LITHONIA LIGHTING®

FEATURES & SPECIFICATIONS

INTENDED USE — The FS Series recessed LED luminaire combines modern aesthetics and performance in a general lighting product that enables the transformation from fluorescent to LED. The high efficacy light engine delivers long life and excellent color to ensure a quality lighting installation. Integrated controls options provide for design flexibility and optimum energy savings. Multiple lumen packages and driver options provide solutions for all your lighting applications. **Certain airborne contaminants can diminish integrity of acrylic. Click here for Acrylic Environmental Compatibility table for suitable uses.**

CONSTRUCTION — Rugged, one-piece cold-rolled steel coated polyester, painted after fabrication. The satin white lens provides excellent shielding and wide distribution. End plates include integral T-bar clips. Fixture may be mounted and wired in continuous rows. Total fixture height is only 4-3/8".

ELECTRICAL — Long-life LEDs, coupled with high-efficiency drivers, provide superior illumination for extended service life. 80% LED lumen maintenance at 60,000 hours (L80/60,000).

eldoLED driver options deliver choice of dimming range, and choices for control, while assuring flicker-free, low-current inrush, 89% efficiency and low EMI.

Optional integrated nLight®controls make each luminaire addressable, allowing them to digitally communicate with other nLight enabled controls such as dimmers, switches, and nLight AIR RIO. Simply connect all the nLight enabled control devices and the FSLED luminaires using standard Cat-5 cabling, or the nLight AIR wireless network. Unique plug-and-play convenience allows devices and luminaires to automatically discover each other and self-commission.

Lumen Management: Unique lumen management system (option N80) provides onboard intelligence that actively manages the LED light source so that constant lumen output is maintained over the system life, preventing the energy waste created by the traditional practice of over-lighting.

Step-level dimming option allows system to be switched to 50% power for compliance with common energy codes while maintaining fixture appearance.

Driver disconnect provided where required to comply with US and Canadian codes.

Integrated Sensor (nLight Wired Networking): This sensor is nLight-enabled, meaning it has the ability to communicate over an nLight network. When wired, using CAT-5 cabling, with other nLight-enabled sensors, power packs, or WallPods, an nLight control zone is created. Once linked to a Gateway, directly or via a Bridge, the zone becomes capable of remote status monitoring and control via SensorView software. See page 2 for the nLight sensor options.

Integrated Smart Sensor (nLight Air Wireless Platform): The RES7 sensor is nLight AIR enabled, meaning it has the ability to communicate over the wireless nLight control platform. It is available with an automatic dimming photocell, and either a digital PIR or a microphonics (PDT) dual technology occupancy sensor. It pairs to other luminaires and wall switches through our mobile app CL*AIR*ity, which allows for simple sensor adjustment. See page 4 for more details on the Integrated Smart Sensor.

INSTALLATION — Unique grid interfacing arrangement provides mounting into standard 1" and 9/16" tee bar or screw slot grids. 9/16" allows fixture trim to hang level with architectural ceiling tiles. Drywall ceiling adaptors available. Suitable for damp location.

LISTINGS — CSA certified to meet US and Canadian standards. IC rated. DesignLights Consortium® (DLC) Premium qualified product. Not all versions of this product may be DLC Premium qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

WARRANTY — 5-year limited warranty. Complete warranty terms located at www.acuitybrands.com/CustomerResources/Terms__and_conditions.aspx

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

FS Series

2FSL2

2' x 2' LED

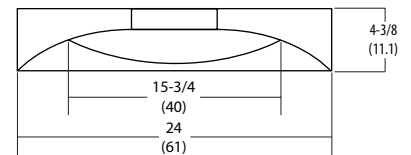### Stock Configurations

Stock Configurations
2FSL2 33L EZ1 LP835
2FSL2 33L EZ1 LP840

DIMENSIONS

All dimensions are inches (centimeters) unless otherwise specified.

