

# LF8SL LENS

8" LED Lensed Downlight  
120V-277V · 0-10V Dimming · NSF2

LiteFrame LF8SL is a 8" 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. 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 LF8SL 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 LF8SL utilizes the Philips Fortimo LED Driver specifically designed to optimize efficiency of the Fortimo DLM Module. Driver is designed to match the 50,000 hour 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%.

Catalog Number	
Comments	Type



**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. EMR is damp rated and for US use only. UL approved for NSF2<sup>7</sup> splash zone applications.

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

## ORDERING GUIDE Order housing, reflector, and accessories separately.

**EXAMPLE:** LF8SL-8LFSL15L40K8DL

HOUSING	DRIVER OPTION	HOUSING OPTIONS	TRIM APERTURE	OUTPUT	KELVIN	REF. FINISH OPTIONS	REF. COLOR OPTIONS	TRIM OPTIONS	ACCESSORIES
<input type="checkbox"/> <b>LF8SL</b> Standard Lumen 0-10V 10% dimming 120-277V	Standard 0-10V 10% Dimming <input type="checkbox"/> <b>DM1</b> 0-10V dimming at 1% <input type="checkbox"/> <b>DMT<sup>9,10</sup></b> SpectraSync™ Tunable White <input type="checkbox"/> <b>DMTW<sup>11</sup></b> SpectraSync™ Tunable Dim to Warm VOLTAGE OPTION Standard 120V-277V <input type="checkbox"/> <b>347</b> 347V	<input type="checkbox"/> <b>EMR<sup>2</sup></b> Emergency Battery Pack with remote test switch and indicator light <input type="checkbox"/> <b>LV<sup>7</sup></b> Lutron Vive Enabled, 0-10V, 120-277V <input type="checkbox"/> <b>NXWE<sup>4,13</sup></b> NX Wireless Enabled <input type="checkbox"/> <b>NXE<sup>4,13</sup></b> NX Enabled, Dual SmartPorts	<input type="checkbox"/> <b>8LFSL</b> Semi-Diffuse Clear Alzak	<input type="checkbox"/> <b>11L</b> 1100 Lumen Module <input type="checkbox"/> <b>15L</b> 1500 Lumen Module <input type="checkbox"/> <b>20L<sup>12</sup></b> 2000 Lumen Module <input type="checkbox"/> <b>50K</b> 5000 Kelvin <input type="checkbox"/> <b>2230TD<sup>3</sup></b> 2200K-3000K SpectraSync™ Dim to Warm <input type="checkbox"/> <b>2750T<sup>3</sup></b> 2700K-5000K SpectraSync™ Tunable White <input type="checkbox"/> <b>2765T<sup>3</sup></b> 2700K-6500K SpectraSync™ Tunable White	<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>2230TD<sup>3</sup></b> 2200K-3000K SpectraSync™ Dim to Warm <input type="checkbox"/> <b>2750T<sup>3</sup></b> 2700K-5000K SpectraSync™ Tunable White <input type="checkbox"/> <b>2765T<sup>3</sup></b> 2700K-6500K SpectraSync™ Tunable White	Standard Semi-Diffuse <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™	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>WT</b> Painted White Flange Only <input type="checkbox"/> <b>TRG</b> Trim Ring Gasket <input type="checkbox"/> <b>WF</b> Wide Flange <input type="checkbox"/> <b>BNCT<sup>6,8</sup></b> Black Non-conductive trim <input type="checkbox"/> <b>WNCT<sup>6,8</sup></b> White Non-conductive trim Baffle <input type="checkbox"/> <b>BNCTB<sup>6,8</sup></b> Black Non-conductive trim Baffle <input type="checkbox"/> <b>WNCTB<sup>6,8</sup></b> White Non-conductive trim Baffle LENS <input type="checkbox"/> <b>CL</b> Clear Lens (Regressed Standard) <input type="checkbox"/> <b>DL</b> Diffuse Lens (Regressed Standard)	<input type="checkbox"/> <b>B24</b> Set of two 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>LFSC8</b> 8" Reflector screw cover <input type="checkbox"/> <b>SCA8D</b> Sloped ceiling adapter (see note on back page) <input type="checkbox"/> <b>LiteGear<sup>5</sup></b> Inverter, single phase central lighting, 125VA-250VA <input type="checkbox"/> <b>LPS Series<sup>5</sup></b> LitePower micro-inverter, 20VA-55VA
Use with EDM/2DM/DMX dimming option: Match Housing to Trim Output									
<input type="checkbox"/> <b>LF8SL11L</b> <input type="checkbox"/> <b>LF8SL15L</b> <input type="checkbox"/> <b>LF8SL20L</b>	<input type="checkbox"/> <b>EDM<sup>1</sup></b> Hi-Lume 1% EcoSystem LED Driver <input type="checkbox"/> <b>2DM<sup>1</sup></b> Hi-Lume 1% 2-wire LED Driver (120V only) <input type="checkbox"/> <b>DMX<sup>1</sup></b> DMX with RDM dimming to <0.1%	<input type="checkbox"/> <b>120</b> 120V <input type="checkbox"/> <b>277</b> 277V	<input type="checkbox"/> <b>LVE (EDM Only)</b> Lutron Vive Enabled, EcoSystem *EDM, 2DM & DMX also available with EMR and WW	<input type="checkbox"/> <b>8</b> 80+ CRI <input type="checkbox"/> <b>9</b> 90+ CRI	CRI				

