LF4SQML LENS

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

LiteFrame LF4SQML 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 35ºC (95ºF) in open plenum applications.

Catalog Number	
Comments	Type

LiteFrame®

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 90ºC through wiring.

Reflector: Self-trim standard with a regressed clear, prismatic, or diffused lens. Painted white self-trim (WT) available as option. Reflector is made from anodized Alanod Miro 4 aluminum.

LED Light Engine: The LF4SQML 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 LF4SQML 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%.
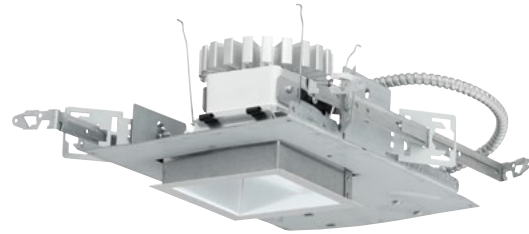
Installation: Adjustable Bar hangers included (not with CP option). Universal adjustable mounting brackets also accept 1/2" EMT conduit or 1 1/2" or 3/4" lathing channel (by others) or Prescolite 24" bar hangers (B24 or B6). Housing provides up to 6º rotational adjustment of the square trim.

Certifications: CSA certified to US and Canadian safety standards. Suitable for wet locations. Approved for through wiring. Non-IC rated. 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: LF4SQML-4SQML30L30K8PL

HOUSING	DRIVER OPTIONS	VOLTAGE OPTION	HOUSING OPTIONS		TRIM APERTURE	KELVIN	REF. COLOR OPTIONS	TRIM OPTIONS	LENS		ACCESSORIES
❑ **LF4SQML** Medium Lumen 0-10V 10% dimming 120V-277V	*Standard 0-10V 10% Dimming* ❑ **DM1**[1] 0-10V dimming at 1% ❑ **EDM**[3,4] Hi-Lume 1% EcoSystem LED Driver ❑ **2DM**[3,4] Hi-Lume 1% 2-wire LED Driver (120V only) ❑ **DMX**[3,4] DMX with RDM dimming to <0.1%	*Standard 120V-277V* ❑ **120** 120V ❑ **277** 277V ❑ **347** 347V	❑ **CP**[3,5,8,9,10] Chicago Plenum ❑ **LV**[6] Lutron Vive Enabled, 0-10V, 120-277V ❑ **LVE (EDM Only)** Lutron Vive Enabled, EcoSystem ❑ **NXWE**[7,8,9,10] NX Wireless Enabled ❑ **NXE**[7,8,9,10] NX Enabled, Dual SmartPorts ❑ **EMR**[3] Emergency Battery Pack with remote test switch and indicator light	-	❑ **4SQML30L** Semi-Diffuse Clear Alzak Reflector with 3000 Lumen Module	❑ **27K** 2700 Kelvin ❑ **30K** 3000 Kelvin ❑ **35K** 3500 Kelvin ❑ **40K** 4000 Kelvin ❑ **50K** 5000 Kelvin **CRI** ❑ **8** 80+ CRI ❑ **9** 90+ CRI	*Standard Clear Alzak* ❑ **CG** Champagne Gold Alzak ❑ **BL** Black Alzak ❑ **WE** Wheat Alzak ❑ **LW** Light Wheat Alzak ❑ **PW** Pewter Alzak ❑ **WH** Painted Matte White Reflector and Flange ❑ **BC** Painted Black Reflector and Flange	❑ **WT** Painted White Flange only	❑ **CL** Regressed Clear Lens ❑ **DL** Regressed Diffuse Lens ❑ **PL** Regressed Prismatic Lens	-	❑ **B24**[5] Set of two 24" bar hangers for T-bar ceilings ❑ **B6**[5] Set of two (2) bar hangers for ceiling joist up to 24" centers ❑ **LiteGear**[2] Inverter, single phase central lighting, 125VA-250VA ❑ **LPS Series**[2] LitePower micro-inverter, 20VA-55VA

Notes:
1. For DM1, do not specify a voltage if 120 or 277
2. See Central Inverter compatibility note and web links on page 2
3. Not available with 347V
4. Voltage must be specified with EDM, 2DM or DMX
5. Accessories should be selected with CP if required
6. LV requires standard dimming or DM1
7. Not available with CP option
8. Not available with EDM, 2DM or DMX
9. Not available with LV or LVE
10. Not available with EMR

