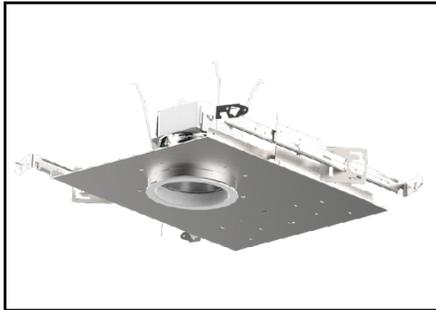




prescolite LF4SL LENS

4" LED Lens Downlight



APPLICATIONS:

LiteFrame LF4SL 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.

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.

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 LF4SL 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 LF4SL 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 to 1%.

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, 3 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:

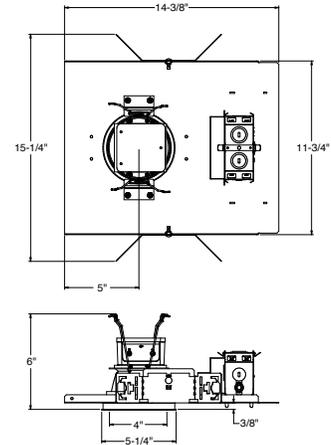
CSA certified to US and Canadian safety standards. Suitable for wet locations. Approved for through wiring. Non-IC rated. EMR is damp rated use only.

WARRANTY:

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

LiteFrame®

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



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

CATALOG NUMBER:

EXAMPLE: LF4SL-4LFLS1 1L30K8DL

Order housing, reflector, and accessories separately

HOUSING	DRIVER OPTION	HOUSING OPTIONS	TRIM APERTURE	KELVIN	CRI	REF. COLOR OPTIONS	REFLECTOR OPTIONS	LENS	ACCESSORIES
<input type="checkbox"/> LF4SL Standard Lumen 0-10V 10% dimming 120-277V	Standard 0-10V 10% Dimming <input type="checkbox"/> DM1 0-10V dimming at 1% <input type="checkbox"/> DMT^{13,14} SpectraSync™ Tunable White <input type="checkbox"/> DMTW¹⁵ SpectraSync™ Tunable Dim to Warm VOLTAGE OPTION <input type="checkbox"/> 347 347V	<input type="checkbox"/> EMR² Emergency Battery Pack with integral test switch and indicator light <input type="checkbox"/> CP^{2,3,4,16,18} Chicago Plenum <input type="checkbox"/> LV¹¹ Lutron VIVE Enabled, 0-10V, 120-277V <input type="checkbox"/> NXWE^{3,17,18} NX Wireless Enabled <input type="checkbox"/> NXE^{3,17,18} NX Enabled, Dual SmartPorts	<input type="checkbox"/> 4LFSL Semi-Diffuse Clear Alzak OUTPUT <input type="checkbox"/> 11L 1100 Lumen Module <input type="checkbox"/> 15L 1500 Lumen Module <input type="checkbox"/> 20L¹⁶ 2000 Lumen Module	<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"/> 2230TD¹⁹ 2200K-3000K SpectraSync™ Dim to Warm <input type="checkbox"/> 2750T¹⁹ 2700K-5000K SpectraSync™ Tunable White <input type="checkbox"/> 2765T¹⁹ 2700K-6500K SpectraSync™ Tunable White	<input type="checkbox"/> 8 80+ CRI <input type="checkbox"/> 9 90+ CRI REF. FINISH OPTIONS <input type="checkbox"/> SP Standard Semi-Diffuse 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"/> FLU^{8,9} Flush Mount Lens (Brushed Aluminum Flange Standard) <input type="checkbox"/> IP65^{6,9,10} Flush Lens, Dust and Water tight to IP65 <input type="checkbox"/> VR^{6,9,10} Vandal Resistant TRIM OPTIONS <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	<input type="checkbox"/> CL⁷ Clear Lens (Regressed Standard) <input type="checkbox"/> DL⁷ Diffuse Lens (Regressed Standard) <input type="checkbox"/> B24⁴ Set of two 24" bar hangers for T-bar ceilings <input type="checkbox"/> B6⁴ Set of two (2) bar hangers for ceiling joist up to 24" centers <input type="checkbox"/> LiteGear⁵ Inverter, single phase central lighting, 125VA-250VA <input type="checkbox"/> LPS Series⁵ LitePower micro-inverter, 20VA-55VA	
Use with HDM/2DM/DMX dimming option: Match Housing to Trim Output			<input type="checkbox"/> 120 120V <input type="checkbox"/> 277 277V	<input type="checkbox"/> LVE (HDM Only) Lutron VIVE Enabled, EcoSystem *HDM, 2DM & DMX also available with EMR and VVV	<input type="checkbox"/> HDM¹ Hi-Lume 1% 3-wire/EcoSystem LED Driver <input type="checkbox"/> 2DM¹ Hi-Lume 1% 2-wire LED Driver (120V only) <input type="checkbox"/> DMX¹ DMX with RDM dimming to <0.1%	<input type="checkbox"/> 120 120V <input type="checkbox"/> 277 277V	<input type="checkbox"/> LVE (HDM Only) Lutron VIVE Enabled, EcoSystem *HDM, 2DM & DMX also available with EMR and VVV	<input type="checkbox"/> HDM¹ Hi-Lume 1% 3-wire/EcoSystem LED Driver <input type="checkbox"/> 2DM¹ Hi-Lume 1% 2-wire LED Driver (120V only) <input type="checkbox"/> DMX¹ DMX with RDM dimming to <0.1%	<input type="checkbox"/> B24⁴ Set of two 24" bar hangers for T-bar ceilings <input type="checkbox"/> B6⁴ Set of two (2) bar hangers for ceiling joist up to 24" centers <input type="checkbox"/> LiteGear⁵ Inverter, single phase central lighting, 125VA-250VA <input type="checkbox"/> LPS Series⁵ LitePower micro-inverter, 20VA-55VA