- Notes:**
- For EDM, 2DM and DMX options, housing output must match trim output
  - Not available with 347V
  - Not available in 90+ CRI
  - Not available with EMR, DMX, LV or LVE
  - See Central Inverter compatibility note and web links on page 4
  - Not available with color/finish options. Semi-Diffuse finish only.
  - LV requires standard dimming or DM1
  - Must select CL or DL
  - Must select either 2750T or 2765T Kelvin with DMT driver option
  - Not available with LV or LVE
  - Must select 2230TD with DMTW driver option
  - Not compatible with DMT or DMTW
  - Not available with EDM, 2DM, or DMX

# LF8SL LENS

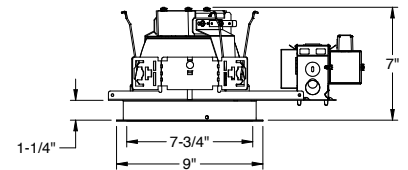
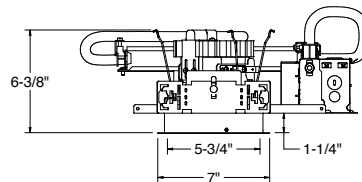
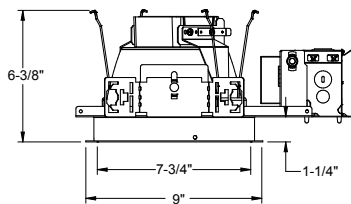
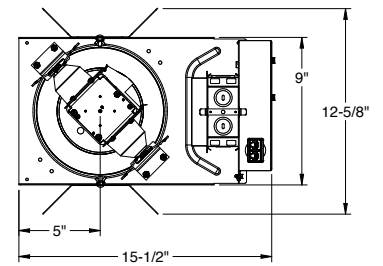
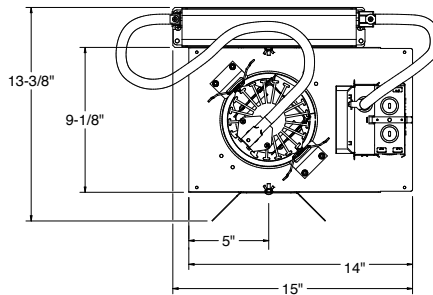
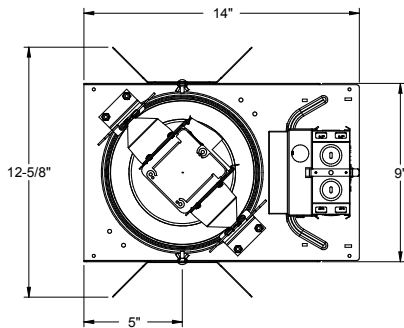
8" LED Lensed Downlight  
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## DIMENSIONS

Ceiling Cutout: 8 1/4"  
 Maximum Ceiling Thickness: 1 1/4"  
 For conversion to millimeters, multiply inches by 25.4  
 Not to Scale

LF8SL EMR

LF8SL LENS NX(W)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.

