

SPECIFICATION

Application

Professional-grade IC fire-rated recessed LED downlight for medium to high ceilings in commercial and architectural spaces.

Fire Rating

Stops the progress of an active fire. Meets the fire-stop capabilities of a typical 5/8" gypsum board (drywall) barrier. Eliminates the requirement to specify more expensive fire-rated materials or the use of manually constructed drywall enclosures.

Patented dual-layer housing is constructed of 20-gauge aluminum designed to maintain the continuity of fire-rated ceiling assemblies, subject to UL classified L500 series fire rated assemblies rated for 1-hour.

UL Certifications and Approvals for One-Hour Fire Rating: UL263, CAN/ULC S101-07, ASTM E119-00A, UBC7-1, NFPA 251 and ASI A2.1 under U.S. Patent.

Mounting

Housing suitable for new construction installations. Adjusts up to 1-1/4" ceiling thickness. Supplied with (2) 24" adjustable hanger bars. Hanger bars equipped with nail-less install 3/4" serrated barbed studs and with captive nails, for faster and easier secure mounting in wood joists. Set-screws lock into position and prevent shifting after installation. Trim is secured via positive retention friction clips.

Control

120V/277V AC 50/60Hz Electronic Direct Current Class 2 driver integrally mounted on large access Junction Box. Power Factor > 0.90. Operating Temperature: -10°C to +80°C. Accessible from above or below ceiling.

(UE-D10) 0-10V dimming works with most 5-wire, 0-10V dimmers. Factory qualified for use with Leviton IP710-DLZ.

(UE-DUN) Uni-Dim™ dimming option is a universal dimming system that works with most 120V, 3-wire ELV, 2-wire incandescent, and 120V/277V, 5-wire 0-10V fluorescent dimmers.

Emergency Options

Emergency LED Battery Back-up available, remotely mounted adjacent to housing by installer.

When AC power fails, the device immediately switches to the emergency mode, operating the LEDs for a minimum of 90 minutes. Remote test switch, and plate cover included.

Optional Generator Transfer Device switches the driver to auxiliary generator power during the loss of normal AC power, (recommended for applications requiring individual circuit switching).

SPECIFICATION (Continued)**Color Temperature**

Available in 2700K, 3000K, 3500K and 4000K.

**Insulation Contact**

IC rated for direct insulation contact.

Thermal Management

Heat dissipation facilitated by the exposed integral aluminum heat sink to maximize heat rejection in an open-air environment. The recommended ambient temperature should be below 35°C (95°F) to achieve a minimum L70 life of 50,000 hours according to the LM80 standard..

Reflector

One piece, self-flanged dual-reflector LED design enables a clean trim finish, without the need for a secondary trim ring. Heavy-gauge aluminum reflector prevents ugly dents during shipping and installation. Deeply mounted LED provides 50 degree visual cutoff for a glare-free appearance. Satin Haze reflector/White flange.

Reflector Finish

Available in Haze Reflector/White Ring, White Reflector/White Ring, All Black, Clear Specular Reflector/White Ring and All Satin Haze.

Power Connection

LED lamp array is replaceable via on board quick disconnect terminal. Meets CA Title 24 Requirements and other standards restricting the use of Medium Base or Bi-Pin Sockets.

Lumen Maintenance

Minimum 50,000 hours L70 life based on ANSI TM-21 calculations from LM80 standardized test results.

Junction Box

16 gauge pre-wired galvanized steel Junction Box, 32 cubic-inch for a maximum of (8) #12 AWG wires. Furnished with (6) 1/2", and (2) 3/4" knock-outs. Strain clamps to install or remove covers for easy access and ground wire.

Airflow

Airtight reflector design is designed to restrict air flow from room into plenums in compliance to the WSEC - Washington State Energy Code, (Less than 2.0 CFM -Cubic Feet per Minute).

SPECIFICATION (Continued)

Caution

LITON recommends use of surge protectors on the power entering LED Housings. Surge damage is not covered by warranty. (+1KV). Fixtures must be grounded in accordance with national, state and/or local electrical codes. Failure to do so may result in serious personal injury.

