

CRT Series

CR6T™ LED Downlight - 6" (152mm)

Rev. Date: V13 02/26/2025

Product Description

The new CR6T LED downlight delivers up to 1,650 lumens while achieving over 84 lumens per watt. This breakthrough performance is achieved by combining the high efficacy and high-quality 90 CRI light. The CR6T is available in warm and cool color temperatures, and easily installs into most standard five-inch or six-inch recessed IC or non-IC housings.

Applications: New construction or upgrade for residential and commercial lighting

Performance Summary

Initial Delivered Lumens: 825 Lumens or 1,650 Lumens
Input Power: 11 watts or 19.5 watts
CRI: 90+
CCT: 2700K, 3000K, 3500K, 4000K
Limited Warranty¹: 5 years for luminaire, 1 year for accessories and housings
Lifetime: Designed to last 50,000 hours
Dimming: Dimmable to 5% (At 120V Only)

Rated for Dry, Damp, and Wet Locations

¹ See <https://www.creelighting.com/resources/warranties/> for warranty terms

Accessories

Trims	
CR6T-TRMBRAN-1 - 6" (152mm) Plastic Reflector Trim - Bronze	8" Adapter Ring
CR6T-TRMBKAN-1 - 6" (152mm) Plastic Reflector Trim - Black	GR8
CR6T-TRMSTAN-1 - 6" (152mm) Plastic Reflector Trim - Satin Nickel	- Optional goof ring accommodates existing housings with apertures from 6.25" (159mm) to 8.5" (216mm) in diameter
CR6T-TRMBKBB-1 - 6" (152mm) Plastic Reflector Trim w/Extended Flange - Black	

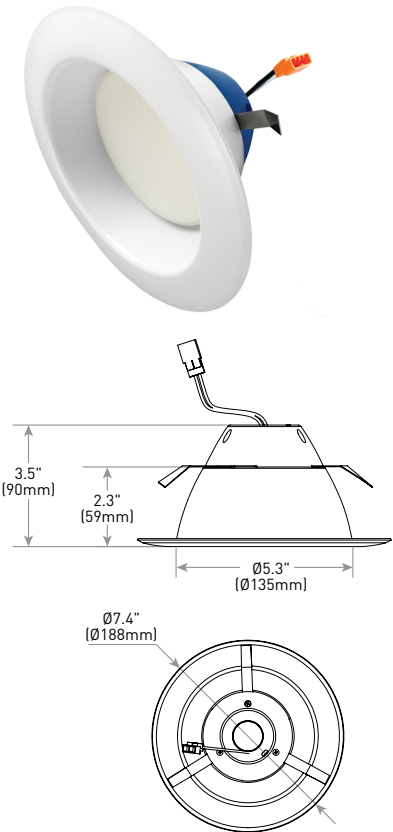
Housings

Refer to page three for details.

Ordering Information

Example: CR6T-825L-30K-12-E26GU24

Ordering Information					Additional Information		
Series	Lumen Package	CCT	Voltage	Base Type	Single Carton UPC	Single Cartons/Master Carton	Master Carton ITF-14
CR6T	825L 825 Lumens, 11W - 75LPW	30K 3000K	12 120 Volts	E26GU24 Includes E26 (Title 20 Compliant) and GU24 Base Pigtail (Title 24 Compliant)	849665023494	12	10849665023491
CR6T	825L 825 Lumens, 11W - 75LPW	35K 3500K	12 120 Volts	E26GU24 Includes E26 (Title 20 Compliant) and GU24 Base Pigtail (Title 24 Compliant)	849665023500	12	10849665023507
CR6T	1650L 1,650 Lumens, 19.5W - 84LPW	27K 2700K	1227 Universal 120-277 Volts	Blank Includes E26 (Title 20 Compliant), GU24 Base (Title 24 Compliant), and 277V Connector Pigtails	849665037279	12	10849665037276
CR6T	1650L 1,650 Lumens, 19.5W - 84LPW	30K 3000K	1227 Universal 120-277 Volts	Blank Includes E26 (Title 20 Compliant), GU24 Base (Title 24 Compliant), and 277V Connector Pigtails	849665037286	12	10849665037283
CR6T	1650L 1,650 Lumens, 19.5W - 84LPW	35K 3500K	1227 Universal 120-277 Volts	Blank Includes E26 (Title 20 Compliant), GU24 Base (Title 24 Compliant), and 277V Connector Pigtails	849665037293	12	10849665037290
CR6T	1650L 1,650 Lumens, 19.5W - 84LPW	40K 4000K	1227 Universal 120-277 Volts	Blank Includes E26 (Title 20 Compliant), GU24 Base (Title 24 Compliant), and 277V Connector Pigtails	849665037309	12	10849665037306



Cree TrueWhite®
Technology

CREE ⇄ **LIGHTING**

Website: [creelighting.com](https://www.creelighting.com)

US: (800) 236-6800 Canada: (800) 473-1234

CR6T™ LED Downlight - 6" (152mm)

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 CR6 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
- Beam Angle (included angle between points of 50% of max. intensity): ~ 95°
- Field Angle (included angle between points of 10% of max. intensity): ~ 145°

