

Project		Catalog #		Type	
Prepared by		Notes		Date	



HALO

LCR4" Recessed Smooth Canless Downlight

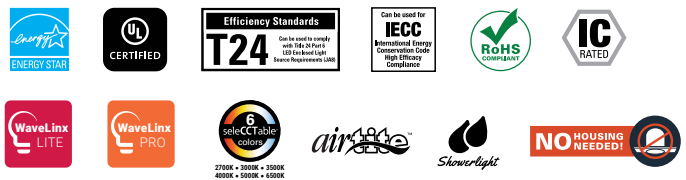
4" Recessed Canless LED Downlight mounts directly to the ceiling - no housing required. The high and low lumen 4" with 6-position color selectability, and flicker free 5% dimming allow for easy lighting adjustability.

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

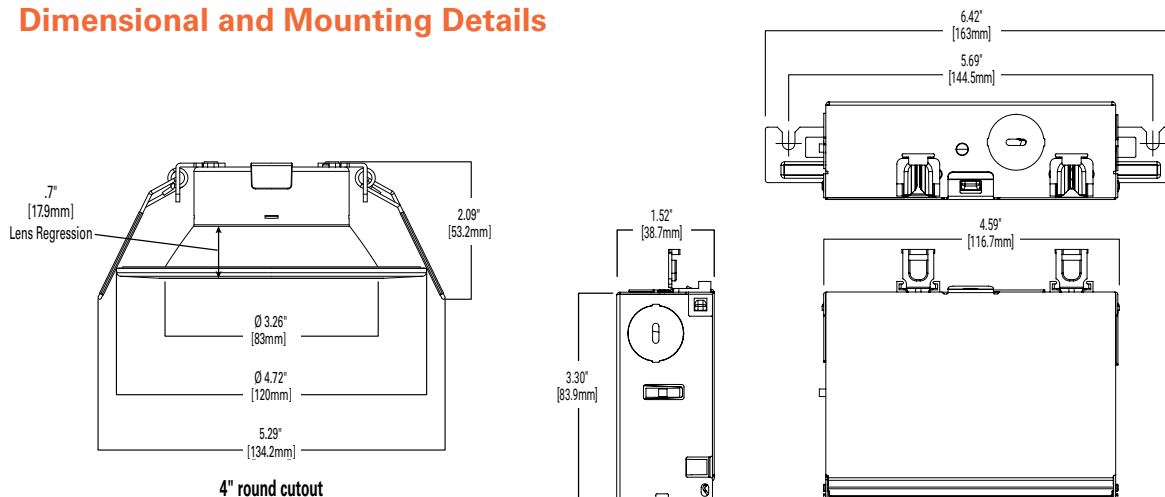


Refer to ENERGY STAR® Certified Products List.
Can be used to comply with California Title 24 High Efficacy requirements.
Certified to California Appliance Efficiency Database under JAB.

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	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
Notes 1. Product available in Matte White finish as standard.	Notes	Notes	Notes	Notes

Accessories			Emergency Power 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	Oversized Trim Ring HLB4ROTMW = 4" round oversized trim, matte white Mounting Frame HL4RSMF = 4" round and square mounting frame MF4RC = 4" round mounting frame with drywall collar	Extension Cable seleCCTable Driver/Jbox HLB06BLEEC = 6 ft. extension cable HLB12BLEEC = 12 ft. extension cable HLB20BLEEC = 20 ft. extension cable	INVM-10W-AD = Single Phase 0-10V Auto Dimming (can power up to 4 LCR4 fixtures)

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 Mini Inverter

- Provides 90 minutes of 10VA emergency power to lighting fixtures
- 0-10V Auto dimming allows up to 50VA max dimmable load
- 10VA max non-dimmable load
- Automatic 120VAC or 277VAC output power to driver or ballast means easy field install
- UL924 and CSA 22.2 No.141 listed for field or factory installation
- Remote mounting up to 250 feet
- Maintenance free lithium-ion battery
- See Mini Inverter Spec Sheet for more information

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

Controls

Connected Lighting System

Two WaveLinX connected solutions. Refer to WaveLinX website for details www.cooperlighting.com.

WaveLinX PRO Tilemount Sensor Kit

- WaveLinX PRO WTA tilemount sensor kit offers daylight dimming, PIR motion sensing, scene and zone configuration, automatic commissioning; and optional RLTS - RealTime Location Services available.

