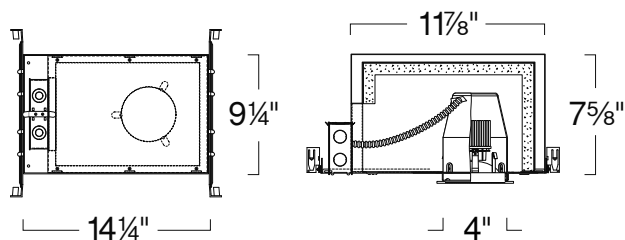


4" IC Fire-Rated LED Housing (14W) w/ 4" Basic Reflector

4" 14W (9 LED SERIES)



SPECIFICATION

Ceiling cut-out: 4 3/8"

Application: This energy efficient General Purpose recessed LED housing is perfect for low to medium height ceilings in residential and light commercial applications. A variety of trim styles, finishes and beam spreads are available to achieve a desired look.

Housing: Pre-wired housing adjusts up to a 1 1/4" ceiling thickness. Integral thermal protector to guard against improper lamping and installation. Trim is secured via positive retention friction clips.

Mounting: Housing suitable for new construction installations only, supplied with (2) 24" adjustable hanger bars with 90 degrees repositioning ability. 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. Earthquake structural cable compatible for drop panel ceiling or any other mounting that requires direct support from structural ceilings.

Power Connection: LED heat sinked lamp module is replaceable via onboard quick exclusionary disconnect terminal. No tools required. Meets CA Title 24 Requirements and other standards restricting the use of Medium Base or Bi-Pin Sockets.

Driver: Electronic Direct Current U.L. Listed driver mounted away from LED Array for cool operation and end-of-life modularity. Comes standard with 120VAC input and available with optional 120V/277V universal voltage input.

Dimming: 'DIN' dimming option smoothly dims down to 5% of initial light output with flicker-free performance. Works with standard incandescent dimmers. Factory qualified for use with Lutron brand dimmers: S600PR, DVSCCL-153P & DV600PR as well as Leviton IP106-600W. Works with standard electronic low voltage (ELV) dimmers. Factory qualified for use with Lutron brand dimmers: SELV300P, DVELV-300P, MAELV-600 and NELV-450.

Emergency Option: 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, plate cover and junction box 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).

Junction Box : 16 gauge pre-wired galvanized steel Junction Box, 32 cubic-inch for a maximum of (8) #12 AWG wires. Furnished with (7) 3/4" and (4) Romex knock-outs. Strain clamps to install or remove covers for easy access and ground wire. Equipped with safety standard fitting for flex-conduit.

Insulation Contact: Energy Efficient LED housing comes standard with IC rating for direct contact with loosefill blown and rolled insulation.

FEATURE:



Application: This energy efficient LED trim is perfect for low to medium height ceilings in residential and light commercial applications. A variety of finishes and beam spreads are available to achieve a desired look.

Gasket: Supplied with gasket to prevent light leakage and unsightly heat streaks on ceiling surface.

Power Connection: LED heat sinked lamp module is replaceable via onboard quick exclusionary disconnect terminal. No tools required. Meets CA Title 24 Requirements and other standards restricting the use of Medium Base or Bi-Pin Sockets.

Lumen Maintenance: Minimum 35,000 hours L70 life based on ANSI TM-21 calculations from LM80 standardized test results.

Thermal Management: Effective thermal dissipation facilitated by integral cast-aluminum, finned heat sink design for maximum heat rejection to provide long LED life.

Color Temperature: Comes standard with 3,000K Warm White LED's binned according to ANSI C78 377A for color temperature and chromaticity ranges. Available with other color temperatures with ANSI binning of 4,000K. To order use "-T" Suffix followed by color temperature. Example 4000K= T40. Consult factory as extended lead times and minimum order quantities apply.

Warranty: Covered by a 3 Year Warranty to be free of defects in materials and craftsmanship. Recommended for applications where ambient temperatures do not exceed 35°C, installations exceeding this temperature will result in reduced LED lamp life and a voided warranty.

Certification: This LED product is certified as compliant with California's Title 24 Energy Code by the California Energy Commission.

