

# Lutron Stairwell Fixture Solutions



## What are stairwell fixture solutions?

Stairwell fixture solutions are a family of fixtures that automatically adjusts light output based on stairwell occupancy. These solutions:

- Utilize a Lutron digital dimming ballast/driver and concealed wireless control (PowPak® stairwell controller) to program occupied and unoccupied light levels that are field-adjustable and specific to a project's code requirements
- Receive signals from Radio Powr Savr™ occupancy sensors (sold separately) via Lutron reliable Clear Connect® RF technology
- Provide the flexibility to determine occupancy sensor quantities, mounting configuration, and placement requirements per the stairwell design
- Meet building codes and standards
- Save up to 80%<sup>1</sup> of lighting energy.

### We offer two different types of stairwell fixture solutions:

#### Stairwell fluorescent fixture

The architecturally-designed stairwell fluorescent fixture utilizes T5 or T8 lamps with a concealed wireless control.

#### Stairwell LED fixture

The stairwell LED fixture utilizes the same energy saving solution with integral LED's as the light source to significantly lower power usage and maintenance.



### We also offer a stairwell retrofit kit solution:

The stairwell retrofit kit solution is an easy, cost-effective way to add Lutron wireless stairwell solutions technology to your existing stairwell fluorescent fixture. This solution contains Lutron dimming ballasts with pre-wired leads, wireless custom control with wallplate, and optional rapid start sockets.



## Why choose Lutron's stairwell solutions?

Because stairwells are often empty, the lighting in them is constantly being wasted. This is a hard issue to address, because codes require stairwells to be lit in case of emergencies.

You can cut down on the cost of lighting stairwells with Lutron's stairwell solutions. These occupancy-sensing light fixtures dim the lights in stairwells when they are unoccupied, so that stairwells maintain enough light to meet all regional and ASHRAE codes, but lights are not always full-on.

Stairwell solutions are also easy to retrofit, reducing installation time and labor costs. Each solution includes a Lutron dimming ballast and an integrated Lutron wireless control.

The stairwell retrofit kit solution is ideal if you want to keep your existing fixture and stairwell layout, but want to cut down on the cost of lighting stairwells. The kit converts any T12, T8, or T5 fluorescent fixture.

### **Radio Powr Savr occupancy sensors (required)**

- Ceiling-, wall-, hall-, and corner-mount configurations available
- Customize timeout to 1, 5, 15, or 30 minutes
- Exclusive Lutron XCT™ technology – enhanced passive infrared (PIR) sensing
- Control up to nine fixtures with one sensor\*
- 10-year battery life



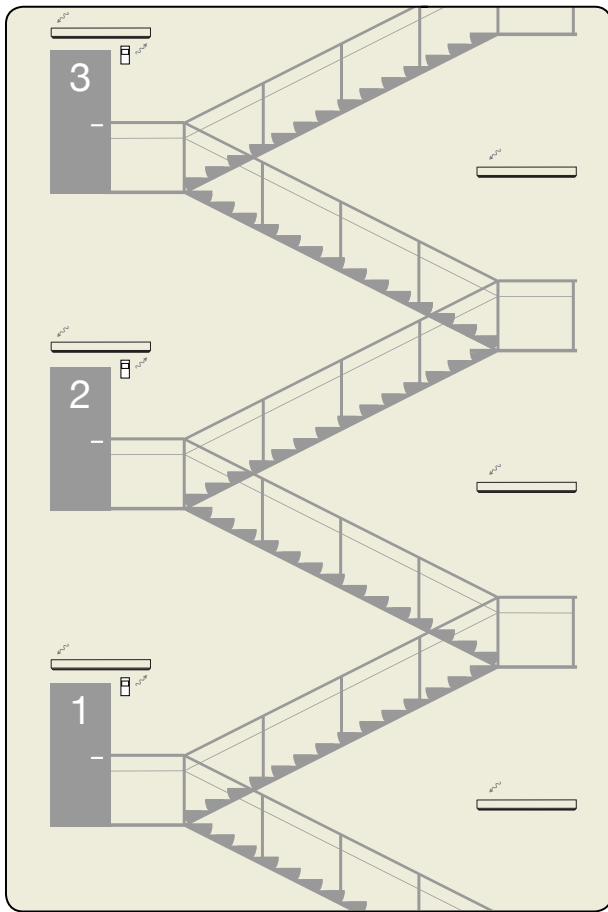
\*Go to [lutron.com/rps](http://lutron.com/rps) for required RF range from fixture to sensor