Certifications and Listings

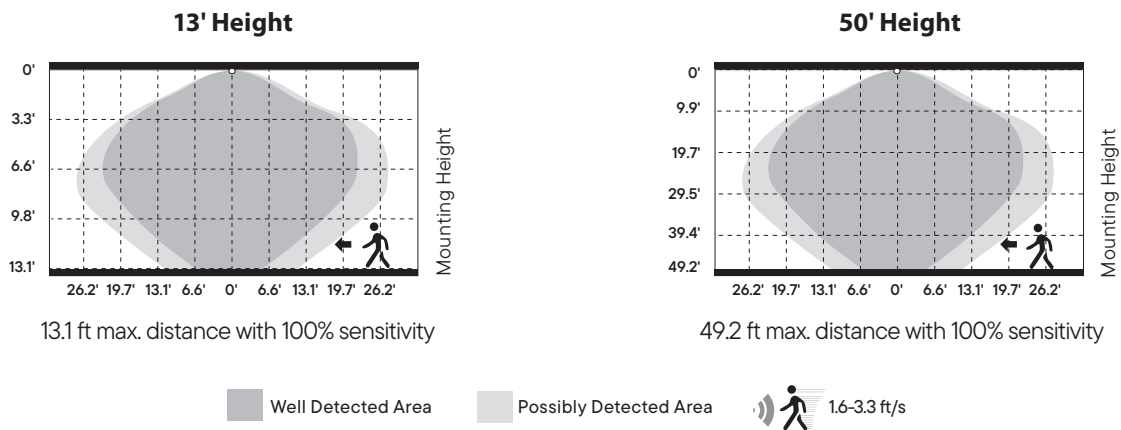
UL/cUL listed to UL1598 and UL8750. Suitable for dry, damp and wet locations. NYC approved: Calendar #41937. STC (Sound Transmission Class), and IIC (Impact Insulation Class) compliant.

Warranty

Covered by a 5-Year Warranty to be free of defects in materials and craftsmanship. Recommended for applications where ambient temperatures do not exceed 35°C (95°F), installations exceeding this temperature will result in reduced LED lamp life and a voided warranty.

Unisense[™] PROGRAMMABLE MOTION + DAYLIGHT (-SUN-RMT, -SUN-RMT-1227)

- Microwave and PIR (Passive Infrared) sensors depending on option
- Daylight harvesting
- Dusk/dawn sensing capabilities
- Motion Sensor



SPECIFICATION (Continued)

EMERGENCY BATTERY (-EM): 10W

- Must be installed in Dry Locations
- 10W constant output to LED lamp

Not rated for outdoor mounting. Damp location rated.

-EM Lumen Data (Battery)

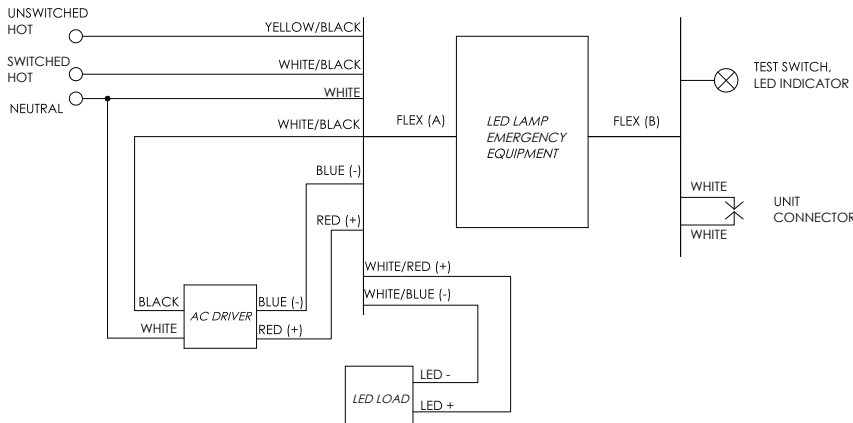
Fixture/Trim	LHFRLD608/CR6L22
Fixture Wattage:	8W
Fixture Lumens:	1000
Multiplier:	1
EM Lumens:	1000

Fixture/Trim	LHFRLD610/CR6L22
Fixture Wattage:	17W
Fixture Lumens:	1900
Multiplier:	0.59
EM Lumens:	1120

