

6" High Lumen LED Downlight

LC6HL

4500 & 6000 Lumens
120V-277V, 347V
0-10V Dimming

APPLICATIONS:

LiteFrame Commercial LC6HL is a 6" commercial grade high lumen LED downlight with two available outputs of 4500 and 6000 lumens. This is suitable to replace many HID downlighting applications, while realizing substantial energy and maintenance savings. Rated for a minimum of 50,000 hours life (70% lumen maintenance) with ambient plenum temperatures up to 25°C. Free Air Flow around fixture is required for optimal life performance. This product is not recommended for outdoor use or with 3rd party "FIREHAT" or insulation barriers.

HOUSING:

One-piece 22 gauge non-corrosive steel platform. Pre-wired J-box with snap-on cover for easy access. Snap-in connection from driver compartment allows easy installation of light engine/trim assembly and can be upgraded to accommodate technology improvements. Approved for 8 (4 in/4 out) No. 12 AWG conductors rated for 90°C through wiring.

REFLECTOR:

High purity aluminum, Alzak, iridescence suppressed, semi-diffuse reflector. Self-trim standard. Painted white self-trim (WT) available as option.

LED LIGHT ENGINE:

The LC6HL uses high power Cree LEDs, specifically mixed to provide a minimum of 80 CRI with 3 SDCM color consistency. The use of multiple high power LEDs allows for optimal thermal management by effectively spreading the heat over a larger area and eliminating hot spots on the LEDs. A diffuse, yet highly transmissive lens obscures the view of the LEDs and creates a smooth, even look from below. The light engine is available in multiple Kelvin temperatures and the system is designed to provide optimal life and lumen maintenance (50,000 hours at 70% lumen maintenance). The reflector/light engine assembly is mechanically retained to the housing.

LED DRIVER:

The LC6HL utilizes a constant current LED driver. This driver is capable of running all lumen outputs, resulting in a reduction of housing skus and simplified specification. The driver is UL8750, Class II compliant and universal 120V-277V.

DIMMING:

Comes standard with flicker-free 0-10V dimming to 10%. 0-10V to 1% dimming option is also available. For the sizing of the control circuit, the dimming circuit may require up to 2mA of sink current.

INSTALLATION:

Light commercial bar hangers included. Universal adjustable mounting brackets also accept 1/2" EMT conduit or 1 1/2" or 3/4" lathing channel (by others) or Prescolite 24" bar hangers (B24 or B6).

CERTIFICATIONS:

CSA certified to US and Canadian safety standards. Suitable for wet locations. (EM, EMR & WW damp location). Approved for through branch wiring. Non-IC rated. Product is marked spacing and must be installed with the following minimum spacings:

- Center to Center of adjacent luminaires: 24" (36" for IP65 and VR options)
- Minimum Overhead Clearance: 8-1/2" (36" for IP65 and VR options)
- (To bottom of metal pan)
- Center of Luminaire to Side of Building Member: 12" (18" for IP65 and VR options)

This product qualifies as a "designated country construction material" per FAR 52.225-11 Buy American-Construction. Materials under Trade Agreements effective 6/10/2020. See [Buy American Solutions](#).

WARRANTY:

5 year warranty. See www.prescolite.com for details.

DATE: _____ TYPE: _____

FIRM NAME: _____

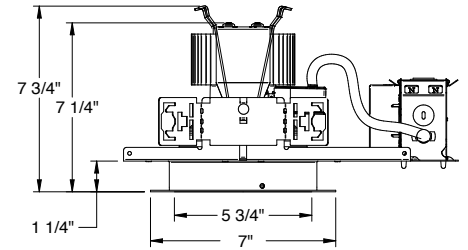
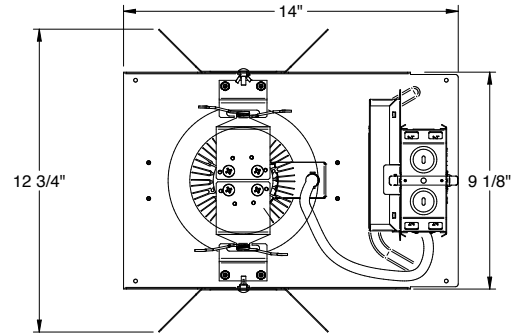
PROJECT: _____

