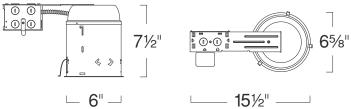
# 6" 9W/16W (1 LED SERIES)

**Licon**°





#### SPECIFICATION

Ceiling cut-out: 6 1/4"

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, beam spreads and wattages are available to achieve a desired look and lumen output.

Housing: Pre-wired dedicated LED housing adjusts up to a 1 1/2"ceiling thickness. LED trim is secured with torsion wing springs/standard coil springs or serrated clips.

Mounting: Housing suitable for existing or new construction installations, supplied with high tension remodeling clips, designed to secure the housing to an existing sheetrock ceiling for fast and easy installation.

**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.

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: \$600PR, DV\$CCL-153P & DV600PR as well as Leviton 19106-600W. Works with standard electronic low voltage (ELV) dimmers. Factory qualified for use with Lutron brand dimmers: SELV300P, DVELV-300P, MAELV-600 and NELV-450. '-D10' dimming option works with most 0-10V DC 5-wire 120V or 277V dimming systems and wall box dimmers. 1% Dimming with S-600 Dimmer for 9W only.

**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).

**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.

**Airflow:** Airflight option 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). Complies to Title24 air flow requirements (Air-tight).

Safety Labels: ETL/CETL listed. Suitable for damp locations. NYC approved: Calendar #41937.

#### **FEATURE:**







Application: This Adjustable Gimbal LED Trim directional adjustability not commonly found in LED fixtures, allowing it to function as both a downlight and an accent light. Powerful 750/1200 lumen output is suitable for any downlight application.

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

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: 9W: Minimum 75,000 hours L70 life based on ANSI TM-21 calculations from LM80 standardized test results. 16W: Minimum 40,000 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.

Lumen Output: Wattage of housing determines lumen output of trim. 9W/750Lm 16W/1200Lm

Color Temperature: Comes standard with 3500K Cool White LED's binned according to ANSI C78 377A for color temperature and chromaticity ranges.

Warranty: Covered by a 3 Year Warranty to be free of defects 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.

Label: cETL Listed

Assembled in USA

#### 6" IC REMODEL LED HOUSING (9W/16W) LHLDH6R 9W/16W I FD

21122110K 711/10	II LLD			
WATTAGE	DRIVER TYPE		OPTIONS	
LHLDH6R09C25 :9W	Blank	:None	Blank	:None
<b>LHLDH6R16C35</b> :16W	-DIN	:Incandescent/ELV Dimming	-EM	:Emergency Back-up (8W)
	UE	:120V/277V*		
	UE-D10	:0-10V Dimming (120V/277V)*		
	UE-DHL	:Hilume Dimming (120V/277V)*		
	-347-D10	:0-10V 10% Dimming		

\* Not available for 9W option.

# 6" 750/1200LM ADJUSTABLE LED GIMBAL LRLDH678 9W/16W LED Ordering example: LHLDH6R09C25-347-D10/LRLDH678W-B08

**LRLDH678** *9W/16W LED* 

FINISH		BEAM SPREAD	
LRLDH678W	:White	- <b>B08</b> :Spot*	
LRLDH678BB	:Black	-B25:Narrow Flood	
LRLDH678N	:Natural	- <b>B45</b> :Flood	
		-B60:Wide Flood	



6" Adjustable LED Gimbal

Test Procedure: LM-79-08

Total Rated Fixture Lumen :1153

Total Luminaire Efficacy Luminous Diameter B) B)

:75 Lm/W Ligh :0.50" 16V

Light Laboratory, Inc. 16W LRLDH678

Report File# LM-6<u>3-2002</u>

# **LED DETAILS**

Light Source Sp	pecification
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Input Power (W) :15.47W
Color Rendering Index (CRI) :88

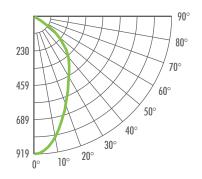
Color Temperature :3,000K

# **ZONAL LUMEN SUMMARY**

#### CD./SQ.M (FOOTLAMBERTS)

CD./ 3Q.III (1	OO I LAMBER 13/
Zone	Lumens
0 - 10	82.39
10 - 20	199.54
20 - 30	245.05
30 - 40	253.53
40 - 50	223.33
50 - 60	120.48
60 - 70	18.88
70 - 80	6.48
80 - 90	3.01
90 - 100	0.00
100 - 110	0.00
110 - 120	0.00
130 - 140	0.00
140 - 150	0.00
150 - 160	0.00
160 - 170	0.00
170 - 180	0.00
	1

# **ZONAL LUMENS SUMMARY**



Zone	Lumens	% Fixt
0 - 30	526.98	24.50
0 - 40	780.51	67.70
0 - 60	1124.32	97.50
0 - 90	1152.69	100.00
10 - 90	1070.3	92.90
20 - 40	498.58	43.30
40 - 70	362.69	31.50
60 - 80	25.35	2.20
0 - 180	1152.69	100.00

# **HORIZONTAL FOOT CANDLES: FC VALUES**

Height (ft.)	Beam Diameter	Foot Candle
4.0'	26.0'	57.43 fc
6.0'	34.0'	25.52 fc
8.0'	39.0'	14.36 fc
10.0'	46.0'	9.19 fc

# **CANDELA TABULATION**

# CD./SQ.M (FOOTLAMBERTS)

Angle	Luminance
0	918.88
2	914.38
4	899.82
6	876.79
8	847.15
10	811.39
12	772.73
14	733.27
16	694.33
18	655.84
20	617.11
22	580.84
24	547.22
26	516.19
28	487.38
30	460.64
32	436.60
34	415.00
36	394.92
38	374.95
40	353.17
42	331.73
44	306.52
46	278.28

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

# LUMINANCE DATA (CD./SQ.M)

Angle	Avg. 0-Deg	Avg. 45-Deg	Avg. 90-Deg	
45	22648	22648	22648	
55	13417	13417	13417	
65	2058	2058	2058	
75	1151	1151	1151	
85	1967	1967	1967	
	!	!		

# **COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

#### **EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20**

RC	80	70	50	30	10	0
RW	70 50 30 10	70 50 30 10	50 30 10	50 30 10	50 30 10	0
0	119 119 119 119	116 116 116 116	111 111 111	106 106 106	102 102 102	100
1	112 109 106 103	110 106 104 101	102 100 98	99 97 95	95 94 92	91
2	105 99 94 90	102 97 92 89	94 90 87	91 87 85	88 85 83	81
3	98 90 84 79	96 88 83 78	86 81 77	83 79 76	81 77 74	72
4	91 82 75 70	89 81 74 69	78 73 68	76 71 68	74 70 67	65
5	85 75 68 62	83 74 67 62	72 66 62	70 65 61	68 64 60	59
6	80 69 61 56	78 68 61 56	66 60 56	65 59 55	63 59 55	53
_7	75 63 56 51	73 63 56 51	61 55 51	60 54 50	59 54 50	48
_8	70 59 52 47	69 58 51 46	57 51 46	56 50 46	55 50 46	_44_
9	66 55 48 43	65 54 47 43	53 47 43	52 46 42	51 46 42	41
_10_	62 51 44 39	61 50 44 39	50 43 39	49 43 39	48 43 39	37

**Liton**