LR4™

Four-Inch 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

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, 15° Shield (Moderate Recess)
LR4E-15C 3500K, 15° Shield (Moderate Recess)
LR4E-30 2700K, 30° Shield (Deep Recess)
LR4E-30C 3500K, 30° 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

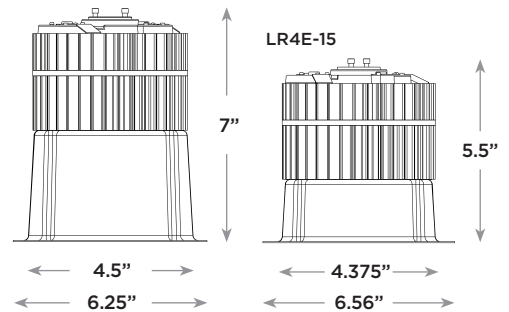NOTE: Light engine and trim reflector depth must match for appropriate fit.

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

† See www.cree.com/lighting for warranty terms.
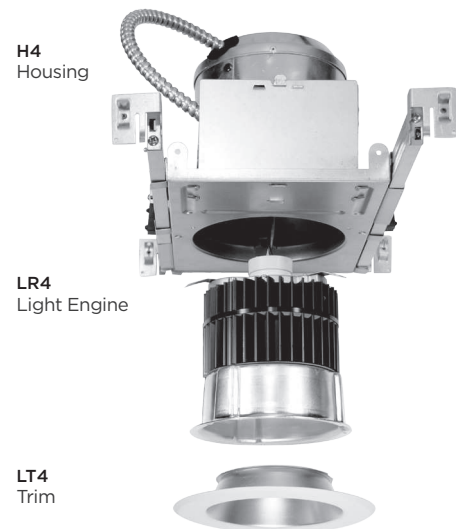
LR4

LR4E-30

LR4E-15

7"

5.5"

4.5"

4.375"

6.25"

6.56"

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

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 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 nominal
- **Input Voltage**: 120V, 60Hz
- **Dimming**: Dimmable to 20% with most incandescent dimmers. Reference www.cree.com/lighting for recommended 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 damp locations.

Application Reference

Spacing	Shield	Lumens	Wattage	LPW	w/ft²	Average FC
	Open Space					
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
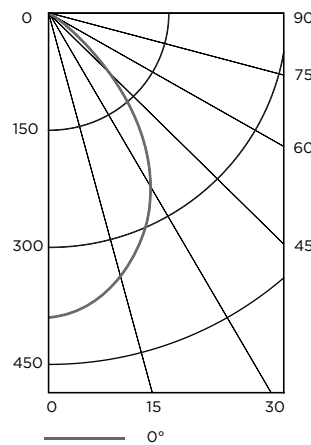
Intensity (Candlepower) Summary

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
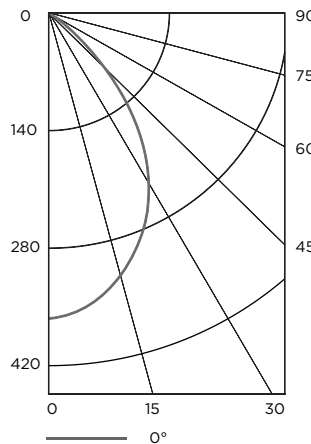
Intensity (Candlepower) Summary

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.