

# 6" LED Downlight LC6LED

120V or 277V  
0-10V Dimming Option

DATE: \_\_\_\_\_ TYPE: \_\_\_\_\_

FIRM NAME: \_\_\_\_\_

PROJECT: \_\_\_\_\_

## LiteFrame®



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

### APPLICATIONS:

LiteFrame Commercial LC6LED is a 6" commercial grade LED downlight with available outputs between 1000-1800 lumens. This is suitable to replace most CFL 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 35°C (LED5), 28°C (LED6), 25°C (LED7). Free Air Flow around fixture is required for optimal life performance. This product is not recommended for use 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 LC6LED uses mid power Nichia LEDs, specifically mixed to provide a minimum of 80 CRI with 3 SDCM color consistency. The use of multiple mid 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 LC6LED utilizes a 25 watt constant current Thomas Research Products LED driver. This same driver is capable of running all three different lumen outputs, resulting in a reduction of housing skus and simplified specification. The driver is UL8750 and Class II compliant.

### DIMMING:

A 0-10V dimming option is available (DM), providing flicker-free dimming down to 10%. See list of compatible dimmers on page (4). For the sizing of the control circuit, the dimming circuit may require up to 2mA of sink current.

### INSTALLATION:

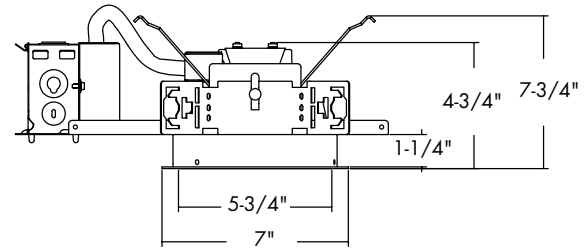
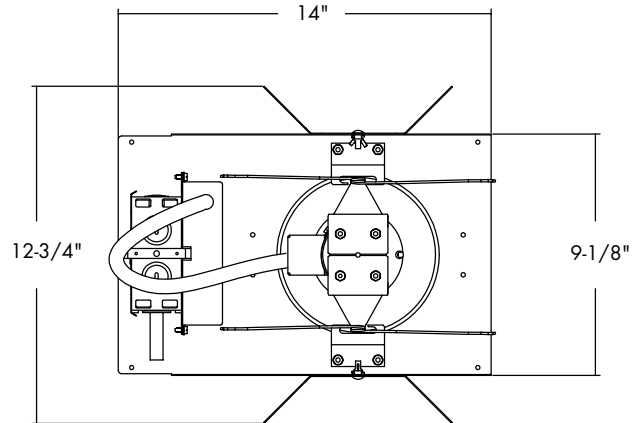
Light commercial bar hangers included. Universal adjustable mounting brackets also accept 1/2" EMT conduit or 1 1/2" or 3/4" lathing channel (by others) or Prescolite 24" bar hangers (B24 or B6). Wall wash orientation may be field adjusted in 90° increments to housing.

### CERTIFICATIONS:

CSA certified to US and Canadian safety standards. Suitable for wet locations (EM & WW damp location). ENERGY STAR qualified on standard downlight.

### WARRANTY:

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



6LCLED 5 & 6

\*See page 4 for 6LCLED 7 line art

\*See page 4 for 6LCLEDEM line art

Order housing, reflector, and accessories separately

CATALOG NUMBER:

