

# CRT Series

CR6T LED Downlight - 6" (152mm)

## Product Description

The new CR6T LED downlight delivers up to 1,600 lumens while achieving over 75 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

<b>Initial Delivered Lumens:</b> 825 Lumens, 1,100 Lumens, <b>1,600 Lumens</b>
<b>Input Power:</b> 11 watts, 14.5 watts, <b>21 watts</b>
<b>CRI:</b> 90+
<b>CCT:</b> 2700K, 3000K, <b>3500K</b> , 4000K
<b>Limited Warranty:</b> 5 years
<b>Lifetime:</b> Designed to last 50,000 hours
<b>Dimming:</b> Dimmable to 5%
Rated for Dry, Damp, and Wet Locations

## Accessories

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

## Housings

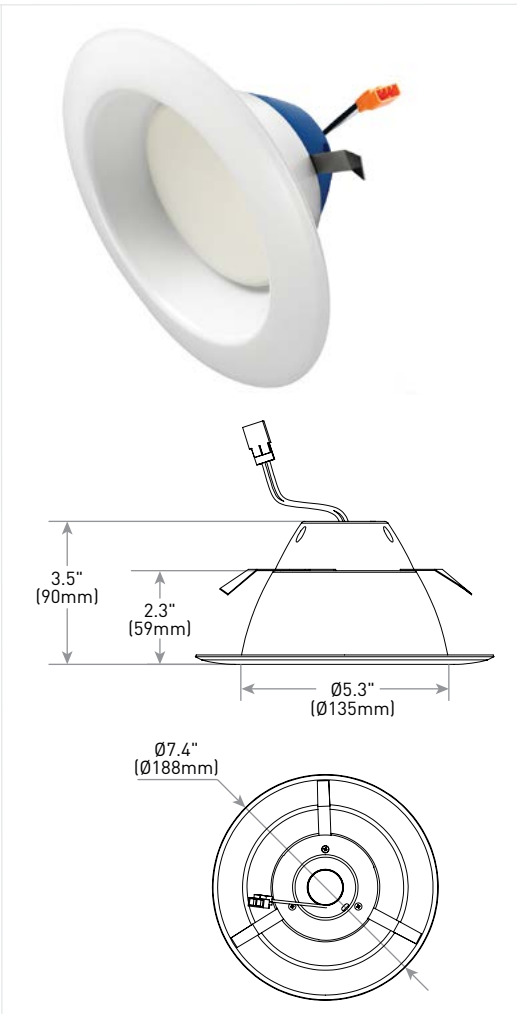
Refer to page three for details.

## Ordering Information

Example: CR6T-825L-27K-12-E26GU24

CR6T	Initial Delivered Lumens	CCT	12	E26GU24
Series	Initial Delivered Lumens	CCT	Voltage	Base Type
<b>CR6T</b> 6" (152mm)	<b>825L</b> 11W, 825 Lumens - 75 LPW <b>1100L</b> 14.5W, 1100 Lumens - 76 LPW <b>1600L</b> 21W, 1600 Lumens - 76 LPW	<b>27K</b> 2700K <b>30K</b> 3000K <b>35K</b> 3500K <b>40K</b> 4000K	<b>12</b> 120 Volts	<b>E26GU24</b> Includes E26 (Title 20 Compliant) and GU24 Base Pigtail (Title 24 Compliant)

Ordering Number	Single-Carton UPC	Single Cartons Per Master Carton	Master Carton ITF-14	Watts	CCT	Lumens	Rated Life (Hrs)
CR6T-825L-27K-12-E26GU24	849665023487	12	10849665023484	11	2700K	825	50,000
CR6T-825L-30K-12-E26GU24	849665023494	12	10849665023491	11	3000K	825	50,000
CR6T-825L-35K-12-E26GU24	849665023500	12	10849665023507	11	3500K	825	50,000
CR6T-825L-40K-12-E26GU24	849665023517	12	10849665023514	11	4000K	825	50,000
CR6T-1100L-27K-12-E26GU24	849665023425	12	10849665023422	14.5	2700K	1,100	50,000
CR6T-1100L-30K-12-E26GU24	849665023432	12	10849665023439	14.5	3000K	1,100	50,000
CR6T-1100L-35K-12-E26GU24	849665025412	12	10849665025419	14.5	3500K	1,100	50,000
CR6T-1100L-40K-12-E26GU24	849665023449	12	10849665023446	14.5	4000K	1,100	50,000
CR6T-1600L-27K-12-E26GU24	849665023456	12	10849665023453	21	2700K	1,600	50,000
CR6T-1600L-30K-12-E26GU24	849665023463	12	10849665023460	21	3000K	1,600	50,000
<b>CR6T-1600L-35K-12-E26GU24</b>	<b>849665025429</b>	<b>12</b>	<b>10849665025426</b>	<b>21</b>	<b>3500K</b>	<b>1,600</b>	<b>50,000</b>
CR6T-1600L-40K-12-E26GU24	849665023470	12	10849665023477	21	4000K	1,600	50,000



