

## 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.

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 both a digital PIR occupancy sensor/automatic dimming photocell. It pairs to other luminaires and wall switches through our mobile app CLAIRity, 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](http://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](http://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.

Catalog Number
Notes
Type

FS Series

# 2FSL4

2' x 4'  
LED



eldoLED



### Stock Configurations

2FSL4 40L E21 LP835
2FSL4 40L E21 LP840

### 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](http://www.acuitybrands.com/aplus).

\*See ordering tree for details

# 2FSL4 LED Recessed Lighting 2'x4'



A+ Capable options indicated by this color background.

## ORDERING INFORMATION

Lead times will vary depending on options selected. Consult with your sales representative.

**Example:** 2FSL4 40L GZ10 LP835 N100

2FSL4		Air function		Lumens		Lens		Voltage		Driver		Color temperature		Controls <sup>5</sup>		Options														
2FSL4	2X4 FSL	(blank) H	Static Heat removal	30L	3000 <sup>1</sup>	(blank)	Satin white	(blank)	MVOLT	EZ1	eldoLED dims to 1%, 0-10V	LP830	3000 K	(blank)	No controls	EL7L	700 lumen battery pack (non-CEC compliant)													
				40L	4000 <sup>1</sup>					LP835		3500 K	N80	nlight® with 80% lumen management																
				48L	4800 <sup>1</sup>					LP840		4000 K	N80EMG	nlight® with 80% lumen management. For use with generator supply EM power.	EL14L			1400 lumen battery pack (non-CEC compliant)												
				60L	6000 <sup>1</sup>					LP850		5000 K							N100	nlight® without lumen management	E10WLCP	EM Self-Diagnostic battery pack, 10W Constant Power, CEC compliant								
				72L	7200 <sup>1</sup>								EXA1	Dims to 1% (0-10V dimming) <sup>3</sup>	N100EMG			nlight® without lumen management. For use with generator supply EM power.					CP	Chicago plenum						
										GZ1		Dims to 1% (0-10V dimming) <sup>3</sup>							N100EMG	nlight® without lumen management. For use with generator supply EM power.	PWS1836	6' prewire, 3/8" diameter, 18-gauge, 1-circuit								
																									GZ10	Dims to 10% (0-10V dimming) <sup>3</sup>	N100EMG	nlight® without lumen management. For use with generator supply EM power.	PWS1846	6' prewire, 3/8" diameter, 18-gauge, 2-circuit
													EXB	eldoLED DMX/RDM <sup>4</sup>	N100EMG			nlight® without lumen management. For use with generator supply EM power.					NPLT	Narrow pallet						
										SLD		Step-level dimming <sup>4,5</sup>							N100EMG	nlight® without lumen management. For use with generator supply EM power.										
		EXA1	Dims to 1%, XPoint wireless enabled	N100EMG	nlight® without lumen management. For use with generator supply EM power.																									
						EXAB	Dims to dark, XPoint wireless enabled	N100EMG	nlight® without lumen management. For use with generator supply EM power.																					
											EOHN		On/Off (non-dim)	N100EMG	nlight® without lumen management. For use with generator supply EM power.															
										NLTAIR2 RIO		nlight® AIR radio module without sensors <sup>7</sup>				N100EMG	nlight® without lumen management. For use with generator supply EM power.													

Accessories: Order as separate catalog number.	
2FS4 F916	Trim to adjust fixture mounting flush with 9/16" T-bar; for 2x4 fixture
DGA24 FS/VT	Drywall ceiling adaptor, unit installation

### Notes

- 1 Approximate lumen output.
- 2 Consult factory for availability. Not available with SLD, EL7L, or EL14L.
- 3 GZ1, GZ10 drivers not available with any Controls options.
- 4 Not available with N80, N80EMG, N100 or N100EMG.
- 5 When using prewire option, use PWS1846.
- 6 nIO access limitations on 30L or EZB.
- 7 RIO available with EZ1 and EZB drivers only. Not available with 72L lumen option.
- 8 For ordering logic consult: [RRL\\_2013](#).

# 2FSL4 LED Recessed Lighting 2'x4'

Performance Data			
Lumen package	Lumens	Input watts	LPW
30L LP830	3230	25.8	125
30L LP835	3404	25.9	131
30L LP840	3495	26.1	134
30L LP850	3733	26.1	143
40L LP830	4069	33.0	123
40L LP835	4327	33.2	130
40L LP840	4450	33.3	134
40L LP850	4724	33.4	142
48L LP830	4682	38.9	120
48L LP835	4947	39.1	127
48L LP840	5089	39.2	130
48L LP850	5448	39.3	139
60L LP830	5166	43.8	118
60L LP835	5474	43.9	125
60L LP840	5635	44.1	128
60L LP850	5977	44.2	135
72L LP830	6885	58.5	118
72L LP835	6975	58.9	118
72L LP840	7573	59.1	128
72L LP850	7970	59.2	135

