

# CRT Series

CR4T LED Downlight – 4" (102mm)

## Product Description

The new CR4T LED downlight delivers 790 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 CR4T is available in warm and cool color temperatures, and easily installs into most standard four-inch recessed IC or non-IC housings.

**Applications:** New construction or upgrade for residential and commercial lighting

## Performance Summary

<b>Initial Delivered Lumens:</b> 790 lumens
<b>Input Power:</b> 10.5 watts
<b>CRI:</b> 90+
<b>CCT:</b> 2700K, 3000K, 3500K, 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

\* See <http://lighting.cree.com/warranty> for warranty terms

## Accessories

Trims*	
<b>CRT4-TRMBRAN-1</b> - 4" Downlight Plastic Trim - Bronze	<b>CRT4-TRMSTAN-1</b> - 4" Downlight Plastic Trim - Satin Nickel
<b>CRT4-TRMBKAN-1</b> - 4" Downlight Plastic Trim - Black	

\* Available September 2018

## Ordering Information

Example: CR4T-790L-27K-12-E26GU24

CR4T	790L		12	E26GU24
Series	Initial Delivered Lumens	CCT	Voltage	Base Type
CR4T 4" (102mm)	790L 10.5W, 790 Lumens – 75 LPW	27K 2700K 30K 3000K 35K 3500K 40K 4000K	12 120 Volts	E26GU24 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)
CR4T-790L-27K-12-E26GU24	849665023388	12	10849665023385	10.5	2700K	790	50,000
CR4T-790L-30K-12-E26GU24	849665023395	12	10849665023392	10.5	3000K	790	50,000
CR4T-790L-35K-12-E26GU24	849665023401	12	10849665023408	10.5	3500K	790	50,000
CR4T-790L-40K-12-E26GU24	849665023418	12	10849665023415	10.5	4000K	790	50,000



Rev. Date: V1 10/03/2018

US: [lighting.cree.com](http://lighting.cree.com)

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# CR4T LED Downlight – 4" (102mm)

## Product Specifications

### CONSTRUCTION & MATERIALS

- Durable upper housing protects LEDs and driver. Adjustable flip clips resist heat while providing retention for flush ceiling fit
- Thermal management system uses the 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 CRT4 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. Reference <http://lighting.cree.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 - +95°F)

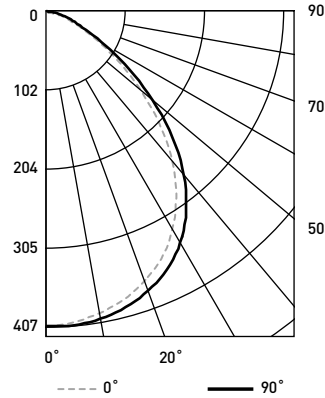
### REGULATORY & VOLUNTARY QUALIFICATIONS

- 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

### CR4T-790L-27K BASED ON EVERFINE REPORT

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)				
Vertical Angle	Horizontal Angle			
	0°	45°	90°	
	45°	77,105	79,689	
55°	54,155	56,909	59,337	
65°	33,282	35,318	34,621	
75°	25,103	25,224	24,367	
85°	7,658	7,389	1,675	

Reference <http://lighting.cree.com/products/indoor/retrofit-downlights/crt-series> for detailed photometric data

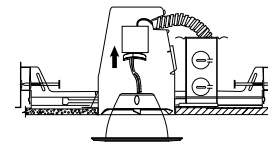
Coefficients Of Utilization – Zonal Cavity Method				
RC %:	80			
RW %:	70	50	30	10
RCR: 0	119	119	119	119
1	111	107	103	100
2	102	95	90	85
3	95	85	78	73
4	87	77	69	63
5	81	69	61	56
6	75	63	55	49
7	70	58	50	44
8	65	53	45	40
9	61	49	41	36
10	58	45	38	33

Effective Floor Cavity Reflectance: 20%

Zonal Lumen Summary			
Zone	Lumens	% Lamp	Luminaire
0-30	315	36.4%	36.4%
0-40	504	58.2%	58.2%
0-60	780	90.2%	90.2%
0-90	864	99.9%	99.9%
0-180	865	100.0%	100.0%

## Installation

- Designed easily to install in standard 4" (102mm) downlight housings with minimum housing height of 5" (127mm) and diameter 4" to 4.1" (102mm - 104mm)
- Quick install system utilizes a unique retention feature. Simply attach socket to CR4T. Move light to ready position and slide into housing



**NOTE:** Reference <http://lighting.cree.com/products/indoor/retrofit-downlights/crt-series> for detailed installation instructions

## Application Reference

Open Space					
Spacing	Lumens	Wattage	LPW	w/ft²	Average FC
4 x 4	790	10.5	75	0.63	46
6 x 6				0.29	21
8 x 8				0.15	11
10 x 10				0.10	7

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	790	10.5	75	0.44	16
6' on Center				0.30	11
8' on Center				0.21	7
10' on Center				0.17	6

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