

LF4SQSL LENS

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

LiteFrame LF4SQSL is a 4" specification grade LED lensed downlight that utilizes remote phosphor technology 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: Self-trim standard with a regressed clear, prismatic or diffused lens. Painted white self-trim (WT) available as an option. Reflector is made from anodized Alanod Miro 4 aluminum.

LED Light Engine: The LF4SQSL uses the Philips Fortimo DLM Gen 5 LED Module with remote phosphor technology. This technology 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. The light engine comes standard with 90 CRI in all Kelvin temperatures.

LED Driver: The LF4SQSL 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.

Catalog Number	
Comments	Type

LiteFrame



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 to 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). Housing provides up to 6" rotational adjustment of the square trim.

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 splash zone applications.

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

ORDERING GUIDE

Order housing, reflector, and accessories separately.

EXAMPLE: LF4SQSLDM1-SQSL15L40K8CL

HOUSING	DRIVER OPTIONS	VOLTAGE OPTION	HOUSING OPTIONS	TRIM APERTURE	KELVIN	REF. COLOR OPTIONS	LENS	ACCESSORIES	
<input type="checkbox"/> LF4SQSL 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^{7,8} SpectraSync™ Tunable White <input type="checkbox"/> DMTW⁹ SpectraSync™ Dim to Warm	Standard 120V-277V <input type="checkbox"/> 347 347V	<input type="checkbox"/> EMR³ Emergency Battery Pack with remote test switch and indicator light <input type="checkbox"/> CP^{2,3,10,12} Chicago Plenum <input type="checkbox"/> LV⁶ Lutron Vive Enabled, 0-10V, 120-277V <input type="checkbox"/> NXWE^{2,11,12} NX Wireless Enabled <input type="checkbox"/> NXE^{2,11,12} NX Enabled, Dual SmartPorts	<input type="checkbox"/> 4SQSL Semi-Diffuse Clear Alzak <div style="background-color: #cccccc; padding: 2px; text-align: center;">OUTPUT</div> <input type="checkbox"/> 11L 1100 Lumen Module <input type="checkbox"/> 15L 1500 Lumen Module <input type="checkbox"/> 20L¹⁰ 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"/> 2230TD¹³ 2200K-3000K SpectraSync™ Dim to Warm <input type="checkbox"/> 2750T¹³ 2700K-5000K SpectraSync™ Tunable White <input type="checkbox"/> 2765T¹³ 2700K-6500K SpectraSync™ Tunable White	Standard Clear Alzak <input type="checkbox"/> CG Champagne 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"/> CL Regressed Clear Lens <input type="checkbox"/> DL Regressed Diffuse Lens <input type="checkbox"/> PL Regressed Prismatic Lens Notes: 1 For EDM, 2DM and DMX options, housing output must match trim output 2 Not available with EMR, DMX, LV or LVE 3 Not available with 347V 4 See Central Inverter compatibility note and web links on page 2 5 Accessories should be selected with CP housing if required. 6 LV requires standard dimming or DM1 7 Must select either 2750T or 2765T Kelvin with DMT driver option 8 Not available with LV or LVE 9 Must select 2230TD with DMTW driver option 10 Not compatible with DMT or DMTW 11 Not available with CP option 12 Not available with EDM, 2DM or DMX 13 Only available in 90+ CRI	<input type="checkbox"/> B24⁵ Set of two 24" bar hangers for T-bar ceilings <input type="checkbox"/> B6⁵ 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	
Use with EDM/2DM/DMX dimming option: Match Housing to Trim Output				<input type="checkbox"/> LF4SQSL11L <input type="checkbox"/> LF4SQSL15L <input type="checkbox"/> LF4SQSL20L	<input type="checkbox"/> EDM¹ Hi-Lume 1% 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 (EDM Only) Lutron Vive Enabled, EcoSystem <i>*EDM, 2DM & DMX also available with EMR and WW</i>	<div style="background-color: #cccccc; padding: 2px; text-align: center;">CRI</div> <input type="checkbox"/> 8 80+ CRI <input type="checkbox"/> 9 90+ CRI	<div style="background-color: #cccccc; padding: 2px; text-align: center;">TRIM OPTIONS</div> <input type="checkbox"/> WT Painted White Flange Only