Specifications

Length: 24 (61.0)

Width: 24 (61.0)

Depth: 4-3/8 (11.1)

4-3/8 (11.1) · 15-3/4 (40) · 24 (61)

✚ Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and out-of-the-box control compatibility with simple commissioning.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency

- This luminaire is part of an A+ Certified solution for nLight® control networks when ordered with drivers marked by a shaded background*

- This luminaire is part of an A+ Certified solution for nLight control networks, providing advanced control functionality at the luminaire level, when selection includes driver and control options marked by a shaded background*

To learn more about A+, visit www.acuitybrands.com/aplus.

*See ordering tree for details

2FSL2 LED Recessed Lighting 2'x2'

A+ Capable options indicated by this color background.

2FSL2

Series	Air function		Lumens[1]		Lens		Voltage		Driver		Color temperature		Controls		Options	
2FSL2 2X2 FSL	(blank)	Static	20L	2000	(blank)	Satin white	(blank)	MVOLT	EZ1	eldoLED dims to 1%, 0-10V	LP830	3000 K	(blank)	No controls	EL7L	700 lumen battery pack (Noncompliant with CA T20)
	H	Heat removal	33L	3300			347	347[3]	EZB	eldoLED dims to black, 0-10V	LP835	3500 K	N80	nlight® with 80% lumen management	EL14L	1400 lumen battery pack (Noncompliant with CA T20)
			40L	4000					GZ1	Dims to 1% (0-10V dimming)[4]	LP840	4000 K	N80EMG	nlight® with 80% lumen management. For use with generator supply EM power.	E10WLCP	EM Self-Diagnostic battery pack, 10W Constant Power, Certified in CA Title 20 MAEDBS
			48L	4800					GZ10	Dims to 10% (0-10V dimming)[4]	LP850	5000 K				
			60L	6000[2]					EDB	eldoLED DALI[5]			N100	nlight® without lumen management	CP	Chicago plenum
									SLD	Step-level dimming[5,6]			N100EMG	nlight® without lumen management. For use with generator supply EM power.	BGTD	Bodine Generator Transfer Device[9,10]
									EOHN	On/Off (non-dim)					PWS1836	6' prewire, 3/8" diameter, 18-gauge, 1-circuit
													NLTAIR2 RIO	nlight® AIR radio module without sensors[7]	PWS1846	6' prewire, 3/8" diameter, 18-gauge, 2-circuit
															RRL_	RELOC®-ready luminaire[8]
															NPLT	Narrow pallet

Accessories: *Order as separate catalog number.*	
2FS2 F916	Trim to adjust fixture mounting flush with 9/16" T-bar; for 2x2 fixture
DGA22 FS/VT	Drywall ceiling adaptor , unit installation
2X2SMKSHP PAF	Surface Mount Troffer Kit Post Paint

Notes
1 Approximate lumen output.
2 Not available with SLD, EL7L and EL14L.
3 Consult factory for availability. Not available with SLD, EL7L, EL14L or E10WLCP.
4 GZ1, GZ10 drivers not available with any Controls options.
5 Not available with N80, N80EMG, N100 or N100EMG.
6 When using prewire option, use PWS1846.
7 RIO available with EZ1 and EZB drivers only.
8 For ordering logic consult: RRL_2013.
9 Not available with SLD.
10 Must specify voltage. Requires BSE labeling, voltage specific. Consult factory for options.

Performance Data			
Lumen package	Lumens	Input watts	LPW
2FSL2 20L LP830	1950	16.4	119
2FSL2 20L LP835	1984	16.4	121
2FSL2 20L LP840	2018	16.4	123
2FSL2 20L LP850	2018	16.4	123
2FSL2 33L LP830	3298	27.1	122
2FSL2 33L LP835	3355	27.1	124
2FSL2 33L LP840	3412	27.1	126
2FSL2 33L LP850	3412	27.1	126
2FSL2 40L LP830	3963	33.7	118
2FSL2 40L LP835	4032	33.7	120
2FSL2 40L LP840	4100	33.7	122
2FSL2 40L LP850	4100	33.7	122
2FSL2 48L LP830	4793	40.5	118
2FSL2 48L LP835	4875	40.5	120
2FSL2 48L LP840	4958	40.5	122
2FSL2 48L LP850	4958	40.5	122
2FSL2 60L LP830	5922	53.6	111
2FSL2 60L LP835	6025	53.6	112
2FSL2 60L LP840	6127	53.6	114
2FSL2 60L LP850	6127	53.6	114

