

# 6" LED Downlight LF6ML LENS

120V - 277V  
0-10V Dimming

### APPLICATIONS:

LiteFrame LF6ML is a 6" specification grade LED lensed downlight that utilizes high efficiency LEDs to obtain color consistency, energy savings, and low maintenance costs. 50,000 hours minimum life up to 35°C (95°F) in open plenum applications.

### 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 without tools above or below the ceiling and can be upgraded to accommodate technology improvements. Approve 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 LF6ML uses the Philips Fortimo DLM LED Module. This module provides controlled color consistency (3 SDCM) from fixture to fixture. The system is designed for optional life and lumen maintenance (>50,000 hours at 70% lumen maintenance). Both reflector and light engine assembly are mechanically retained to housing.

### LED DRIVER:

The LF6ML utilizes the Philips Fortimo LED Driver specifically designed to optimize efficiency of the Fortimo DLM Module. Driver is designed to match the 50,000 hours minimum life expectancy of the system. Meets UL Class 2, inherent short circuit protection, self limited, overload protected. If critical temperatures are reached on driver or LED module, integrated thermal feedback loop will gradually reduce current to protect system life. Driver is universal 120V-277V. Optional Lutron Series A driver is also available.

### DIMMING:

Comes standard with 0-10V dimming capability. Flicker-free dimming to 10%. 0-10V control may consume up to 1mA. 0-10V, Lutron 2 wire and EcoSystem dimming available to 1% and DMX with RDM (remote device management) dimming to less than 0.1%.

### INSTALLATION:

Adjustable Bar hangers included (not with CP option). 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. Approved for through wiring. Non-IC rated. UL approved for NSF2 splash zone applications.

### WARRANTY:

5 year warranty. See [www.prescolite.com](http://www.prescolite.com) for details.

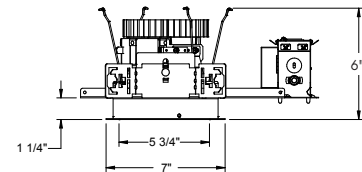
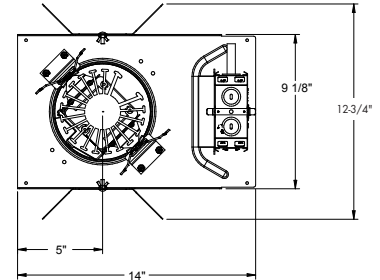
DATE: \_\_\_\_\_ TYPE: \_\_\_\_\_

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



See page 4 for CP and NX(W)E line art.

CATALOG NUMBER:

