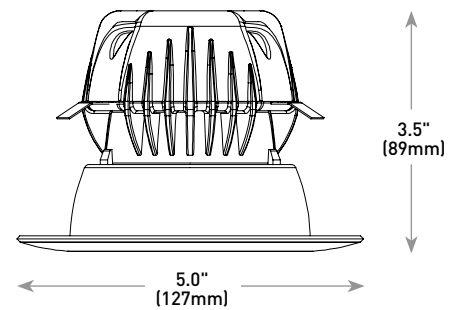
Utilizes Cree TrueWhite® Technology
<b>Initial Delivered Lumens:</b> 575 lumens
<b>Input Power:</b> 9.5 watts
<b>CRI:</b> 90
<b>CCT:</b> 2700K, 3000K, 3500K, 4000K
<b>Limited Warranty*:</b> 5 years
<b>Lifetime:</b> Designed to last 50,000 hours
<b>Dimming:</b> Dimmable to 5%

\*See <http://lighting.cree.com/warranty> for warranty terms

## Housings & Accessories

Reference Housing & Accessory spec sheets for more details.

Housings	
<b>Edison Base Housing</b> RC4 - New Construction RR4 - Retrofit	<b>GU24 Base Housing</b> RC4-GU24 - New Construction RR4-GU24 - Retrofit
Field-Installed	
<b>GU24 ADAPTER</b> - GU-24 Socket Whip to convert existing Edison socket fixtures to GU24	



## Ordering Information

Example: CR4-575L-27K-12-E26

CR	4	575L		12	
Series	Size	Initial Delivered Lumens	CCT	Voltage	Base Type
CR	4 4" (102mm)	575L 9.5W, 575 Lumens – 61 LPW	27K 2700K 30K 3000K 35K 3500K 40K 4000K	12 120 Volts	E26 Edison Base GU24 GU24 Base (Title 24 Compliant)



Rev. Date: V5 10/03/2018



# CR4™ LED Downlight – 4" (102mm)

## Product Specifications

### CREE TRUEWHITE® TECHNOLOGY

A revolutionary way to generate high-quality white light, Cree TrueWhite® Technology is a patented approach that delivers an exclusive combination of 90+ CRI, beautiful light characteristics, and lifelong color consistency, all while maintaining high luminous efficacy – a true no compromise solution.

### CONSTRUCTION & MATERIALS

- Durable upper housing protects LEDs and driver. Adjustable flip clips resist heat while providing retention for flush ceiling fit
- Thermal management system uses the lower reflector to conduct heat away from LEDs and transfer it to the plenum space for optimal performance. LED junction temperatures stay below specified maximum even when installed in insulated ceilings
- Suitable for insulated and non-insulated ceilings
- One-piece aluminum lower reflector redirects light while also conducting heat away from LEDs. It creates a comfortable visual transition from the lens to the ceiling plane

### OPTICAL SYSTEM

- Unique combination of reflective and refractive optical components achieves a uniform, comfortable appearance while eliminating pixelation and color fringing. This ensures smooth light patterns are projected with no hot spots and minimal striations
- Components work together to optimize distribution, balancing the delivery of high illuminance levels on horizontal surfaces with an ideal amount of light on walls and vertical surfaces. This increases the perception of spaciousness
- Diffusing polycarbonate lens shields direct view of LEDs

### ELECTRICAL SYSTEM

- Integral, high-efficiency driver
- **Power Factor:** > 0.9
- **Total Harmonic Distortion:** < 20%
- **Input Voltage:** 120V, 60Hz
- **Dimming:** Dimmable to 5% with most incandescent dimmers. Reference <http://lighting.cree.com/products/indoor/retrofit-downlights/cr-series> for recommended dimmers
- **Operating Temperature Range:** 0°C - +35°C (32°F - +95°F)