# Lutron® Stairwell Fixture Solutions

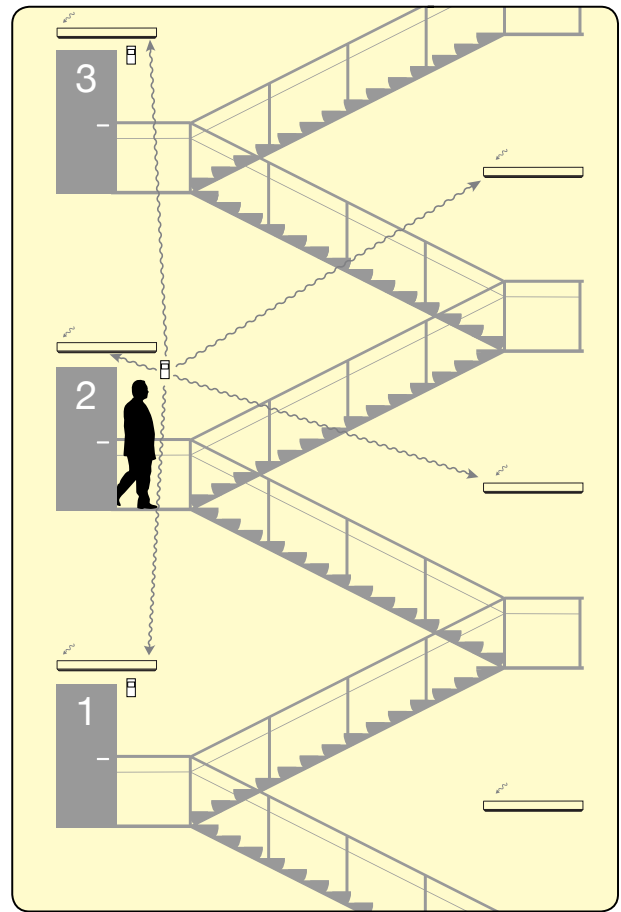
## How do these solutions work?

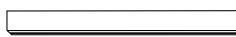

The easy-to-install stairwell fixture includes a pre-programmed Lutron digital dimming ballast/driver and wireless control (PowPak® stairwell controller). The PowPak stairwell controller receives a radio frequency (wireless) signal from the Radio Powr Savr™ wireless occupancy sensor, via Lutron's reliable Clear Connect® RF technology. The dimming ballast/driver then adjusts lights to a preset level based on stairwell occupancy.

**Unoccupied: 10% light level**



**Occupied: 50% light level**



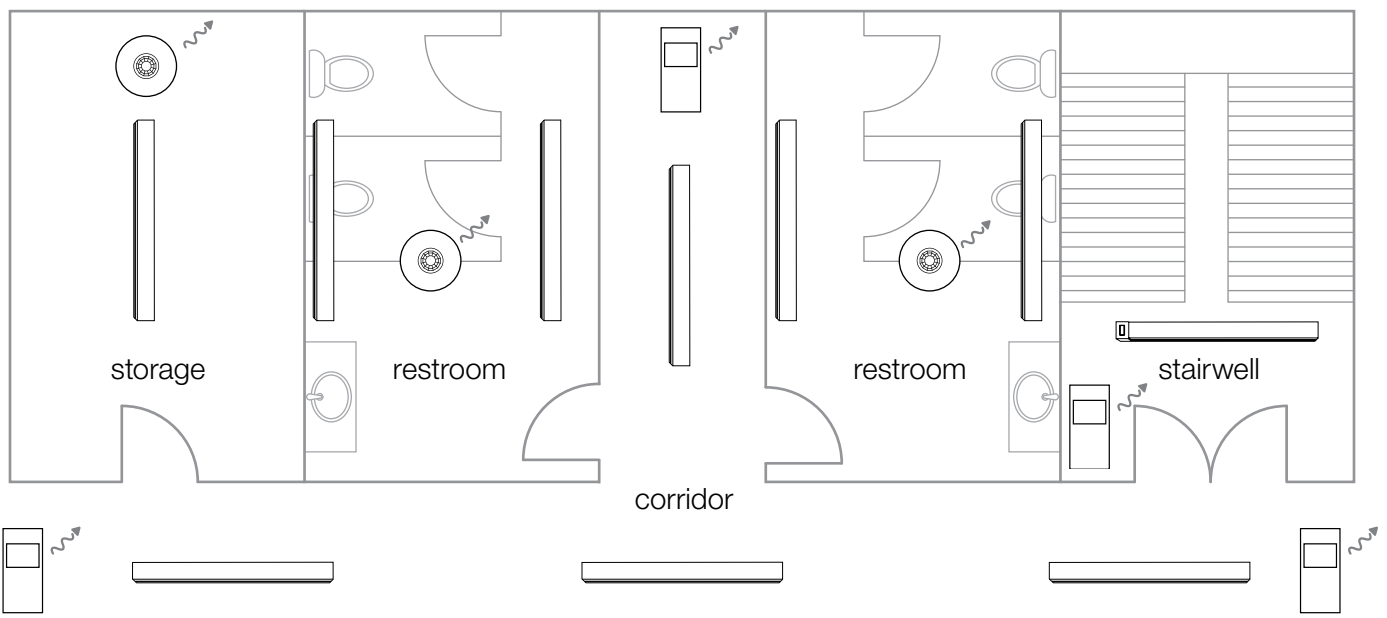
-  Stairwell fixture
-  Radio Powr Savr occupancy sensor (wall mount)

