

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

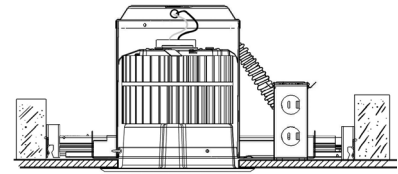
- H4
- LR4E-15 -120V, Moderate recess, 2700K
- LR4E-15C -120V, Moderate recess, 3500K
- LR4E-30 -120V, Deep recess, 2700K
- LR4E-30C -120V, Deep recess, 3500K

Reflector

- LT4-15A - Moderate recess diffuse anodized
- LT4-30A - Deep recess diffuse anodized

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

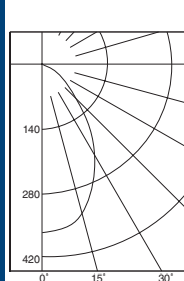
- Integral, high efficiency driver and power supply.
- Power factor >0.9
- Input voltage = 120V, 60Hz.
- Dimmable to 20% with most incandescent and electronic dimmers (reference www.CreeLEDLighting.com for recommended dimmers).

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



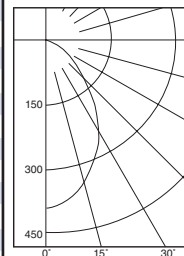
Intensity (Candlepower) Summary

| 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

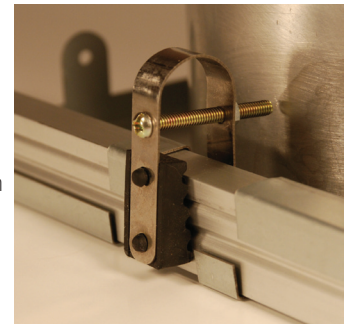
| ANGLE | MEAN CP |
|-------|---------|
| 0° | 378 |
| 5° | 373 |
| 15° | 340 |
| 25° | 278 |
| 35° | 200 |
| 45° | 114 |
| 55° | 52 |
| 65° | 19 |
| 75° | 1 |
| 85° | 0 |
| 90° | 0 |

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'