Label: cETL Listed

Assembled in USA

4" IC FIRE-RATED LED HOUSING (14W)

LHFRD4 14W LED

WATTAGE	DRIVER TYPE	OPTIONS
LHFRD414C35 :14W	Blank :120V	Blank :None
	-DIN :120V ELV/Incandescent Dimming	-EM :Emergency Backup (8W)
	UE :120V/277V Non-Dimming	-EM2 :Emergency Backup (14W)
	UE-D10 :120V/277V (0-10V Dimming)	
	UE-DHL :Hilume Dimming (120V/277V)	
	-347-D10 :0-10V 10% Dimming	

4" BASIC REFLECTOR

LRLDH402 9x1.6W LED

REFLECTOR FINISH	BEAM SPREAD
LRLDH402BB :All Black	-B25:Narrow Flood*
LRLDH402S :Satin Haze Reflector/White Ring	-B45:Flood
LRLDH402W :All White	-B61:Wide Flood

* Not recommended for illuminating distances less than 6' away.

Ordering example: LHFRD414C35/LRLDH402S-B25

LRLDH-14W-B25E: 4" Low Profile LED Trim

Lamp: (1) LED

Total Rated Fixture Lumen :533 Lm

Total Luminaire Efficacy :42 Lm/W

Luminous Diameter :3.48"

Color Rendering Index (CRI) :80 +

Color Temperature :3000K

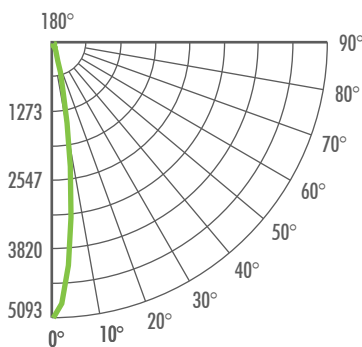
Estimated Life :35,000 hrs. L70

Fixture Data

	LED Module Lumen	Fixture Lumen	Input Wattage
@ 3000K	650	533	14W
@ 4000K	650	549	14W

ZONAL LUMENS SUMMARY

Zone	Lumens	% Fixt
0 - 20	423.13	79.40
0 - 30	462.04	86.70
0 - 40	486.33	91.30
0 - 60	520.65	97.70
0 - 80	531.91	99.80
0 - 90	532.79	100.00
10 - 90	252.76	47.40
20 - 40	63.20	11.90
20 - 50	82.99	15.60
40 - 70	42.26	7.90
60 - 80	11.26	2.10
70 - 80	3.33	0.60
80 - 90	0.88	0.20

**CANDELA TABULATION****CD./SQ.M**

Angle	0
0.0	5093.405
2.0	4828.860
6.0	3238.718
12.0	923.644
18.0	220.460
24.0	88.830
30.0	50.547
36.0	36.292
42.0	28.510
52.0	18.945
62.0	10.804
72.0	3.972
80.0	1.841

ZONAL LUMEN SUMMARY

LED	Height (ft.)	FC	Beam Diameter (ft.)
B25	10	20	3
	12	10	4
	14	6	4.5
	20	3	7
B45	8	16.8	3.6
	10	11.8	4
	12	8.1	4.5
	14	6	6
	16	4.7	7
B60	8	6	6
	10	4	7
	12	2.7	9

LUMINANCE DATA**CD./SQ.M**

Angle	Avg. 0-Deg	Avg. 45-Deg	Avg. 90-Deg
45	5907	5907	5907
55	4552	4552	4552
65	2969	2969	2969
75	1963	1963	1963
85	1417	1417	1417

ZONAL LUMINANCE SUMMARY**CD./SQ.M**

Zone	Lumens
0-10	280.03
10-20	143.10
20-30	38.91
30-40	24.29
40-50	19.79
50-60	14.54
60-70	7.93
70-80	3.33
80-90	0.88
90-100	0.00

LRLDH-14W-B45E: 4" Low Profile LED Trim

Lamp: (1) LED

Total Rated Fixture Lumen :650 Lm

Total Luminaire Efficacy :51 Lm/W

Luminous Diameter :3.48"

Color Rendering Index (CRI) :80 +

Color Temperature :3000K

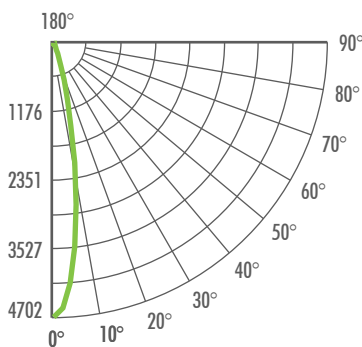
Estimated Life :35,000 hrs. L70

Fixture Data

	LED Module Lumen	Fixture Lumen	Input Wattage
@ 3000K	650	650	14W
@ 4000K	650	670	14W

