

LR4™

4" Architectural LED Downlight

Product Description

The LR4™ architectural LED downlight delivers up to 540 lumens of exceptional 90+ CRI light while achieving over 51 lumens per watt. This breakthrough performance is achieved by combining the high efficacy and high-quality light of Cree TrueWhite® Technology. The LR4 is available in moderate or deep recess, warm or neutral color temperatures, and has a variety of trim options. It must be used with the Cree H4 housing, making the LR4 perfect for use in commercial new construction applications.

Performance Summary

| |
|---|
| Utilizes Cree TrueWhite® Technology |
| Active Color Management |
| Delivered Light Output: LR4E-15: 540 lumens, LR4E-30: 515 lumens |
| Input Power: LR4E-15: 10.5 watts, LR4E-30: 11.1 watts |
| CRI: 90 |
| CCT: 2700K, 3500K |
| Limited Warranty*: 10 years |
| Lifetime: Designed to last 50,000 hours |
| Dimming: Dimmable to 20%* |
| Shield Angles: 15° or 30° |

Ordering Information

Example: LR4E-15 + H4 + LT4-15A OR LR4E-30 + H4 + LT4-30A

Fully assembled luminaire is composed of three components that must be ordered separately:

LR4: Light engine H4: Recessed architectural housing LT4: Snap-in architectural trim

| Light Engines | |
|--|--|
| LR4E-15 2700K, 15o Shield (Moderate Recess) | LR4E-30 2700K, 30o Shield (Deep Recess) |
| LR4E-15C 3500K, 15o Shield (Moderate Recess) | LR4E-30C 3500K, 30o Shield (Deep Recess) |

| Housing | |
|--|--|
| H4 Recessed housing with GU24 socket | |

| Trims | |
|---|--|
| LT4-15A/LT4-30A Diffuse anodized finish trim | LT4-15AB/LT4-30AB Black anodized finish trim |
| LT4-15AW/LT4-30AW Wheat diffuse anodized finish trim | LT4-15WH/LT4-30WH Smooth white trim |
| LT4-15AP/LT4-30AP Pewter diffuse anodized finish trim | LT4-15BB/LT4-30BB Flat black finish trim and reflector |

NOTE: Light engine and trim reflector depth must match for appropriate fit

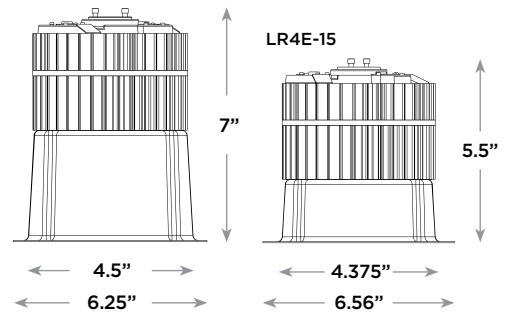
* Reference www.cree.com/lighting for recommended dimmers

† See www.cree.com/lighting/products/warranty for warranty terms

LR4



LR4E-30



The LR4 downlight ships as three components: a housing, light engine, and trim. Each component must be ordered separately.

H4
Housing



LR4
Light Engine

LT4
Trim



Rev. Date: 04/04/2014



Product Specifications

CREE TRUEWHITE® TECHNOLOGY

A revolutionary way to generate high-quality white light, Cree TrueWhite® Technology is a patented approach that 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 cold-rolled steel housing protects LEDs, driver and power supply. Adjustable flip clips resist heat while providing retention for flush ceiling fit
- Thermal management system uses extruded aluminum 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
- Snap-in trim (sold separately) integrates reflector and flange to redirect light while creating a comfortable visual transition from the lens to the ceiling plane

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. When installed with 30° trim, deep set diffusing lens provides more precise optical control with greater visual cut-off

ELECTRICAL SYSTEM

- Integral, high-efficiency driver and power supply
- **Power Factor:** > 0.9
- **Input Voltage:** 120V, 60Hz
- **Dimming:** Dimmable to 20% with most incandescent dimmers*

