

CR Series

CR4™ LED Downlight - 4"

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

Initial Delivered Lumens: 575 lumens

Input Power: 9.5 watts

CRI: 90

CCT: 2700K, 3000K, 3500K, 4000K

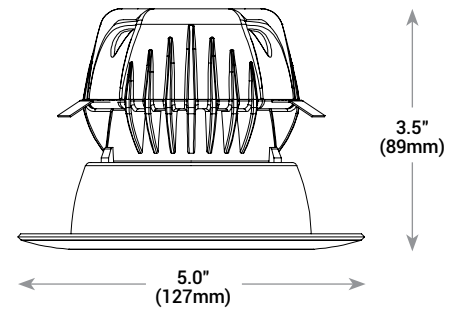
Limited Warranty†: 5 years

Lifetime: Designed to last 50,000 hours

Dimming: Dimmable to 5%*

†See www.cree.com/lighting/products/warranty for warranty terms

*Reference www.cree.com/lighting for recommended dimmers



QUICKSHIP™

For full list of Cree Quick Ship products visit www.cree.com/lighting/quickship

Ordering Information

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

CR	4	575L		12		
Series	Size	Initial Delivered Lumens	CCT	Voltage	Base Type	Options
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)	D Specular Reflector



Rev. Date: V3 10/28/2015



US: www.cree.com/lighting

T (800) 236-6800 F (262) 504-5415

Canada: www.cree.com/canada

T (800) 473-1234 F (800) 890-7507

CR4™ LED Downlight - 4"

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, driver and power supply. 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 attic insulation
- 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 and power supply
- **Power Factor:** > 0.9
- **Total Harmonic Distortion:** < 20%
- **Input Voltage:** 120V, 60Hz
- **Dimming:** Dimmable to 5% with most incandescent dimmers*
- **Operating Temperature Range:** 0-35°C (32-95°F)

REGULATORY & VOLUNTARY QUALIFICATIONS

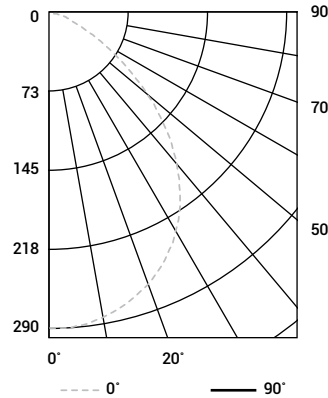
- ENERGY STAR® qualified. Please refer to www.energystar.gov/certified-products/certified-products?c=products.pr_find_es_products&s=mega for most current information
- cULus Listed
- Suitable for wet locations
- Exceeds California Title-24 high efficacy luminaire requirements

* Reference www.cree.com/Lighting/Products/Indoor/Downlights-US/CR-Series for recommended dimmers

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%.



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 www.cree.com/Lighting/Products/Indoor/Downlights-US/CR-Series for detailed photometric data

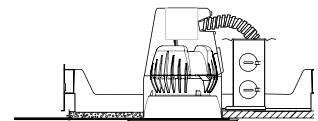
Coefficients Of Utilization – Zonal Cavity Method				
RC %:	80			
RW %:	70	50	30	10
RCR: 0	119	119	119	119
1	111	107	103	100
2	102	95	90	85
3	95	85	78	73
4	87	77	69	63
5	81	70	62	56
6	75	63	55	50
7	70	58	50	44
8	66	53	45	40
9	62	49	42	36
10	58	46	38	33

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*
- Quick install system utilizes a unique retention feature. Simply attach socket to CR4. Move light to ready position and slide into housing



NOTE: Reference www.cree.com/Lighting/Products/Indoor/Downlights-US/CR-Series for detailed installation instructions

*Reference www.cree.com/Lighting/Products/Indoor/Downlights-US/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