

# LR6-DR650

Six-Inch Deep Recess LED Downlight

## Product Description

The LR6-DR650 deep recess LED downlight delivers 650 lumens of exceptional 90+ CRI light while achieving over 54 lumens per watt. This breakthrough performance is achieved by combining the high efficacy and high-quality light of Cree TrueWhite® Technology. The LR6-DR650 is available in warm or neutral color temperatures and has a variety of trim options. It easily installs into Cree six-inch GU24 housings or may be retrofitted with a GU24 whip adapter, making the LR6-DR650 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:** 12 watts

**CRI:** 90

**CCT:** 2700K, 3500K

**Warranty:** 5 years

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

**Dimming:** Dimmable to 5%\*

## Ordering Information

Example: LR6-DR650

Product
LR6-DR650 2700K
LR6C-DR650 3500K

NOTE: Intended for use with Cree six-inch GU24 housings. May be retrofitted into six-inch housings from select manufacturers using the supplied GU24 whip adapter.

## Housings & Accessories

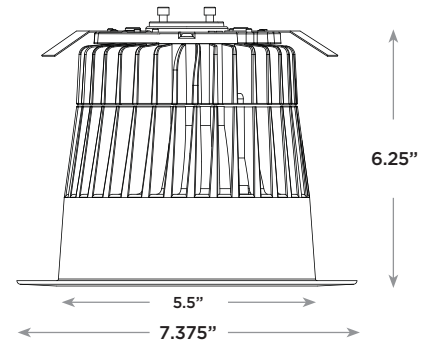
Reference Housing & Accessory documents for more details.

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

Housings (GU24 Only)	
<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 CreeLEDLighting.com for recommended dimmers.

LR6-DR650



### Product Specifications

#### CREE TRUEWHITE® TECHNOLOGY

Cree TrueWhite® Technology begins with the highest performing commercially available LEDs. Cree TrueWhite® Technology mixes the light from red and unsaturated yellow LEDs to create beautiful, warm, white light. This patented approach enables color management to preserve high color consistency over the life of the product. Cree TrueWhite® Technology also enables a CRI of at least 90 while maintaining high luminous efficacy—a 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.
- Deep set diffusing lens shields direct view of LEDs and provides more precise optical control with greater visual cut-off.

#### ELECTRICAL SYSTEM

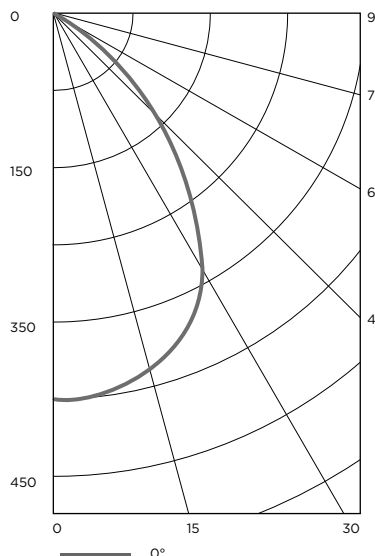
- Integral, high-efficiency driver and power supply.
- **Power Factor** > 0.9 nominal
- **Input Voltage:** 120V, 60Hz
- **Dimming:** Dimmable to 20% with certain incandescent dimmers. Reference CreeLEDLighting.com for recommended dimmers.

#### REGULATORY & VOLUNTARY QUALIFICATIONS

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

### Photometry

#### LR6-DR650 BASED ON ONSPEX #: 22721



#### Intensity (Candlepower) Summary

Angle	Mean CP
0°	388
5°	386
15°	364
25°	301
35°	214
45°	134
55°	78
65°	39
75°	21
85°	4
90°	0

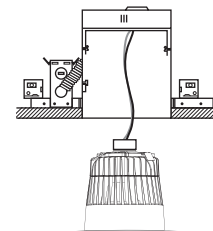
#### Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fix
0-30	276	42.42%	42.42%
0-40	409	62.89%	62.89%
0-60	583	89.71%	89.71%
0-90	650	100%	100%

Reference CreeLEDLighting.com for detailed photometric data.

### Installation

- Designed to easily install in standard 6" housings from Cree and other manufacturers.\*
- Quick install system utilizes a unique retention feature. Simply attach socket to LR6-DR650. Move light to ready position and slide into housing.



NOTE: Reference CreeLEDLighting.com for detailed installation instructions.

\*Reference CreeLEDLighting.com for a list of compatible housings.

### Application Reference

Open Space					
Spacing	Lumens	Wattage	LPW	w/ft²	Average FC
4 x 4	650	12	54	0.69	38
6 x 6				0.33	18
8 x 8				0.17	10
10 x 10				0.12	7

10' Ceiling, 80/20/50 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	12	54	0.46	14
6' on Center				0.31	10
8' on Center				0.23	7
10' on Center				0.19	6

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