ELECTRICAL SYSTEM

- Integral, high-efficiency power supply
- Power Factor:** > 0.9
- Total Harmonic Distortion:** < 20%
- Input Voltage:** 120V, 50/60Hz; 120-277V, 50/60Hz
- Dimming:** Dimmable to 5% with select incandescent dimmers at 120V only. Forward phase (triac) and reverse phase dimming only.
- Reference <http://www.creelighting.com/products/indoor/retrofit-downlights/crt-series> for recommended dimmers
- Use only lighting controls with neutral connection or controls intended for use with LED fixtures
- Operating Temperature Range:** -25°C to +35°C (-13°F to +95°F)

REGULATORY & VOLUNTARY QUALIFICATIONS

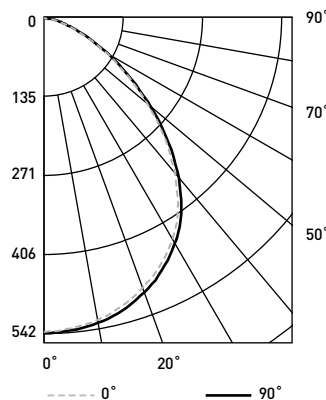
- cULus Classified
- Suitable for wet locations for covered ceilings only
- Meets FCC Part 15, Subpart B, Class B limits for conducted and radiated emissions
- Meets CA Title 24 JA8 Requirements
- Meets CA Title 20 Appliance Regulations
- RoHS Compliant. Consult factory for additional details
- CA RESIDENTS WARNING:** Cancer and Reproductive Harm – www.p65warnings.ca.gov

Photometry

CR6T-1100L-27K BASED ON CESTL REPORT TEST #: PL13053-001A

Luminaire photometry has been conducted in accordance with IES LM-79.

IES LM-79 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°	26,004	26,188	26,575
55°	19,609	19,685	19,880
65°	13,263	13,248	13,366
75°	8,283	8,211	8,235
85°	7,130	6,773	6,702

Coefficients Of Utilization – Zonal Cavity Method				
RC %:	80			
RW %:	70	50	30	10
RCR: 0	119	119	119	119
1	110	106	103	99
2	102	95	89	84
3	94	84	77	71
4	87	76	68	62
5	80	68	60	54
6	74	62	54	48
7	69	57	48	43
8	65	52	44	38
9	60	48	40	35
10	57	44	37	32

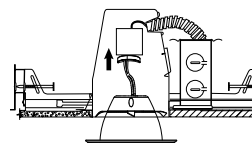
Effective Floor Cavity Reflectance: 20%

Zonal Lumen Summary			
Zone	Lumens	% Lamp	Luminaire
0-30	418	N/A	34.6%
0-40	673	N/A	55.7%
0-60	1069	N/A	88.5%
0-90	1209	N/A	100.0%
0-180	1209	N/A	100.0%

Reference <https://www.creelighting.com/products/indoor/retrofit-downlights/crt-series> for detailed photometric data

Installation

- Designed easily to install in standard 5-6" (127mm - 152mm) downlight housings with minimum housing height of 5.5" (140mm) and diameter 5.5" to 6.5" (140mm - 165mm)
- Quick install system utilizes a unique retention feature. Simply attach socket to CR6T. Move light to ready position and slide into housing



NOTE: Reference <https://www.creelighting.com/products/indoor/retrofit-downlights/crt-series> for detailed installation instructions

Application Reference

Open Space					
Spacing	Lumens	Wattage	LPW	w/ft ²	Average FC
4 x 4	825	11	75	0.66	48
6 x 6				0.30	22
8 x 8				0.16	12
10 x 10				0.11	8
4 x 4	1,650	19.5	85	1.17	97
6 x 6				0.54	45
8 x 8				0.29	24
10 x 10				0.20	15

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/ft ²	Average FC
4' on Center	825	11	75	0.45	16
6' on Center				0.31	11
8' on Center				0.22	8
10' on Center				0.18	6
4' on Center	1,650	19.5	85	0.81	33
6' on Center				0.56	23
8' on Center				0.39	15
10' on Center				0.33	13

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

Housings - Reference Housing spec sheets for additional details			
Edison (E26) Base Housings Surface Mount Housings, 120V SC6 - Textured white finish	GU24 Base Housings Recessed Housings, 120V RC6-GU24 - New Construction H6-GU24 - Architectural new construction Recessed "Pan" Conversion Kit, 120V C6-120V-LSA - Less socket adapter Cord Mount Housings, 120V SC6-CM-GU24 - Textured white finish - Includes 5" (127mm) canopy and 7' (2.1m) white cord SC6-CM-BL-GU24 - Textured black finish - Includes 5" (127mm) canopy and 7' (2.1m) black cord Wall Mount Housings, 120V SC6-WM-GU24 - Textured white finish SC6-WM-BL-GU24 - Textured black finish	277V Housings Recessed Housings, 277V H6-277V - Architectural new construction Recessed "Pan" Conversion Kit, 277V C6-277V-LSA - Less socket adapter Cord Mount Housings, 277V SC6-CM-277V - Textured white finish - Includes 5" (127mm) canopy and 7' (2.1m) white cord SC6-CM-BL-277V - Textured black finish - Includes 5" (127mm) canopy and 7' (2.1m) black cord	Universal 120-277V Housings Recessed Housings, 120-277V RC6-UNI -New Construction RR6-UNI -Retrofit