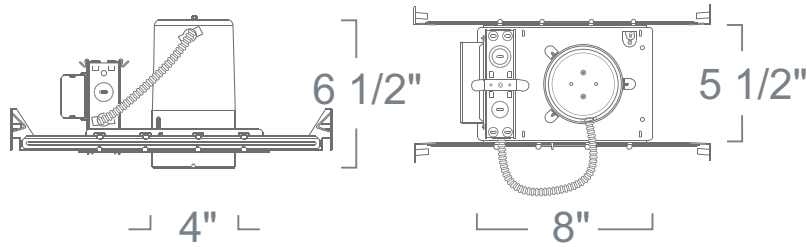


Deep CFL Housing w/ Deep Reflector LH99P SERIES - 4" COMPACT FLUORESCENT RECESSED LIGHTING



SPECIFICATION

Ceiling cut-out: 4 1/2"

Application: General purpose recessed downlight housing for low to medium height ceilings for residential and light commercial applications. A variety of trims, compatible styles and finishes are available to achieve the desired décor and illumination.

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 with torsion wing springs.

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.

Ballast: Electronic Class P 60Hz Ballast with Inherent thermal protection. For Double Twin Tube (DTT) or Triple Twin Tube Lamps (TTT). Sound A rated. Micro-Processor controlled. Min. starting temperature -10°C. Accessible from above or below the ceiling. Contact factory for detailed technical information on ballast specifications. Note: For dimming applications must use compatible dimmer switch. Consult specific ballast manufacturer for up-to-date compatibility list.

Socket: Thermo-plastic socket UL Listed rated for high temperature and provides nickel plated contacts. Accepts 4-Pin lamps with electronic ballast selection.

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: Non-IC rated housing must be kept 3" from insulation.

Safety Labels: UL/CUL listed for through-branch wiring (8) No.12 AWG 90°C and suitable for damp locations. NYC approved: Calendar #41937.

Emergency Option: Emergency back-up operates one lamp for a minimum of 90 minutes at 750 Lumens in case of power outage. Unit is remotely mounted. It includes battery, charger, and test switch with indicator light. Consult Factory for 1300 Lumen Package.

Label: cETL Listed

FEATURE:

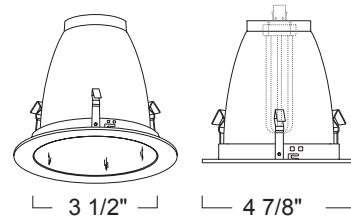


Application: Great for basic area lighting of a room or space. The 4" reflector trims produce a low, bright illumination with a choice of reflector and trim ring color combination. The clear reflector produces a maximum light output while minimizing the source. The black reflector creates a "hidden" effect that obscures the glare of the lamp. All of the color choices create an outstanding general illumination that is suitable in both residential and light commercial applications.

Mounting: Steel pressure springs mounted on trim to ensure positive retention inside housing.

Label: UL Listed, cETL Listed

Limitation: Not for use w/Shallow Housings.



DEEP CFL HOUSING

LH99P CFL 13W DTT, 26W TTT

WATTAGE + BALLAST	OPTIONS
LH99PE :13W 120V	Blank :None
LH99PUD :13W 120V/277V 0-10V Dimming	-27 :120V/277V
LH99P-18E :18W 120V	-EM :Emergency
LH99P-18UD :18W 120V/277V 0-10V Dimming	
LH99P-26E :26W 120V	
LH99P-26UD :26W 120V/277V 0-10V Dimming	

DEEP REFLECTOR

LR909 CFL 13W Max DTT, 26W TTT

REFLECTOR FINISH	RING FINISH
LR909W :White	Blank :White
LR909B :Black	B :Black
LR909C :Clear	N :Natural
LR909S :Satin Haze	

Ordering example: LH99P-26E-EM/LR909B

* 277V Not available for 13W Magnetic.

