

6" LED Open Downlight LF6ML

120V - 277V
0-10V Dimming

APPLICATIONS:

LiteFrame LF6ML is a 6" specification grade LED open 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. EM and EMR are damp rated use only. ENERGY STAR qualified with open clear Alzak reflector. UL approved for NSF2 splash zone applications.

WARRANTY:

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

DATE: _____ TYPE: _____

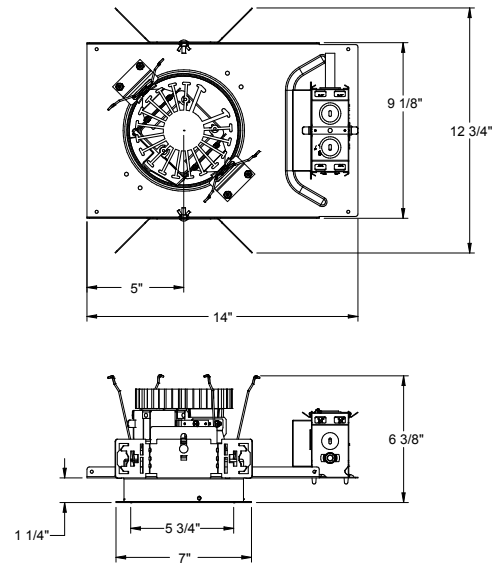
FIRM NAME: _____

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 EM/EMR, CP, LV(E) and NX(W)E line art

EXAMPLE: LF6ML-6LFML30L35K8WT

CATALOG NUMBER:

Order housing, reflector, and accessories separately

HOUSING	DRIVER OPTION	VOLTAGE OPTION	HOUSING OPTIONS	TRIM APERTURE	BEAM ANGLE OPTIONS	REF. COLOR OPTIONS	REFLECTOR OPTIONS	ACCESSORIES
<input type="checkbox"/> LF6ML Medium Lumen 0-10V 10% dimming 120-277V	Standard 0-10V 10% Dimming <input type="checkbox"/> DM1 ⁶ 0-10V dimming at 1%, 120-277V <input type="checkbox"/> EDM ^{1,7} Hi-Lume 1% EcoSystem LED Driver <input type="checkbox"/> 2DM ^{1,7} Hi-Lume 1% 2-wire LED Driver (120V only) <input type="checkbox"/> DMX ^{1,7} DMX with RDM dimming to <0.1%	Standard 120V-277V <input type="checkbox"/> 120 120V <input type="checkbox"/> 277 277V <input type="checkbox"/> 347 347V	<input type="checkbox"/> CP ^{1,3,4} Chicago Plenum <input type="checkbox"/> LV ⁸ Lutron Vive Enabled, 0-10V, 120-277V <input type="checkbox"/> LVE (EDM Only) Lutron Vive Enabled, EcoSystem <input type="checkbox"/> NXWE ^{4,9,10} NX Wireless Enabled <input type="checkbox"/> NXE ^{4,9,10} NX Enabled, Dual SmartPorts <input type="checkbox"/> EM ^{1,12} Emergency Battery Pack with integral test switch and indicator light <input type="checkbox"/> EMR ¹ Emergency Battery Pack with remote test switch and indicator light	<input type="checkbox"/> 6LFML30L Semi-Diffuse Clear Alzak Reflector with 3000 Lumen Module KELVIN <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 CRI <input type="checkbox"/> 8 80+ CRI <input type="checkbox"/> 9 90+ CRI	Standard Reflector Nominal 45° cutoff <input type="checkbox"/> FL35 ¹¹ Nominal 35° cutoff REF. FINISH OPTIONS Standard Semi-Diffuse <input type="checkbox"/> SP Specular <input type="checkbox"/> SS Semi- Specular <input type="checkbox"/> MFC American Matte™ <input type="checkbox"/> V Kurt Versen Specular <input type="checkbox"/> VS Kurt Versen Softglow® <input type="checkbox"/> VSS Kurt Versen SoftSheen™	Standard Clear Alzak <input type="checkbox"/> CG Champagne Gold Alzak <input type="checkbox"/> GD Gold Alzak <input type="checkbox"/> BL Black Alzak <input type="checkbox"/> WE Wheat Alzak <input type="checkbox"/> LW Light Wheat Alzak <input type="checkbox"/> PW Pewter Alzak <input type="checkbox"/> WH Painted Matte White Reflector and Flange <input type="checkbox"/> BC Painted Black Reflector and Flange	<input type="checkbox"/> AM ² Antimicrobial coating on clear Alzak reflector only <input type="checkbox"/> EM ^{1,12} Pre-punched reflector for integral switch TRIM OPTIONS <input type="checkbox"/> WT Painted White Flange Only <input type="checkbox"/> TRG Trim Ring Gasket <input type="checkbox"/> WF Wide Flange	<input type="checkbox"/> B24 ³ Set of two 24" bar hangers for T-bar ceilings <input type="checkbox"/> B6 ³ Set of two (2) bar hangers for ceiling joist up to 24" centers <input type="checkbox"/> LFSC6 6" Reflector screw cover <input type="checkbox"/> SCA6 Sloped ceiling adapter (see note on back page) <input type="checkbox"/> Signos6 Architectural glass elements. Refer to specification sheets ARCH-SIG-001 and -003 <input type="checkbox"/> LiteGear ⁵ Inverter, single phase central lighting, 125VA-250VA <input type="checkbox"/> LPS Series ⁵ LitePower micro-inverter, 20VA- 55VA

