

Project		Catalog #		Type	
Prepared by		Notes		Date	



HALO

LCR4

4-Inch Round Canless LED Downlight and Wallwash

Typical Applications

Residential • Multi-family • Mixed-Use

Interactive Menu

- Order Information [page 2](#)
- Product Specifications [page 2](#)
- Photometric Data [page 3](#)
- Energy & Performance Data [page 3](#)
- Product Warranty
- Dimming Guide

Product Certification



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 JAB.

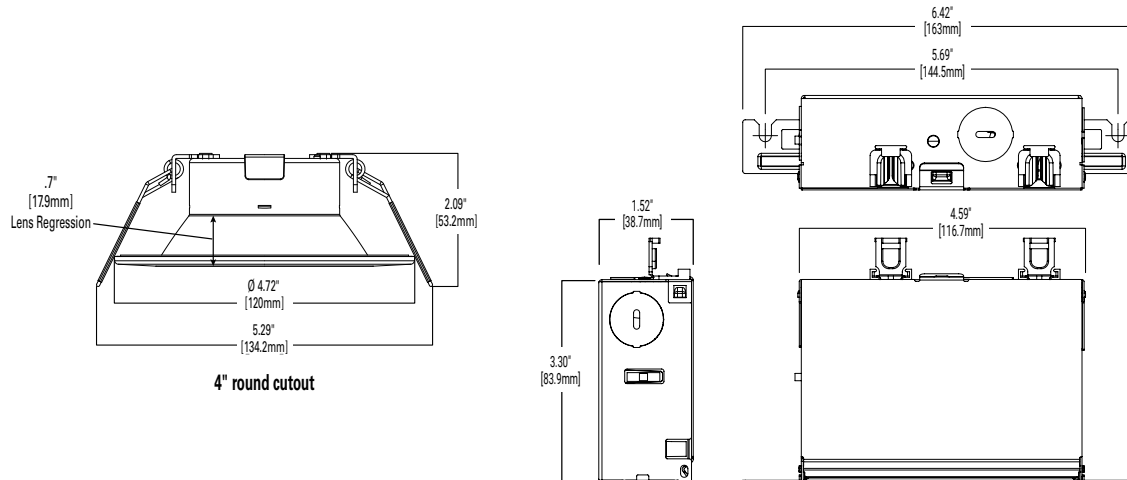
Product Features



Top Product Features

- Select from 6 CCTs via switch; 2700K, 3000K, 3500K, 4000K, 5000K, 6500K CCT; 90 CRI
- Up to 1200 Lumens; IC rated
- Canless - does not require recessed housing or junction box
- Dual Dim: 0-10V and Phase Cut, dimmable down to 5%
- Wet location listed for showers and protected ceilings - Downlights only

Dimensional and Mounting Details



additional product diagrams

Order Information*

SAMPLE ORDER NUMBER: **LCR408RD9FSE020**

Models	Lumens	Shape	CRI/CCT	Driver
LCR4 = 4" Canless LED Downlight ⁽¹⁾	08 = 800 lumens (nominal) 12 = 1200 lumens (nominal)	RD = Round WW = Wall Wash ⁽¹⁾⁽²⁾	9FS = 90 CRI minimum, field selectable CCT, choose 2700K, 3000K, 3500K, 4000K, 5000K or 6500K CCT	E020 = UNV 120-277, 50/60Hz, Dual Dim with 0-10V and Phase Cut options for 100% to 5% dimming E040 = UNV 120-277, 50/60Hz, Dual Dim with 0-10V and Phase Cut options for 100% to 5% dimming + Emergency Battery Pack ⁽³⁾⁽⁴⁾⁽⁵⁾
Notes 1. Product available in Matte White finish as standard.	Notes	Notes 1. Battery backup option not available with WW option 2. Wet Location not available with WW option	Notes	Notes 3. Do not qualify for ENERGY STAR® 4. Only available in RD Shape option 5. Emergency battery with backup up to 90 minutes

