

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 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 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.

Catalog Number
Notes
Type

FS Series

2FSL2

2' x 2'
LED



eldoLED

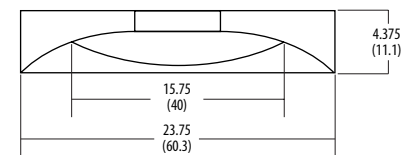


Stock Configurations
2FSL2 33L EZ1 LP835
2FSL2 33L EZ1 LP840

DIMENSIONS

All dimensions are inches (centimeters) unless otherwise specified.

Specifications
Length: 23.75 (60.3)
Width: 23.75 (60.3)
Depth: 4.375 (11.1)



A+ Capable Luminaire

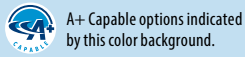
This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and out-of-the-box control compatibility with simple commissioning.

- 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

2FSL2 LED Recessed Lighting 2'x2'



ORDERING INFORMATION

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

Example: 2FSL2 33L GZ10 LP835

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

Controls	Options
(blank) No controls	BDP Disconnect Plug
N80 nLight [®] with 80% lumen management	EL7L 700 lumen battery pack (Noncompliant with CA T20)
N80EMG nLight [®] with 80% lumen management. For use with generator supply EM power.	EL14L 1400 lumen battery pack (Noncompliant with CA T20)
N100 nLight [®] without lumen management	E10WLCP EM Self-Diagnostic battery pack, 10W Constant Power, Certified in CA Title 20 MAEDBS
N100EMG nLight [®] without lumen management. For use with generator supply EM power.	CP Chicago plenum ¹¹
NLTAIR2 RIO nLight [®] AIR radio module without sensors ⁷	BGTD Bodine Generator Transfer Device ^{8,9}
	PWS1836 6' prewire, 3/8" diameter, 18-gauge, 1-circuit
	PWS1846 6' prewire, 3/8" diameter, 18-gauge, 2-circuit
	NPLT Narrow pallet
	GLR Fast-blowing fuse ¹⁰
	GMF Slow-blowing fuse ¹⁰

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
2X2SMKSH PAF	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 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. 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, voltage specific. Consult factory for options.
- 10 Must specify voltage. 120 or 277, with GLR and GMF fusing.
- 11 Not available with N80, N80EMG, N100, N100EMG, PWS1836 or PWS1846.

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.

2FSL2 LED Recessed Lighting 2'x2'

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

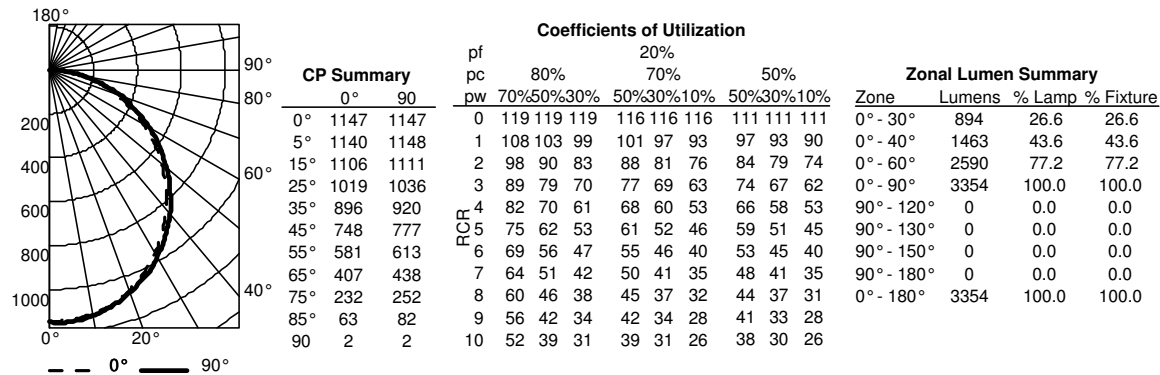
$$\text{Delivered Lumens} = 1.25 \times P \times \text{LPW}$$

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.

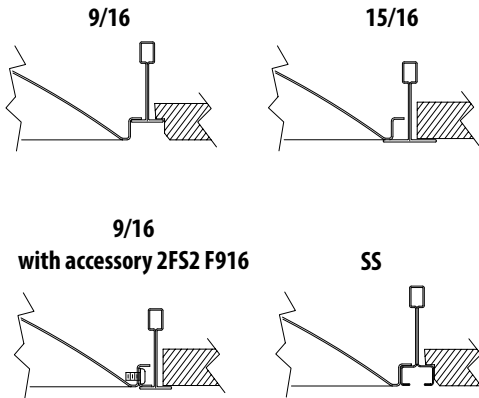
PHOTOMETRICS

2FSL2 33L LP835, 3355 delivered lumens.



2FSL2 LED Recessed Lighting 2'x2'

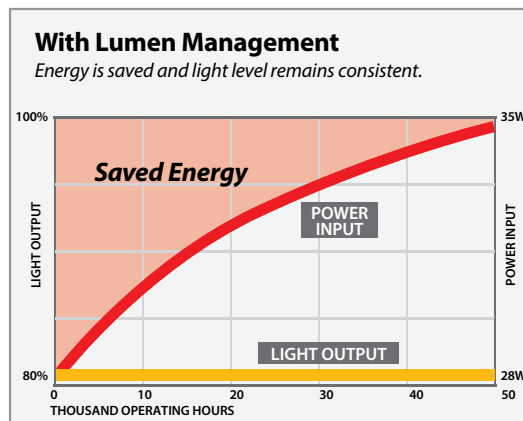
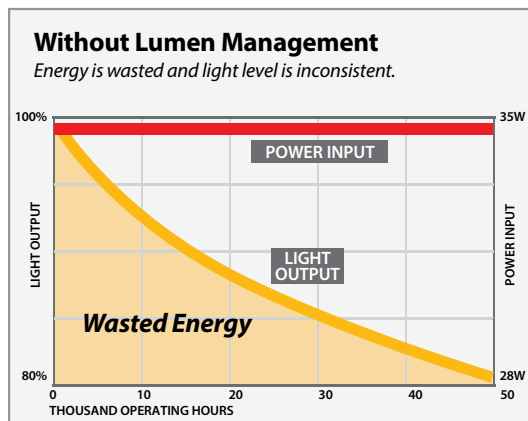
MOUNTING DATA



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.



Notes

With nLight 80% lumen management input watts start at 28 and gradually increasing to 35 at 50,000 hrs when using 33L system.