EXAMPLE: LF6ML-6LFML30L35K8CL

Order housing, reflector, and accessories separately

HOUSING	DRIVER OPTION	VOLTAGE OPTION	TRIM APERTURE	CRI	REF. COLOR OPTIONS	REF. OPTIONS	TRIM OPTIONS	LENS	ACCESSORIES
<input type="checkbox"/> <b>LF6ML</b> Medium Lumen 0-10V 10% dimming 120-277V	Standard 0-10V 10% Dimming <input type="checkbox"/> <b>DM1</b> <sup>1</sup> 0-10V dimming at 1% <input type="checkbox"/> <b>EDM</b> <sup>2,3</sup> Hi-Lume 1% EcoSystem LED Driver <input type="checkbox"/> <b>2DM</b> <sup>2,3</sup> Hi-Lume 1% 2-wire LED Driver (120V only) <input type="checkbox"/> <b>DMX</b> <sup>2,3</sup> DMX with RDM dimming to <0.1%	Standard 120V/277V <input type="checkbox"/> <b>120</b> 120V <input type="checkbox"/> <b>277</b> 277V	<input type="checkbox"/> <b>6LFML30L</b> Semi-Diffuse Clear Alzak Reflector with 3000 Lumen Module	<input type="checkbox"/> <b>8</b> 80+ CRI <input type="checkbox"/> <b>9</b> 90+ CRI	Standard Clear Alzak <input type="checkbox"/> <b>CG</b> Champagne Gold Alzak <input type="checkbox"/> <b>GD</b> Gold Alzak <input type="checkbox"/> <b>BL</b> Black Alzak <input type="checkbox"/> <b>WE</b> Wheat Alzak <input type="checkbox"/> <b>LW</b> Light Wheat Alzak <input type="checkbox"/> <b>PW</b> Pewter Alzak <input type="checkbox"/> <b>WH</b> Painted Matte White Reflector and Flange <input type="checkbox"/> <b>BC</b> Painted Black Reflector and Flange	<input type="checkbox"/> <b>FLU</b> <sup>9,10</sup> Flush Mount Lens (Brushed Aluminum Flange Standard) <input type="checkbox"/> <b>IP65</b> <sup>7,10,11</sup> Flush Lens, Dust and Water tight to IP65 <input type="checkbox"/> <b>VR</b> <sup>7,10,11</sup> Vandal Resistant	<input type="checkbox"/> <b>WT</b> Painted White Flange Only <input type="checkbox"/> <b>TRG</b> Trim Ring Gasket <input type="checkbox"/> <b>WF</b> <sup>10</sup> Wide Flange <input type="checkbox"/> <b>BNCT</b> <sup>9,13</sup> Black Non- conductive trim <input type="checkbox"/> <b>WNCT</b> <sup>9,13</sup> White Non- conductive trim <input type="checkbox"/> <b>BNCTB</b> <sup>9,13</sup> Black Non- conductive trim Baffled <input type="checkbox"/> <b>WNCTB</b> <sup>9,13</sup> White Non- conductive trim Baffled	<input type="checkbox"/> <b>CL</b> <sup>8</sup> Clear Lens (Regressed Standard) <input type="checkbox"/> <b>DL</b> <sup>8</sup> Diffuse Lens (Regressed Standard)	<input type="checkbox"/> <b>B24</b> <sup>4</sup> Set of two 24" bar hangers for T-bar ceilings <input type="checkbox"/> <b>B6</b> <sup>4</sup> Set of two (2) bar hangers for ceiling joist up to 24" centers <input type="checkbox"/> <b>LFSC6</b> 6" Reflector screw cover <input type="checkbox"/> <b>SCA6</b> Sloped ceiling adapter (see note on back page) <input type="checkbox"/> <b>LiteGear</b> <sup>6</sup> Inverter, single phase central lighting, 125VA- 250VA <input type="checkbox"/> <b>LPS Series</b> <sup>6</sup> LitePower micro-inverter, 20VA-55VA
		<b>HOUSING OPTIONS</b> <input type="checkbox"/> <b>CP</b> <sup>2,4,5,16,17</sup> Chicago Plenum <input type="checkbox"/> <b>LV</b> <sup>12</sup> Lutron Vive Enabled, 0-10V, 120-277V <input type="checkbox"/> <b>LVE (EDM Only)</b> Lutron Vive Enabled, EcoSystem <input type="checkbox"/> <b>NXWE</b> <sup>14,15,16,17</sup> NX Wireless Enabled <input type="checkbox"/> <b>NXE</b> <sup>14,15,16,17</sup> NX Enabled, Dual SmartPorts <input type="checkbox"/> <b>EMR</b> <sup>2</sup> Emergency Battery Pack with remote test switch and indicator light	<b>KELVIN</b> <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	<b>REF. FINISH OPTIONS</b> <input type="checkbox"/> <b>SP</b> Specular <input type="checkbox"/> <b>SS</b> Semi-Specular <input type="checkbox"/> <b>MFC</b> American Matte™ <input type="checkbox"/> <b>V</b> Kurt Versen Specular <input type="checkbox"/> <b>VS</b> Kurt Versen Softglow® <input type="checkbox"/> <b>VSS</b> Kurt Versen SoftSheen™	<b>Notes:</b> <sup>1</sup> For DM1, do not specify a voltage if 120 or 277 <sup>2</sup> Not available with 347V <sup>3</sup> Voltage must be specified with EDM, 2DM, or DMX <sup>4</sup> Bar hanger accessory should be selected with CP housing, not included as standard <sup>5</sup> Not available with DMX <sup>6</sup> See Central Inverter compatibility note and web links on page 3 <sup>7</sup> IP65 and VR can not be chosen together <sup>8</sup> Not available with IP65 and VR <sup>9</sup> Not available with color/finish options. Semi-Diffuse finish only. <sup>10</sup> Not available with BNCT, WNCT, BNCTB, or WNCTB. <sup>11</sup> Not available with FLU <sup>12</sup> LV requires standard dimming or DM1 <sup>13</sup> Must select CL or DL <sup>14</sup> Not available with CP option <sup>15</sup> Not available with EDM, 2DM or DMX <sup>16</sup> Not available with LV or LVE <sup>17</sup> Not available with EMR <sup>18</sup> Only available in 90+ CRI				



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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.  
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LF6ML-LED-049

# PHOTOMETRIC DATA

## LiteFrame - 6" LF6ML Lens

DRIVER DATA	6LFML30L
Input Voltage	120V-277V
Input Frequency	60 Hz
Input Current	0.273A (120V) 0.118A (277V)
Input Power	32.7W
Power Factor	≥0.90
THD	<20%
EMI Filtering	FCC 47CFR Part 15, Class A
Operating Temperature	-20°C to 35°C
Dimming	0-10V
Over-voltage, over-current, short-circuit protected	

### Lumen Multiplier Table

Photometrics published below are for the 3000K, 80 CRI. This table may be used to approximate the lumen values at different Kelvin temperatures and CRI.