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## PHOTOMETRY

DRIVER DATA	8LFSL20L	8LFSL15L	8LFSL11L
Input Voltage	120-277V	120-277V	120-277V
Input Frequency	50/60 Hz	50/60 Hz	50/60 Hz
Input Current	0.184A (120V) 0.08A (277V)	0.133A (120V) 0.058A (277V)	0.104A (120V) 0.045A (277V)
Input Power	22.1W	16.0W	12.5W
Power Factor	≥0.90	≥0.90	≥0.90
THD	<20%	<20%	<20%
EMI Filtering	FCC 47CFR Part 15, Class A	FCC 47CFR Part 15, Class A	FCC 47CFR Part 15, Class A
Operating Temperature	-20°C to 35°C	-20°C to 35°C	-20°C to 35°C
Dimming	0-10V	0-10V	0-10V

### 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

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

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

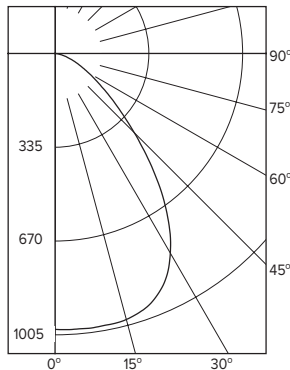
When operating in EM mode, the fixture will deliver approximately 30% of the published full lumen output.

LF8SL-8LFSL20L30K8DL  
LED Light Engine: 3000K, 80 CRI  
System Wattage: 21.6W  
Fixture Delivered Lumens: 1854  
Fixture Efficacy: 86  
Spacing Criteria: 1.2

Test No. 18.00445-02  
Tested at 25°C Ambient  
in accordance to IESNA  
LM-79-2008

ZONAL LUMEN SUMMARY		
ZONE	LUMENS	%LUMINAIRE
0-30	790	43
0-40	1223	66
0-60	1716	93
0-90	1853	100

LUMINANCE DATA IN CANDELA/SQ. METER	
Angle in Vertical	Average
45°	18608
55°	11318
65°	7269
75°	4479
85°	1330



### CANDELA DISTRIBUTION

DEG	CANDELA
0	987
5	989
15	985
25	915
35	697
45	401
55	198
65	94
75	35
85	4
90	0

Room Cavity Ratio		COEFFICIENTS OF UTILIZATION ZONAL CAVITY METHOD															
		% Effective Ceiling Cavity Reflectance					% Effective Floor Cavity Reflectance										
		80		70		50		30		10							
		% Wall Reflectance															
		70	50	30	10	70	50	30	10	50	30	10					
1	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	81
3	96	88	81	76	94	86	80	75	83	78	74	81	76	73	78	75	72
4	89	80	72	67	87	78	71	66	76	70	65	74	69	65	72	67	64
5	83	72	65	59	81	71	64	59	69	63	58	68	62	58	66	61	57
6	78	66	59	53	76	65	58	53	64	57	52	62	56	52	61	56	52
7	73	61	53	48	71	60	53	48	59	52	47	57	52	47	56	51	47
8	68	56	49	44	67	56	48	43	54	48	43	53	47	43	52	47	43
9	64	52	45	40	63	51	44	40	50	44	39	49	44	39	48	43	39
10	60	48	41	37	59	48	41	36	47	41	36	46	40	36	45	40	36

LF8SL-8LFSL20L30K8DL

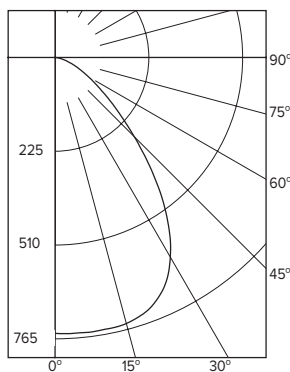
Test No. 18.00445-02

LF8SL-8LFSL15L30K8DL  
LED Light Engine: 3000K, 80 CRI  
System Wattage: 16.2W  
Fixture Delivered Lumens: 1407  
Fixture Efficacy: 87  
Spacing Criteria: 1.2

Test No. 18.00445-01  
Tested at 25°C Ambient  
in accordance to IESNA  
LM-79-2008

ZONAL LUMEN SUMMARY		
ZONE	LUMENS	%LUMINAIRE
0-30	600	32
0-40	928	50
0-60	1302	70
0-90	1406	76

LUMINANCE DATA IN CANDELA/SQ. METER	
Angle in Vertical	Average
45°	14121
55°	8589
65°	5517
75°	3399
85°	1009