ZONAL LUMENS SUMMARY

Zone	Lumens	% Fixt
0 - 20	550.31	84.70
0 - 30	605.61	93.20
0 - 40	625.19	96.20
0 - 60	645.14	99.30
0 - 80	649.51	99.90
0 - 90	649.95	100.00
10 - 90	341.31	52.50
20 - 40	74.88	11.50
20 - 50	87.94	13.50
40 - 70	22.89	3.50
60 - 80	4.37	0.70
70 - 80	1.43	0.20
80 - 90	0.44	0.10



CANDELA TABULATION

CD./SQ.M

Angle	0
0.0	4702.280
2.0	4546.040
6.0	3519.138
12.0	1452.227
18.0	425.929
24.0	126.173
30.0	48.859
36.0	27.585
42.0	20.184
52.0	9.837
62.0	3.874
72.0	1.636
80.0	0.882

ZONAL LUMEN SUMMARY

LED	Height (ft.)	FC	Beam Diameter (ft.)
B25	10	20	3
	12	10	4
	14	6	4.5
	20	3	7
B45	8	16.8	3.6
	10	11.8	4
	12	8.1	4.5
	14	6	6
	16	4.7	7
B60	8	6	6
	10	4	7
	12	2.7	9

LUMINANCE DATA

CD./SQ.M

Angle	Avg. 0-Deg	Avg. 45-Deg	Avg. 90-Deg
45	3940	3940	3940
55	2148	2148	2148
65	1095	1095	1095
75	850	850	850
85	737	737	737

ZONAL LUMINANCE SUMMARY

CD./SQ.M

Zone	Lumens
0-10	308.65
10-20	241.66
20-30	55.30
30-40	19.58
40-50	13.06
50-60	6.89
60-70	2.94
70-80	1.43
80-90	0.44
90-100	0.00

LRLDH-14W-B61E: 4" Low Profile LED Trim

Lamp: (1) LED

Total Rated Fixture Lumen :591 Lm

Total Luminaire Efficacy :48 Lm/W

Luminous Diameter :3.48"

Color Rendering Index (CRI) :80 +

Color Temperature :3000K

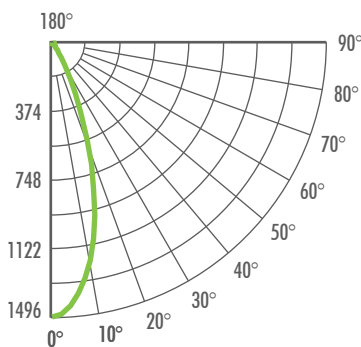
Estimated Life :35,000 hrs. L70

Fixture Data

	LED Module Lumen	Fixture Lumen	Input Wattage
@ 3000K	650	591	14W
@ 4000K	650	609	14W

ZONAL LUMENS SUMMARY

Zone	Lumens	% Fixt
0 - 20	371.86	62.90
0 - 30	510.72	86.40
0 - 40	551.20	93.20
0 - 60	581.12	98.30
0 - 80	590.37	99.80
0 - 90	591.27	100.00
10 - 90	463.28	78.40
20 - 40	179.34	30.30
20 - 50	196.78	33.30
40 - 70	36.15	6.10
60 - 80	9.25	1.60
70 - 80	3.01	0.50
80 - 90	0.90	0.20



CANDELA TABULATION

CD./SQ.M

Angle	0
0.0	1496.095
2.0	1482.616
6.0	1372.692
12.0	1092.940
18.0	697.056
24.0	339.945
30.0	132.801
36.0	49.142
42.0	26.542
52.0	16.207
62.0	8.277
72.0	3.480
80.0	1.815

ZONAL LUMEN SUMMARY

LED	Height (ft.)	FC	Beam Diameter (ft.)
B25	10	20	3
	12	10	4
	14	6	4.5
	20	3	7
B45	8	16.8	3.6
	10	11.8	4
	12	8.1	4.5
	14	6	6
	16	4.7	7
B60	8	6	6
	10	4	7
	12	2.7	9

LUMINANCE DATA

CD./SQ.M

Angle	Avg. 0-Deg	Avg. 45-Deg	Avg. 90-Deg
45	5073	5073	5073
55	4020	4020	4020
65	2284	2284	2284
75	1796	1796	1796
85	1479	1479	1479

ZONAL LUMINANCE SUMMARY

CD./SQ.M

Zone	Lumens
0-10	127.99
10-20	243.87
20-30	138.85
30-40	40.49
40-50	17.44
50-60	12.47
60-70	6.24
70-80	3.01
80-90	0.90
90-100	0.00