LiteFrame®



See Certification Specifications

Ceiling Cutout: 6 1/4"
Maximum Ceiling Thickness 1 1/4"
For conversion to millimeters,
multiply inches by 25.4
Not to Scale



LC6HL

See page 4 for LC6HLEM lineart

Order housing, reflector, and accessories separately

CATALOG NUMBER:

EXAMPLE: LC6HL347-6LCHL45L35K9WH

HOUSING	DRIVER OPTIONS	VOLTAGE	HOUSING OPTION	TRIM APERTURE	OUTPUT	KELVIN	CRI	REF. FINISH/COLOR OPTION	REFLECTOR OPTIONS	ACCESSORIES
<input type="checkbox"/> LC6HL⁴ High Lumen 0-10V Dimming to 10% 120V-277V	Standard 0-10V 10% Dimming <input type="checkbox"/> DM1 0-10V 1% Dimming	Standard 120V-277V <input type="checkbox"/> 347 347V	<input type="checkbox"/> EM^{2,3} Integral Battery Pack <input type="checkbox"/> EMR² Remote Battery Pack	<input type="checkbox"/> 6LCHL High Lumen Clear Alzak Reflector	<input type="checkbox"/> 45L 4500 Lumen <input type="checkbox"/> 60L 6000 Lumen	<input type="checkbox"/> 27K 2700 Kelvin <input type="checkbox"/> 30K 3000 Kelvin <input type="checkbox"/> 35K 3500 Kelvin <input type="checkbox"/> 40K 4000 Kelvin <input type="checkbox"/> 50K 5000 Kelvin	<input type="checkbox"/> 8 80+ CRI <input type="checkbox"/> 9 90+ CRI	Standard Semi-Diffuse Clear Alzak <input type="checkbox"/> WH Painted Matte White Reflector and Flange	<input type="checkbox"/> WT Painted White Flange only <input type="checkbox"/> WF Wide Flange <input type="checkbox"/> WW² Wall Wash <input type="checkbox"/> EM^{2,3} Pre-punched reflector to accept integral test switch <input type="checkbox"/> IP65⁵ Flush Lens, IP65/66 rated <input type="checkbox"/> VR⁵ Vandal Resistant Flush Lens, IP65/66 rated	<input type="checkbox"/> B24 Set of two(2) 24" bar hangers for T-bar ceilings <input type="checkbox"/> B6 Set of two (2) bar hangers for ceiling joist up to 24" centers <input type="checkbox"/> LiteGear¹ Inverter, single phase central lighting, 125VA-250VA

¹ See Central Inverter compatibility note and web link on page 4.

² Damp Location only.

³ EM must be selected on both the housing and the trim, not compatible with WW trim.

⁴ Not suitable for outdoor use.

⁵ IP65 and VR cannot be chosen together, not compatible with WT, WF, or EM



In a continuing effort to offer the best product possible we reserve the right to change, without notice, specifications or materials that in our opinion will not alter the function of the product.
Web: www.prescolite.com • Tech Support: (888) 777-4832

LFR-LED-045

PHOTOMETRIC DATA

LiteFrame - 6" LC6HL Downlight

DRIVER DATA	6LCHL45Lxxxx	6LCHL60Lxxxx
Input Voltage	120-277V	120-277V
Input Frequency	50/60 Hz	50/60 Hz
Input Current	0.433 (120v)	0.566 (120v)
	0.187 (277v)	0.245 (277v)
Input Power	52W	68W
Constant Current Output	1.826A	1.826A
Power Factor	≥0.90	≥0.90
THD	<22%	<16%
EMI Filtering	FCC Title 47	FCC Title 47
	Part 15 Class A	Part 15, Class A
Operating Temperature	-30°C to 35°C	-30°C to 30°C
Dimming	0-10V	0-10V

