

LF4ML LENS

4" LED Lensed Downlight
120V-277V • 0-10V Dimming • NSF2 • IP65 • VR

LiteFrame LF4ML is a 4" 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.

SPECIFICATIONS

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.

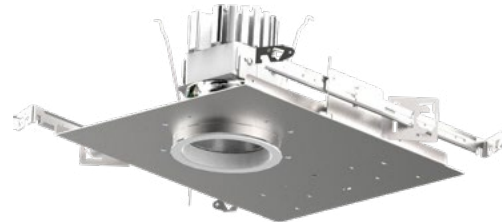
Reflector: High purity aluminum, Alzak, iridescence suppressed, semi-diffuse reflector. Self-trim standard. Painted white self-trim (WT) available as option.

IP65 AND VR: IP65 and vandal-resistant (VR) options are made of 16GA cold rolled steel stampings and come standard with a clear high impact polycarbonate lens. Each option uses self tapping stainless steel screws painted to match the white trim color standard; tamper-resistant screws are used on the VR option only. The IP65 rated option is completely sealed without the use of silicone on standard non-porous ceiling surfaces.

LED Light Engine: The LF4ML uses the Philips Fortimo DLM LED Module. This module provides controlled color consistency (3 SDCM) from fixture to fixture. The system is designed for optimal 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 LF4ML 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.

Catalog Number	
Comments	Type



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. 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 for details.

ORDERING GUIDE

Order housing, reflector, and accessories separately.

EXAMPLE: LF4ML-4LFML30L35K8WNCTDL

HOUSING	DRIVER OPTION	VOLTAGE OPTION	HOUSING OPTIONS	TRIM APERTURE	CRI	REF. COLOR OPTIONS	REFLECTOR OPTIONS	TRIM OPTIONS	ACCESSORIES
<input type="checkbox"/> LF4ML Medium Lumen 0-10V 10% dimming 120-277V	<i>Standard 0-10V 10% Dimming</i> <input type="checkbox"/> DM1⁵ 0-10V dimming at 1% <input type="checkbox"/> EDM1,2 Hi-Lume 1% EcoSystem LED Driver <input type="checkbox"/> 2DM1,2 Hi-Lume 1% 2-wire LED Driver (120V only) <input type="checkbox"/> DMX1,2 DMX with RDM dimming to <0.1%	<i>Standard 120V-277V</i> <input type="checkbox"/> 120 120V <input type="checkbox"/> 277 277V <input type="checkbox"/> 347 347V	<input type="checkbox"/> CP1,3,14,15,16 Chicago Plenum <input type="checkbox"/> LV¹¹ Lutron Vive Enabled, 0-10V, 120-277V <input type="checkbox"/> LVE (EDM Only) Lutron Vive Enabled, EcoSystem <input type="checkbox"/> NXWE^{13,14,15,16} NX Wireless Enabled <input type="checkbox"/> NXE^{13,14,15,16} NX Enabled, Dual SmartPorts <input type="checkbox"/> EMR¹ Emergency Battery Pack with remote test switch and indicator light	<input type="checkbox"/> 4LFML30L Semi-Diffuse Clear Alzak Reflector for 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	<input type="checkbox"/> 8 80+ CRI <input type="checkbox"/> 9 90+ CRI REF. FINISH OPTIONS <i>Standard Semi-Diffuse</i> <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™	<i>Standard Clear Alzak</i> <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"/> FLU^{8,9} Flush Mount (Brushed Aluminum Flange Standard) <input type="checkbox"/> IP65^{5,9,10} Flush Lens, Dust and Water tight to IP65 <input type="checkbox"/> VR^{6,9,10} Vandal Resistant	<input type="checkbox"/> WT Painted White Flange Only <input type="checkbox"/> TRG Trim Ring Gasket <input type="checkbox"/> BNCT^{8,12} Black Non- conductive trim <input type="checkbox"/> WNCT^{8,12} White Non- conductive trim <input type="checkbox"/> BNCTB^{8,12} Black Non- conductive trim Baffled <input type="checkbox"/> WNCTB^{8,12} White Non- conductive trim Baffled LENS <input type="checkbox"/> CL⁷ Clear Lens (Regressed Standard) <input type="checkbox"/> DL⁷ Diffuse Lens (Regressed Standard)	<input type="checkbox"/> B24³ Set of two 24" bar hangers for T-bar ceilings <input type="checkbox"/> B6³ Set of two (2) bar hangers for ceiling joist up to 24" centers <input type="checkbox"/> LiteGear⁴ Inverter, single phase central lighting, 125VA-250VA <input type="checkbox"/> LPS Series⁴ LitePower micro-inverter, 20VA-55VA

Notes:

