

4" Square LED Open Downlight

LF4SQSL

120V-277V
0-10V Dimming

APPLICATIONS:

LiteFrame LF4SQSL is a 4" 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:

Self-trim standard. Painted white self-trim (WT) available as option. Reflector is made from anodized Alanod Miro 4 aluminum

LED LIGHT ENGINE:

The LF4SQSL 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 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.

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) and 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. EM and EMR are damp rated use only. ENERGY STAR qualified with open clear Alzak reflector. UL approved for NSF2 non-food zone applications.

WARRANTY:

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

DATE: _____ TYPE: _____

FIRM NAME: _____

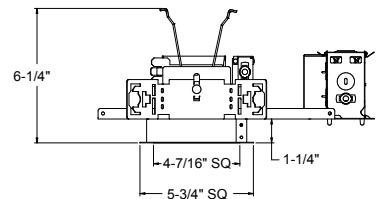
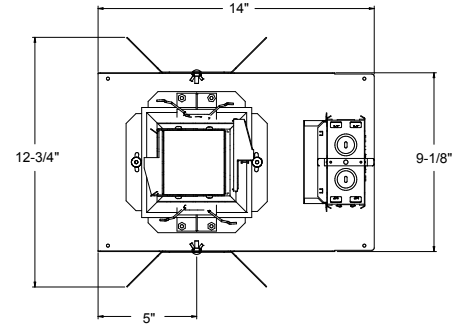
PROJECT: _____

LiteFrame®



Ceiling Cutout: 5-1/4" x 5-1/4"
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 and NX(W)E lineart

CATALOG NUMBER:

EXAMPLE: LF4SQSL-4SQSL20L35K8

Order housing, reflector, and accessories separately

HOUSING	DRIVER OPTIONS	VOLTAGE OPTION	HOUSING OPTIONS	TRIM APERTURE	OUTPUT	KELVIN	REF. COLOR OPTIONS	REFLECTOR OPTIONS	ACCESSORIES	
<input type="checkbox"/> LF4SQSL Standard Lumen 0-10V 10% dimming 120-277V	Standard 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™ Tunable Dim to Warm	Standard 120V-277V <input type="checkbox"/> 347 347V	<input type="checkbox"/> EM^{3,14} Emergency Battery Pack with integral test switch and indicator light <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	<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"/> EM^{3,14} Pre-punched reflector for integral switch <div style="border: 1px solid black; padding: 2px; text-align: center;">TRIM OPTIONS</div> <input type="checkbox"/> WT Painted White Flange Only	<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 joint 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	
<div style="background-color: black; color: white; padding: 5px; text-align: center;"> Use with EDM/2DM/DMX dimming option: Match Housing to Trim Output </div>				<input type="checkbox"/> 120 120V <input type="checkbox"/> 277 277V		<input type="checkbox"/> LVE (EDM Only) Lutron Vive Enabled, EcoSystem				
<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%			*EDM, 2DM & DMX also available with EMR and VVV		<div style="background-color: #cccccc; padding: 2px;">CRI</div> <input type="checkbox"/> 8 80+ CRI <input type="checkbox"/> 9 90+ CRI				

STANDARD 0-10V DIMMING
ALTERNATIVE DIMMING TO 1% & 0.1%



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

LF4-LED-016

PHOTOMETRIC DATA

LiteFrame - 4" LF4SQSL Downlight

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	0.105A (120V) 0.045A (277V)	0.133A (120V) 0.058 (277V)	0.184A (120V) 0.08A (277V)
Input Power	22.3W	16.1W	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

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.

Delivered Lumens

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

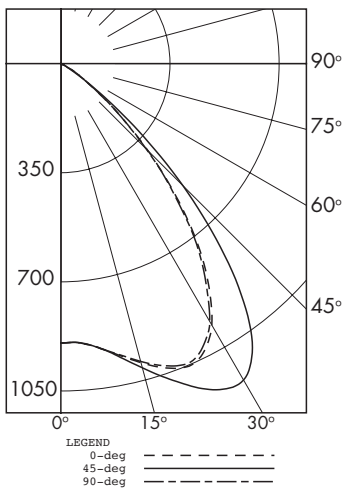
Output	CRI	Lens	Delivered Lumens	Input Watts	Lumens Per Watt	Full Catalog String
11L	80	Open	1085	12.7	85	LF4SL-4SQSL11L30K8
15L	80	Open	1454	16.1	90	LF4SL-4SQSL15L30K8
20L	80	Open	1916	22.3	86	LF4SL-4SQSL20L30K8
11L	90	Open	1038	14.1	74	LF4SL-4SQSL11L30K9
15L	90	Open	1406	19.4	72	LF4SL-4SQSL15L30K9
20L	90	Open	1853	25.5	73	LF4SL-4SQSL20L30K9