Accessories		
Designer Trims LCR4TRMAH = 4" Haze, white flange LCR4TRMSC = 4" Specular, white flange LCR4TRMTBZ = 4" Tuscan bronze LCR4TRMWH = 4" Paintable white LCR4WB = 4" White Baffle Trim LCR4BB = 4" Matte Black Baffle Trim	Overized Trim Ring HLB4R0TMW = 4" round oversized trim, matte white Mounting Frame HL4RSMF = 4" round and square mounting frame	Extension Cable seleCCTable Driver/Jbox HLB06BLEEC = 6 ft. extension cable HLB12BLEEC = 12 ft. extension cable HLB20BLEEC = 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 module provides .703" lens regression

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 and 7 SDCM at the CCT endpoints and 4 SDCM in between the endpoints, provide color accuracy and uniformity.
- Correlated Color Temperature (CCT) has a selectable range from 2700K to 6500K (factory default 3000K)
- Use the switch to choose between 2700K, 3000K, 3500K, 4000K, 5000K and 6500K 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
- Dual Dim with 0-10V and Phase Cut options for 100% to 5% dimming
- 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

Emergency Battery Backup

- Emergency battery backup only available in downlight versions, not available in wall wash versions
- Emergency battery backup up to 90 minutes
- Emergency battery backup light will be at 6500K CCT
- Emergency battery backup will provide xxx lumen output for 90 minutes.
- Emergency battery backup is a separate battery junction box provided with unit.

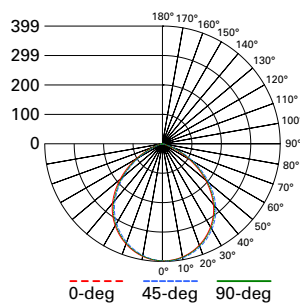
Compliance

- UL Certified for US and Canada, type IC suitable for direct contact with air permeable insulation
- Not for use in direct contact with spray foam insulation, reference NEMA LSD57-2013
- Wet location listed and IP64 ingress protection rated, covered ceiling only (downlights 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 (does not apply to EM versions)

Warranty

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

Photometric Data

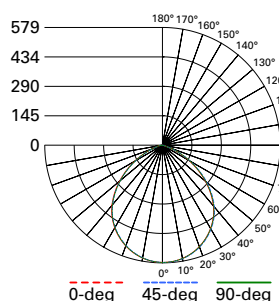
[View IES files](#)
**LCR408RD9FSE020-11W-3000K**

Spacing criterion:
 (0-180) 1.21 | (90-270) 1.21 | (Diagonal) 1.3
 Beam Angle: 98°
 Field Angle: 140°
 Lumens: 890
 Input Watts: 10.7 W
 Efficacy: 83.2 LPW
 UGR: 21
 Test Report: P640192

Zonal Lumen	Lumens	% Lumens
0-30	304	34.2
0-40	490	55.1
0-60	800	89.8
0-90	889	99.9

TM-30-15	Rf = 92
	Rg = 104
CRI/CIE	Ra = 93
	R9 = 86.8

CCT - Range of 2700K- 6500K

**LCR412RD9FSE020-14W-3000K**

Spacing criterion:
 (0-180) 1.22 | (90-270) 1.21 | (Diagonal) 1.3
 Beam Angle: 98°
 Field Angle: 140°
 Lumens: 1295
 Input Watts: 14.4 W
 Efficacy: 89.9 LPW
 UGR: 22
 Test Report: P640180

Zonal Lumen	Lumens	% Lumens
0-30	442	34.2
0-40	714	55.1
0-60	1164	89.9
0-90	1294	99.9

