LITHONIA LIGHTING®

Catalog Number
Notes
Type

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 the integrity of acrylic and/or polycarbonate. Click here for Acrylic-Polycarbonate 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). The LEDs have a CRI of 82.

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

Networked embedded controls: Networked embedded controls by nLight address the requirements of Luminaire Level Lighting Controls (LLLC). Luminaires with networked embedded controls by nLight are designed, manufactured, tested, and shipped with occupancy, daylight sensors or control devices factory-installed. This simplifies design layouts and reduces total installed cost by eliminates field installation of control devices, while addressing code requirements.

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. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at:
www.acuitybrands.com/support/warranty/terms-and-conditions

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

FSL

2' X 4' LED

2' X 2' LED

CSA A+ CAPABLE   eldoLED   DLC LISTED PREMIUM   nLIGHT   iota
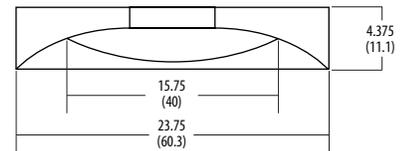
Stock Configurations
2FSL4 40L EZ1 LP835
2FSL4 40L EZ1 LP840
2FSL2 33L EZ1 LP835
2FSL2 33L EZ1 LP840

DIMENSIONS

All dimensions are inches (centimeters) unless otherwise specified.

Specifications	
Length 2X4:	47.75" (121.3)
Length 2X2:	23.75" (60.3)
Width:	23.75" (60.3)
Depth:	4.375" (11.1)

4.375 (11.1)
15.75 (40)
23.75 (60.3)

⁺A⁺ 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

FSL LED Recessed Lighting

ORDERING INFORMATION — Lead times will vary depending on options selected. Consult with your sales representative.   **Example:** 2FSL4 40L GZ10 LP835

2FSL4

Series	Lumens[1]		Air function		Lens		Voltage		Driver		Color temperature	
2FSL2 2X2 FSL	20L	2000	(blank)	Static	(blank)	Satin white	(blank)	MVOLT	EZ1	eldoLED dims to 1%, 0-10V	LP830	3000 K
	33L	3300	H	Heat removal			347	347[3]	EZB	eldoLED dims to black, 0-10V	LP835	3500 K
	40L	4000							GZ1	Dims to 1% (0-10V dimming)[4]	LP840	4000 K
	48L	4800							GZ10	Dims to 10% (0-10V dimming)[4]	LP850	5000 K
	60L	6000							EDB	eldoLED DALI[5]		
2FSL4 2X4 FSL	30L	3000							SLD	Step-level dimming[5,6]		
	40L	4000							EOHN	On/Off (non-dim)		
	48L	4800										
	60L	6000										
	72L	7200										
	85L	8500										
	100L	10000[2]										
	120L	12000[2]										

Controls

(blank)	No controls	
N80	nlight® with 80% lumen management	
N80EMG	nlight® with 80% lumen management. For use with generator supply EM power.	
N100	nlight® without lumen management	
N100EMG	nlight® without lumen management. For use with generator supply EM power.	
NLTAIR2 RIO	nlight® AIR radio module without sensors [7]	

Options

BDP	Disconnect Plug	PWS1836	6' prewire, 3/8" diameter, 18-gauge, 1-circuit
E7W	7W Emergency battery pack, constant power, Certified in CA Title 20 MAEDBS, User selectable Self-Diagnostic, AC Activate with Integral Test Switch (LINK) ‡	PWS1846	6' prewire, 3/8" diameter, 18-gauge, 2-circuit
		NPLT	Narrow pallet
E10W	10W Emergency battery pack, constant power, Certified in CA Title 20 MAEDBS, User selectable Self-Diagnostic, AC Activate with Integral Test Switch (LINK) ‡	GLR	Fast-blowing fuse[10]
		GMF	Slow-blowing fuse[10]
CP	Chicago plenum [11]		
BGTD	Bodine Generator Transfer Device[8,9]		