Web: www.securitylighting.com

2100 Golf Road, Suite 460, Rolling Meadows, IL 60008-4704

Phone: 1-800-LIGHT IT, 1-800-544-4848, Fax: 847-279-0642

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STANDARD 0-10V DIMMING

ALTERNATIVE DIMMING TO 1% & 0.1%



prescolite
LF4SL LENS
4" LED Lens Downlight

DRIVER DATA	4LFSL20L	4LFSL15L	4LFSL11L
Input Voltage	120-277V	120-277V	120-277V
Input Frequency	50/60 Hz	50/60 Hz	50/60 Hz
Input Current	0.105A (120V) 0.045A (277V)	0.133A (120V) 0.058A (277V)	0.184A (120V) 0.08A (277V)
Input Power	22.1W	16.2W	12.7W
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

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.

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

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
11L	80	CL	1055	12.7	83	LF4SL-4LFSL11L30K8CL
15L	80	CL	1390	16.2	86	LF4SL-4LFSL15L30K8CL
20L	80	CL	1845	21.6	85	LF4SL-4LFSL20L30K8CL
11L	80	DL	961	12.5	77	LF4SL-4LFSL11L30K8DL
15L	80	DL	1266	16.2	78	LF4SL-4LFSL15L30K8DL
20L	80	DL	1681	21.6	78	LF4SL-4LFSL20L30K8 DL
11L	80	FLUDL	917	12.7	72	LF4SL-4LFSL11L30K8FLUDL
15L	80	FLUDL	1208	15.8	76	LF4SL-4LFSL15L30K8FLUDL
20L	80	FLUDL	1603	21.6	74	LF4SL-4LFSL20L30K8FLUDL
11L	80	VR/IP65	1022	12.7	80	LF4SL-4LFSL11L30K8VR/IP65
15L	80	VR/IP65	1346	15.9	85	LF4SL-4LFSL15L30K8VR/IP65
20L	80	VR/IP65	1787	21.6	83	LF4SL-4LFSL20L30K8VR/IP65

LF4SL-4LFSL20L30K8DL

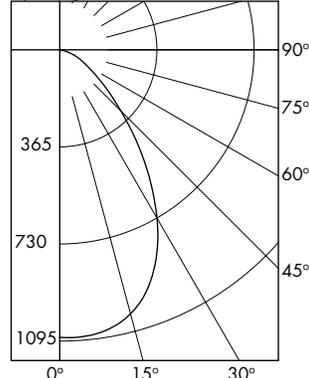
LED Light Engine: 3000K, 80 CRI

System Wattage: 21.6W

Fixture Delivered Lumens: 1681

Fixture Efficacy: 78

Spacing Criteria: 1.1



Test No. 18.00441-02

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

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	788	47
0-40	1156	69
0-60	1562	93
0-90	1681	100
90-180	0	0
0-180	1681	100

LUMINANCE DATA IN CANDELA/ SQ. METER

Angle in Vertical	Average
45°	57006
55°	35326
65°	24483
75°	14159
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	112	108	105	102	109	106	103	100	102	99	97	98	96	94	95	93	92
2	104	99	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

LF4SL-4LFSL20L30K8DL

Test No. 18.00441-02

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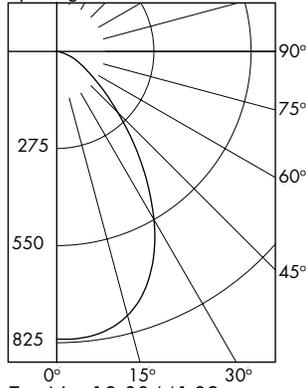


LF4SL LENS

4" LED Lens Downlight

LF4SL-4LFSL15L30K8DL

LED Light Engine: 3000K, 80 CRI
System Wattage: 16.2W
Fixture Delivered Lumens: 1266
Fixture Efficacy: 78
Spacing Criteria: 1.1