## How to Estimate Delivered Lumens in Emergency Mode

Use the formula below to estimate the delivered lumens in emergency mode

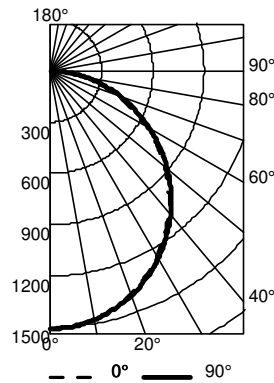
$$\text{Delivered Lumens} = 1.25 \times P \times \text{LPW}$$

P = Output 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

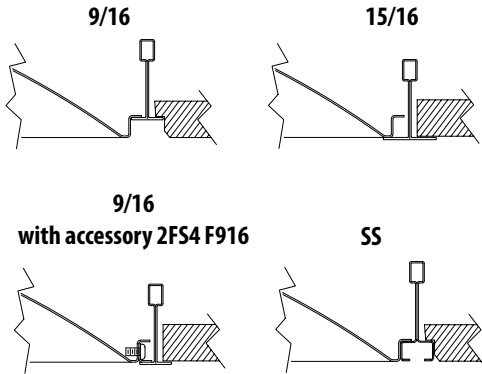
2FSL4 40L LP835, test no. LTL24699P105, tested in accordance to IESNA LM-79



CP Summary		pc	Coefficients of Utilization									Zonal Lumen Summary				
0°	90		pw	70%	50%	30%	20%			50%			Zone	Lumens	% Lamp	% Fixture
0°	1507	1507	0	119	119	119	116	116	116	111	111	111	0° - 30°	1162	26.9	26.9
5°	1496	1502	1	108	103	99	101	97	93	97	93	90	0° - 40°	1899	43.9	43.9
15°	1436	1442	2	98	90	83	88	81	76	84	79	74	0° - 60°	3353	77.5	77.5
25°	1321	1335	3	90	79	70	77	69	63	74	68	62	0° - 90°	4328	100.0	100.0
35°	1164	1184	4	82	70	61	68	60	54	66	59	53	90° - 180°	0	0.0	0.0
45°	977	997	5	75	62	53	61	52	46	59	51	46	0° - 180°	4328	100.0	100.0
55°	763	782	6	69	56	47	55	46	40	53	46	40				
65°	532	556	7	64	51	42	50	41	36	48	41	35				
75°	299	322	8	60	46	38	46	37	32	44	37	31				
85°	86	105	9	56	42	34	42	34	29	41	33	28				
90°	3	5	10	53	39	31	39	31	26	38	31	26				

# 2FSL4 LED Recessed Lighting 2'x4'

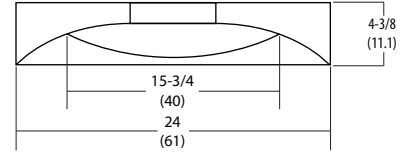
## MOUNTING DATA



## DIMENSIONS

All dimensions are inches (centimeters) unless otherwise specified.

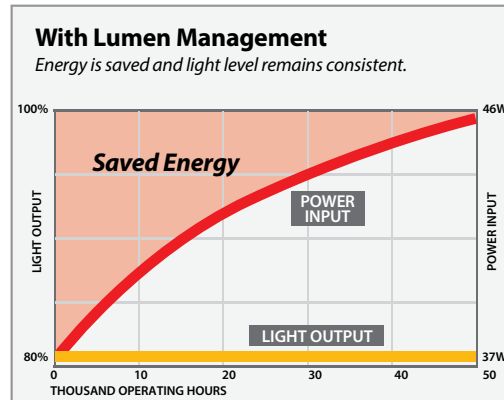
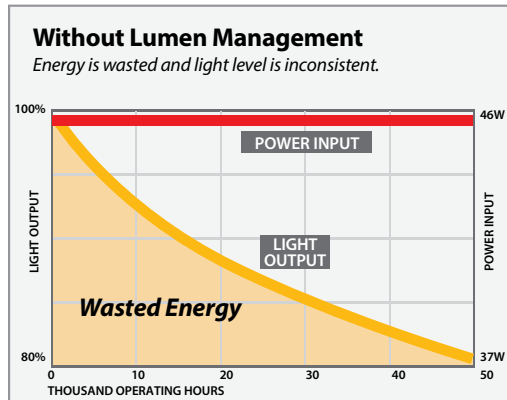
*Specifications*  
 Length: 48 (122.0)  
 Width: 24 (61.0)  
 Depth: 4-3/8 (11.1)



nLight® Control Accessories: Order as separate catalog number. Visit <a href="http://www.sensorswitch.com/nLight">www.sensorswitch.com/nLight</a> for complete listing of nLight controls.			
<b>WallPod stations</b>	<b>Model number</b>	<b>Occupancy sensors</b>	<b>Model number</b>
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
<b>Photocell controls</b>	<b>Model number</b>	Wall Switch w/ Raise/Lower (PIR / dual tech)	nWSX LV DX / nWSX PDT LV DX
On/Off & Dimming	nCM ADCX	<b>Cat-5 cables (plenum rated)</b>	<b>Model number</b>
		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.



### Notes

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