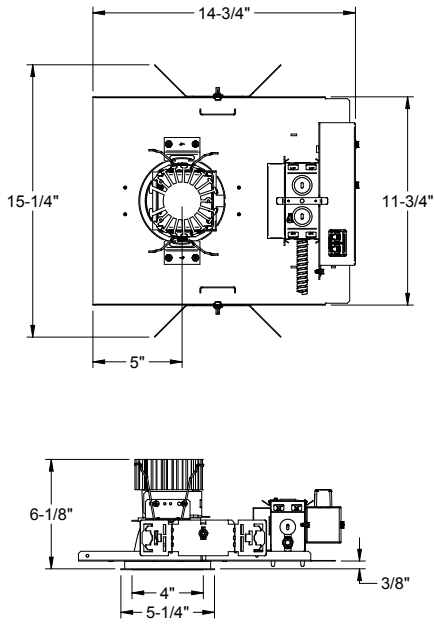
- 1 Not available with 347V
- 2 Voltage must be specified for EDM, 2DM, or DMX
- 3 Bar hanger accessory should be selected with CP housing, not included as standard
- 4 See Central Inverter compatibility note and web links on page 3
- 5 For DM1, do not specify a voltage if 120 or 277
- 6 IP65 and VR can not be chosen together
- 7 Not available with IP65 or VR
- 8 Not available with color/finish options.
- 9 Not available with BNCT, WNCT, BNCTB, or WNCTB
- 10 Not available with FLU
- 11 LV requires standard dimming or DM1
- 12 Must select CL or DL
- 13 Not available with CP option
- 14 Not available with EDM, 2DM or DMX
- 15 Not available with LV or LVE
- 16 Not available with EMR

LF4ML LENS

4" LED Lensed Downlight
 120V-277V • 0-10V Dimming • NSF2 • IP65 • VR

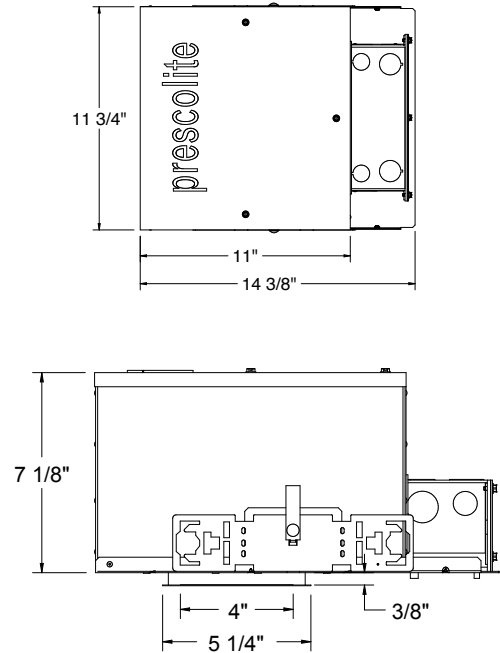
DIMENSIONS

Ceiling Cutout: 5"
 Maximum Ceiling Thickness: 5/8"
 For conversion to millimeters, multiply inches by 25.4
 Not to Scale



LF4ML LENS NX(W)E

LF4ML CP



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.

LF4ML LENS

4" LED Lensed Downlight
120V-277V · 0-10V Dimming · NSF2 · IP65 · VR

PHOTOMETRY

DRIVER DATA	4LFML30L
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

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

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.

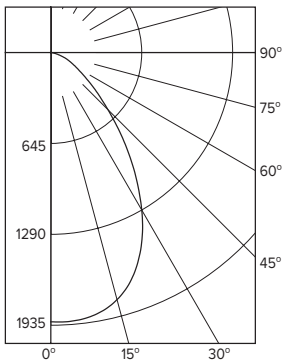
4000 Kelvin	1.07
3500 Kelvin	1.00
3000 Kelvin	1.00
2700 Kelvin	0.95
80 CRI.....	1.00
90 CRI.....	0.91

LF4ML-4LFML30L30K8DL
LED Light Engine: 3000K, 80 CRI
System Wattage: 32.7W
Fixture Delivered Lumens: 2953
Fixture Efficacy: 90
Spacing Criteria: 1:1

Test No. 18.00441-03
Tested at 25°C Ambient
in accordance to IESNA
LM-79-2008

ZONAL LUMEN SUMMARY		
ZONE	LUMENS	%LUMINAIRE
0-30	1384	47
0-40	2031	69
0-60	2743	93
0-90	2953	100

LUMINANCE DATA IN CANDELA/SQ. METER	
Angle in Vertical	Average
45°	100147
55°	62061
65°	43010
75°	24873
85°	0



CANDELA DISTRIBUTION

DEG	CANDELA
0	1911
5	1911
15	1816
25	1518
35	1039
45	575
55	289
65	148
75	52
85	0
90	0

Room Cavity Ratio	COEFFICIENTS OF UTILIZATION ZONAL CAVITY METHOD																
	% Effective Ceiling Cavity Reflectance						% Effective Floor Cavity Reflectance										
	80						70										
	50						30										
	% Wall Reflectance																
	20%																
	70	50	30	10	70	50	30	10	50	30	10	50	30	10			
1	112	108	105	102	109	106	103	100	102	99	97	98	96	94	95	93	92
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82
3	97	89	82	77	95	87	81	76	84	79	75	82	78	74	79	76	73
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	65
5	84	74	67	61	83	73	66	61	71	65	60	69	64	60	67	63	59
6	79	68	60	55	77	67	60	55	65	59	54	64	58	54	62	57	54
7	74	63	55	50	73	62	55	50	60	54	50	59	53	49	58	53	49
8	70	58	51	46	68	57	50	46	56	50	45	55	49	45	54	49	45
9	66	54	47	42	64	53	47	42	52	46	42	51	46	42	50	45	41
10	62	50	43	39	61	50	43	39	49	43	39	48	42	38	47	42	38

LF4ML-4LFML30L30K8DL

Test No. 18.00441-03

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
EDM	Lutron	http://bit.ly/1vtjHAI
2DM	Lutron	http://bit.ly/1S4WjXK

LF4ML LENS

4" LED Lensed Downlight
120V-277V • 0-10V Dimming • NSF2 • IP65 • VR

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:

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](#).