4" Clear Specular Reflector

Lamp: (1)18W Triple Tube
 Total Rated Lamp Lumens : 1250
 Total Luminaire Efficiency : 52%
 CIE Type: Direct
 Spacing Ratio: 1.04

Report File# LL1010404B.IES
 By: Light Laboratory, Inc.
 LM-63-2002

LUMINANCE DATA

4" Vertical Housing : LVH4118
 4" Specular Reflector : LR909C

HOUSING	WATTAGE	LUMEN*
LVH4113	13W	900
LVH4118	18W	1200
LVH4126	26W	1800

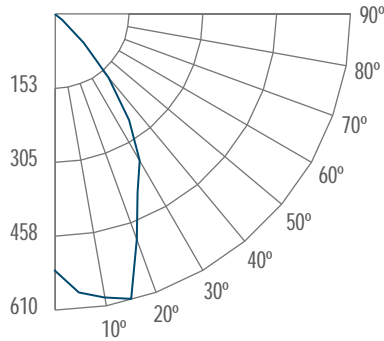
* Lumens may vary upon lamp types/manufacturers.

PROJECT INFORMATION

TYPE : _____
 VOLTAGE : _____
 PROJECT : _____
 ITEM# : _____
 DATE : _____

CANDLE POWER DISTRIBUTION

DEGREES VERTICAL	AVERAGE
0	531
5	578
10	596
15	610
20	496
25	408
30	351
35	269
40	174
45	86
50	22
55	3
60	1
65	0
70	0
75	0
80	0
85	0
90	0



LUMINANCE

Angle in Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	15292	15292	15292
55	658	658	658
65	0	0	0
75	0	0	0
85	0	0	0

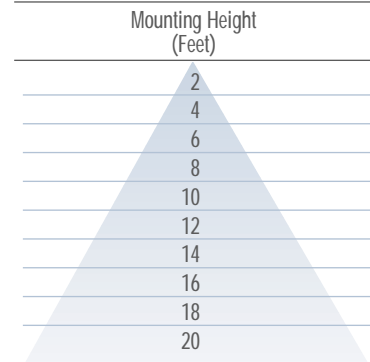
MULTIPLIERS**

FINISHES		WATTAGES	
Gold	0.90	13W	0.75
White	0.95	26W	1.50
Black	0.70		
Satin Haze	0.80		
Copper	0.75		

** Based on Clear reflector (18W).

INITIAL FOOTCANDLES (Beam angle : 86°)

Footcandles at center	Circle Diameter	Footcandles at edge
132.8	3.7	13.3
33.2	7.5	3.3
14.8	11.2	1.5
8.3	14.9	0.8
5.3	18.7	0.5
3.7	22.4	0.4
2.7	26.1	0.3
2.1	29.8	0.2
1.6	33.6	0.2
1.3	37.3	0.1



COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

RC	80				70				50				30				10				0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
0	62	62	62	62	61	61	61	61	58	58	58	55	55	55	53	53	53	52	52	52	52
1	59	57	56	55	58	56	55	54	54	53	52	52	52	51	51	50	49	48	48	48	
2	56	53	51	49	55	52	50	49	51	49	48	49	48	47	48	47	46	45	45	45	
3	53	49	47	45	52	49	46	44	47	45	43	46	44	43	45	43	42	41	41	41	
4	50	46	43	41	49	45	42	40	44	42	40	43	41	39	42	40	39	38	38	38	
5	47	43	40	37	46	42	39	37	41	39	37	40	38	36	40	38	36	35	35	35	
6	45	40	37	34	44	39	36	34	39	36	34	38	35	34	37	35	33	33	33	33	
7	42	37	34	32	42	37	34	32	36	33	31	36	33	31	35	33	31	30	30	30	
8	40	35	32	29	39	35	31	29	34	31	29	33	31	29	33	31	29	28	28	28	
9	38	33	29	27	37	32	29	27	32	29	27	31	29	27	31	29	27	26	26	26	
10	36	31	28	25	36	31	28	25	30	27	25	30	27	25	29	27	25	25	25	25	

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT
0 - 30	408.81	32.70	62.80
0 - 40	574.02	45.90	88.20
0 - 60	650.34	52.00	100.00
0 - 90	650.59	52.00	100.00
90 -120	0.00	0.00	0.00
90 -130	0.00	0.00	0.00
90 -150	0.00	0.00	0.00
90 -180	0.00	0.00	0.00
0 -180	650.59	52.00	100.00