

CR6™

Six-Inch LED Downlight

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 a warm color temperature and has a variety of trim options. It easily installs into most standard six-inch recessed IC or non-IC housings, making the CR6 perfect for use in both residential and light commercial, new construction or retrofit, applications.

Performance Summary

| |
|--|
| Utilizes Cree TrueWhite™ Technology |
| Delivered Light Output: 625, 800 lumens |
| Input Power: 9.5, 12 watts |
| CRI: 90 |
| CCT: 2700K, 3000K, 3500K, 4000K |
| Warranty: 5 years† |
| Lifetime: Designed to last 50,000 hours |
| Dimming: Dimmable to 5%* |

Housings & Accessories

Reference Housing & Accessory documents for more details.

| Trims & Reflectors | |
|--------------------|---------------------------------|
| CT6A | Diffuse silver reflector |
| CT6AW | Diffuse wheat reflector |
| CT6AB | Diffuse black reflector |
| CT6BB | Flat black flange and reflector |

| Housings (GU24 Only) | |
|----------------------|---------------------------|
| H6 | SC6 |
| Architectural | Cylindrical Surface Mount |
| RC6 | SC6-CM |
| New Construction | Cylindrical Cord Mount |
| RR6 | SC6-WM |
| Retrofit | Cylindrical Wall Mount |

Ordering Information

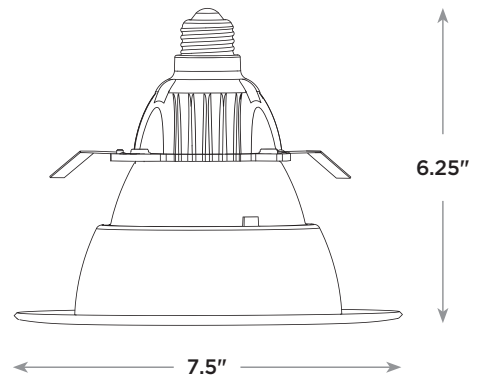
Example: CR6-800L-27K-12-E26

| CR6 | | | | | | | | | |
|--------|----------|---------------------|------------|-----|-------|---------|-----------|-----------|--------------------------------|
| Series | Size | Source Lumen Output | | CCT | | Voltage | | Base Type | |
| CR | 6 6 inch | 625L | 625 Lumens | 27K | 2700K | 12 | 120 Volts | E26 | Edison Base |
| | | | | 30K | 3000K | | | GU24 | GU24 Base (Title 24 Compliant) |
| | | | | 35K | 3500K | | | | |
| | | | | 40K | 4000K | | | | |
| CR | 6 6 inch | 800L | 800 Lumens | 27K | 2700K | 12 | 120 Volts | E26 | Edison Base |
| | | | | 30K | 3000K | | | GU24 | GU24 Base (Title 24 Compliant) |
| | | | | 35K | 3500K | | | | |
| | | | | 40K | 4000K | | | | |

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

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

CR6™



Rev. Date 05/15/2013



Product Specifications

CREE TRUEWHITE® TECHNOLOGY

A revolutionary way to generate high-quality white light, Cree TrueWhite® Technology mixes the light from the highest performing red and unsaturated yellow LEDs. This patented approach 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 CT6 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 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

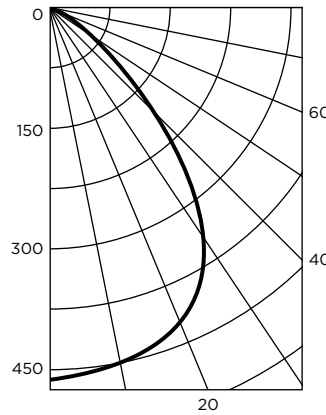
- Integral, high-efficiency driver and power supply.
- **Power Factor** > 0.9
- **Input Voltage:** 120V, 60Hz
- **Dimming:** Dimmable to 5% with most incandescent dimmers. Reference www.cree.com/lighting for recommended dimmers.

REGULATORY & VOLUNTARY QUALIFICATIONS

- ENERGY STAR® qualified.
- cULus Listed
- Exceeds California Title-24 high efficacy luminaire requirements.
- Suitable for wet locations.

Photometry

CR6 BASED ON ONSPEX REPORT #: 30014047-3
 CR6-625L: MULTIPLY BY 0.78



Intensity (Candlepower) Summary

| Angle | Mean CP |
|-------|---------|
| 0° | 456 |
| 5° | 453 |
| 15° | 432 |
| 25° | 386 |
| 35° | 293 |
| 45° | 174 |
| 55° | 85 |
| 65° | 42 |
| 75° | 25 |
| 85° | 6 |
| 90° | 0 |

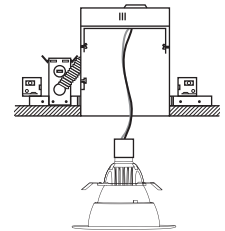
Zonal Lumen Summary

| Zone | Lumens | % Lamp | % Fix |
|------|--------|--------|--------|
| 0-30 | 336 | 42.10% | 42.10% |
| 0-40 | 516 | 64.60% | 64.60% |
| 0-60 | 724 | 90.60% | 90.60% |
| 0-90 | 800 | 100% | 100% |

Reference www.cree.com/lighting for detailed photometric data.

Installation

- Designed to easily install in standard 6" downlight housings from Cree and other manufacturers.*
- 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 for detailed installation instructions.

*Reference www.cree.com/lighting for a list of compatible housings.

Application Reference

| Open Space | | | | | |
|------------|--------|---------|-----|-------|------------|
| Spacing | Lumens | Wattage | LPW | w/ft² | Average FC |
| 4 x 4 | 625 | 9.5 | 61 | 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 | 61 | 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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