STANDARD 0-10V DIMMING

ALTERNATIVE DIMMING TO 1% & 0.1%

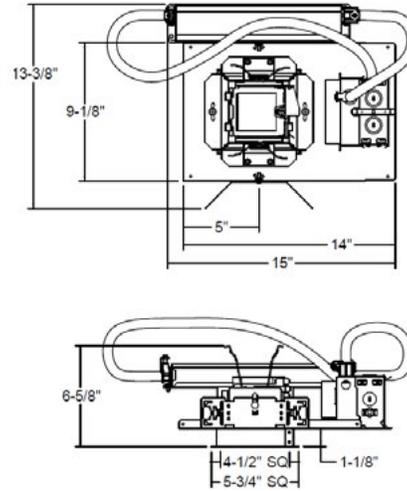
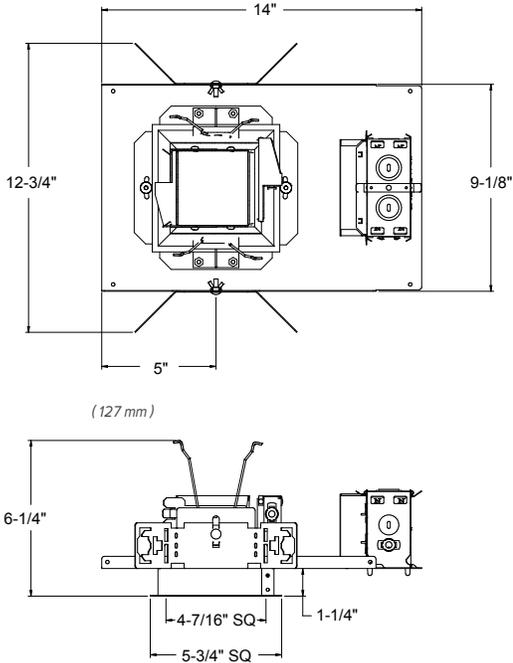
LF4SQSL LENS

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

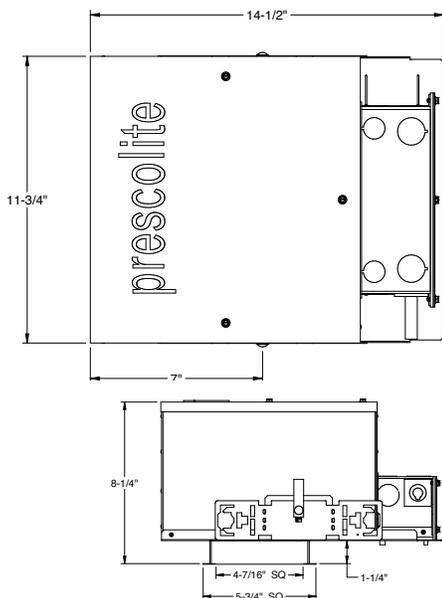
DIMENSIONS

Ceiling Cutout: 5 1/4" x 5 1/4"
Maximum Ceiling Thickness: 1/4"
For conversion to millimeters, multiply inches by 25.4
Not to Scale