Over-voltage, over-current, short-circuit protected

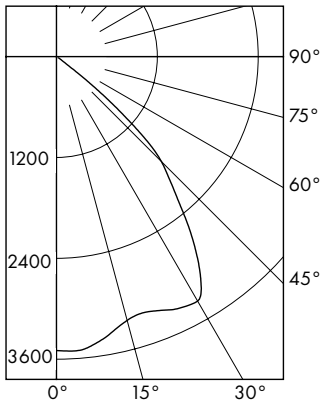
Lumen Multiplier Table

Photometrics for the LC6HL are published below at a nominal 3000 Kelvin temperature. This table may be used to approximate the lumen values at different Kelvin temperatures. Power consumption would stay the same.

5000 Kelvin	1.14
4000 Kelvin	1.03
3500 Kelvin	1.00
3000 Kelvin	1.00
2700 Kelvin	.91
90 CRI	.83

LC6HL 6LCHL60L30K8

LED Light Engine: 3000K, 80 CRI
System Wattage: 68.4 W
Fixture Delivered Lumens: 6071
Fixture Efficacy: 88.8
Spacing Criteria: 1.3



CANDELA DISTRIBUTION

DEG	CANDELA
0	3497
5	3501
15	3249
25	3318
35	2925
45	1767
55	75
65	16
75	5
85	2
90	0

Test No. 16.00476

Tested at 25°C Ambient in accordance to IESNA LM-79-2008

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-60	6046	99.6
0-90	6071	100.0
90-180	0	0.0
0-180	6071	100.0

LUMINANCE DATA IN CANDELA/SQ. METER

Angle in Vertical	Average
45°	149108
55°	7802
65°	2259
75°	1153
85°	1369

COEFFICIENTS OF UTILIZATION Zonal Cavity Method

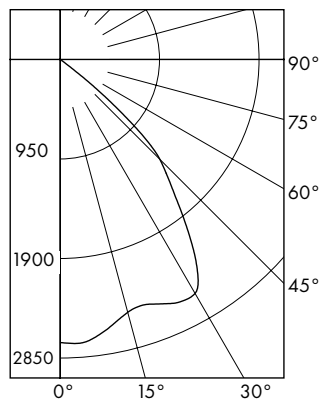
Room Cavity Ratio	% Effective Ceiling Cavity Reflectance																
	80%		70%		50%		30%		10%								
	70	50	30	10	70	50	30	10	50	30	10						
% 20% Effective Floor Cavity Reflectance																	
% Wall Reflectance																	
1	113	109	107	104	110	107	105	102	103	101	99	99	98	96	96	95	93
2	106	100	95	91	103	98	94	90	95	91	88	92	89	86	89	87	85
3	99	91	86	81	97	90	85	80	87	83	79	85	81	78	82	79	76
4	93	84	77	72	91	82	76	72	80	75	71	78	74	70	76	72	69
5	87	77	70	65	85	76	69	64	74	68	64	72	67	63	70	66	63
6	81	70	63	58	79	70	63	58	68	62	58	67	61	57	65	60	57
7	76	65	58	53	74	64	57	53	63	57	52	62	56	52	60	55	52
8	71	60	53	48	70	59	53	48	58	52	48	57	51	47	56	51	47
9	67	56	49	44	66	55	48	44	54	48	44	53	47	43	52	47	43
10	63	52	45	40	62	51	45	40	50	44	40	49	44	40	49	44	40

LC6HL 6LCHL60L30K8

Test No. 16.00476

LC6HL 6LCHL45L30K8

LED Light Engine: 3000K, 80 CRI
System Wattage: 52.1W
Fixture Delivered Lumens: 4655
Fixture Efficacy: 89.3
Spacing Criteria: 1.3



CANDELA DISTRIBUTION

DEG	CANDELA
0	2702
5	2709
15	2499
25	2568
35	2224
45	1349
55	61
65	11
75	3
85	2
90	0

Test No. 16.00469

Tested at 25°C Ambient in accordance to IESNA LM-79-2008

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-60	4638	99.6
0-90	4655	100.0
90-180	0	0.0
0-180	4655	100.0