TM-30-15	Rf = 93
	Rg = 103
CRI/CIE	Ra = 93
	R9 = 86.4

CCT - Range of 2700K- 6500K



Energy and Performance Data

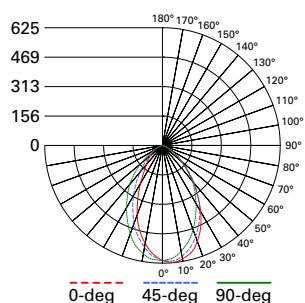
LCR4 - 800 Lumen Downlight		
	UNV	120V
Lumens	800	800
Input Voltage	120-277	120
Input current	0.1A	0.1 A
Input Power	10.5W	10.5W
Efficiency	76.00%	76.00%
Inrush(A)	2	1
THD	<20%	<20 %
PF	>0.9	>0.9
Sound Rating	<22dB	<22dB

LCR4 - 1200 Lumen Downlight		
	UNV	120V
Lumens	1200	1200
Input Voltage	120-277	120
Input current	0.13A	0.13 A
Input Power	14.5W	14.5W
Efficiency	80.00%	80.00%
Inrush(A)	2	1
THD	<20%	<20 %
PF	>0.9	>0.9
Sound Rating	<22dB	<22dB

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

Note: Refer to IES files for more product data.

Photometric Data

 View IES files
**LCR408WW9FSE020-8W-3000K**

Spacing criterion:
(0-180) 0.91 | (90-270) 0.97 | (Diagonal) 1
Lumens: 830
Input Watts: 8.1 W
Efficacy: 102.5 LPW
Test Report: P645612

Zonal Lumen	Lumens	% Lumens
0-30	395	47.6
0-40	571	68.8
0-60	778	93.7
0-90	830	100

TM-30-15	Rf = 91
	Rg = 102
CRI/CIE	Ra = 93
	R9 = 70.7
CCT - Range of 2700K- 6500K	

SINGLE UNIT FOOTCANDLES

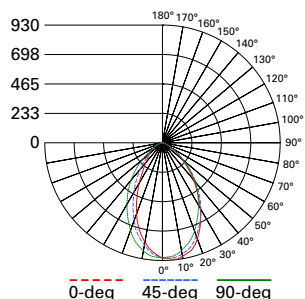
3' from wall
(distance from fixture along wall)

	1.6	1.2	0.6	0.3	0.2	0.1	0
1	1.6	1.2	0.6	0.3	0.2	0.1	0
2	5.3	4.3	2.4	1.1	0.5	0.3	0.1
3	7.4	6.3	4.1	2.2	1	0.5	0.3
4	7.2	6.4	4.6	2.8	1.5	0.8	0.4
5	5.9	5.4	4.2	2.9	1.7	1	0.6
6	4.5	4.2	3.4	2.6	1.7	1.1	0.7
7	3.4	3.2	2.7	2.1	1.6	1.1	0.7
8	2.6	2.5	2.2	1.8	1.3	1	0.7
9	2	1.9	1.7	1.4	1.1	0.9	0.7
10	1.5	1.5	1.3	1.2	1	0.8	0.6

MULTIPLE UNIT FOOTCANDLES

3' from wall
(spacing between fixtures)

	1.8	1.7	1.9
1	1.8	1.7	1.9
2	6.3	6.3	6.4
3	9.4	10.4	9.6
4	9.8	11.1	9.9
5	8.7	9.6	8.8
6	7	7.7	7.1
7	5.5	6	5.6
8	4.3	4.6	4.3
9	3.3	3.6	3.4
10	2.6	2.8	2.7

**LCR412WW9FSE020-12W-3000K**

Spacing criterion:
(0-180) 0.91 | (90-270) 0.98 | (Diagonal) 1.01
Lumens: 1255
Input Watts: 12.1 W
Efficacy: 103.7 LPW
Test Report: P645618

Zonal Lumen	Lumens	% Lumens
0-30	595	47.4
0-40	862	68.7
0-60	1176	93.7
0-90	1255	100

TM-30-15	Rf = 91
	Rg = 102
CRI/CIE	Ra = 93
	R9 = 69.7
CCT - Range of 2700K- 5000K	