Fixture/Trim	LHFRLD618/CR6L22
Fixture Wattage:	22W
Fixture Lumens:	2300
Multiplier:	0.45
EM Lumens:	1040

Fixture/Trim	LHFRLD628/CR6L22
Fixture Wattage:	28W
Fixture Lumens:	2800
Multiplier:	0.36
EM Lumens:	1010

Fixture/Trim	LHFRLD629/CR6L22
Fixture Wattage:	30W
Fixture Lumens:	3100
Multiplier:	0.33
EM Lumens:	1020



Input Voltage:	120-277VAC/60Hz
Output Voltage:	10V
Wattage:	10W
Switching Time:	<1s
Charging Time:	24h
Operating Time:	90 minutes
Minimum Temperature:	0°C
Maximum Temperature:	50°C
Self-Diagnostic:	No

SPECIFICATION (Continued)

FULL POWER EMERGENCY INVERTER (-EMAC or -EMAC347): 8W - 30W

- Must be installed in Dry Locations
- Wattage package will determine battery sent; corresponding wiring diagrams below
- 170 VDC output to AC DRIVER during EM mode

Not rated for outdoor mounting. Damp location rated.

-EMAC Lumen Data (Battery)

Fixture/Trim	LHFRLD608/CR6L22
Fixture Wattage:	8W
Fixture Lumens:	1000
EM Lumens:	1000

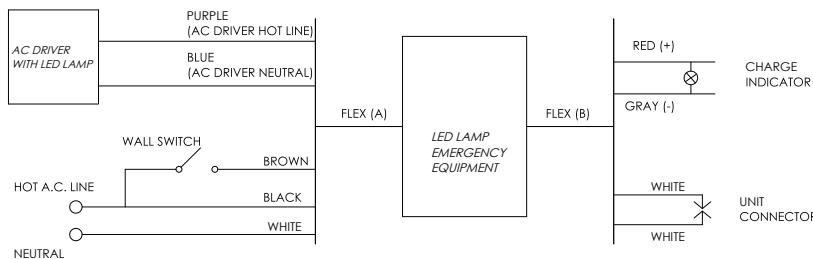
Fixture/Trim	LHFRLD610/CR6L22
Fixture Wattage:	17W
Fixture Lumens:	1900
EM Lumens:	1900

Fixture/Trim	LHFRLD618/CR6L22
Fixture Wattage:	22W
Fixture Lumens:	2300
EM Lumens:	2300

Fixture/Trim	LHFRLD628/CR6L22
Fixture Wattage:	28W
Fixture Lumens:	2800
EM Lumens:	2800

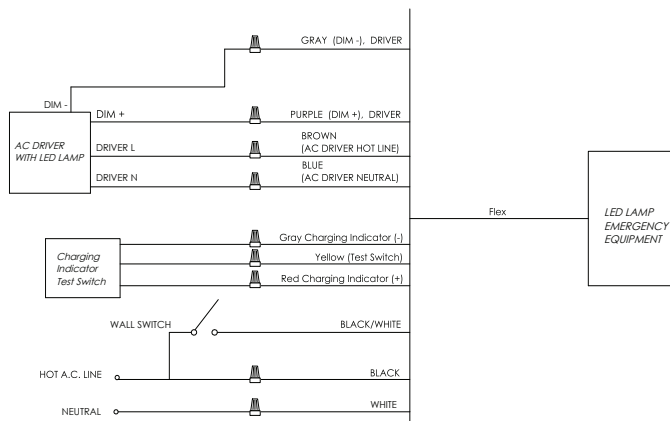
Fixture/Trim	LHFRLD629/CR6L22
Fixture Wattage:	30W
Fixture Lumens:	3100
EM Lumens:	3100

<25W LOAD



Input Voltage:	120-277VAC/60Hz
Output Voltage:	170VDC (120VAC Equivalent)
Wattage:	25W
Switching Time:	<1s
Charging Time:	24h
Operating Time:	90 minutes
Minimum Temperature:	0°C
Maximum Temperature:	50°C
Self-Diagnostic:	No