EXAMPLE: LC6LED120DM - 6LCLED535K8WT

HOUSING	VOLTAGE	HOUSING OPTIONS	TRIM APERTURE	OUTPUT	LED COLOR TEMP	CRI	REFLECTOR FINISH	REFLECTOR OPTIONS	ACCESSORIES
<input type="checkbox"/> <b>LC6LED</b> 6" LED Housing	<input type="checkbox"/> <b>120</b> 120V <input type="checkbox"/> <b>277</b> 277V <input type="checkbox"/> <b>347<sup>4,8</sup></b> 347V	<input type="checkbox"/> <b>Blank</b> No Dimming <input type="checkbox"/> <b>DM</b> 0-10V dimming to 10% <input type="checkbox"/> <b>DM1<sup>3</sup></b> 0-10V dimming to 1% <input type="checkbox"/> <b>EM<sup>3,5</sup></b> Bodine BSL310C-DF Battery Pack with integral test switch and indicator light <input type="checkbox"/> <b>EMR</b> Bodine BSL310C Battery Pack with remote test switch and indicator light <input type="checkbox"/> <b>CP<sup>4,7</sup></b> Chicago Plenum	<input type="checkbox"/> <b>6LCLED</b> 6" Open Reflector/Light Engine Assembly	<input type="checkbox"/> <b>5</b> Nominal 1000 Delivered Lumens <input type="checkbox"/> <b>6</b> Nominal 1400 Delivered Lumens <input type="checkbox"/> <b>7</b> Nominal 1800 Delivered Lumens	<input type="checkbox"/> <b>27K</b> 2700 Kelvin <input type="checkbox"/> <b>30K</b> 3000 Kelvin <input type="checkbox"/> <b>35K</b> 3500 Kelvin <input type="checkbox"/> <b>40K</b> 4000 Kelvin <input type="checkbox"/> <b>50K</b> 5000 Kelvin	<input type="checkbox"/> <b>8</b> 80+ CRI	<input type="checkbox"/> <b>Blank</b> Clear Alzak, Semi-Diffuse <div style="border: 1px solid black; padding: 2px; display: inline-block;">REFLECTOR COLOR</div> <input type="checkbox"/> <b>WH<sup>1</sup></b> White Paint	<input type="checkbox"/> <b>WT</b> White Trim <input type="checkbox"/> <b>EM<sup>3,5</sup></b> Pre-punched reflector to accept integral test switch <input type="checkbox"/> <b>WF</b> Wide Flange <input type="checkbox"/> <b>WW<sup>5,6</sup></b> Wall Wash <input type="checkbox"/> <b>CP<sup>4,7</sup></b> Chicago Plenum	<input type="checkbox"/> <b>B24</b> Set of two(2) 24" bar hangers for T-bar ceilings <input type="checkbox"/> <b>B6</b> Set of two (2) bar hangers for ceiling joist up to 24" centers <input type="checkbox"/> <b>LiteGear<sup>2</sup></b> Inverter, single phase central lighting, 125VA-250VA <input type="checkbox"/> <b>LPS Series<sup>2</sup></b> LitePower micro-inverter, 20VA-55VA <input type="checkbox"/> <b>SCA6D</b> Sloped ceiling adapter (see note on page 4)

<sup>1</sup> Requires WT option

<sup>2</sup> See Central Inverter compatibility note and web links on page 4.

<sup>3</sup> EM must be selected on both the housing and the trim, not compatible with WW trim

<sup>4</sup> Not compatible with EM or EMR

<sup>5</sup> Damp location only

<sup>6</sup> Not compatible with EM (EMR is compatible)

<sup>7</sup> CP must be selected on both the housing and the trim, not compatible with WW trim

<sup>8</sup> Not compatible with CP

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](http://www.prescolite.com) • Tech Support: (888) 777-4832

# PHOTOMETRIC DATA

## LiteFrame - 6" LC6LED Downlight

DRIVER DATA	6LCLED5xxx	6LCLED6xxx	6LCLED7xxx
Input Voltage	120, 277V	120, 277V	120, 277V
Input Frequency	50/60 Hz	50/60 Hz	50/60 Hz
Input Current	0.142 (120v) 0.061 (277v)	0.179 (120v) 0.078 (277v)	0.217 (120v) 0.094 (277v)
Input Power	17.0W	21.5W	26.0W
Constant Current Output	700mA	700mA	700mA
Power Factor	≥0.90	≥0.90	≥0.90
THD	<25%	<20%	<20%
EMI Filtering	FCC 47CFR Part 15, Class A	FCC 47CFR Part 15, Class A	FCC 47CFR Part 15, Class A
Operating Temperature	-30°C to +35°C	-30°C to +28°C	-30°C to +25°C
Dimming	0-10V	0-10V	0-10V

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

When operating in EM mode, the fixture will deliver approximately 30% of the published full lumen output.

### Lumen Multiplier Table

Photometrics for the LC6LED are published below at a nominal 3500 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	0.91

