| Project | | Catalog # | | Type | |
|---|---|---|---|---|---|
| Prepared by | | Notes | | Date | |

# HALO

## LCR4

4-Inch Round All-Purpose LED Retrofit Module

### Typical Applications

Residential · Multi-family · Mixed-Use

### Interactive Menu

## Product Certification

ENERGY STAR

Can be used for IECC International Energy Conservation Code High Efficacy Compliance

Efficiency Standards T24 Can be used to comply with 2019 Title 24 Part 6 LED Enclosed Light Source Requirements (JA8)

UL CERTIFIED

RoHS COMPLIANT

Refer to ENERGY STAR® Certified Products List.
Can be used to comply with California Title 24 High Efficacy requirements.
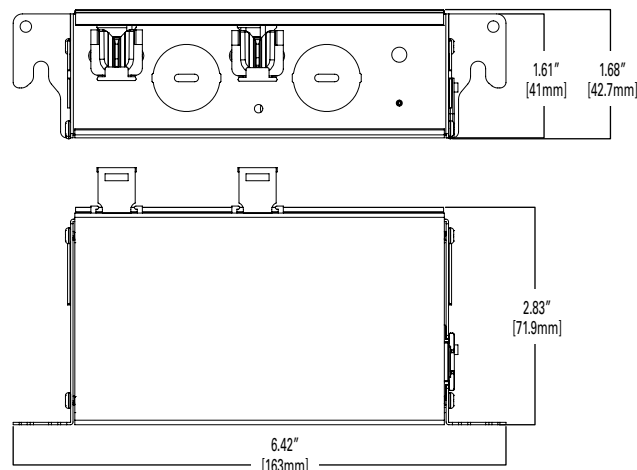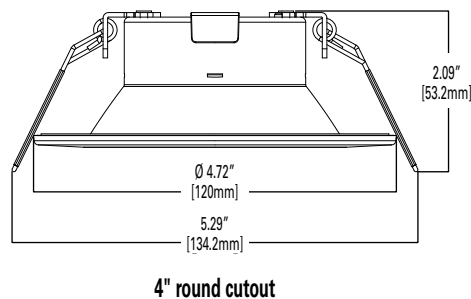Certified to California Appliance Efficiency Database under JA8.

## Product Features

5 seleCCTable colors 2700K · 3000K · 3500K · 4000K · 5000K

airtite

Showerlight

## Top Product Features

- Select from 5 CCTs via switch; 2700K, 3000K, 3500K, 4000K, 5000K CCT; 90 CRI
- Up to 1200 Lumens; IC rated
- Direct mount - does not require recessed housing or junction box
- Dimmable down to 5%, 0-10V
- Wet location listed for showers and protected ceilings

## Dimensional and Mounting Details

2.09″ [53.2mm]

Ø 4.72″ [120mm]

5.29″ [134.2mm]

**4″ round cutout**

1.61″ [41mm]    1.68″ [42.7mm]

2.83″ [71.9mm]

6.42″ [163mm]

## Order Information*

SAMPLE ORDER NUMBER: **LCR4089FSE010MW**

| Models | Lumens | CRI/CCT | Driver | Finish |
|--------|--------|---------|--------|--------|
| **Models** | **Lumens** | **CRI/CCT** | **Driver** | **Finish** |
| **LCR4** = 4" all- purpose round LED module | **08 =** 800 lumens (nominal)<br>**12 =** 1200 lumens (nominal) | **9FS =** 90 CRI minimum, field selectable CCT, choose 2700K, 3000K, 3500K, 4000K or 5000K CCT | **E010 =** UNV 120-277V, 50/60Hz, 0-10V analog 100% to 5% dimming | **MW =** Matte white |
| **Notes** | **Notes** | **Notes** | **Notes** | **Notes** |

### Accessories

| Accessories | |
|-------------|---|
| **Oversized Trim Ring**<br>**HLB4ROTMW** = 4" round oversized trim, matte white<br><br>**Designer Trims**<br>**LCR4TRMAH** = 4" Haze, white flange<br>**LCR4TRMSC** = 4" Specular, white flange<br>**LCR4TRMTBZ** = 4" Tuscan bronze<br>**LCR4TRMWH** = 4" Paintable white | **Mounting Frame**<br>**HL4RSMF** = 4" round and square mounting frame<br><br>**Extension Cable | seleCCTable Driver/Jbox**<br>**HLB06FSEC** – 6 ft. extension cable<br>**HLB12FSEC** – 12 ft. extension cable<br>**HLB20FSEC** – 20 ft. extension cable |

## Product Specifications

### Module

- Module construction includes LED Array, reflector, lens, and housing
- Integral aluminum heat sink provides passive thermal cooling achieving L70 at 50,000 hours in IC and non-IC applications

### LED Array

- Mid power LED array provides a uniform source with high efficiency and no pixilation.
- 90 CRI minimum, R9 greater than 50
- Color accuracy within 3 SDCM at the CCT endpoints and 4 SDCM in between endpoints, provide color accuracy and uniformity.
- Correlated Color Temperature (CCT) has a selectable range from 2700K to 5000K (factory default 3000K)
- Use the switch to choose between 2700K, 3000K, 3500K, 4000K, and 5000K CCT

### Optical Assembly

- Regressed flat lens provides uniformity, UGR ≤ 10
- Exceeds ENERGY STAR® color angular uniformity requirements

### Remote Driver/Junction Box

- Metal driver/junction box with captive hinged junction box cover. Listed for (6) #12 AWG 90°C splice conductors, 2-in, 2-out plus (2) ground
- (4) 1/2" conduit pry-outs
- (2) Slide-N-Side™ non-metallic (NM) wire traps all accepts 14-2, 14-3, 12-2, 12-3 U.S and 14-2, 14-3, 12-2 Canadian NM cable