Notes:

- ¹ Not available with 347V
- ² Clear Alzak standard. Consult factory for other colors
- ³ Bar hanger accessory should be selected with CP housing, not included as standard
- ⁴ Not available with EM, EMR, DMX, LV or LVE.
- ⁵ See Central Inverter compatibility note and web links on page 3
- ⁶ For DM1, do not specify a voltage if 120 or 277
- ⁷ Voltage must be specified with EDM, 2DM, or DMX
- ⁸ LV requires standard dimming or DM1
- ⁹ Not available with CP option
- ¹⁰ Not available with EDM, 2DM, or DMX
- ¹¹ Not available with EM
- ¹² EM option required on both housing and trim
- ¹³ Only available in 90+ CRI



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

LF6ML-LED-027

PHOTOMETRIC DATA

LiteFrame - 6" LF6ML Downlight

DRIVER DATA	6LFML30L
Input Voltage	120V-277V
Input Frequency	50/60 Hz
Input Current	0.105A (120V) 0.045A (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.

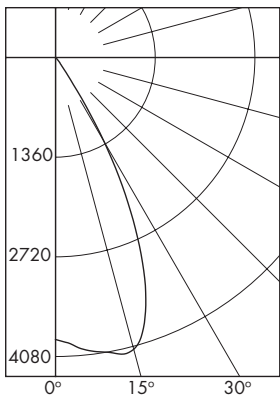
Delivered Lumens

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

Output	CRI	Lens	Distribution	Delivered Lumens	Input Watts	Lumens Per Watt	Full Catalog String
30L	80	Open		3268	32.7	100	LF6ML-6LFML30L30K8
30L	80	Open	FL35	2942	32.7	90	LF6ML-6LFML30L30K8FL35
30L	90	Open		2522	36.1	70	LF6ML-6LFML30L30K9
30L	90	Open	FL35	2271	36.1	63	LF6ML-6LFML30L30K9FL35

LF6ML-6LFML30L30K8FL35

LED Light Engine: 3000K, 80 CRI
System Wattage: 32.7W
Fixture Delivered Lumens: 2942
Fixture Efficacy: 90
Spacing Criteria: 0.8



CANDELA DISTRIBUTION

DEG	CANDELA
0	3847
5	3989
15	4122
25	2579
35	250
45	17
55	4
65	1
75	0
85	0
90	0

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	2658	90.4
0-40	2914	99.1
0-60	2940	100.0
0-90	2942	100.0
90-180	0	0.0
0-180	2942	100.0