4000 Kelvin	1.07
3500 Kelvin	1.00
3000 Kelvin	1.00
2700 Kelvin	0.95
80 CRI.....	1.00
90 CRI.....	0.91

\*Power consumption and photometric output may vary slightly with various driver and CRI options.

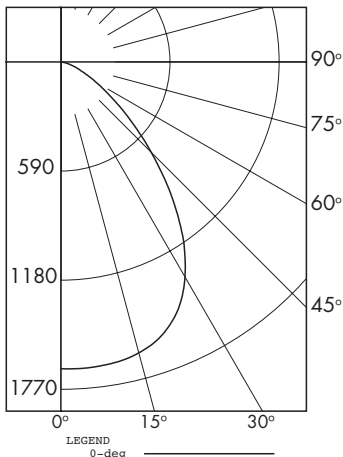
## Delivered Lumens

The table below shows the delivered lumens for the various lumen outputs.

Output	CRI	Lens	Delivered Lumens	Input Watts	Lumens Per Watt	Full Catalog String
30L	80	DL	3061	32.7	94	LF6ML-6LFML30L30K8DL
30L	80	FLUDL	2977	32.7	91	LF6ML-6LFML30L30K8FLUDL
30L	90	DL	2082	35.9	58	LF6ML-6LFML30L30K9DL

### LF6ML-6LFML30L30K8DL

LED Light Engine: 3000K, 80 CRI  
System Wattage: 32.7W  
Fixture Delivered Lumens: 3061  
Fixture Efficacy: 94  
Spacing Criteria: 1.4



### ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	1305	42.6
0-40	2020	66.0
0-60	2866	93.6
0-90	3062	100.0
90-180	0	0.0
0-180	3062	100.0

### LUMINANCE DATA IN CANDELA/SQ. METER

Angle in Vertical	Average
45°	58610
55°	34893
65°	19373
75°	10545
85°	0

### COEFFICIENTS OF UTILIZATION ZONAL CAVITY METHOD

Room Cavity Ratio	% Effective Ceiling Cavity Reflectance																
	80					70											
	70	50	30	10	70	50	30	10	50	30	10						
% Wall Reflectance																	
20% Effective Floor Cavity Reflectance																	
1	112	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81
3	96	88	81	76	94	87	80	76	84	79	74	81	77	73	79	75	72
4	90	80	73	67	88	79	72	67	76	70	66	74	69	65	72	68	64
5	84	73	65	60	82	72	65	59	70	63	59	68	62	58	66	61	58
6	78	67	59	53	76	66	58	53	64	58	53	62	57	52	61	56	52
7	73	61	54	48	71	60	53	48	59	52	48	58	52	47	56	51	47
8	68	56	49	44	67	56	49	44	54	48	43	53	47	43	52	47	43
9	64	52	45	40	63	52	45	40	51	44	40	50	44	40	49	43	39
10	60	49	41	37	59	48	41	37	47	41	36	46	40	36	45	40	36

LF6ML-6LFML30L30K8DL

Test No. 18.00419-01

Test No. 18.00419-01

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



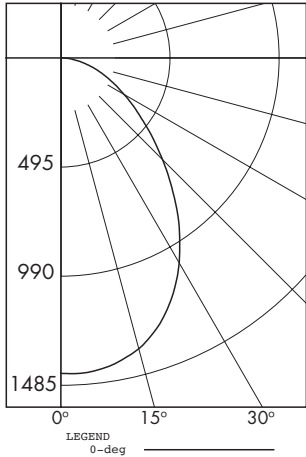
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# PHOTOMETRIC DATA

## LiteFrame - 6" LF6ML Lens

**LF6ML-6LFML30L30K8FLUDL**  
 LED Light Engine: 3000K, 80 CRI  
 System Wattage: 32.7W  
 Fixture Delivered Lumens: 2977  
 Fixture Efficacy: 91  
 Spacing Criteria: 1.4



### CANDELA DISTRIBUTION

DEG	CANDELA
0	1432
5	1432
15	1367
25	1196
35	937
45	653
55	421
65	257
75	133
85	41
90	0

### ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	1068	35.9
0-40	1652	55.5
0-60	2536	85.2
0-90	2978	100.0
90-180	0	0.0
0-180	2978	100.0