How to Estimate Delivered Lumens in Emergency Mode
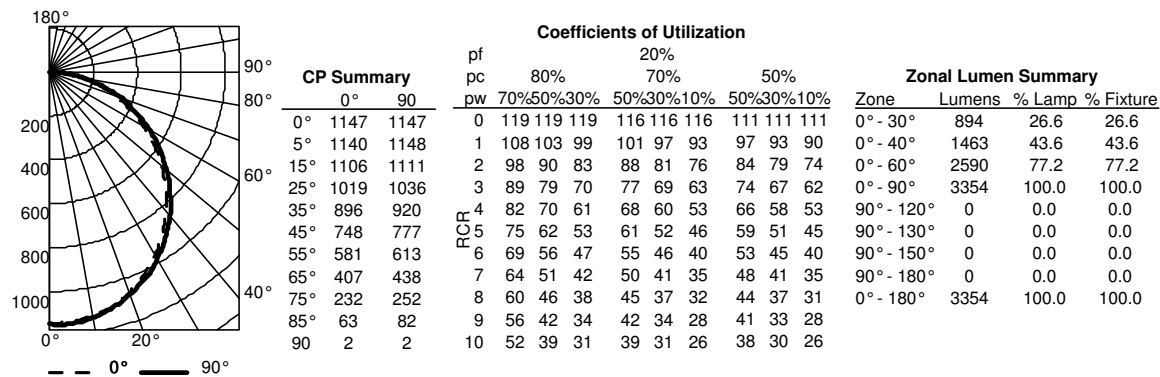Use the formula below to estimate the delivered lumens in emergency mode
Delivered Lumens = 1.25 x P x LPW
P = Ouput power of emergency driver. P = 10W for E10WLCP option.
LPW = Lumen per watt rating of the luminaire. This information is available on
the ABL luminaire spec sheet. LPW = Lumen per watt rating of the luminaire. LPW
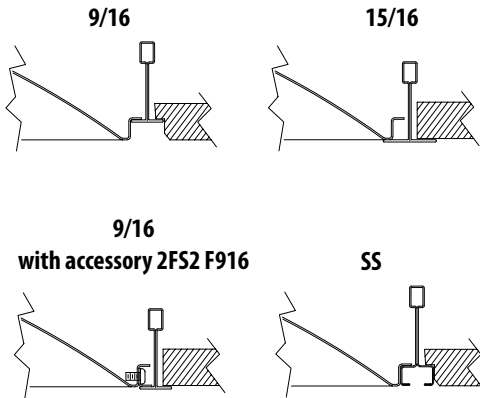information available in Performance Data section.

PHOTOMETRICS
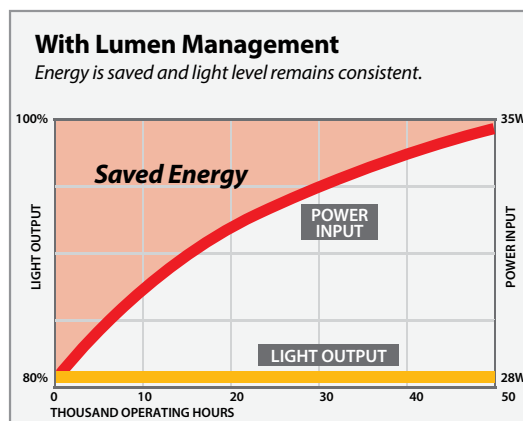
2FSL2 33L LP835, 3355 delivered lumens.