<40W LOAD



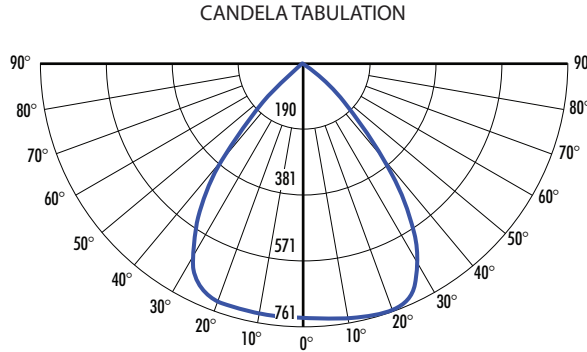
Input Voltage:	120-277VAC or 347VAC/60Hz
Output Voltage:	170VDC (120VAC Equivalent)
Wattage:	30W
Switching Time:	<1s
Charging Time:	24h
Operating Time:	90 minutes
Minimum Temperature:	0°C
Maximum Temperature:	50°C
Self-Diagnostic:	Yes

PHOTOMETRY

LHFRLD608UE-D10_CR6L22CW-T40 (1000lm, 8W, 4000K)

System Power: 11W
 Test Date: 09/2023
 Beam Angle 50%: 79.6°
 Field Angle 10%: 104.2°
 Color Temperature: 3787K
 CRI: 83
 Lumens Delivered: 1168
 CBCP: 761.2
 Power Factor: 0.99

MULTIPLIERS
 REFLECTOR FINISH
CW : 1.00
 SS : 0.90
 SW : 0.88
 WW : 0.66
 CCT
 2700K : 1.04
 3000K : 1.01
 3500K : 1.12
4000K : 1.00



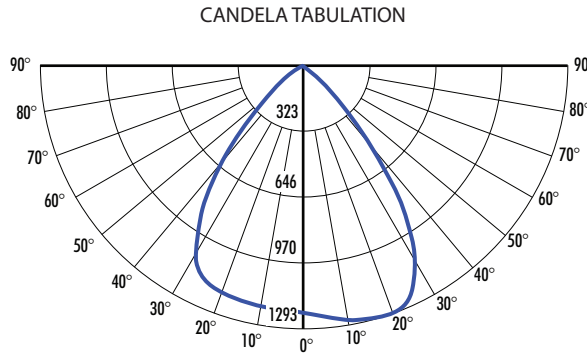
FOOTCANDLE DISTRIBUTION

Height	Beam Diameter	FC
8.0'	13.33'	11.58
10.0'	16.66'	7.41
12.0'	20.00'	5.15
14.0'	23.33'	3.78
16.0'	26.66'	2.89

LHFRLD610UE-D10_CR6L22CW-T40 (1900lm, 17W, 4000K)

System Power: 17W
 Test Date: 09/2023
 Beam Angle 50%: 78.0°
 Field Angle 10%: 102.3°
 Color Temperature: 3893K
 CRI: 82.6
 Lumens Delivered: 1873
 CBCP: 1292.5
 Power Factor: 0.99

MULTIPLIERS
 REFLECTOR FINISH
CW : 1.00
 SS : 0.90
 SW : 0.88
 WW : 0.66
 CCT
 2700K : 1.04
 3000K : 1.01
 3500K : 1.12
4000K : 1.00



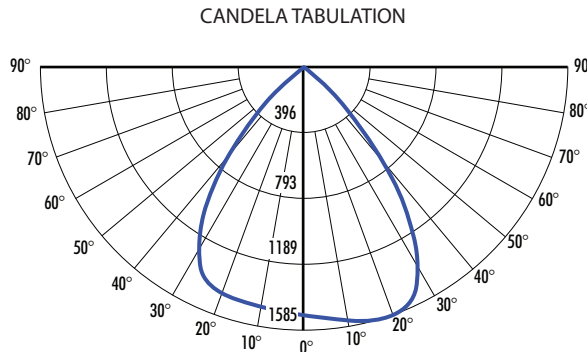
FOOTCANDLE DISTRIBUTION

Height	Beam Diameter	FC
8.0'	12.96'	18.92
10.0'	16.20'	12.11
12.0'	19.43'	8.44
14.0'	22.67'	6.20
16.0'	25.91'	4.75

