

# CRT Series

CR6T™ LED Downlight - 6" (152mm)

Rev. Date: V7 10/12/2022

## 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

|  |
|--|
| <b>Initial Delivered Lumens:</b> 825 Lumens - 1,650 Lumens     |
| <b>Input Power:</b> 11 watts, 14.5 watts, 21 watts, 19.5 watts |
| <b>CRI:</b> 90+  |
| <b>CCT:</b> 2700K, 3000K, 3500K, 4000K                         |
| <b>Limited Warranty<sup>1</sup>:</b> 5 years                   |
| <b>Lifetime:</b> Designed to last 50,000 hours                 |
| <b>Dimming:</b> Dimmable to 5% (At 120V Only)                  |
| Rated for Dry, Damp, and Wet Locations                         |

<sup>1</sup> See <http://creelighting.com/warranty> for warranty terms

## Accessories

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

## Housings

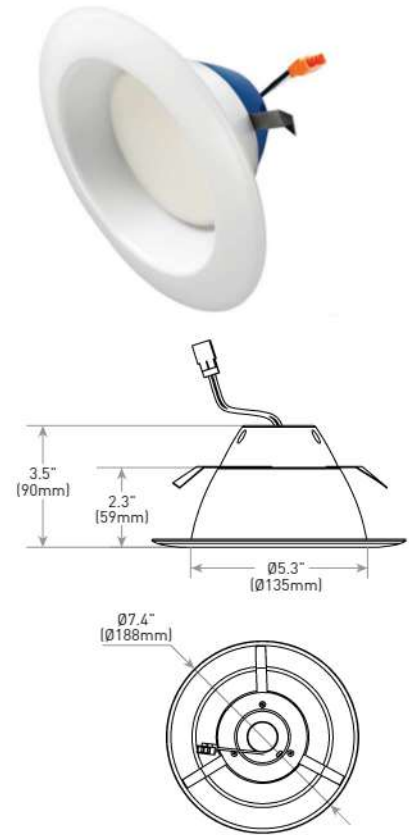
Refer to page three for details.

## Ordering Information

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

| CR6T Series     | Initial Delivered Lumens  | CCT  | Voltage   | Base Type  |
|-----------------|---|--|---|--|
| CR6T 6" (152mm) | <b>825L</b><br>11W, 825 Lumens - 75 LPW<br><b>1100L</b><br>14.5W, 1100 Lumens - 76 LPW<br><b>1600L</b><br>21W, 1600 Lumens - 76 LPW<br><b>1200L (120-277V Only)</b><br>14.5W, 1,200 Lumens - 82 LPW<br><b>1650L (120-277V Only)</b><br>19.5W, 1,650 Lumens - 84 LPW | <b>27K</b><br>2700K<br><b>30K</b><br>3000K<br><b>35K</b><br>3500K<br><b>40K</b><br>4000K | <b>12</b><br>120 Volts<br><b>1227</b><br>120-277 Volts<br>(Universal) | <b>E26GU24</b><br>Includes E26 (Title 20 Compliant) and GU24 Base Pigtail (Title 24 Compliant)<br><b>Blank</b><br>Includes E26 (Title 20 Compliant), GU24 Base (Title 24 Compliant), and 277V Connector Pigtails |

| 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           |
| CR6T-1600L-35K-12-E26GU24 | 849665025429      | 12                               | 10849665025426       | 21    | 3500K | 1,600  | 50,000           |
| CR6T-1600L-40K-12-E26GU24 | 849665023470      | 12                               | 10849665023477       | 21    | 4000K | 1,600  | 50,000           |
| CR6T-1200L-27K-1227       | 849665037231      | 12                               | 10849665037238       | 14.5  | 2700K | 1,200  | 50,000           |
| CR6T-1200L-30K-1227       | 849665037248      | 12                               | 10849665037245       | 14.5  | 3000K | 1,200  | 50,000           |
| CR6T-1200L-35K-1227       | 849665037255      | 12                               | 10849665037252       | 14.5  | 3500K | 1,200  | 50,000           |
| CR6T-1200L-40K-1227       | 849665037262      | 12                               | 10849665037269       | 14.5  | 4000K | 1,200  | 50,000           |
| CR6T-1650L-27K-1227       | 849665037279      | 12                               | 10849665037276       | 19.5  | 2700K | 1,650  | 50,000           |
| CR6T-1650L-30K-1227       | 849665037286      | 12                               | 10849665037283       | 19.5  | 3000K | 1,650  | 50,000           |
| CR6T-1650L-35K-1227       | 849665037293      | 12                               | 10849665037290       | 19.5  | 3500K | 1,650  | 50,000           |
| CR6T-1650L-40K-1227       | 849665037309      | 12                               | 10849665037306       | 19.5  | 4000K | 1,650  | 50,000           |