WaveLinX LITE Tilemount Sensor Kit

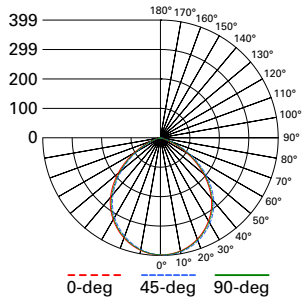
- WaveLinX LITE WTK tilemount sensor kit offers daylight dimming and PIR motion sensing, scene and grouping configuration.

WaveLinX Tilemount Kits Application:

- The WTA and WTK tilemount kits include a control module mounted on the luminaire junction box via 1/2" knock-out, and a tilemount sensor on 54-inch whip; for ceiling installation by direct-mount spring clips or via mounting bracket in octagon ceiling boxes.
- he WTA and WTK tilemount kits may be ordered as factory installed on the luminaire, or ordered separately as a field installed accessory kit.
- Note: WaveLinX PRO devices are only compatible with the WaveLinX PRO system.**
- Note: WaveLinX LITE devices are only compatible with the WaveLinX LITE system.**

Photometric Data

[View IES files](#)



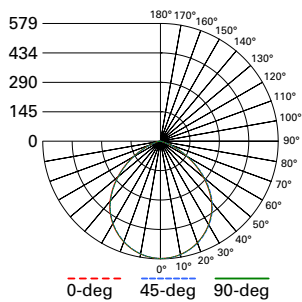
LCR408RD9FSE020-11W-3000K

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.

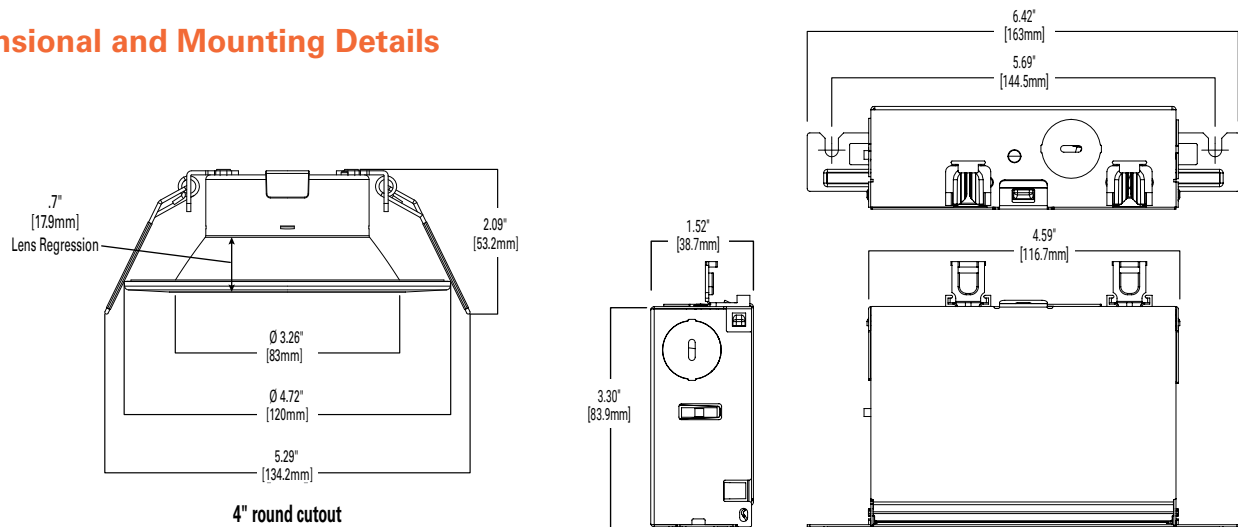
Note: Refer to IES files for more product data.