LUMINANCE DATA IN CANDELA/SQ. METER

Angle in Vertical	Average
45°	113835
55°	6346
65°	1553
75°	692
85°	1369

COEFFICIENTS OF UTILIZATION Zonal Cavity Method

Room Cavity Ratio	% Effective Ceiling Cavity Reflectance																
	80%		70%		50%		30%		10%								
	70	50	30	10	70	50	30	10	50	30	10						
% 20% Effective Floor Cavity Reflectance																	
% Wall Reflectance																	
1	113	109	107	104	110	107	105	102	103	101	99	99	98	96	96	95	93
2	106	100	95	91	103	98	94	90	95	91	88	92	89	86	89	87	85
3	99	91	86	81	97	90	85	80	87	83	79	85	81	78	82	79	76
4	93	84	77	72	91	83	76	72	80	75	71	78	74	70	76	72	69
5	87	77	70	65	85	76	69	64	74	68	64	72	67	63	70	66	63
6	81	71	63	58	79	70	63	58	68	62	58	67	61	57	65	60	57
7	76	65	58	53	74	64	57	53	63	57	52	62	56	52	60	55	52
8	71	60	53	48	70	59	53	48	58	52	48	57	51	47	56	51	47
9	67	56	49	44	66	55	48	44	54	48	44	53	47	43	52	47	43
10	63	52	45	40	62	51	45	40	50	44	40	49	44	40	49	44	40

LC6HL 6LCHL45L30K8

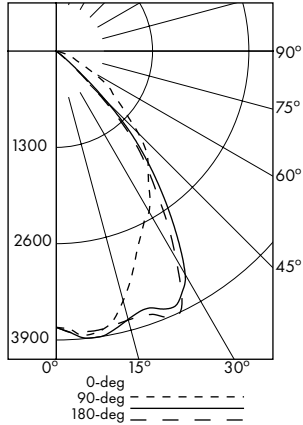
Test No. 16.00469

PHOTOMETRIC DATA

LiteFrame - 6" LC6HL Downlight

LC6HL 6LCHL60L30K8WW

LED Light Engine: 3000K, 80+ CRI
 System Wattage: 70.9W
 Fixture Delivered Lumens: 5822
 Fixture Efficacy: 82.1



CANDELA DISTRIBUTION

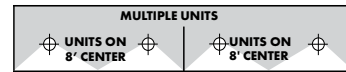
DEG	0	90	180
0	3728	3728	3728
5	3849	3879	3806
15	3489	3749	3758
25	2719	3799	3920
35	2171	2672	2404
45	1564	964	771
55	888	24	25
65	303	8	9
75	69	4	5
85	10	0	0
90	0	0	0

Test No. 16.01252

Tested at 25°C Ambient in accordance to IESNA LM-79-2008

LUMINANCE DATA IN CANDELA/SQ. METER

Angle in Vertical	0 DEG	90 DEG	180 DEG
45°	121209	74709	59752
55°	84841	2293	2389
65°	39290	1037	1167
75°	14610	847	1059
85°	6288	0	0



5' DISTANCE WALLWASH FIXTURES MOUNTED OUT FROM WALLS FOOTCANDLE DISTRIBUTION ON WALL SURFACE

DISTANCE FROM CEILING IN FEET	UNITS ON 8' CENTER			UNITS ON 8' CENTER		
	3	16	6	16	16	6
6	21	17	21	21	17	21
9	16	18	16	16	18	16
12	17	18	17	12	13	12
15	18	18	18	10	10	10
18	19	18	19	8	7	8
21	19	18	19	6	6	6
24	17	17	17	4	4	4
27	15	14	15	3	3	3

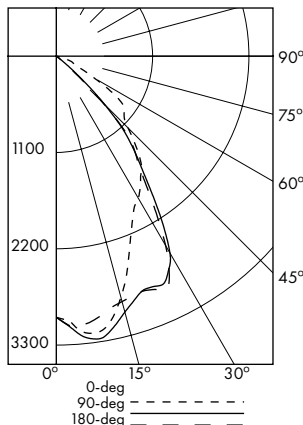
LC6HL 6LCHL60L30K8WW

Test No. 16.01252

Note: Left chart includes an additional 2 rows of 6LCHL60L downlight units on 8' centers. Right chart shows wall wash only.