LUMINANCE DATA IN CANDELA/SQ. METER

Angle in Vertical	Average
45°	1304
55°	371
65°	168
75°	0
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						
1	114	112	109	107	112	110	108	106	106	104	103	102	101	99	98	97	97
2	109	105	102	99	107	103	100	97	100	98	95	97	95	93	95	93	91
3	105	99	95	91	103	98	94	91	95	92	89	93	90	88	91	88	86
4	100	94	89	85	99	93	88	85	91	87	84	89	85	83	87	84	82
5	96	89	84	80	95	88	83	80	86	82	79	85	81	78	83	80	78
6	92	84	79	75	91	84	79	75	82	78	75	81	77	74	80	76	74
7	88	80	75	71	87	80	75	71	78	74	71	77	73	70	76	73	70
8	85	76	71	67	84	76	71	67	75	70	67	74	70	67	73	69	66
9	81	73	68	64	80	72	67	64	71	67	64	71	66	64	70	66	63
10	78	69	64	61	77	69	64	61	68	64	61	68	63	60	67	63	61

Test No. 17.00114-01

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

LF6ML-6LFML30L30K8FL35

Test No. 17.00114-01

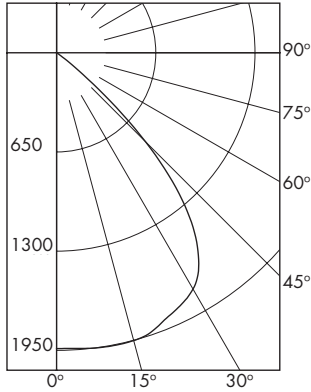


PHOTOMETRIC DATA

LiteFrame - 6" LF6ML Downlight

LF6ML-6LFML30L30K8

LED Light Engine: 3000K, 80 CRI
 System Wattage: 32.7W
 Fixture Delivered Lumens: 3268
 Fixture Efficacy: 100
 Spacing Criteria: 1.3



CANDELA DISTRIBUTION

DEG	CANDELA
0	1938
5	1945
15	1952
25	1856
35	1620
45	823
55	26
65	3
75	1
85	0
90	0

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	1594	48.8
0-40	2589	79.2
0-60	3264	99.9
0-90	3268	100.0
90-180	0	0.0
0-180	3268	100.0

LUMINANCE DATA IN CANDELA/ SQ. METER

Angle in Vertical	Average
45°	69474
55°	2706
65°	424
75°	231
85°	0

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	50	30	10	50	30	10			
1	113	110	107	104	110	107	105	103	103	101	100	100	98	97	96	95	94
2	106	101	96	92	104	99	95	91	96	92	89	82	90	87	90	87	85
3	100	92	87	82	98	91	86	81	88	84	80	86	82	79	83	80	77
4	93	85	78	73	91	83	78	73	81	76	72	79	75	71	77	73	70
5	88	78	71	66	86	77	71	66	75	69	65	73	68	65	72	67	64
6	82	72	65	60	80	71	64	60	69	64	59	68	63	59	66	62	58
7	77	66	59	54	76	66	59	54	64	58	54	63	58	54	62	57	53
8	72	61	54	50	71	61	54	50	60	54	49	58	53	49	57	52	49
9	68	57	50	46	67	56	50	45	55	49	45	54	49	45	53	49	45
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	41

LF6ML-6LFML30L30K8

Test No. 18.00270

Test No. 18.00270

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

Dimming Compatibility Table

Dimming Ballast	Manufacturer	Web Link
DM/DM1	Lutron DTV	http://bit.ly/11jSvZg
DM/DM1	Leviton AWRMG-7xx, AWSMG-7xx, AWSMT-7xx	http://bit.ly/1BJn2R9
EDM	Lutron	http://bit.ly/1vtjHAL
2DM	Lutron	http://bit.ly/1S4WjXK

DMX

See instruction sheet on 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 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

LPS Series: www.dual-lite.com/products/lps

NX Distributed Intelligence: NX DISTRIBUTED INTELLIGENCE

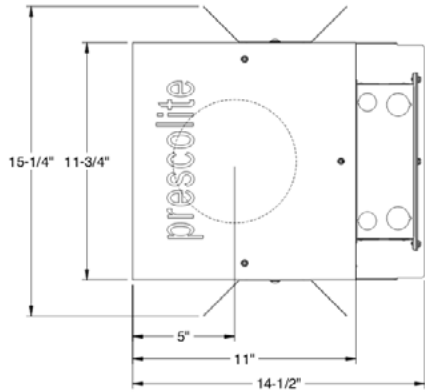
Supports indoor and outdoor applications, wired, wireless and hybrid networked NX lighting control deployments and enables emerging applications such as Hubbell Lighting's SpectraSync™ color tuning technology.