LHFRLD618UE-D10_CR6L22CW-T40 (2300lm, 22W, 4000K)

System Power: 22W
 Test Date: 09/2023
 Beam Angle 50%: 78.1°
 Field Angle 10%: 102.8°
 Color Temperature: 3899K
 CRI: 82.4
 Lumens Delivered: 2313
 CBCP: 1584.7
 Power Factor: 0.99

MULTIPLIERS
 REFLECTOR FINISH
CW : 1.00
 SS : 0.90
 SW : 0.88
 WW : 0.66
 CCT
 2700K : 1.04
 3000K : 1.01
 3500K : 1.12
4000K : 1.00



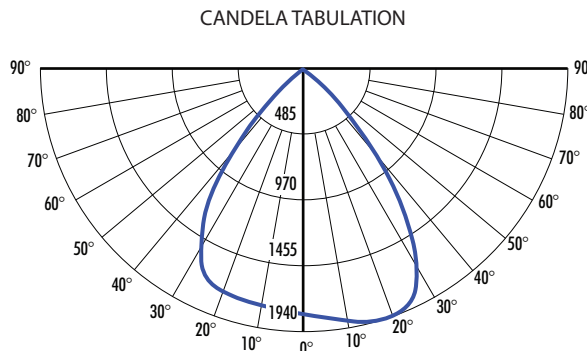
FOOTCANDLE DISTRIBUTION

Height	Beam Diameter	FC
8.0'	12.97'	20.29
10.0'	16.22'	14.90
12.0'	19.47'	10.38
14.0'	22.71'	7.63
16.0'	25.96'	5.84

LHFRLD628UE-D10_CR6L22CW-T40 (2800lm, 28W, 4000K)

System Power: 28W
 Test Date: 09/2023
 Beam Angle 50%: 77.8°
 Field Angle 10%: 102.6°
 Color Temperature: 3903K
 CRI: 82.2
 Lumens Delivered: 2803
 CBCP: 1939.6
 Power Factor: 0.99

MULTIPLIERS
 REFLECTOR FINISH
CW : 1.00
 SS : 0.90
 SW : 0.88
 WW : 0.66
 CCT
 2700K : 1.04
 3000K : 1.01
 3500K : 1.12
4000K : 1.00



FOOTCANDLE DISTRIBUTION

Height	Beam Diameter	FC
8.0'	12.91'	28.19
10.0'	16.14'	18.04
12.0'	19.37'	12.61
14.0'	22.59'	9.27
16.0'	25.82'	7.09

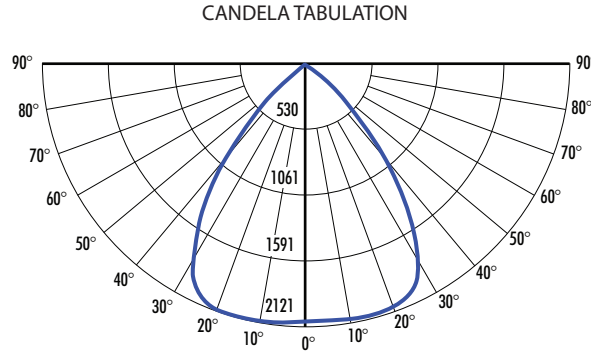
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PHOTOMETRY (Continued)

LHFRLD629UE-D10_CR6L22CW-T40 (3100lm, 30W, 4000K)

System Power: 30W
 Test Date: 09/2023
 Beam Angle 50%: 78.5°
 Field Angle 10%: 103.0°
 Color Temperature: 3902K
 CRI: 82.1
 Lumens Delivered: 3182
 CBCP: 2121.3
 Power Factor: 0.99

MULTIPLIERS	
REFLECTOR FINISH	
CW :	1.00
SS :	0.90
SW :	0.88
WW :	0.66
CCT	
2700K :	1.04
3000K :	1.01
3500K :	1.12
4000K :	1.00



FOOTCANDLE DISTRIBUTION

Height	Beam Diameter	FC
8.0'	13.07'	32.63
10.0'	16.34'	20.88
12.0'	19.61'	14.50
14.0'	22.88'	10.66
16.0'	26.14'	8.16

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