LC6HL 6LCHL45L30K8WW

LED Light Engine: 3000K, 80+ CRI
 System Wattage: 52.5W
 Fixture Delivered Lumens: 4535
 Fixture Efficacy: 86.4



CANDELA DISTRIBUTION

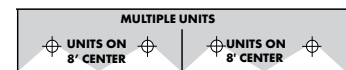
DEG	0	90	180
0	2982	2982	2982
5	3151	3198	3086
15	2852	3026	2902
25	2061	2878	2946
35	1679	1895	1779
45	1159	780	759
55	894	20	19
65	228	5	6
75	62	3	3
85	4	0	0
90	0	0	0

Test No. 16.01318

Tested at 25°C Ambient in accordance to IESNA LM-79-2008

LUMINANCE DATA IN CANDELA/SQ. METER

Angle in Vertical	0 DEG	90 DEG	180 DEG
45°	89822	60449	58822
55°	85414	1911	1815
65°	29564	648	778
75°	13127	635	635
85°	2515	0	0



5' DISTANCE WALLWASH FIXTURES MOUNTED OUT FROM WALLS FOOTCANDLE DISTRIBUTION ON WALL SURFACE

DISTANCE FROM CEILING IN FEET	UNITS ON 8' CENTER			UNITS ON 8' CENTER		
	3	15	5	15	15	5
6	16	15	16	16	15	16
9	13	14	13	13	14	13
12	13	14	13	10	10	10
15	14	14	14	8	7	8
18	15	14	15	6	6	6
21	14	14	14	5	4	5
24	13	13	13	3	3	3
27	11	11	11	3	3	3

LC6HL 6LCHL45L30K8WW

Test No. 16.01318

Note: Left chart includes an additional 2 rows of 6LCH45L downlight units on 8' centers. Right chart shows wall wash only.

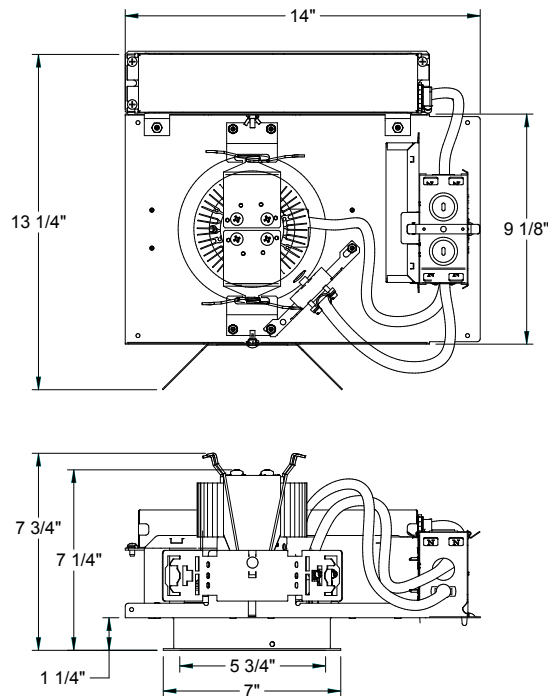
Dimming Compatibility Table

Dimming Ballast	Manufacturer	Web Link
DM/DM1	Lutron DDTV	http://bit.ly/11jSvZg
DM/DM1	Leviton AWRMG-7xx, AWSMG-7xx, AWSMT-7xx	http://bit.ly/1Bjn2R9

Central Inverters

For full fixture output in back-up mode, we recommend you visit www.dual-lite.com for your Central Lighting Inverter options. Please contact your local Hubbell representative for any assistance with proper sizing and loading of your inverter selection. Central lighting inverters must be ordered separately.

LiteGear: www.dual-lite.com/products/litegear_lg_series



LC6HL EM