### LC6LED120 6LCLED535K8

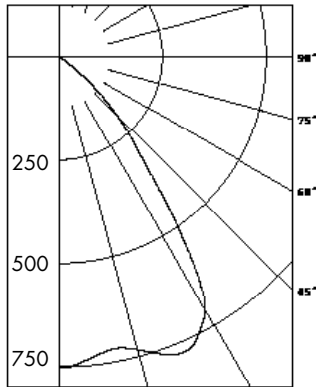
LED Light Engine: 3500K, 80+ CRI

System Wattage: 17.0W

Fixture Delivered Lumens: 1107

Fixture Efficacy: 65.1

Spacing Criteria: 1.1



### CANDELA DISTRIBUTION

DEG	CANDELA
0	749
5	737
15	733
25	768
35	494
45	190
55	10
65	3
75	1
85	0
90	0

Test No. 9439

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

### ZONAL LUMEN SUMMARY

ZONE	LUMENS
0-60	1104
0-90	1107
90-180	0
0-180	1107

### LUMINANCE DATA IN CANDELA/SQ. METER

Angle in Vertical	Average - 0°
45°	16033
55°	1040
65°	424
75°	231
85°	0

### COEFFICIENTS OF UTILIZATION Zonal Cavity Method

Room Cavity Ratio	% Effective Ceiling Cavity Reflectance																
	80%			70%			50%			30%			10%				
	70	50	30	70	50	30	70	50	30	70	50	30	70	50	30		
1	113	110	107	105	110	108	105	103	104	102	100	100	98	97	96	95	94
2	107	101	97	93	104	99	95	92	96	93	90	93	90	88	90	88	86
3	100	93	88	83	98	92	87	83	89	85	81	87	83	80	84	81	79
4	94	86	80	75	93	85	79	75	83	78	74	81	76	73	79	75	72
5	89	80	73	68	87	79	72	68	77	71	67	75	70	67	73	69	66
6	84	74	67	62	82	73	67	62	71	66	62	70	65	61	68	64	61
7	79	68	62	57	77	68	61	57	66	61	56	65	60	56	64	59	56
8	74	64	57	52	73	63	57	52	62	56	52	61	56	52	60	55	52
9	70	59	53	48	69	59	53	48	58	52	48	57	52	48	56	51	48
10	66	55	49	45	65	55	49	45	54	48	44	53	48	44	53	48	44

LC6LED120 6LCLED535K8

Test No. 9439

### LC6LED120 6LCLED635K8

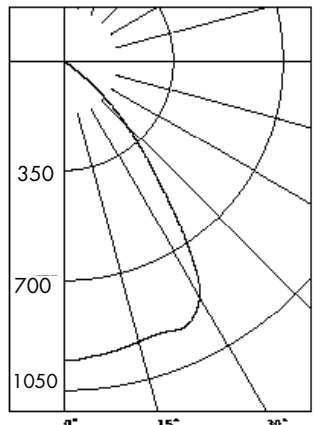
LED Light Engine: 3500K, 80+ CRI

System Wattage: 21.5W

Fixture Delivered Lumens: 1424

Fixture Efficacy: 66.2

Spacing Criteria: 1.1



### CANDELA DISTRIBUTION

DEG	CANDELA
0	952
5	947
15	927
25	931
35	653
45	270
55	16
65	3
75	1
85	0
90	0

Test No. 9440

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

### ZONAL LUMEN SUMMARY

ZONE	LUMENS
0-60	1420
0-90	1424
90-180	0
0-180	1424

### LUMINANCE DATA IN CANDELA/SQ. METER

Angle in Vertical	Average - 0°
45°	22784
55°	1664
65°	424
75°	231
85°	0

### COEFFICIENTS OF UTILIZATION Zonal Cavity Method

Room Cavity Ratio	% Effective Ceiling Cavity Reflectance																
	80%			70%			50%			30%			10%				
	70	50	30	70	50	30	70	50	30	70	50	30	70	50	30		
1	113	110	107	105	110	108	105	103	104	102	100	100	98	97	96	95	94
2	106	101	97	93	104	99	95	92	96	93	90	93	90	88	90	88	86
3	100	93	87	83	98	92	86	82	89	85	81	86	83	80	84	81	78
4	94	86	79	75	92	84	79	74	82	77	73	80	76	72	78	75	72
5	88	79	72	68	87	78	72	67	76	71	67	74	70	66	73	69	65
6	83	73	66	62	82	72	66	61	71	65	61	69	64	60	68	63	60
7	78	68	61	56	77	67	61	56	66	60	56	64	59	55	63	59	55
8	74	63	56	52	72	62	56	52	61	55	51	60	55	51	59	54	51
9	70	59	52	48	68	58	52	47	57	51	47	56	51	47	55	50	47
10	65	55	48	44	64	54	48	44	53	48	44	52	47	44	52	47	43

LC6LED120 6LCLED635K8

Test No. 9440

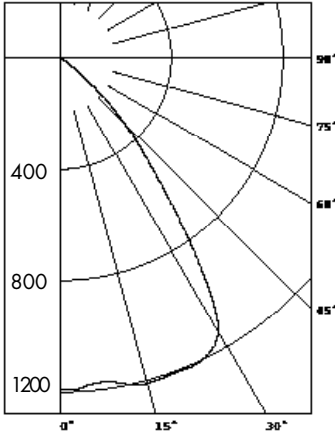


# PHOTOMETRIC DATA

## LiteFrame - 6" LC6LED Downlight

### LC6LED120 6LCLED735K8

LED Light Engine: 3500K, 80+ CRI  
 System Wattage: 26.0W  
 Fixture Delivered Lumens: 1797  
 Fixture Efficacy: 69.1  
 Spacing Criteria: 1.1



