

CR Series

CR6™ LED Downlight - 6"

Product Description

The CR6™ LED downlight delivers up to 800 lumens of exceptional 90+ CRI light while achieving up to 67 lumens per watt. This breakthrough performance is achieved by combining the high efficacy and high-quality light of Cree TrueWhite® Technology. The CR6 is available in warm and cool color temperatures, and has a variety of trim options. It easily installs into most standard six-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: 625, 800 lumens
Input Power: 9.5, 12 watts
CRI: 90
CCT: 2700K, 3000K, 3500K, 4000K
Limited Warranty*: 5 years
Lifetime: Designed to last 50,000 hours
Dimming: Dimmable to 5%*

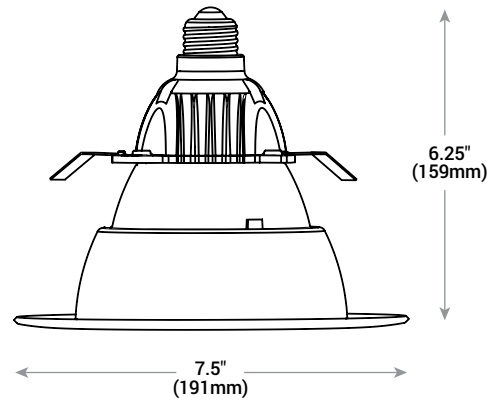
*See www.cree.com/lighting/products/warranty for warranty terms

Housings & Accessories

Reference Housing & Accessory documents for more details.

Trims & Reflectors	
CT6A - Diffuse anodized finish reflector	CT6AB - Black diffuse anodized finish reflector
CT6AW - Wheat diffuse anodized finish reflector	CT6BB - Flat black reflector and trim

Housings	
Edison Base Housing	GU24 Base Surface Mount Housing
RC - New Construction	SC6-GU24 - Textured white finish
RR6 - Retrofit	SC6-GU24 US - Textured white finish, U.S. Manufactured
C6 - Recessed "Pan" Conversion Kit	SC6-BL-GU24 - Textured black finish
GU24 Base Housing	GU24 Base Ceiling Mount Housing
RC6-GU24 - New Construction	SC6-CM-GU24 - Textured white finish
H6-GU24 - Architectural	SC6-CM-GU24 US - Textured white finish, U.S. Manufactured
RR6-GU24 - Retrofit	SC6-CM-BL-GU24 - Textured black finish
C6-GU24 - Recessed "Pan" Conversion Kit	GU24 Base Wall Mount Housing
C6-120V-LSA - Hard Wire Recessed "Pan" Conversion Kit	SC6-WM-GU24 - Textured white finish
	SC6-WM-BL-GU24 - Textured black finish



Ordering Information

Example: CR6-625L-27K-12-E26

QUICKSHIP™

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

Series	Size	Initial Delivered Lumens	CCT	Voltage	Base Type
CR	6 6" (152mm)	625L 9.5W, 625 Lumens - 66 LPW 800L 12W, 800 Lumens - 67 LPW	27K 2700K 30K 3000K 35K 3500K 40K 4000K	12 120 Volts	E26 Edison Base GU24 GU24 Base (Title 24 Compliant)

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



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

CR6™ LED Downlight - 6"

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 both upper housing and 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 and easily accommodates CT16 snap-in trims

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 while lower reflector balances brightness of lens with the ceiling to create a low-glare high angle appearance

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. Reference www.cree.com/Lighting/Products/Indoor/Downlights-US/CR-Series for recommended dimmers
- **Operating Temperature Range:** 0°C - +35°C (32°F - +95°F)

REGULATORY & VOLUNTARY QUALIFICATIONS

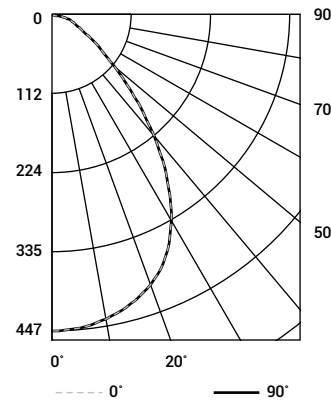
- ENERGY STAR® qualified. Please refer to http://www.energystar.gov/certified-products/certified-products?c=products.pr_find_es_products&s=mega for most current information
- cULus Classified
- Suitable for wet locations for covered ceilings only
- Exceeds California Title-24 high efficacy luminaire requirements Please refer to <http://www.appliances.energy.ca.gov/AdvancedSearch.aspx> for most current information
- Meets FCC Part 15 standards for conducted and radiated emissions

Photometry

CR6-800L-27K-12-E26 BASED ON ONSPEX REPORT #: 2444322

CR6-625L: MULTIPLY BY 0.78

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)			
Horizontal Angle			
	0°	45°	90°
Vertical Angle			
45°	17,630	18,200	18,559
55°	10,723	10,960	11,192
65°	7,339	7,378	7,499
75°	7,252	7,279	7,384
85°	4,818	4,996	5,477

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	104	101
2	103	96	91	86
3	96	87	80	75
4	89	79	71	66
5	83	72	64	59
6	77	66	58	53
7	72	60	53	47
8	68	56	48	43
9	64	52	44	39
10	60	48	41	36

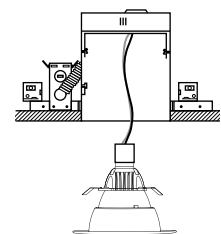
Effective Floor Cavity Reflectance: 20%

Zonal Lumen Summary			
Zone	Lumens	% Lamp	Luminaire
0-30	335	N/A	42.5%
0-40	513	N/A	65.0%
0-60	716	N/A	90.8%
0-90	789	N/A	100.0%

Installation

- Designed to easily install in standard 6" (152mm) downlight housings with minimum housing height of 6.5" (165mm) and diameter of 5.75" - 6.5" (146mm - 165mm)
- Quick install system utilizes a unique retention feature. Simply attach socket to CR6. 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



Application Reference

Open Space					
Spacing	Lumens	Wattage	LPW	w/ft²	Average FC
4 x 4	625	9.5	66	0.60	36
6 x 6				0.28	18
8 x 8				0.15	10
10 x 10				0.10	7
4 x 4	800	12	67	0.76	47
6 x 6				0.35	22
8 x 8				0.19	13
10 x 10				0.13	8

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	625	9.5	66	0.40	13
6' on Center				0.27	9
8' on Center				0.20	7
10' on Center				0.17	6
4' on Center	800	12	67	0.51	17
6' on Center				0.34	11
8' on Center				0.25	8
10' on Center				0.21	7

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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