

# LR6™

## Six-Inch LED Downlight

### Product Description

The LR6™ LED downlight delivers 650 lumens of exceptional 90+ CRI light while achieving over 60 lumens per watt. This breakthrough performance is achieved by combining the high efficacy and high-quality light of Cree TrueWhite® Technology. The LR6 is available in warm or neutral color temperatures and has a variety of trim options. It easily installs into most standard six-inch recessed IC or non-IC housings, making the LR6 perfect for use in commercial new construction or retrofit applications.

### Performance Summary

Utilizes Cree TrueWhite® Technology

Active Color Management

**Delivered Light Output:** 650 lumens

**Input Power:** 10.5 watts

**CRI:** 90

**CCT:** 2700K, 3500K

**Warranty:** 10 years\*

**Lifetime:** Designed to last 50,000 hours

**Dimming:** Dimmable to 20%\*

### Ordering Information

Example: LR6

Product
<b>LR6</b> 2700K, Edison Base
<b>LR6-GU24</b> 2700K, GU24 Base
<b>LR6C</b> 3500K, Edison Base
<b>LR6C-GU24</b> 3500K, GU24 Base

### Housings & Accessories

Reference Housing & Accessory documents for more details.

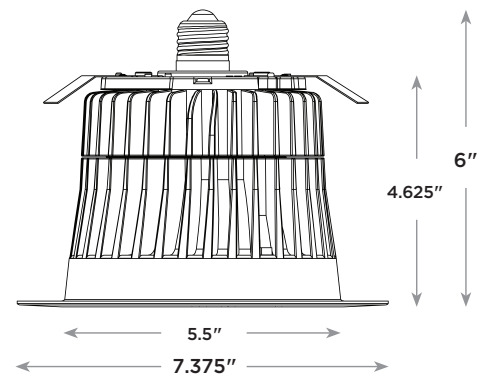
Trims	
<b>LT6A</b> Diffuse anodized finish	<b>LT6AB</b> Black anodized finish
<b>LT6AW</b> Wheat diffuse anodized finish	<b>LT6WH</b> Smooth white
<b>LT6AP</b> Pewter diffuse anodized finish	<b>LT6BB</b> Flat black finish trim and reflector

Housings (Edison or GU24)	
<b>H6</b> Architectural	<b>SC6</b> Cylindrical Surface Mount
<b>RC6</b> New Construction	<b>SC6-CM</b> Cylindrical Cord Mount
<b>RR6</b> Retrofit	<b>SC6-WM</b> Cylindrical Wall Mount

\* Reference [www.cree.com/lighting](http://www.cree.com/lighting) for recommended dimmers.

† See [www.cree.com/lighting](http://www.cree.com/lighting) for warranty terms.

LR6



Rev. Date 12/19/2012



### 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. Adjustable flip clips resist heat while providing retention for flush ceiling fit.
- 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 even when installed in attic insulation with ambient temperatures exceeding 60 C.
- 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 LT6 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

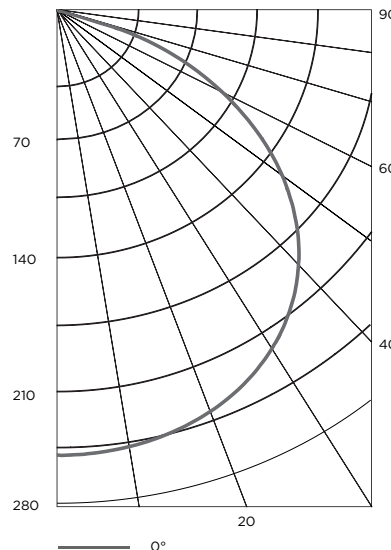
- Integral, high-efficiency driver and power supply.
- **Power Factor** > 0.9 nominal
- **Input Voltage:** 120V, 60Hz
- **Dimming:** Dimmable to 20% with certain incandescent dimmers. Reference [www.cree.com/lighting](http://www.cree.com/lighting) for recommended dimmers.

#### REGULATORY & VOLUNTARY QUALIFICATIONS

- ENERGY STAR® qualified.
- cULus Listed
- Exceeds California Title-24 high efficacy luminaire requirements.
- Suitable for damp locations.

### Photometry

LR6 LIGHTING SCIENCES INC. CERTIFIED TEST #: 22226



#### Intensity (Candlepower) Summary

Angle	Mean CP
0°	249
5°	248
15°	242
25°	228
35°	203
45°	165
55°	115
65°	62
75°	24
85°	6
90°	0

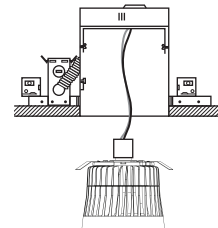
#### Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fix
0-30	197	30.39%	30.39%
0-40	325	49.94%	49.94%
0-60	556	85.35%	85.35%
0-90	650	100%	100%

Reference [www.cree.com/lighting](http://www.cree.com/lighting) for detailed photometric data.

### Installation

- Designed to easily install in standard 6" downlight housings from Cree and other manufacturers.\*
- Quick install system utilizes a unique retention feature. Simply attach socket to LR6. Move light to ready position and slide into housing.



NOTE: Reference [www.cree.com/lighting](http://www.cree.com/lighting) for detailed installation instructions.

\*Reference [www.cree.com/lighting](http://www.cree.com/lighting) for a list of compatible housings.

### Application Reference

Open Space					
Spacing	Lumens	Wattage	LPW	w/ft²	Average FC
4 x 4	650	10.5	62	0.60	38
6 x 6				0.28	18
8 x 8				0.15	9
10 x 10				0.10	6

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	650	10.5	62	0.40	12
6' on Center				0.27	8
8' on Center				0.20	6
10' on Center				0.17	5

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

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