### CANDELA DISTRIBUTION

DEG	CANDELA
0	1191
5	1179
15	1211
25	1201
35	823
45	313
55	20
65	4
75	1
85	0
90	0

### ZONAL LUMEN SUMMARY

ZONE	LUMENS
0-60	1791
0-90	1797
90-180	0
0-180	1797

### LUMINANCE DATA IN CANDELA/SQ. METER

Angle in Vertical	Average - 0°
45°	26412
55°	2081
65°	565
75°	231
85°	0

### 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	50	30	10			
1	113	110	107	105	110	108	105	103	104	102	100	100	98	97	96	95	94
2	107	101	97	93	104	99	95	92	96	93	90	93	90	88	90	88	86
3	100	93	88	83	98	92	87	83	89	85	81	87	83	80	84	81	79
4	94	86	80	75	93	85	79	75	83	78	74	81	76	73	79	75	72
5	89	79	73	68	87	78	72	68	77	71	67	75	70	67	73	69	66
6	84	74	67	62	82	73	66	62	71	66	61	70	65	61	68	64	61
7	79	68	62	57	77	68	61	57	66	60	56	65	60	56	64	59	56
8	74	63	57	52	73	63	57	52	62	56	52	61	55	52	60	55	51
9	70	59	53	48	69	59	52	48	58	52	48	57	51	48	56	51	48
10	66	55	49	45	65	55	49	44	54	48	44	53	48	44	52	48	44

LC6LED120 6LCLED735K8

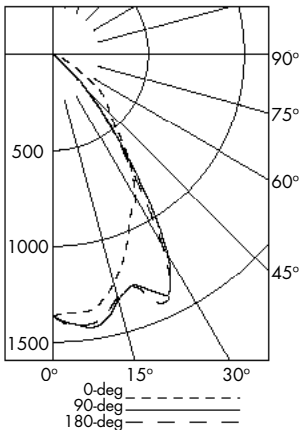
Test No. 9441

Test No. 9441

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

### LC6LED1206LCLED735K8 WW

LED Light Engine: 3500K, 80+ CRI  
 System Wattage: 26.1W  
 Fixture Delivered Lumens: 1830  
 Fixture Efficacy: 70.1



### CANDELA DISTRIBUTION

DEG	0.0	90.0	180.0
0	1365	1365	1365
5	1356	1415	1420
15	1235	1327	1312
25	955	1388	1417
35	709	763	697
45	420	215	185
55	250	8	7
65	62	3	3
75	8	2	2
85	0	0	0
90	0	0	0

### LUMINANCE DATA IN CANDELA/SQ. METER

Angle in Vertical	0 DEG	90 DEG	180 DEG
45°	32550	16662	14337
55°	23885	764	669
65°	8039	389	389
75°	1694	423	423
85°	0	0	0

Test No. 15.00244

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

MULTIPLE UNITS	
UNITS ON 3' CENTER	UNITS ON 4' CENTER
1' 2' 3' 4'	

### 3' DISTANCE FIXTURE MOUNTED OUT FROM WALLS FOOTCANDLE DISTRIBUTION ON WALL SURFACE

DISTANCE FROM CEILING IN FEET	UNITS ON 3' CENTER				UNITS ON 4' CENTER						
	5	4	2	1	8	8	8	3	1	3	
1	5	4	2	1	8	8	8	3	1	3	
2	10	8	4	2	1	16	16	16	14	6	14
3	14	11	7	4	2	23	23	23	18	15	18
4	15	13	9	5	3	28	28	28	18	17	18
5	13	12	9	6	3	28	28	28	18	19	18
6	10	10	9	6	4	27	27	27	15	18	15
7	8	8	7	6	4	25	25	25	14	15	14
8	6	6	6	5	4	22	22	22	13	12	13
9	5	5	5	5	4	19	19	19	11	10	11

LC6LED120-6LCLED735K8 WW

Test No. 15.00244



## Dimming Compatibility Table

Dimming Ballast	Manufacturer	Web Link
DM/DM1	Lutron DDTV	<a href="http://bit.ly/11jSvZg">http://bit.ly/11jSvZg</a>
DM/DM1	Leviton AWRMG-7xx, AWSMG-7xx, AWSMT-7xx	<a href="http://bit.ly/1BJn2R9">http://bit.ly/1BJn2R9</a>

### Central Inverters

For full fixture output in back-up mode, we recommend you visit [www.dual-lite.com](http://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](http://www.dual-lite.com/products/litegear_lg_series)

**LPS Series:** [www.dual-lite.com/products/lps](http://www.dual-lite.com/products/lps)

### SCA6D

When ordering a sloped ceiling adapter, specify the degree of slope in 5° increments, maximum of 35°. For a more precise degree or wet ceiling applications, please contact factory. Sloped ceiling adapter and housing must be installed at the same time.