 **Lutron® Clear Connect®**  
Wireless Signal **Sent**

 **Lutron® Clear Connect®**  
Wireless Signal **Received**

# Flexible design for various applications

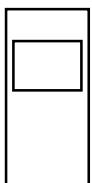
Utilize Stairwell Solutions in various applications such as corridors, storage rooms, garages and library stacks.



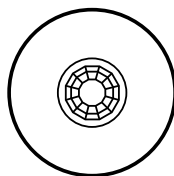
## Key



Stairwell fixture



Radio Power Savr wireless occupancy sensor (wall-mount)



Radio Power Savr wireless occupancy sensor (ceiling-mount)

# Lutron® Stairwell Fixture Solution

## Benefits

**Simple installation** – wireless communication between devices allows the occupancy sensor(s) to be mounted in the location that provides the maximum area of coverage with no need for additional wiring

**Flexible** – assign multiple fixtures to a single occupancy sensor, allowing multiple fixtures to adjust to the occupied light level

### Meets codes and standards

- **ASHRAE 90.1 2010**

#### Additional Control (9.4.1.6)

Lighting in stairwells shall have one or more control devices to automatically reduce lighting power in any one controlled zone by at least 50% within 30 minutes of all occupants leaving that controlled zone.

- **IgCC (International Green Construction Code)**

#### Interior Light Reduction Controls (609.3)

Occupant sensor controls shall be provided to automatically reduce connected lighting power by not less than 45 percent during periods when occupants are not present in all of the following locations.

1. Corridors and enclosed stairwells.
2. Storage and stack areas not open to the public.

### ADA and BAA compliant

All Lutron stairwell fixtures are compliant with the Americans with Disabilities Act.

We also offer stairwell fixtures that are manufactured in the U.S., making it easy for you to comply with the Buy American Act and the Buy American provision of the American Recovery and Reinvestment Act. (BAA-compliant stairwell fixtures are available in 2 ft. and 4 ft. models only.)