US: [creelighting.com](http://creelighting.com) T (800) 236-6800  
 Canada: [creelighting-canada.com](http://creelighting-canada.com) T (800) 473-1234

**CREE LIGHTING**

# 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 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 - +95°F)

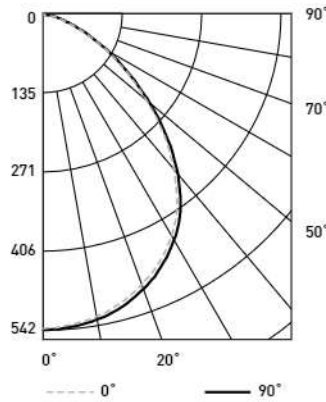
### REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Classified
- Suitable for wet locations for covered ceilings only
- Meets FCC Part 15, Subpart B, Class B limits for conducted and radiated emissions
- ENERGY STAR® certified. Please refer to <https://www.energystar.gov/productfinder/product/certified-light-fixtures/results> for most current information
- 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](http://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  |

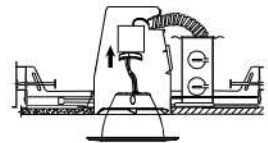
Effective Floor Cavity Reflectance: 20%

| 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

CR6™ LED Downlight - 6" (152mm)

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><br/> <b>Recessed Housings, 120V</b><br/> <a href="#">RR6</a><br/>                     - Retrofit<br/> <a href="#">RR6-12W</a><br/>                     - Retrofit with maximum 12W label<br/>                     - For use only with 825L lumen package<br/> <b>Surface Mount Housings, 120V</b><br/> <a href="#">SC6</a><br/>                     - Textured white finish<br/> <a href="#">SC6-BL</a><br/>                     - Textured black finish<br/> <b>Cord Mount Housings, 120V</b><br/> <a href="#">SC6-CM</a><br/>                     - Textured white finish<br/>                     - Includes 5" (127mm) canopy and 7' (2.1m) white cord</p> | <p><b>GU24 Base Housings</b><br/> <b>Recessed Housings, 120V</b><br/> <a href="#">H6-GU24</a><br/>                     - Architectural new construction<br/> <a href="#">RR6-GU24</a><br/>                     - Retrofit<br/> <b>Recessed "Pan" Conversion Kit, 120V</b><br/> <a href="#">C6-120V-LSA</a><br/>                     - Less socket adapter<br/> <b>Surface Mount Housings, 120V</b><br/> <a href="#">SC6-GU24</a><br/>                     - Textured white finish<br/> <a href="#">SC6-BL-GU24</a><br/>                     - Textured black finish<br/> <b>Cord Mount Housings, 120V</b><br/> <a href="#">SC6-CM-GU24</a><br/>                     - Textured white finish<br/>                     - Includes 5" (127mm) canopy and 7' (2.1m) white cord<br/> <a href="#">SC6-CM-BL-GU24</a><br/>                     - Textured black finish<br/>                     - Includes 5" (127mm) canopy and 7' (2.1m) black cord<br/> <b>Wall Mount Housings, 120V</b><br/> <a href="#">SC6-WM-GU24</a><br/>                     - Textured white finish<br/> <a href="#">SC6-WM-BL-GU24</a><br/>                     - Textured black finish</p> | <p><b>277V Housings</b><br/> <b>Recessed Housings, 277V</b><br/> <a href="#">H6-277V</a><br/>                     - Architectural new construction<br/> <a href="#">RR6-277V</a><br/>                     - Retrofit<br/> <b>Recessed "Pan" Conversion Kit, 277V</b><br/> <a href="#">C6-277V-LSA</a><br/>                     - Less socket adapter<br/> <b>Cord Mount Housings, 277V</b><br/> <a href="#">SC6-CM-277V</a><br/>                     - Textured white finish<br/>                     - Includes 5" (127mm) canopy and 7' (2.1m) white cord<br/> <a href="#">SC6-CM-BL-277V</a><br/>                     - Textured black finish<br/>                     - Includes 5" (127mm) canopy and 7' (2.1m) black cord</p> | <p><b>Universal 120-277V Housings</b><br/> <b>Recessed Housings, 120-277V</b><br/> <a href="#">RC6-UNI</a><br/>                     - New Construction<br/> <a href="#">RR6-UNI</a><br/>                     - Retrofit</p> |