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

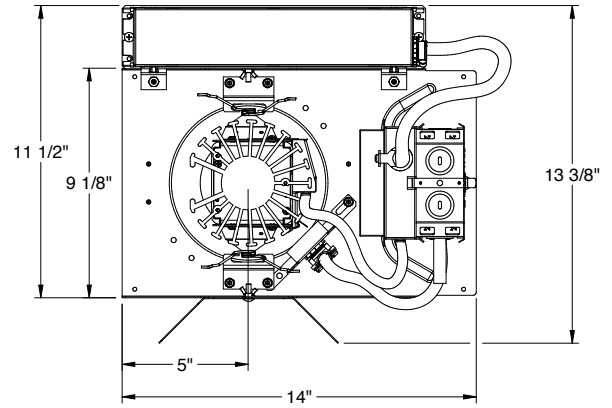
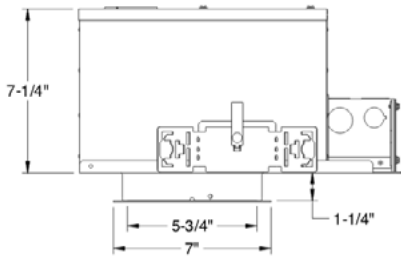
See Hubbell Controls Solution [NX Brochure](#).



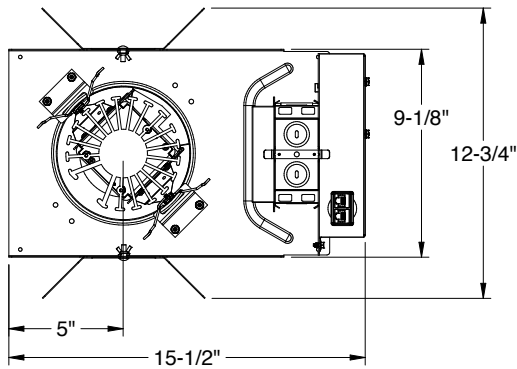
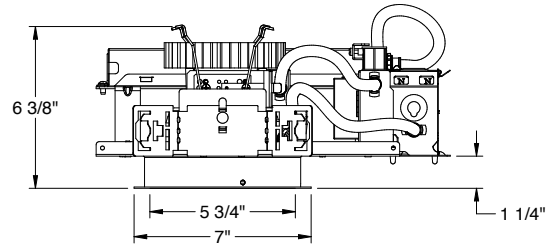
LiteFrame - 6" LF6ML Downlight



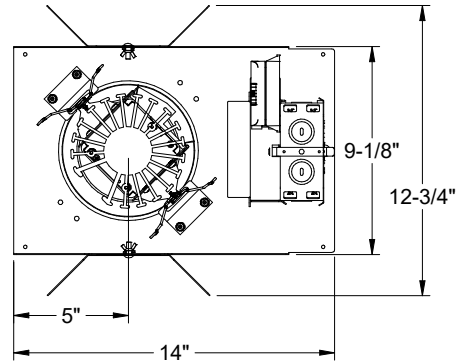
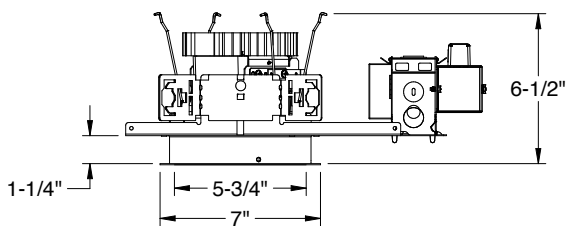
LF6ML CP



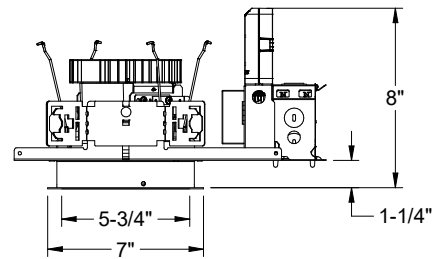
LF6ML EM/EMR



LF6ML NX(W)E



LF6ML LV(E)



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.