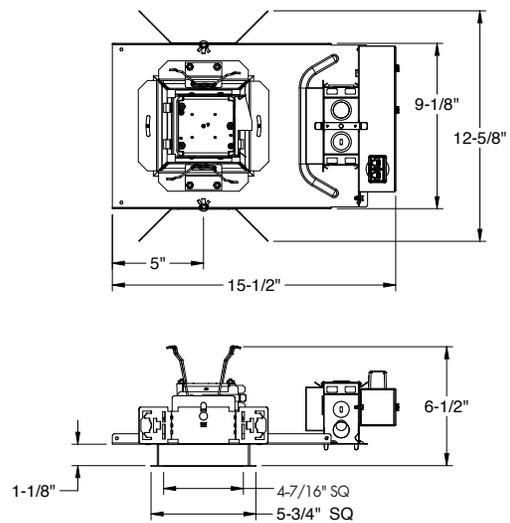
LF4SQSL EMR



LF4SQSL CP



LF4SQSL LENS NX(W)E



LF4SQSL LENS

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

PHOTOMETRY

DRIVER DATA	4SQSL20L	4SQSL15L	4SQSL11L
Input Voltage	120-277V	120-277V	120-277V
Input Frequency	50/60 Hz	50/60 Hz	50/60 Hz
Input Current	0.209A (120V) 0.091A (277V)	0.158A (120V) 0.068A (277V)	0.116A (120V) 0.050A (277V)
Input Power	25.1W	19.1W	13.9W
Constant Current Output	200-1000mA	200-1000mA	200-1000mA
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

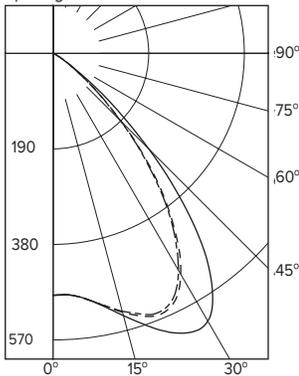
Over-voltage, over-current, short-circuit protected

*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.

LF4SQSL-4LFSQSL11L30K8CL
LED Light Engine: 3000K, 80CRI
System Wattage: 12.7W
Fixture Delivered Lumens: 997
Fixture Efficacy: 79
Spacing Criteria: 1.4

Test No. **18.00409**
Tested at 25°C Ambient
in accordance to IESNA
LM-79-2008



CANDELA DISTRIBUTION

DEG	0°	45°	90°
0	481	481	481
5	484	484	484
15	533	540	531
25	555	614	549
35	417	547	411
45	191	269	188
55	42	47	43
65	5	6	5
75	1	2	1
85	0	0	0
90	0	0	0

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	466	46.7
0-40	760	76.2
0-60	988	99.1
0-90	997	100.0

COEFFICIENTS OF UTILIZATION ZONAL CAVITY METHOD

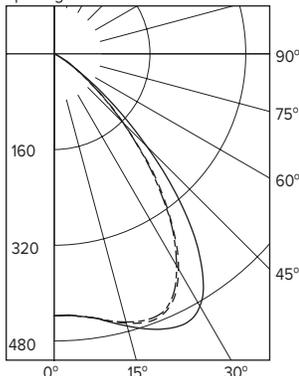
Room Cavity Ratio	% Effective Ceiling Cavity Reflectance																
	80			70			50			10							
	70	50	30	70	50	30	70	50	30	70	50	30					
1	112	109	106	104	110	107	104	102	103	101	99	99	98	96	94	93	
2	106	100	95	91	103	98	94	90	95	91	88	92	89	88	89	86	84
3	99	91	85	80	97	90	84	80	87	82	78	84	80	77	82	79	76
4	92	83	77	72	90	82	76	71	80	75	70	78	73	69	76	72	69
5	86	76	69	64	85	75	69	64	73	68	63	72	67	63	70	66	62
6	81	70	63	58	79	69	62	58	68	62	57	66	61	57	65	60	56
7	76	65	57	52	74	64	57	52	62	56	52	61	56	52	60	55	51
8	71	60	52	48	70	59	52	47	58	52	47	57	51	47	56	51	47
9	67	55	48	43	65	55	48	43	54	47	43	53	47	43	52	47	43
10	63	51	44	40	62	51	44	40	50	44	40	49	43	39	48	43	39

LF4SQSL-4SQSL11L30K8CL

Test No. 18.00409

LF4SQSL-4LFSQSL11L30K8DL
LED Light Engine: 3000K, 80CRI
System Wattage: 12.7W
Fixture Delivered Lumens: 835
Fixture Efficacy: 66
Spacing Criteria: 1.3