### LUMINANCE DATA IN CANDELA/SQ. METER

Angle in Vertical	Average
45°	60199
55°	47855
65°	39595
75°	33461
85°	30315

### COEFFICIENTS OF UTILIZATION ZONAL CAVITY METHOD

Room Cavity Ratio	% Effective Ceiling Cavity Reflectance																
	80				70				50				30				
	20% Effective Floor Cavity Reflectance																
	% Wall Reflectance																
	70	50	30	10	70	50	30	10	70	50	30	10	70	50	30	10	
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88
2	101	94	87	82	99	92	86	81	88	84	79	85	81	78	82	79	76
3	93	83	76	70	91	82	75	70	79	73	68	76	71	67	74	70	66
4	86	75	67	61	84	74	66	60	71	65	60	69	63	59	67	62	58
5	80	68	59	53	78	67	59	53	65	58	52	63	57	52	61	56	51
6	74	62	53	47	72	61	53	47	59	52	47	57	51	46	56	50	46
7	69	56	48	42	67	56	48	42	54	47	42	53	46	42	51	46	41
8	64	52	44	38	63	51	43	38	50	43	38	49	42	38	47	42	38
9	60	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	35	31

LF6ML-6LFML30L30K8FLUDL Test No. 18.00420-01

Test No. 18.00420-01

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

### Dimming Compatibility Table

Dimming Ballast	Manufacturer	Web Link
DM/DM1	Lutron DTV	<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>
EDM	Lutron	<a href="http://bit.ly/1vtjHAL">http://bit.ly/1vtjHAL</a>
2DM	Lutron	<a href="http://bit.ly/1S4WjXK">http://bit.ly/1S4WjXK</a>

### DMX

See instruction sheet on [www.prescolite.com](http://www.prescolite.com) for connection & installation information.

Other useful links: <http://www.eldoled.com/led-drivers/powerdrive/50-watt/ac-561s/>

### 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)

### NX Distributed Intelligence: **NX** DISTRIBUTED INTELLIGENCE

Supports indoor and outdoor applications, wired, wireless and hybrid networked NX lighting control deployments and enables emerging applications such as Hubbell Lighting's SpectraSync™ color tuning technology.

See separate [NX™ Solutions Guide](#) for additional details.

See Hubbell Controls Solution [NX Brochure](#).

### NOTES:

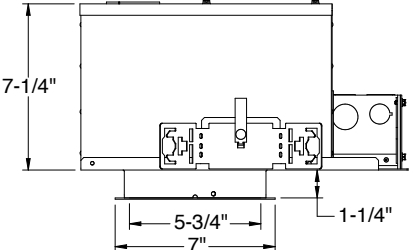
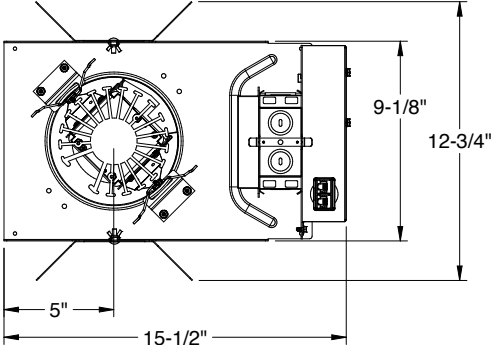
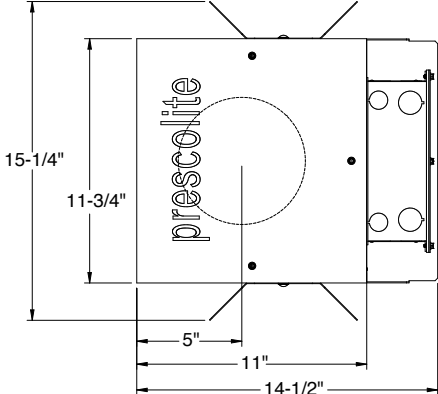
When ordering a sloped ceiling adapter, specify the degree of slope in 5° increments, max. of 35°. For a more precise degree or wet ceiling applications, please contact factory. Sloped ceiling adapter and housing must be installed at the same time.



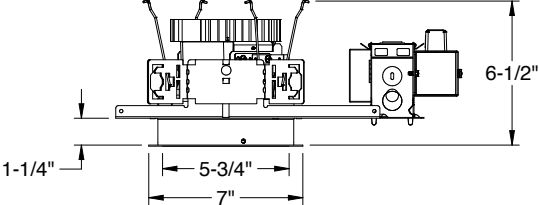
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# ADDITIONAL DATA



**LF6ML CP**



**LF6ML LENS NX(W/E)**