CP Summary

	0°	90
0°	1147	1147
5°	1140	1148
15°	1106	1111
25°	1019	1036
35°	896	920
45°	748	777
55°	581	613
65°	407	438
75°	232	252
85°	63	82
90	2	2

Coefficients of Utilization

pf									
pc		80%			70%			50%	
pw	70%	50%	30%	50%	30%	10%	50%	30%	10%
0	119	119	119	116	116	116	111	111	111
1	108	103	99	101	97	93	97	93	90
2	98	90	83	88	81	76	84	79	74
3	89	79	70	77	69	63	74	67	62
4	82	70	61	68	60	53	66	58	53
5	75	62	53	61	52	46	59	51	45
6	69	56	47	55	46	40	53	45	40
7	64	51	42	50	41	35	48	41	35
8	60	46	38	45	37	32	44	37	31
9	56	42	34	42	34	28	41	33	28
10	52	39	31	39	31	26	38	30	26

RCR (rows 4–10)

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0° - 30°	894	26.6	26.6
0° - 40°	1463	43.6	43.6
0° - 60°	2590	77.2	77.2
0° - 90°	3354	100.0	100.0
90° - 120°	0	0.0	0.0
90° - 130°	0	0.0	0.0
90° - 150°	0	0.0	0.0
90° - 180°	0	0.0	0.0
0° - 180°	3354	100.0	100.0

MOUNTING DATA

9/16

15/16

9/16
with accessory 2FS2 F916

SS

nLight® Control Accessories:			
Order as separate catalog number. Visit www.sensorswitch.com/nLight for complete listing of nLight controls.			
WallPod stations	**Model number**	**Occupancy sensors**	**Model number**
On/Off	nPODM [color]	Small motion 360°, ceiling (PIR / dual tech)	nCM 9 / nCM PDT 9
On/Off & Raise/Lower	nPODM DX [color]	Large motion 360°, ceiling (PIR / dual tech)	nCM 10 / nCM PDT 10
Graphic Touchscreen	nPOD GFX [color]	Wide view (PIR / dual tech)	nWV 16 / nWV PDT 16
Photocell controls	**Model number**	Wall Switch w/ Raise/Lower (PIR / dual tech)	nWSX LV DX / nWSX PDT LV DX
On/Off & Dimming	nCM ADCX	**Cat-5 cable (plenum rated)**	**Model number**
		10', CAT5 10FT	CAT5 10FT J1
		15', CAT5 15FT	CAT5 15FT J1

Constant Lumen Management

Enabled by the embedded nLight control, the FSL actively tracks its run-time and manages its light source such that constant lumen output is maintained over the system life. Referred to as lumen management, this feature eliminates the energy waste created by the traditional practice of over-lighting.

Without Lumen Management
Energy is wasted and light level is inconsistent.

POWER INPUT
LIGHT OUTPUT
Wasted Energy
LIGHT OUTPUT
POWER INPUT
THOUSAND OPERATING HOURS

With Lumen Management
Energy is saved and light level remains consistent.

Saved Energy
POWER INPUT
LIGHT OUTPUT
LIGHT OUTPUT
POWER INPUT
THOUSAND OPERATING HOURS
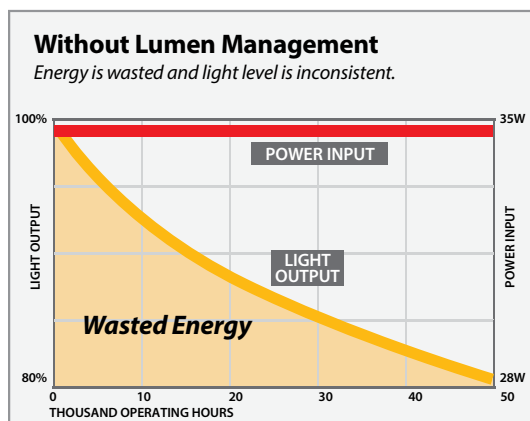
Notes
With nlight 80% lumen management input watts start at 28 and gradually increasing to 35 at 50,000 hrs when using 33L system.