CANDELA DISTRIBUTION

DEG	CANDELA
0	819
5	819
15	779
25	651
35	445
45	246
55	124
65	63
75	22
85	0
90	0

Test No. 18.00441-02

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

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	593	47
0-40	871	69
0-60	1176	93
0-90	1266	100
90-180	0	0
0-180	1266	100

LUMINANCE DATA IN CANDELA/ SQ. METER

Angle in Vertical	Average
45°	42932
55°	26605
65°	18438
75°	10663
85°	0

COEFFICIENTS OF UTILIZATION ZONAL CAVITY METHOD

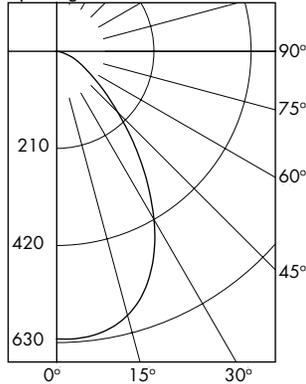
Room Cavity Ratio	% Effective Ceiling Cavity Reflectance																
	80					70					50						
	20% Effective Floor Cavity Reflectance																
	% Wall Reflectance																
	70	50	30	10	70	50	30	10	70	50	30	10	50	30	10		
1	112	108	105	102	109	106	103	100	102	99	97	98	96	94	95	93	92
2	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

LF4SL-4LFSL15L30K8DL

Test No. 18.00441-01

LF4SL-4LFSL11L30K8DL

LED Light Engine: 3000K, 80 CRI
System Wattage: 12.5W
Fixture Delivered Lumens: 961
Fixture Efficacy: 77
Spacing Criteria: 1.1



CANDELA DISTRIBUTION

DEG	CANDELA
0	622
5	622
15	591
25	494
35	338
45	187
55	94
65	48
75	17
85	0
90	0

Test No. 18.00441

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

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	450	46.9
0-40	661	68.8
0-60	893	92.9
0-90	961	100.0
90-180	0	0.0
0-180	961	100.0

LUMINANCE DATA IN CANDELA/ SQ. METER

Angle in Vertical	Average
45°	32620
55°	20214
65°	14009
75°	8102
85°	0

COEFFICIENTS OF UTILIZATION ZONAL CAVITY METHOD

Room Cavity Ratio	% Effective Ceiling Cavity Reflectance																
	80					70					50						
	20% Effective Floor Cavity Reflectance																
	% Wall Reflectance																
	70	50	30	10	70	50	30	10	70	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

LF4SL-4LFSL11L30K8DL

Test No. 18.00441

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
HDM	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

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).

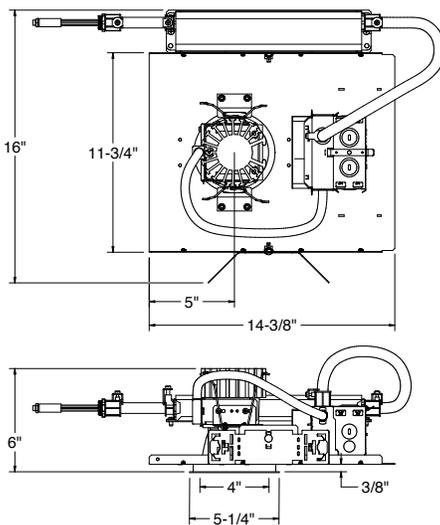
See separate [SpectraSync™ Tech Sheet](#) for additional details.

NX Distributed Intelligence:

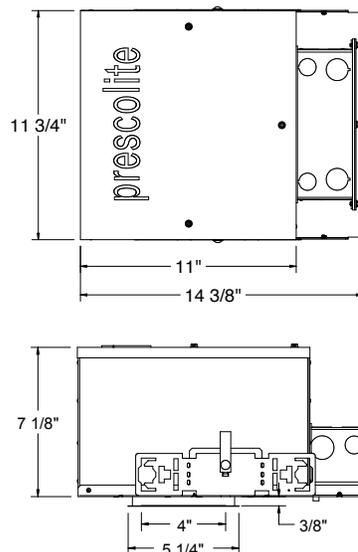
Supports indoor and outdoor applications, wired, wireless and hybrid networked NX lighting control deployments and enables emerging applications such as Hubbell Lighting's SpectraSync™ color tuning technology.

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

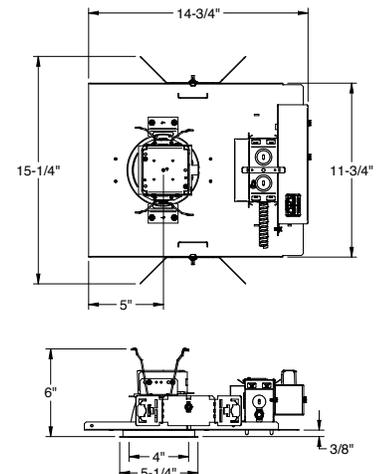
See Hubbell Controls Solution [NX Brochure](#).



LF4SL EMR



LF4SL CP



LF4SL LENS NX(W/E)