SINGLE UNIT FOOTCANDLES

3' from wall
(distance from fixture along wall)

	2.3	1.7	0.8	0.4	0.2	0.1	0.1
1	2.3	1.7	0.8	0.4	0.2	0.1	0.1
2	8	6.1	3.2	1.5	0.7	0.3	0.2
3	11.4	9.4	5.8	2.9	1.3	0.7	0.4
4	10.8	9.4	6.6	3.9	2.1	1.1	0.5
5	8.8	7.9	6.1	4.1	2.5	1.4	0.8
6	6.8	6.2	5	3.7	2.5	1.6	1
7	5.1	4.8	4	3.1	2.3	1.6	1
8	3.9	3.7	3.2	2.6	2	1.4	1
9	2.9	2.8	2.5	2.1	1.7	1.3	1
10	2.3	2.2	2	1.7	1.4	1.1	0.9

MULTIPLE UNIT FOOTCANDLES

3' from wall
(spacing between fixtures)

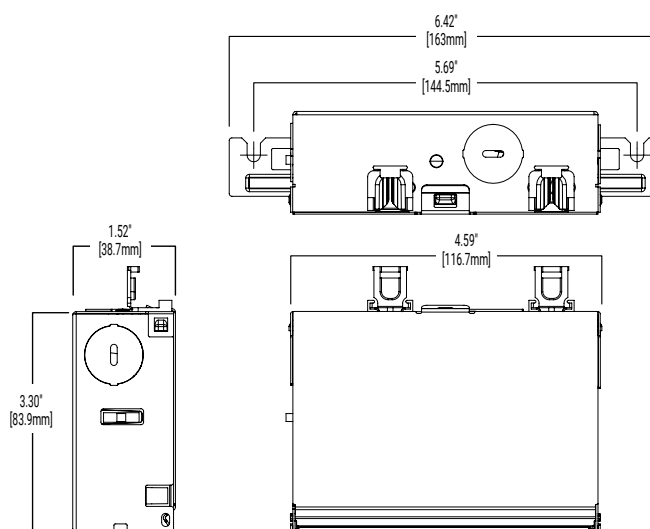
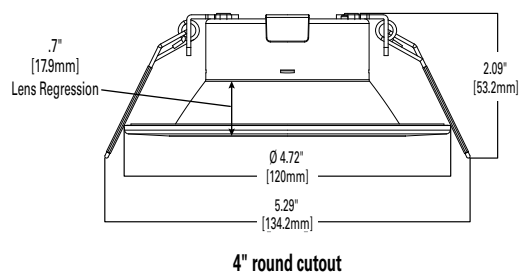
	2.7	2.6	2.7
1	2.7	2.6	2.7
2	9.7	9.6	9.5
3	14.7	15.7	14.3
4	15	16.6	14.7
5	13.1	14.3	12.9
6	10.6	11.5	10.5
7	8.3	8.9	8.2
8	6.5	6.9	6.4
9	5.1	5.4	5.1
10	4	4.2	4

Energy and Performance Data

LCR4 - 800 Lumen Wall Wash		
	UNV	120V
Lumens	750	750
Input Voltage	120-277	120
Input current	0.09A	0.09A
Input Power	8.5W	8.5W
Efficiency	70.00%	70.00%
Inrush(A)	2	1
THD	<20%	<20%
PF	>0.9	>0.9
Sound Rating	<22dB	<22dB

LCR4 - 1200 Lumen Wall Wash		
	UNV	120V
Lumens	1100	1100
Input Voltage	120-277	120
Input current	0.12A	0.12A
Input Power	12.5W	12.5W
Efficiency	77.00%	77.00%
Inrush(A)	2	1
THD	<20%	<20%
PF	>0.9	>0.9
Sound Rating	<22dB	<22dB

Dimensional and Mounting Details



Emergency Battery Backup

