

CR150-650L

150mm LED Downlight

Product Description

The CR150-650L LED downlight delivers 650 lumens of exceptional 90+ CRI light while achieving over 68 lumens per watt. This breakthrough performance is achieved by combining the high efficacy and high-quality light of Cree TrueWhite® Technology. The CR150-650L is available in a warm and cool color temperatures and has a variety of trim options. It easily installs into 150-175mm diameter ceiling openings, making the CR150-650L perfect for use in both residential and commercial applications.

Performance Summary

Utilizes Cree TrueWhite® Technology
Active Color Management
Delivered Light Output: 650 lumens
Input Power: 9.5 watts
CRI: 90
CCT: 3000K, 4000K
Input Voltage: 220-240 VAC
Warranty: 5 years †
Lifetime: Designed to last 50,000 hours
Dimming: Dimmable to 5%*

Accessories

Reference Downlight Trims documentation for more details.

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

CR150-650L



Ordering Information

Example: CR150-650L-40K-23

CR150					
Product	Lumen Output	Color Temperature	Voltage	Control	Options
CR150	650L 9.5W 650 lumens - 68 LPW	30K 3000 Kelvin 40K 4000 Kelvin	23 220-240 Volt	BLANK Triac Dimming to 5%*	BLANK CE/CB certified

* Reference www.cree.com/lighting for recommended dimming control options.

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

NOTE: Not for U.S. shipment

CR150-650L

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 die-cast aluminum housing protects LEDs, driver and power supply. Spring clips resist heat while providing retention for flush ceiling fit.
- Engineered polycarbonate remote gear box protects driver, power supply and terminal block.
- Thermal management system uses integral heat sink to conduct heat away from LEDs and transfer it to the plenum space for optimal performance. LED junction temperatures stay below specified maximum when installed in non-insulated ceiling applications. Not for direct burial in insulation.
- 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

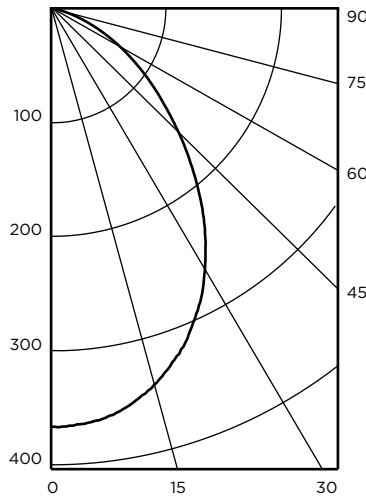
- Remote high-efficiency driver and power supply.
- **Power Factor** > 0.9
- **Input Voltage:** 220-240V, 50/60Hz
- **Dimming:** Dimmable to 5% with recommended dimmers. Reference www.cree.com/lighting for recommended dimmers.

REGULATORY & VOLUNTARY QUALIFICATIONS

- CE/CB certified.
- Pending CCC certification.

Photometry

CR150-650L-3000K BASED ON LTL REPORT #: 28506



Intensity (Candlepower) Summary

Angle	Mean CP
0°	353
5°	351
15°	337
25°	305
35°	234
45°	142
55°	70
65°	35
75°	20
85°	6
90°	0

Zonal Lumen Summary

Zone	Lumens	% Lamp
0-30	268	41%
0-40	414	64%
0-60	587	90%
0-90	650	100%

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

Installation

- Designed to easily install in 150-175mm diameter ceiling openings.
- Spring clips engage with ceiling to hold luminaire in place.
- Remote gear box contains a conduit installation plate and a sheathed wire installation plate.

NOTE: Reference www.cree.com/lighting for detailed installation instructions.

Application Reference

Open Space					
Spacing (m)	Lumens	Wattage	LPW	w/m²	Average Lux
1.2 x 1.2	650	9.5	68	6.33	462
1.8 x 1.8				2.96	214
2.4 x 2.4				1.58	117
3.0 x 3.0				1.06	78

Ceiling Height = 2.7m, 80/20/50 Reflectances, 0.75m workplane. LLF: 1.0 Initial. Open Space: 15m x 12m

Corridor					
Spacing (m)	Lumens	Wattage	LPW	w/m²	Average Lux
1.2m on Center	650	9.5	68	1.32	225
1.8m on Center				0.90	152
2.4m on Center				0.63	110
3.0m on Center				0.53	91

Ceiling Height = 2.7m, 80/20/50 Reflectances, light levels on ground. LLF: 1.0 Initial. Corridor: 1.5m Wide x 30m Long