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LF4SQML LENS

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

DIMENSIONS

Ceiling Cutout: 5 ¼" x 5 ¼"
Maximum Ceiling Thickness: 1¼"
For conversion to millimeters, multiply inches by 25.4
Not to Scale
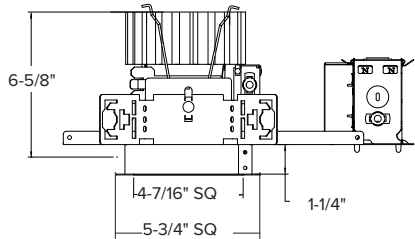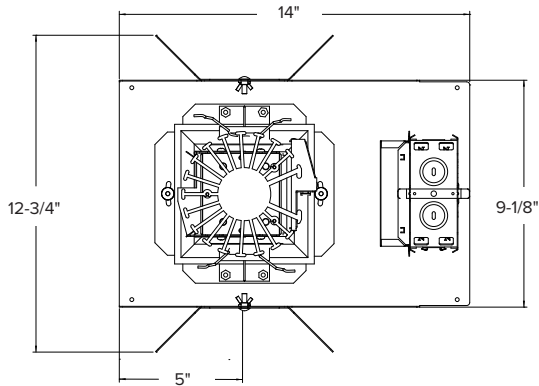
LF4SQML CP

14"
12-3/4"
9-1/8"
5"

6-5/8"
4-7/16" SQ
5-3/4" SQ
1-1/4"

LF4SQML LENS NX(W)E

9-1/8"
12-5/8"
5"
15-1/2"

6-1/2"
1-1/8"
4-7/16" SQ
5-3/4" SQ

14-1/2"
11-3/4"
7"
8-1/4"
4-7/16" SQ
5-3/4" SQ
1-1/4"

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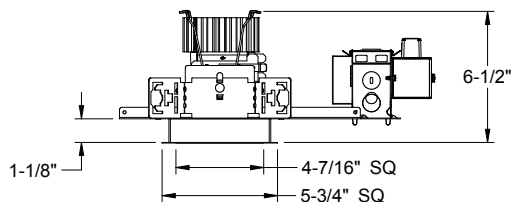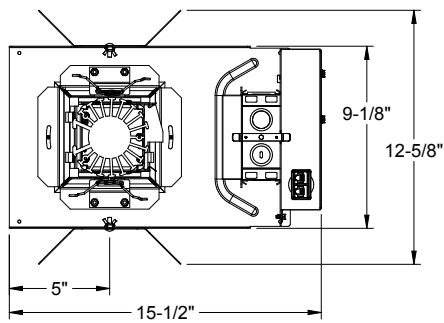
LF4SQML LENS

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

PHOTOMETRY

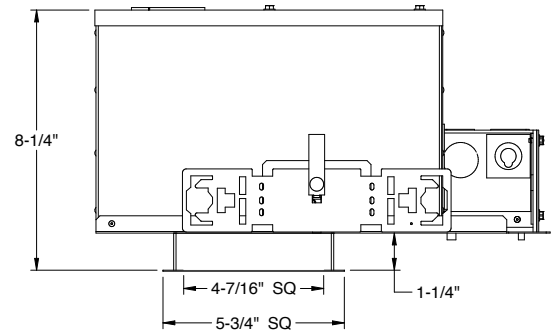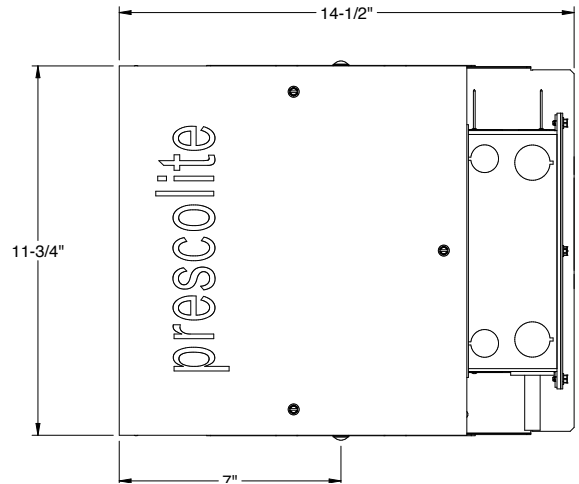| DRIVER DATA	4SQML30L
Input Voltage	120V-277V
Input Frequency	60 Hz
Input Current	0.269A (120V)
	0.117A (277V)
Input Power	32.3W
Power Factor	≥0.90
THD	<20%
EMI Filtering	FCC 47CFR
	Part 15, Class A
Operating Temperature	-20ºC to 35ºC
Dimming	0-10V