- (3) 4-port push wire nuts with clear caps for quick and reliable mains voltage connections
- Integral keyhole mounting slots facilitate direct mounting to building structure or new construction mounting frame

### Driver

- Integral 120-277V, 50/60Hz constant current driver provides noise free operation
- Continuous, flicker-free dimmer from 100% to 5%
- Plenum rated inline electrical quick connect provides low voltage connection to fixture fitting

### Installation

- Can be installed in 3/8" to 1-1/4" thick ceilings
- Cutout can utilize standard round hole saw sizes, cutout template provided
- Mousetrap springs hold fixture fitting securely in the ceiling eliminating light leaks
- Can be removed from below the ceiling for service or replacement

### Mounting / Retention

- The LCR4 requires no housing or third party junction box
- The remote enclosure may be used in direct contact with insulation.
- Installer must cut template out of drywall and install into aperture with the clips compressed.
- When released, the mousetrap springs will rest on to the back side of the drywall
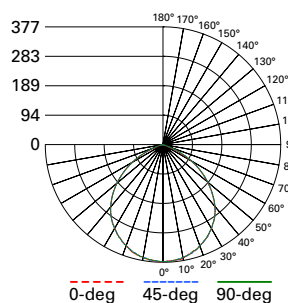- Not for installation in recessed cans

### Compliance

- UL certified US and Canada
- Wet location listed and IP64 ingress protection rated, covered ceiling only
- Airtight per ASTM-E283-04
- Suitable for use in clothes closets when installed in accordance with the NEC 410.16 spacing requirements
- EMI/RFI emissions per FCC 47CFR Part 15 consumer limits, CAN ICES-005(B)/NMB-005 (B)
- Contains no mercury or lead and RoHS compliant
- Photometric testing in accordance with IES LM-79-08
- Lumen maintenance projections in accordance with IES LM-80-08 and TM-21-11
- Can be used for State of California Title 24 high efficacy LED compliance under JA8, reference Modernized Appliance Efficiency Database System (MAEDBS) for 2016 JA8 High Efficacy Lighting
- ENERGY STAR® certified, reference "Certified Light Fixtures" database

### Warranty

- Five year limited warranty, consult website for details. www.cooperlighting.com

## Photometric Data

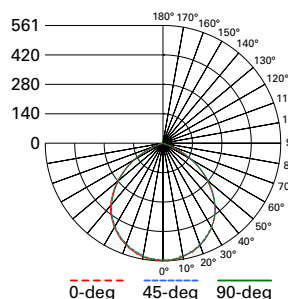### LCR4089FSE010MW



| 0-deg | 45-deg | 90-deg |

Spacing criterion: (0-180) 1.23
(90-270) 1.23
(Diagonal) 1.32

Beam Angle: 100°
Lumens: 869
Input Watts: 9.15 W
Efficacy: 95 LPW
Test Report:
LCR4089FSE010MW.IES

| Zonal Lumen | Lumens | % Lumens |
|---|---|---|
| 0-30 | 288 | 33.2 |
| 0-40 | 468 | 53.8 |
| 0-60 | 779 | 89.6 |
| 0-90 | 869 | 100 |

| TM-30-15 | Rf = 92 |
|---|---|
| | Rg = 97 |
| CRI/CIE | Ra = 94 |
| | R9 = 58 |

CCT - Range of 2700K- 5000K

warm ← → cool

100°

### LCR4129FSE010MW



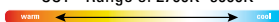| 0-deg | 45-deg | 90-deg |

Spacing criterion: (0-180) 1.23
(90-270) 1.22
(Diagonal) 1.31

Beam Angle: 100°
Lumens: 1277
Input Watts: 13.58 W
Efficacy: 94.1 LPW
Test Report:
LCR4129FSE010MW.IES

| Zonal Lumen | Lumens | % Lumens |
|---|---|---|
| 0-30 | 426 | 33.4 |
| 0-40 | 691 | 54.1 |
| 0-60 | 1145 | 89.6 |
| 0-90 | 1277 | 99.9 |

| TM-30-15 | Rf = 92 |
|---|---|
| | Rg = 97 |
| CRI/CIE | Ra = 94 |
| | R9 = 56 |

CCT - Range of 2700K- 5000K

warm ← → cool

100°

## Energy and Performance Data

| LCR4089FSE010MW | | |
|---|---|---|
| | **120V** | **277V** |
| Max. Lumens | 849 @ 3000K | |
| Input Voltage | 120-277V | |
| Input Frequency | 50/60Hz | |
| Input Power | 9.77W | 9.95W |
| Input Current | 0.082A | 0.037A |
| Power Factor | >0.90 | |
| THD | <20% | |
| EMI/RFI | FCC Title 47 CFR, Part 15, Class B CAN ICES-005(B) | |
| Sound Rating | Class A | |
| Minimum Starting Temp | -30°C (-22°F) | |

| LCR4129FSE010MW | | |
|---|---|---|
| | **120V** | **277V** |
| Max. Lumens | 1272 @ 4000K | |
| Input Voltage | 120-277V | |
| Input Frequency | 50/60Hz | |
| Input Power | 14.31W | 14.39W |
| Input Current | 0.120A | 0.055A |
| Power Factor | >0.90 | |
| THD | <20% | |
| EMI/RFI | FCC Title 47 CFR, Part 15, Class B CAN ICES-005(B) | |
| Sound Rating | Class A | |
| Minimum Starting Temp | -30°C (-22°F) | |

Tested in accordance with IES LM63. Field results may vary.

Note: Refer to IES files for more product data.

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