REGULATORY & VOLUNTARY QUALIFICATIONS

- ENERGY STAR® qualified
- cULus Listed
- Exceeds California Title-24 high efficacy luminaire requirements
- IC air-tight rated, tested in accordance with ASTM E283
- Suitable for wet locations

* Reference www.cree.com/lighting for recommended dimmers

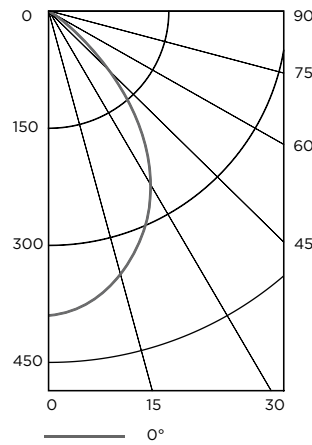
Application Reference

| Open Space | | | | | | |
|------------|---------------|--------|---------|-----|-------------------|------------|
| Spacing | Shield | Lumens | Wattage | LPW | w/ft ² | Average FC |
| 4 x 4 | 15° (LR4E-15) | 540 | 10.5 | 51 | 0.60 | 33 |
| | 30° (LR4E-30) | 515 | 11.1 | 46 | 0.66 | 32 |
| 6 x 6 | 15° (LR4E-15) | 540 | 10.5 | 51 | 0.28 | 15 |
| | 30° (LR4E-30) | 515 | 11.1 | 46 | 0.31 | 15 |
| 8 x 8 | 15° (LR4E-15) | 540 | 10.5 | 51 | 0.15 | 8 |
| | 30° (LR4E-30) | 515 | 11.1 | 46 | 0.17 | 8 |
| 10 x 10 | 15° (LR4E-15) | 540 | 10.5 | 51 | 0.10 | 5 |
| | 30° (LR4E-30) | 515 | 11.1 | 46 | 0.11 | 5 |

10' Ceiling, 80/50/20 Reflectances, 2.5 workplane.
LLF: 1.0 Initial. Open Space: 50' x 40' x 10'

Photometry

LR4E-15 LT4-15A BASED ON ITL TEST #: 59866



Intensity (Candlepower) Summary

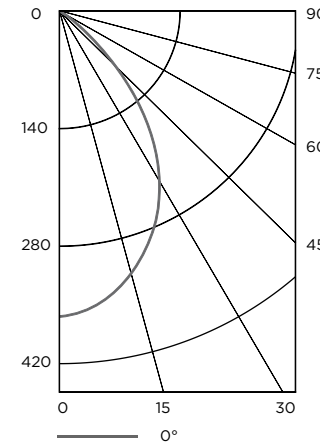
| Angle | Mean CP |
|-------|---------|
| 0° | 378 |
| 5° | 373 |
| 15° | 340 |
| 25° | 278 |
| 35° | 200 |
| 45° | 114 |
| 55° | 52 |
| 65° | 19 |
| 75° | 1 |
| 85° | 0 |
| 90° | 0 |

Zonal Lumen Summary

| Zone | Lumens | % Lamp | % Fix |
|------|--------|--------|-------|
| 0-30 | 259 | 47.9% | 47.9% |
| 0-40 | 383 | 70.9% | 70.9% |
| 0-60 | 518 | 96% | 96% |
| 0-90 | 540 | 100% | 100% |

Reference www.cree.com/lighting for detailed photometric data

LR4E-30 LT4-30A BASED ON ITL TEST #: 59865



Intensity (Candlepower) Summary

| Angle | Mean CP |
|-------|---------|
| 0° | 362 |
| 5° | 357 |
| 15° | 325 |
| 25° | 266 |
| 35° | 191 |
| 45° | 109 |
| 55° | 50 |
| 65° | 18 |
| 75° | 1 |
| 85° | 0 |
| 90° | 0 |

Zonal Lumen Summary

| Zone | Lumens | % Lamp | % Fix |
|------|--------|--------|-------|
| 0-30 | 275 | 53.5% | 53.5% |
| 0-40 | 314 | 76.9% | 76.9% |
| 0-60 | 509 | 98.8% | 98.8% |
| 0-90 | 515 | 100% | 100% |

Reference www.cree.com/lighting for detailed photometric data.