Energy and Performance Data

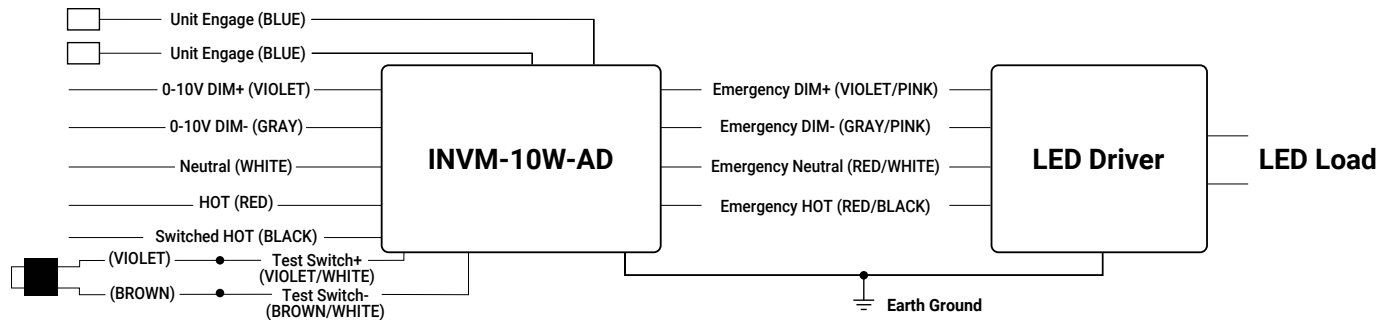
LCR4 - 800 Lumen Wall Wash		
	UNV	120V
Lumens	750	750
Input Voltage	120-277	120
Input current	0.09A	0.09A
Input Power	8.5W	8.5W
Efficiency	70.00%	70.00%
Inrush(A)	2	1
THD	<20%	<20%
PF	>0.9	>0.9
Sound Rating	<22dB	<22dB

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



Mini Inverter Schematic



Connected Systems



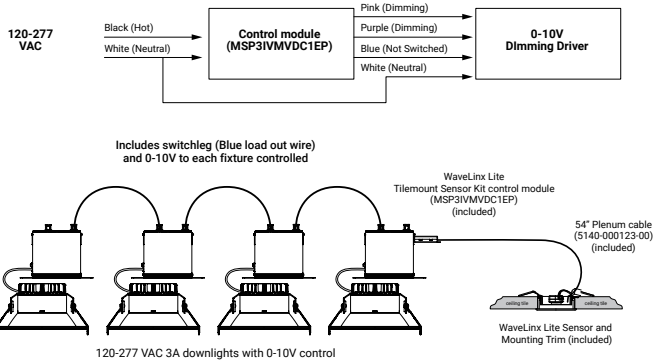
WaveLinx LITE - WLST Tilemount Sensor

WaveLinx LITE devices only compatible with the WaveLinx LITE system.

- Intuitive Android™ or Apple® iOS® app for basic system code compliant set up and configuration via Bluetooth
- Up to 28 unique areas per project site (WaveLinx LITE Bluetooth network)
- Up to 50 devices for an area, any one of 16 control zones, up to 6 occupancy sets, and custom lighting scenes
- Automatic occupancy or vacancy, sensor sensitivity, daylight dimming, etc. configurable through the app
- Refer to the WaveLinx system specifications for details



WaveLinx LITE WLST Tilemount Wiring Diagram



WaveLinx LITE Bluetooth Enabled System



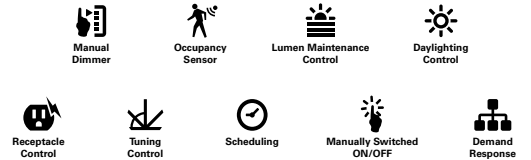
WaveLinx PRO Wireless – WPST Tilemount Sensor

WaveLinx PRO devices only compatible with the WaveLinx PRO system.

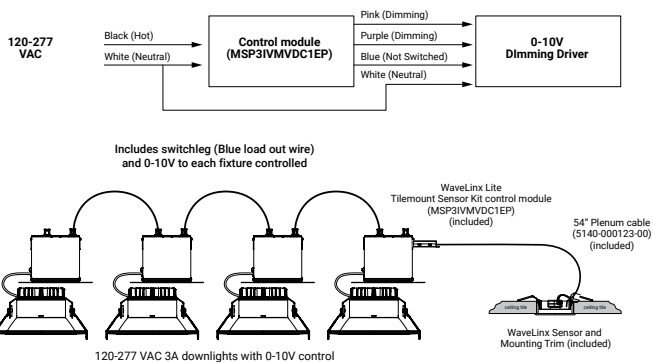
- WaveLinx PRO Wireless functionality configures zones and customizes settings from one secure mobile app
- Automatic code commissioning that meets the strictest codes
- Fixtures and sensors integrate with Wireless Area Controller, Wall Stations, and Control Devices
- Stand-Alone Offices or Entire Building Network Installations



WaveLinx mobile app settings



WaveLinx PRO WPST Tilemount Wiring Diagram



WaveLinx CORE Building Management Integration