Test No. **18.00410**
Tested at 25°C Ambient
in accordance to IESNA
LM-79-2008



CANDELA DISTRIBUTION

DEG	0°	45°	90°
0	438	438	438
5	440	440	440
15	466	471	464
25	462	501	358
35	340	428	337
45	164	219	162
55	45	46	44
65	5	5	5
75	1	1	1
85	0	0	0
90	0	0	0

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	394	47.3
0-40	630	75.5
0-60	826	99.0
0-90	835	100.0

COEFFICIENTS OF UTILIZATION ZONAL CAVITY METHOD

Room Cavity Ratio	% Effective Ceiling Cavity Reflectance																
	80			70			50			30			10				
	70	50	30	70	50	30	70	50	30	70	50	30	70	50	30		
1	112	109	106	104	110	107	104	102	103	101	99	99	98	96	94	93	
2	106	100	95	91	103	98	94	90	95	91	88	92	89	88	89	86	84
3	99	91	85	80	97	90	84	80	87	82	78	84	80	77	82	79	76
4	92	83	77	72	90	82	76	71	80	74	70	78	73	69	76	72	69
5	86	76	69	64	85	75	69	64	73	68	63	72	67	63	70	66	62
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	56
7	76	65	57	52	74	64	57	52	62	56	52	61	56	52	60	55	51
8	71	60	53	48	70	59	52	48	58	52	47	57	51	47	56	51	47
9	67	55	48	44	65	55	48	44	54	48	43	53	47	43	52	47	43
10	63	51	45	40	62	51	44	40	50	44	40	49	44	40	48	43	40

LF4SQSL-4SQSL11L30K8DL

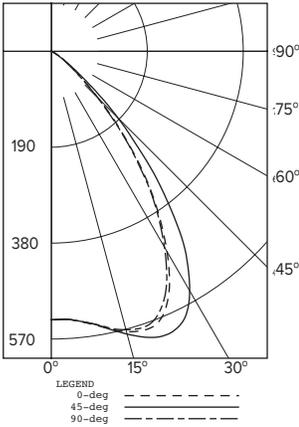
Test No. 18.00410

LF4SQSL LENS

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

LF4SQSL-4LFSQSL1L30K8PL
LED Light Engine: 3000K, 80CRI
System Wattage: 12.7W
Fixture Delivered Lumens: 881
Fixture Efficacy: 69
Spacing Criteria: 1.2

Test No. 18.00411
Tested at 25°C Ambient
in accordance to IESNA
LM-79-2008



CANDELA DISTRIBUTION

DEG	0°	45°	90°
0	532	532	532
5	535	535	535
15	575	580	571
25	545	600	533
35	351	450	347
45	133	187	129
55	33	31	31
65	3	4	3
75	1	1	1
85	0	0	0
90	0	0	0

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	437	53.7
0-40	716	81.3
0-60	874	99.2
0-90	881	100.0

COEFFICIENTS OF UTILIZATION ZONAL CAVITY METHOD

Room Cavity Ratio	% Effective Ceiling Cavity Reflectance																
	80			70			50			30			10				
	20% Effective Floor Cavity Reflectance																
	% Wall Reflectance																
	70	50	30	10	70	50	30	10	70	50	30	10	70	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	93	90	87	90	87	85
3	100	92	87	82	98	91	86	82	88	84	80	86	82	79	84	80	78
4	94	85	79	74	92	84	78	73	82	77	73	80	75	72	78	74	71
5	88	78	72	67	86	77	71	67	76	70	66	74	69	65	72	68	65
6	83	72	66	61	81	72	65	60	70	64	60	69	63	60	67	63	59
7	78	67	60	55	76	66	60	55	65	59	55	64	59	55	63	58	54
8	73	62	55	51	72	62	55	51	61	55	50	59	54	50	58	54	50
9	69	58	51	47	68	57	51	47	56	51	47	56	50	46	55	50	46
10	65	54	48	43	64	54	47	43	53	47	43	52	47	43	51	46	43

LF4SQSL4SQSL1L30K8PL

Test No. 18.00411

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/1vtjHA1
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](#).