LF4SQSL-4SQSL20L30K8

LED Light Engine: 3000K, 80 CRI
System Wattage: 22.3W
Fixture Delivered Lumens: 1916
Fixture Efficacy: 86
Spacing Criteria: 1.4

CANDELA DISTRIBUTION

DEG	0°	45°	90°
0	896	896	896
5	903	902	903
15	993	1010	989
25	1046	1154	1035
35	809	1067	793
45	395	554	388
55	96	99	98
65	11	11	11
75	2	3	2
85	1	1	0
90	0	0	0



Test No. 18.00340

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

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	875	45.1
0-40	1446	74.6
0-60	1920	99.0
0-90	1938	100.0
90-180	0	0.0
0-180	1938	100.0

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	
1	112	109	106	104	110	107	104	102	103	101	99	99	97	96	96	94	93
2	105	100	95	91	103	98	93	90	94	91	88	86	86	85	83	81	80
3	98	91	85	80	95	89	84	79	87	82	78	84	80	77	75	73	71
4	92	83	76	71	90	82	75	71	79	74	70	77	73	69	75	71	68
5	86	76	69	63	84	75	68	63	73	67	63	71	66	62	69	65	61
6	80	69	62	57	79	69	62	57	67	61	56	65	60	56	64	59	56
7	75	64	57	52	74	63	56	51	62	56	51	60	55	51	59	54	50
8	70	59	52	47	69	58	51	47	57	51	46	56	50	46	55	50	46
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42
10	62	51	44	39	61	50	43	39	49	43	39	48	43	39	47	42	39

LF4SQSL-4SQSL20L30K8

Test No: 18.00340



Web: www.prescolite.com • Tech Support: (888) 777-4832
701 Millennium Boulevard • Greenville, SC 29607 U.S.A. • Phone (864) 678-1000
Copyright ©2018 Prescolite, Inc., a division of Hubbell Lighting, Inc. All Rights Reserved
Specifications subject to change without notice. • Printed in U.S.A. • LFR-LED-016 • 02/06/19

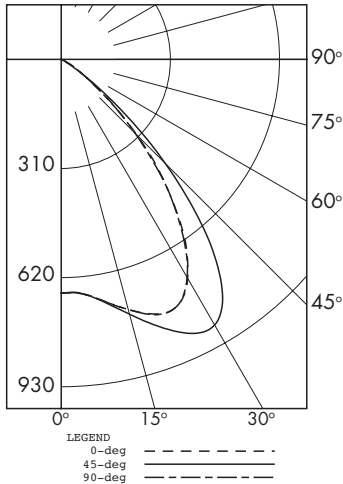


PHOTOMETRIC DATA

LiteFrame - 4" LF4SQSL Downlight

LF4SQSL-4SQSL15L30K8

LED Light Engine: 3000K, 80 CRI
 System Wattage: 16.1W
 Fixture Delivered Lumens: 1454
 Fixture Efficacy: 90
 Spacing Criteria: 1.4



CANDELA DISTRIBUTION

DEG	0°	45°	90°
0	642	642	642
5	647	646	647
15	712	725	712
25	750	831	750
35	587	771	579
45	294	405	287
55	74	75	73
65	8	9	8
75	2	2	2
85	0	1	0
90	0	0	0

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	630	44.7
0-40	1044	74.1
0-60	1395	99.0
0-90	1409	100.0
90-180	0	0.0
0-180	1409	100.0

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	112	109	106	104	110	107	104	102	103	101	99	99	97	96	96	94	93
2	105	99	95	91	103	98	93	89	94	91	87	91	88	86	88	86	84
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75
4	92	83	76	71	90	81	75	70	79	74	70	77	72	69	75	71	68
5	86	76	69	63	84	75	68	63	73	67	62	71	66	62	69	65	61
6	80	69	62	57	78	68	62	57	67	61	56	65	60	56	64	59	55
7	75	64	56	51	73	63	56	51	62	55	51	60	55	51	59	54	50
8	70	59	51	47	69	58	51	46	57	51	46	56	50	46	55	50	46
9	66	54	47	42	65	54	47	42	53	46	42	52	46	42	51	46	42
10	62	50	43	39	61	50	43	39	49	43	39	48	42	38	47	42	38

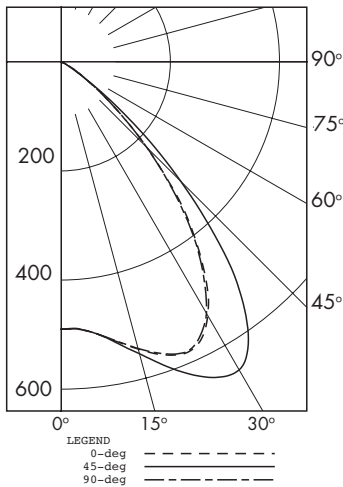
LF4SQSL-4SQSL15L30K8 Test No. 18.00339

Test No. 18.00339

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

LF4SQSL-4SQSL11L30K8

LED Light Engine: 3000K, 80 CRI
 System Wattage: 12.7W
 Fixture Delivered Lumens: 1085
 Fixture Efficacy: 85
 Spacing Criteria: 1.4