### CANDELA DISTRIBUTION

DEG	CANDELA
0	749
5	750
15	748
25	694
35	529
45	304
55	150
65	71
75	27
85	3
90	0

Room Cavity Ratio		COEFFICIENTS OF UTILIZATION ZONAL CAVITY METHOD															
		% Effective Ceiling Cavity Reflectance					% Effective Floor Cavity Reflectance										
		80		70		50		30		10							
		% Wall Reflectance															
		70	50	30	10	70	50	30	10	50	30	10					
1	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	81
3	96	88	81	76	94	86	80	75	83	78	74	81	76	73	78	75	72
4	89	80	72	67	87	78	71	66	76	70	65	74	69	65	72	67	64
5	83	72	65	59	81	71	64	59	69	63	58	68	62	58	66	61	57
6	78	66	59	53	76	65	58	53	64	57	52	62	56	52	61	56	52
7	73	61	53	48	71	60	53	48	59	52	47	57	52	47	56	51	47
8	68	56	49	44	67	56	48	43	54	48	43	53	47	43	52	47	43
9	64	52	45	40	63	51	44	40	50	44	39	49	44	39	48	43	39
10	60	48	41	37	59	48	41	36	47	41	36	46	40	36	45	40	36

LF8SL-8LFSL15L30K8DL

Test No. 18.00445-01

# LF8SL LENS

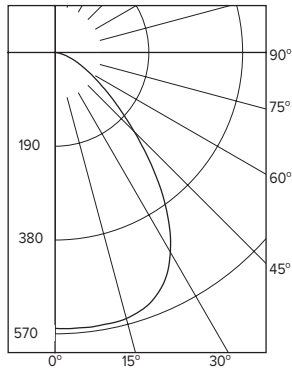
8" LED Lensed Downlight  
120V-277V • 0-10V Dimming • NSF2

LF8SL-8LFSL1L30K8DL  
LED Light Engine: 3000K, 80 CRI  
System Wattage: 12.5W  
Fixture Delivered Lumens: 1050  
Fixture Efficacy: 84  
Spacing Criteria: 1.2

Test No. 18.00445-01  
Tested at 25°C Ambient  
in accordance to IESNA  
LM-79-2008

ZONAL LUMEN SUMMARY		
ZONE	LUMENS	%LUMINAIRE
0-30	448	42.6
0-40	692	66.0
0-60	972	92.6
0-90	1050	100.0

LUMINANCE DATA IN CANDELA/SQ. METER	
Angle in Vertical	Average
45°	10548
55°	6416
65°	4121
75°	2539
85°	754



### CANDELA DISTRIBUTION

DEG	CANDELA
0	559
5	560
15	558
25	518
35	395
45	227
55	112
65	53
75	20
85	2
90	0

### COEFFICIENTS OF UTILIZATION ZONAL CAVITY METHOD

Room Cavity Ratio	% Effective Ceiling Cavity Reflectance																
	80				70				50				30				
	70	50	30	10	70	50	30	10	70	50	30	10	70	50	30	10	
1	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	81
3	96	88	81	76	94	86	80	75	83	78	74	81	76	73	78	75	72
4	89	80	72	67	87	78	71	66	76	70	65	74	69	65	72	67	64
5	83	72	65	59	81	71	64	59	69	63	58	68	62	58	66	61	57
6	78	66	59	53	76	65	58	53	64	57	52	62	56	52	61	56	52
7	73	61	53	48	71	60	53	48	59	52	47	57	52	47	56	51	47
8	68	56	49	44	67	56	48	43	54	48	43	53	47	43	52	47	43
9	64	52	45	40	63	51	44	40	50	44	39	49	44	39	48	43	39
10	60	48	41	37	59	48	41	36	47	41	36	46	40	36	45	40	36

LF8SL-8LFSL1L30K8DL Test No. 18.00445

### Dimming Compatibility Table

Dimming Ballast	Manufacturer	Web Link
DM/DM1	Lutron DTVT	<a href="http://bit.ly/1jSvZg">http://bit.ly/1jSvZg</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/1vtjHA1">http://bit.ly/1vtjHA1</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)

### SpectraSync™ Color Tuning Technology:

Control your space based on the needs of the application, specific activities throughout the day and preferences of the occupants with two distinct SpectraSync™ Color Tuning Technology.

**Dim to Warm:** Dim to Warm mimics the familiar warming effect that occurs with traditional incandescent sources as they are dimmed.

(Available with 2200K-3000K).

**Tunable White:** Tunable White offers users the ability to tailor CCT to their personal preference, enhancing task visibility, material and colors or the aesthetics of the space. (Available with 2700K-5000K or 2700K-6500K).

See separate [SpectraSync™ Tech Sheet](#) for additional details.

### 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](#).

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

701 Millennium Blvd. • Greenville, SC 29607 U.S.A.

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