Rev. Date: V3 04/02/2019



# CR6T LED Downlight - 6" (152mm)

## Product Specifications

### 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 CRT6 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 power supply
- **Power Factor:** > 0.9
- **Total Harmonic Distortion:** < 20%
- **Input Voltage:** 120V, 50/60Hz
- **Dimming:** Dimmable to 5% with select incandescent dimmers. Forward phase (triac) and reverse phase dimming only.
- 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 - +95°F)

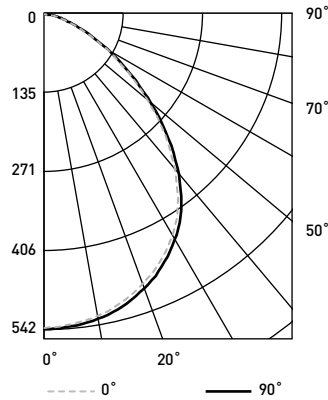
### REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Classified
- Suitable for wet locations for covered ceilings only
- Meets FCC Part 15, Subpart B, Class B standards for conducted and radiated emissions
- ENERGY STAR® certified. Please refer to <https://www.energystar.gov/productfinder/product/certified-light-fixtures/results> for most current information
- Meets California Title 20/Title 24 high efficiency luminaire requirements
- RoHS Compliant. Consult factory for additional details
- **CA RESIDENTS WARNING:** Cancer and Reproductive Harm – [www.p65warnings.ca.gov](http://www.p65warnings.ca.gov)

## Photometry

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

Luminaire photometry has been conducted 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°	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

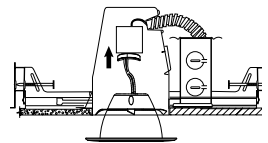
Effective Floor Cavity Reflectance: 20%

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://lighting.cree.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



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**Application Reference**

Open Space					
Spacing	Lumens	Wattage	LPW	w/ft <sup>2</sup>	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	1,100	14.5	76	0.87	64
6 x 6				0.40	30
8 x 8				0.21	16
10 x 10				0.14	10
4 x 4	1,600	21	76	1.26	94
6 x 6				0.58	44
8 x 8				0.31	23
10 x 10				0.21	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 <sup>2</sup>	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	1,100	14.5	76	0.60	22
6' on Center				0.41	15
8' on Center				0.29	10
10' on Center				0.24	9
4' on Center	1,600	21	76	0.87	32
6' on Center				0.60	22
8' on Center				0.42	15
10' on Center				0.35	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	
<p><b>Edison (E26) Base Housings</b></p> <p><b>Recessed Housings, 120V</b> RC6 - New construction RR6 - Retrofit</p> <p><b>Recessed "Pan" Conversion Kit, 120V</b> C6</p> <p><b>Surface Mount Housings, 120V</b> SC6 - Textured white finish SC6-BL - Textured black finish</p> <p><b>Cord Mount Housings, 120V</b> SC6-CM - Textured white finish - Includes 5" (127mm) canopy and 7' (2.1m) white cord SC6-CM-BL - Textured black finish - Includes 5" (127mm) canopy and 7' (2.1m) black cord</p>	<p><b>GU24 Base Housings</b></p> <p><b>Recessed Housings, 120V</b> H6-GU24 - Architectural new construction RC6-GU24 - New construction RR6-GU24 - Retrofit</p> <p><b>Recessed "Pan" Conversion Kit, 120V</b> C6-GU24 C6-120V-LSA - Less socket adapter</p> <p><b>Surface Mount Housings, 120V</b> SC6-GU24 - Textured white finish SC6-BL-GU24 - Textured black finish</p> <p><b>Cord Mount Housings, 120V</b> 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</p> <p><b>Wall Mount Housings, 120V</b> SC6-WM-GU24 - Textured white finish SC6-WM-BL-GU24 - Textured black finish</p>