

# 4" Recessed Architectural Downlight

# LR4™

## Product Description

The LR4 downlight is a recessed architectural downlight designed for use in commercial and residential applications. Available with a moderate or deep recess angle offering flexibility to meet diverse lighting design requirements. It is suitable for use in insulated and non-insulated ceilings. The LR4 generates white light with LEDs in a new way that enables an unprecedented combination of light output, efficacy, beautiful color, and affordability. U.S. Patent # 7,213,940 issued. Numerous patents pending.

## Performance Summary

Utilizes Cree TrueWhite® Technology

### LR4E-15 – Moderate recess

- Delivered Light Output = 540 lumens
- Input Power = 10.5W
- CCT = 2700K or 3500K
- CRI = 90
- Five Year Warranty
- H = 5.5" D = 4.75"

### LR4E-30 – Deep recess

- Delivered Light Output = 515 lumens
- Input Power = 11.1W
- CCT = 2700K or 3500K
- CRI = 90
- Five Year Warranty
- H = 7.0" D = 4.75"

## Ordering Information Example: H4, LR4E-15, LT4-15A

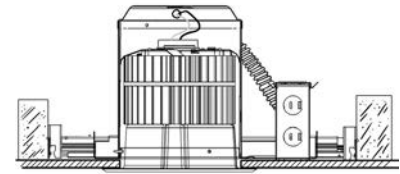
Luminaire is ordered as three components which ship separately (housing, light engine, and reflector)

### Housing Light Engine Reflector

- |      |  |  |
|------|--|--|
| • H4 | • LR4E-15 -120V, Moderate recess, 2700K  | • LT4-15A - Moderate recess diffuse anodized |
|      | • LR4E-15C -120V, Moderate recess, 3500K | • LT4-30A - Deep recess diffuse anodized     |
|      | • LR4E-30 -120V, Deep recess, 2700K      |  |
|      | • LR4E-30C -120V, Deep recess, 3500K     |  |

Standard Color Options (Inner reflector color with white painted flange) - Add letters from below to end of description for colors. (LT4-15AP) For WH remove the "A" (LT4-30WH).

W - Wheat B - Black  
P - Pewter WH - White Paint



LR4



H4



LR4E-30 and LR4E-15



LT4-30A and LT4-15A

## Product Information

### Cree TrueWhite® Technology

- A better way to generate white light that utilizes a patented mixture of unsaturated yellow and saturated red LEDs.
- Tuned to optimal color point before shipment.
- Color management system maintains color consistency over time and temperature.
- Designed to last 50,000 hours and maintain at least 70% of initial lumen output.

### Construction

- Ships in three cartons:
  1. Recessed architectural housing with rugged, integral extruded aluminum bar hangers.
  2. Light engine with retention mechanism.
  3. Architectural reflector.
- Durable cold rolled steel housing and extruded aluminum heat sink suitable for insulated or non-insulated ceilings.
- Integrated thermal management system conducts heat away from LED and transfers it to the surrounding environment. LED junction temperatures stay below specified maximums even when installed in attic insulation with temperatures exceeding 60 degrees Celsius.

### Optical System

- Proprietary optical system utilizes a unique combination of reflective and refractive optical components to achieve a uniform, comfortable appearance. Pixelation and direct view of unshielded LEDs are eliminated.
- Lower reflector with 4.5" aperture.
- Smooth, non-distracting aperture appearance with lamp visible before lamp image.

### Electrical System

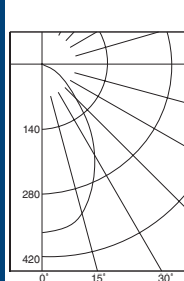
- Integral, high efficiency driver and power supply.
- Power factor >0.9
- Input voltage = 120V, 60Hz.
- Dimmable to 20% with most incandescent and electronic dimmers (reference [www.CreeLEDLighting.com](http://www.CreeLEDLighting.com) for recommended dimmers).

## Regulatory and Voluntary Qualifications

- cETLus Listed™. Suitable for damp locations.
- Exceeds California Title-24 high efficacy luminaire requirements.
- Suitable for insulated or non-insulated ceilings.
- Airtight rated – tested in accordance with ASTM E283.
- ENERGY STAR® qualified Solid-State Lighting Luminaire.

## Photometry

H4 LR4E-30 LT4-30A



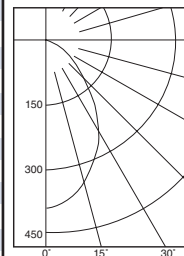
### Intensity (Candlepower) Summary

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	100.00	100.00

H4 LR4E-15 LT4-15A  
ITL Test #59866



### Intensity (Candlepower) Summary

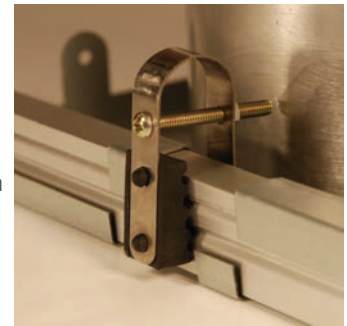
ANGLE	MEAN CP
0°	378
5°	373
15°	340
25°	278
35°	200
45°	114
55°	52
65°	19
75°	1
85°	0
90°	0

### 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	100.00	100.00

## Installation

- Recessed housing with integral nailer and ceiling grid attachment detail. Integral bar-hangers accommodate spans from 10-1/4" to 24-3/4" without sag.
- Adjustable bar hanger brake prevents hangers from sliding during installation and holds position once installed.
- Integral t-bar attachment clip engages with suspended ceiling to support fixture.
- Dimensions: h = 7", w = 8-3/4", L = 14".
- Accommodates ceiling thickness from 1/4" to 4".



Adjustable bar hanger brake

## Application Comparison

### Room

	6' x 6' Spacing		5' x 5' Spacing		4' x 4' Spacing	
	Workplane Illuminance	Wall Illuminance	Workplane Illuminance	Wall Illuminance	Workplane Illuminance	Wall Illuminance
H4 LR4E-15 LT4-15A	14.1	5.6	18.8	10.7	26.3	11
65W BR30 White Baffle	14.0	6.3	18.7	8.6	26.1	12.6
26W CFL 4" Anodized	16.2	5.4	21.9	7.5	31.3	11.7
50W PAR20 5" White Baffle	13.6	3.7	19.6	5.0	29.0	7.5

#### Notes:

Average initial illuminance in footcandles, reflectances = 80/50/30, workplane height = 2.5', ceiling height = 9', Nine lights per room. Room sizes = 18x18', 15x15', 12x12'

### Hallway

	6' Spacing		8' Spacing		10' Spacing	
	Workplane Illuminance	Wall Illuminance	Workplane Illuminance	Wall Illuminance	Workplane Illuminance	Wall Illuminance
H4 LR4E-15 LT4-15A	12.3	4.6	9.3	3.4	7.5	2.8
65W BR30 White Baffle	12.0	5.3	9.1	4.0	7.2	3.2
26W CFL 4" Anodized	14.1	4.5	10.9	3.4	8.8	2.8
50W PAR20 5" White Baffle	13.1	2.7	9.7	2.1	8.0	1.5

#### Notes:

Average initial illuminance in footcandles, reflectances = 80/50/30, workplane height = 2.5', ceiling height = 9', Six lights per hall, width = 6'