Accessories: *Order as separate catalog number.*

2FS4 F916	Trim to adjust fixture mounting flush with 9/16" T-bar; for 2x4 fixture
2FS2 F916	Trim to adjust fixture mounting flush with 9/16" T-bar; for 2x2 fixture
DGA24 FS/VT	2X4 Drywall ceiling adaptor ,unit installation
DGA22 FS/VT	2X2 Drywall ceiling adaptor , unit installation
2X4SMKSHP PAF	2X4 Surface Mount Troffer Kit Post Paint
2X2SMKSHP PAF	2X2 Surface Mount Troffer Kit Post Paint
RK8BDP 2P U	Disconnect Plug (BDP), 2 Pole, Package of 1
RK8BDP 3P U	Disconnect Plug (BDP), 3 Pole, Package of 1
RK8BDP 2P J10	Disconnect Plug (BDP), 2 Pole, Package of 10
RK8BDP 2P J40	Disconnect Plug (BDP), 2 Pole, Package of 40

Notes
1. Approximate lumen output.
2. 2X2 & 60L , 2X4 & 100L or 120L – Not available with SLD or Emergency Battery.
3. Consult factory for availability. Not available with SLD, E7W or E10W.
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. Not available with 72L, 85L, 100L and 120L lumen options. See UL924 Sequence of Operation chart at bottom of page. When combined with the EZ1 option, can be used as a normal power sensing device for nLight AIR devices and luminaires with EM emergency options.
8. Not available with SLD.
9. Must specify voltage. Requires BSE labeling.
10. Must specify voltage. 120 or 277, with GLR and GMF fusing.
11. Not available with N80, N80EMG, N100, N100EMG, PWS1836 or PWS1846.

BSE Labeling Options

BSE10	Drivers load transfer relay installed per manufacturer's instructions. Voltage, BGTD and BSE10 called out.
BSE14	One voltage fixture with driver load control relay supplied with one prewire (PWS option). Prewire wired for normal circuit, the control relay for emergency circuit left unconnected. Voltage, BGTD, BSE14 and prewire called out, in the description.

*For configurations with Reloc or two voltages an RFA modification is required

UL924 Sequence of Operation

The below information applies to all nLight AIR devices with an EM option.
- EM devices will remain at their high-end trim and ignore wireless lighting control commands, unless a normal-power-sensed (NPS) broadcast is received at least every 8 seconds.
- Using the CLAIRITY+ mobile app, EM devices must be associated with a group that includes a normal power sensing device to receive NPS broadcasts.
- Only non-emergency rPP20, rLSXR, rSBOR, rSDGR, and nLight AIR luminaires with version 3.4 or later firmware can provide normal power sensing for EM devices. See specification sheets for control devices and luminaires for more information on options that support normal power sensing.

Emergency Battery Pack Options - Field Installable

Battery Model Number	Wattage	Runtime (Minutes)	Lumen Output* @ 120 Lumens/Watt	Other
ILB CP07 2H A	7W	120	840	Storm Shelter/ 2-hour Runtime
ILB CP10 A	10W	90	1200	
ILBLP CP10 HE SD A	10W	90	1200	Title 20, Self Diagnostic
ILBLP CP15 HE SD A	15W	90	1800	Title 20, Self Diagnostic
ILB CP20 HE A	20W	90	2400	Title 20
ILB CP20 HE SD A	20W	90	2400	Title 20, Self Diagnostic

All the above are UL 924 Listed products that are certified for field install external/remote to the fixture.
*Minimum delivered lumen output to assist in product selection for increased fixture mounting height.
Delivered emergency illumination of CP10 models outperforms legacy 1400 lumen fluorescent emergency ballasts.
Please contact us at productsupportemergency@acuitybrands.com for any Emergency Battery related questions.