CANDELA DISTRIBUTION

DEG	0°	45°	90°
0	490	490	490
5	494	494	494
15	545	554	544
25	578	638	575
35	451	596	445
45	222	310	221
55	54	55	54
65	6	6	6
75	1	2	1
85	0	0	0
90	0	0	0

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	483	44.7
0-40	802	74.3
0-60	1070	99.1
0-90	1080	100.0
90-180	0	0.0
0-180	1080	100.0

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	112	109	106	104	110	107	104	102	103	101	99	99	97	96	96	94	93
2	105	99	95	91	103	98	93	89	94	91	87	91	88	86	88	86	84
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75
4	92	83	76	71	90	81	75	70	79	74	70	77	72	69	75	71	68
5	86	76	69	63	84	75	68	63	73	67	62	71	66	62	69	65	61
6	80	69	62	57	78	68	62	57	67	61	56	65	60	56	64	59	55
7	75	64	56	51	73	63	56	51	62	55	51	60	55	51	59	54	50
8	70	59	51	47	69	58	51	46	57	51	46	56	50	46	55	50	46
9	66	54	47	42	65	54	47	42	53	46	42	52	46	42	51	46	42
10	62	50	43	39	61	50	43	39	49	43	39	48	42	38	47	42	38

LF4SQSL-4SQSL11L30K8 Test No. 18.00338

Test No. 18.00338

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



LiteFrame - 4" LF4SQSL Downlight

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

DM

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).

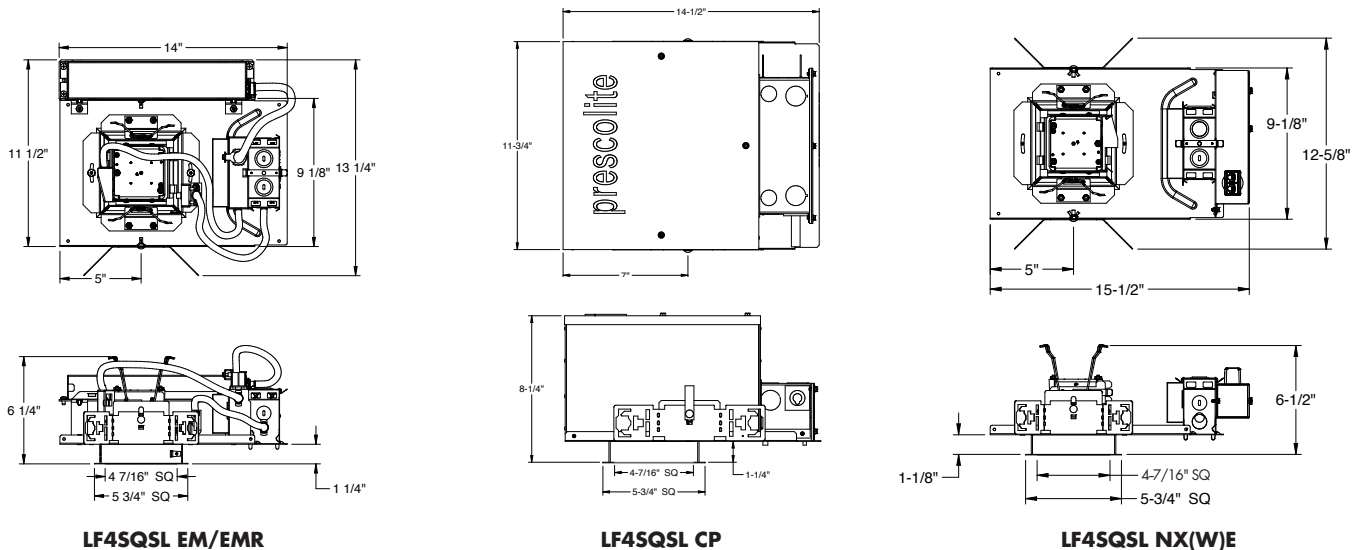
See separate [SpectraSync™ Tech Sheet](#) for additional details.

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](#).



Web: www.prescolite.com • Tech Support: (888) 777-4832
 701 Millennium Boulevard • Greenville, SC 29607 U.S.A. • Phone (864) 678-1000
 Copyright ©2018 Prescolite, Inc., a division of Hubbell Lighting, Inc. All Rights Reserved
 Specifications subject to change without notice. • Printed in U.S.A. • LFR-LED-016 • 02/06/19