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

*Power consumptionand 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

LF4SQML-4LFSQML30L30K8CL
LED Light Engine: 3000K, 80CRI
System Wattage: 32.3W
Fixture Delivered Lumens: 2813
Fixture Efficacy: 87
Spacing Criteria: 1.4

Test No. 18.00409-01
Tested at 25ºC Ambient in accordance to IESNA LM-79-2008
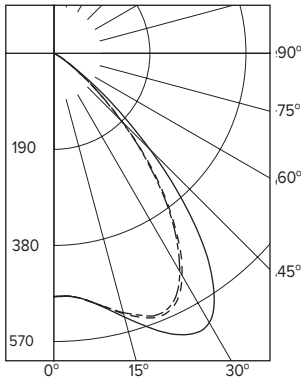
CANDELA DISTRIBUTION

DEG	0º	45º	90º
0	1357	1357	1357
5	1366	1366	1366
15	1504	1524	1498
25	1566	1732	1549
35	1176	1543	1160
45	539	759	530
55	118	133	121
65	14	17	14
75	3	6	3
85	0	0	0
90	0	0	0

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	1314	46.7
0-40	2145	76.2
0-60	2789	99.1
0-90	2814	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	50	30	10	50	30	10
1	112	109	106	104	110	107	104	102	103	101	99		99	98	96	96	94	93
2	106	100	95	91	103	98	94	90	95	91	88		92	89	86	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	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

LF4SQML-4SQML30L30K8CL · Test No. 18.00409-01

LF4SQML-4LFSQML30L30K8DL
LED Light Engine: 3000K, 80CRI
System Wattage: 32.3W
Fixture Delivered Lumens: 2356
Fixture Efficacy: 73
Spacing Criteria: 1.3

Test No. 18.00410-01
Tested at 25ºC Ambient in accordance to IESNA LM-79-2008

CANDELA DISTRIBUTION

DEG	0º	45º	90º
0	1236	1236	1236
5	1241	1241	1241
15	1315	1329	1309
25	1303	1413	1292
35	959	1208	951
45	463	618	457
55	127	130	124
65	14	14	14
75	3	3	3
85	0	0	0
90	0	0	0

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	1113	47.3
0-40	1777	75.5
0-60	2331	99.0
0-90	2355	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	50	30	10	50	30	10
1	112	109	106	104	110	107	104	102	103	101	99		99	98	96	96	94	93
2	106	100	95	91	103	98	94	90	95	91	88		92	89	86	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	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	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

LF4SQML-4SQML30L30K8DL · Test No. 18.00410-01
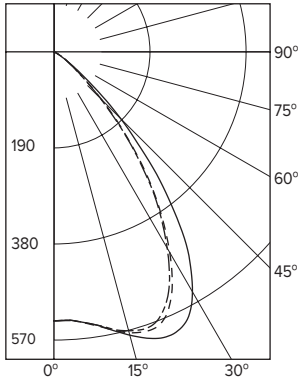
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LF4SQML LENS

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

LF4SQML-4LFSQML30L30K8PL
LED Light Engine: 3000K, 80CRI
System Wattage: 32.3W
Fixture Delivered Lumens: 2486
Fixture Efficacy: 77
Spacing Criteria: 1.2

Test No. 18.00411-01
Tested at 25ºC Ambient
in accordance to IESNA
LM-79-2008

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	1334	53.7
0-40	2021	81.3
0-60	2467	99.2
0-90	2486	100.0

CANDELA DISTRIBUTION

DEG	0°	45°	90°
0	1501	1501	1501
5	1509	1509	1509
15	1622	1636	1611
25	1538	1693	1504
35	990	1270	979
45	375	528	364
55	93	87	87
65	8	11	8
75	3	3	3
85	0	0	0
90	0	0	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	50	30	10	50	30	10	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

LF4SQML-4SQML30L30K8PL   Test No. 18.00411-01

Dimming Compatibility Table

Dimming Ballast	Manufacturer	Web Link
DM/DM1	Lutron DVTV	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

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 Distrubuted Intelligence: 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.

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