2X4 Performance Data			
Lumen package	Lumens	Input watts	LPW
2FSL4 30L LP830	2949	23.0	128
2FSL4 30L LP835	3000	23.0	130
2FSL4 30L LP840	3051	23.0	133
2FSL4 30L LP850	3051	23.0	133
2FSL4 40L LP830	3949	31.7	124
2FSL4 40L LP835	4017	31.7	127
2FSL4 40L LP840	4086	31.7	129
2FSL4 40L LP850	4086	31.7	129
2FSL4 48L LP830	4813	38.5	125
2FSL4 48L LP835	4896	38.5	127
2FSL4 48L LP840	4979	38.5	129
2FSL4 48L LP850	4979	38.5	129
2FSL4 60L LP830	5936	46.0	129
2FSL4 60L LP835	6038	46.0	131
2FSL4 60L LP840	6141	46.0	133
2FSL4 60L LP850	6141	46.0	133
2FSL4 72L LP830	7180	57.3	125
2FSL4 72L LP835	7303	57.3	127
2FSL4 72L LP840	7427	57.3	130
2FSL4 72L LP850	7427	57.3	130
2FSL4 85L LP830	8505	68.2	125
2FSL4 85L LP835	8652	68.2	127
2FSL4 85L LP840	8799	68.2	129
2FSL4 85L LP850	8799	68.2	129
2FSL4 100L LP830	10028	81.4	123
2FSL4 100L LP835	10201	81.4	125
2FSL4 100L LP840	10374	81.4	127
2FSL4 100L LP850	10374	81.4	127
2FSL4 120L LP830	12671	103.4	123
2FSL4 120L LP835	12890	103.4	125
2FSL4 120L LP840	13108	103.4	127
2FSL4 120L LP850	13108	103.4	127

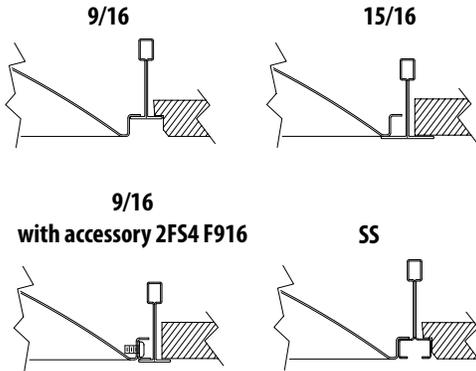| 2X2 Performance Data			
Lumen package	Lumens	Input watts	LPW
2FSL2 20L LP830	1950	16.4	119
2FSL2 20L LP835	1984	16.4	121
2FSL2 20L LP840	2018	16.4	123
2FSL2 20L LP850	2018	16.4	123
2FSL2 33L LP830	3298	27.1	122
2FSL2 33L LP835	3355	27.1	124
2FSL2 33L LP840	3412	27.1	126
2FSL2 33L LP850	3412	27.1	126
2FSL2 40L LP830	3963	33.7	118
2FSL2 40L LP835	4032	33.7	120
2FSL2 40L LP840	4100	33.7	122
2FSL2 40L LP850	4793	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.
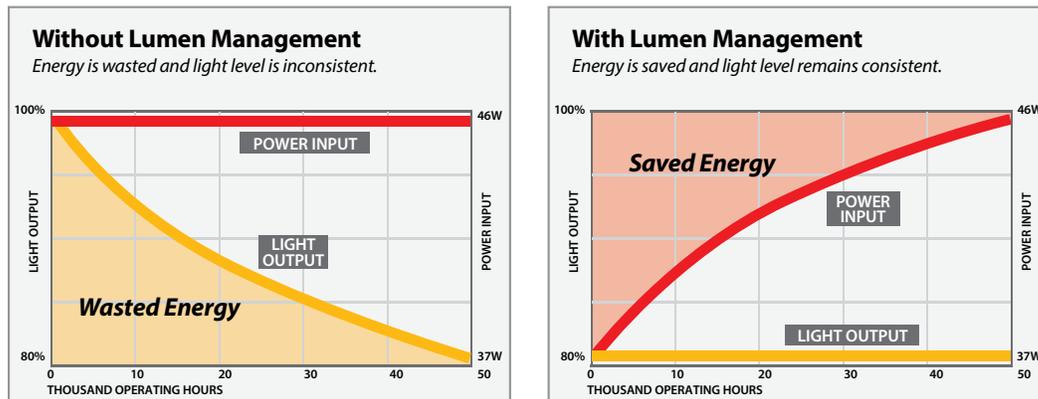
MOUNTING DATA

9/16

15/16

9/16
with accessory 2FS4 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 cables (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

THOUSAND OPERATING HOURS

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

Saved Energy
POWER INPUT
LIGHT OUTPUT

THOUSAND OPERATING HOURS

Notes

With nlight 80% lumen management input watts start at 37 and gradually increasing to 46 at 50,000 hrs when using 48L system.