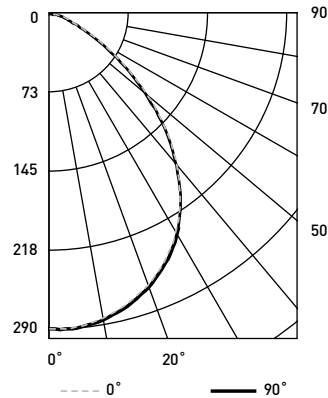
### REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Classified
- Suitable for wet locations for covered ceilings only
- Meets FCC Part 15, Subpart B, Class B standards for conducted and radiated emissions
- ENERGY STAR® certified. Please refer to <https://www.energystar.gov/productfinder/product/certified-light-fixtures/results> for most current information
- Exceeds California Title-24 high efficacy luminaire requirements. Please refer to <https://cacertappliances.energy.ca.gov/Pages/ApplianceSearch.aspx> for most current information
- **CA RESIDENTS WARNING:** Cancer and Reproductive Harm – [www.p65warnings.ca.gov](http://www.p65warnings.ca.gov)

## Photometry

### CR4-575L-27K-12-E26 BASED ON ONSPEX REPORT #: 2539163

Luminaire photometry has been conducted by a NVLAP accredited testing laboratory in accordance with IESNA LM-79-08. IESNA LM-79-08 specifies the entire luminaire as the source resulting in a luminaire efficiency of 100%.



Coefficients Of Utilization – Zonal Cavity Method				
RC %:	80			
RW %:	70	50	30	10
RCR: 0	119	119	119	119
1	111	107	103	100
2	102	95	90	85
3	95	85	78	73
4	87	77	69	63
5	81	70	62	56
6	75	63	55	50
7	70	58	50	44
8	66	53	45	40
9	62	49	42	36
10	58	46	38	33

Average Luminance Table (cd/m²)			
Vertical Angle	Horizontal Angle		
	0°	45°	90°
45°	34,995	35,444	34,705
55°	24,720	24,908	24,164
65°	14,219	14,566	14,273
75°	10,650	10,367	9,939
85°	9,957	10,666	10,480

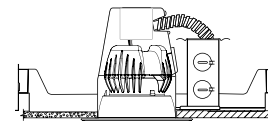
Reference <http://lighting.cree.com/products/indoor/retrofit-downlights/cr-series> for detailed photometric data

Effective Floor Cavity Reflectance: 20%

Zonal Lumen Summary			
Zone	Lumens	% Lamp	Luminaire
0-30	219	N/A	37.0%
0-40	346	N/A	58.5%
0-60	533	N/A	90.1%
0-90	591	N/A	100.0%
0-180	591	N/A	100.0%

## Installation

- Designed to easily install in standard 4" (102mm) downlight housings with minimum housing height of 3.5" (89mm) and diameter of 3.9" - 4.1" (99mm - 104mm)\*
- Quick install system utilizes a unique retention feature. Simply attach socket to CR4. Move light to ready position and slide into housing



**NOTE:** Reference <http://lighting.cree.com/products/indoor/retrofit-downlights/cr-series> for detailed installation instructions

\*Reference <http://lighting.cree.com/products/indoor/retrofit-downlights/cr-series> for a list of compatible housings

## Application Reference

Open Space					
Spacing	Lumens	Wattage	LPW	w/ft²	Average FC
4 x 4	575	9.5	61	0.52	38
6 x 6				0.25	18
8 x 8				0.14	10
10 x 10				0.08	6

10' Ceiling, 80/50/20 Reflectances, 2.5 workplane. LLF: 1.0 Initial. Open Space: 50' x 40' x 10'

Corridor					
Spacing	Lumens	Wattage	LPW	w/ft²	Average FC
4' on Center	575	9.5	61	0.33	15
6' on Center				0.23	10
8' on Center				0.17	8
10' on Center				0.13	6

10' Ceiling, 80/50/20 Reflectances, Light levels on the ground. LLF: 1.0 Initial. Corridor: 6' Wide x 100' Long

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