### Emergency options

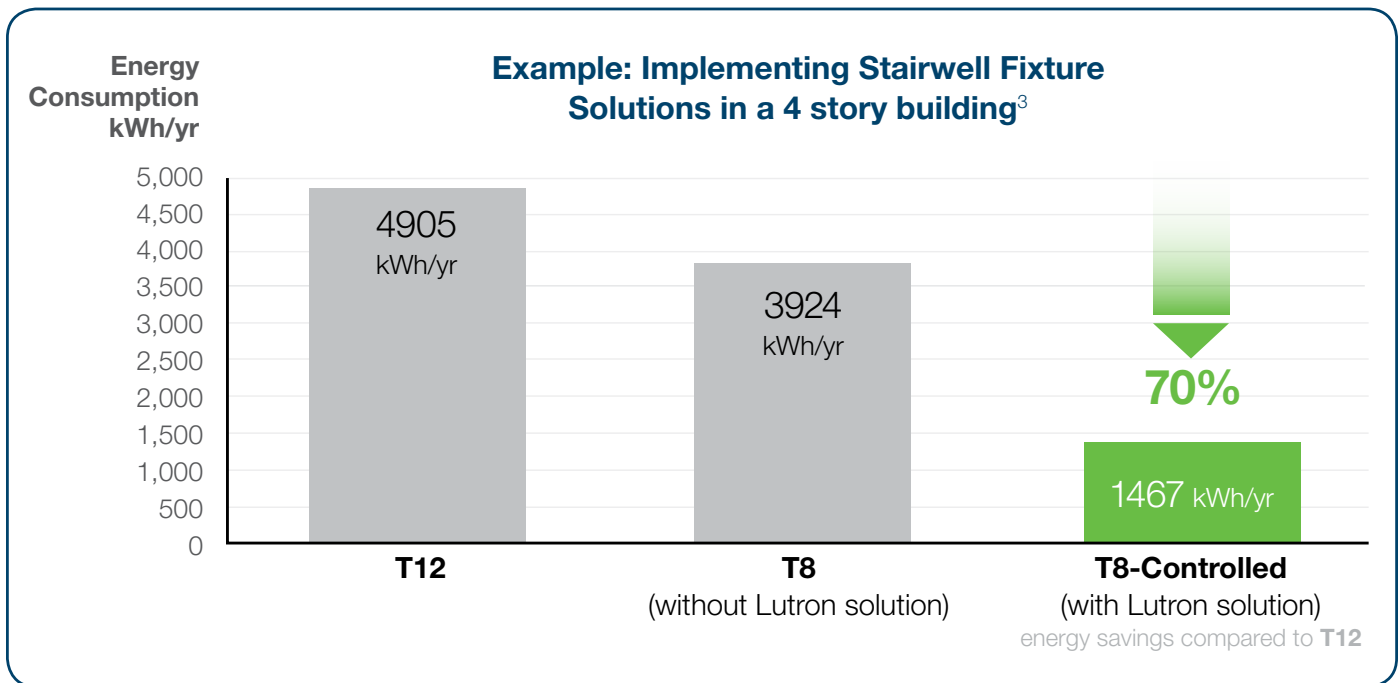
An emergency option allows you to use the same fixture for both normal and emergency operation. In the event of a power failure, the emergency ballast or driver switches to emergency mode and operates one or two of the existing lamps. This option is available with all of our stairwell fixture solutions.

# Benefits

**Return on Investment (ROI)** – equipment payback as low as 3.5 years; utility rebates available in many locations<sup>2</sup>

**Energy savings** – ability to [save up to 80%](#)<sup>1</sup> of lighting energy usage

- high-end trim reduces light levels when occupied
- occupancy sensing lowers light levels when unoccupied



See back cover for sources.

## Lighting energy analysis and payback study (LEAPS)\*

The LEAPS tool allows our sales team to quickly customize a stairwell solution and generate a proposal based on a project's budgeted material costs, estimated install cost, energy efficiency performance, and other return on investment metrics.

## ENERGY STAR Qualified

Lutron LED Stairwell fixtures have earned ENERGY STAR for efficiency to help reduce energy costs. When purchasing ENERGY STAR Qualified fixtures, your local power company may provide incentives or rebates to help decrease the initial cost. (See page 7)

\*Contact your local representative or [fixtures@lutron.com](mailto:fixtures@lutron.com) for more information.

# Lutron® Stairwell Fixture Solutions

## Lower ROI with rebates and incentives!

Lutron's stairwell solutions are now ENERGY STAR Qualified to support rebate and incentives offered by utilities. Utilities in almost every state offer rebates for LED lighting. To encourage customers to buy energy efficient products like LED lighting, ENERGY STAR Qualified partners sponsor special offers, such as sales tax exemptions or credits, or rebates on qualified products.

Per fixture and sensor incentives are available up to \$75/fixture and \$50/sensor with an opportunity to significantly improve your ROI.

There are two types of rebates:

- Prescriptive rebates provide a specific predetermined dollar amount for each fixture replaced.
- Custom rebates are based on the total energy savings for a specific project and are intended to provide rebates for approved fixtures not covered by a prescriptive program.

**To support rebates and incentive efforts go to the ENERGY STAR rebate finder ([www.energystar.com/rebatefinder](http://www.energystar.com/rebatefinder)) and Lutron's dedicated incentive resources shown below.**

### Fixture Rebate and Incentive Sellsheets

Lutron Fixture Solutions Rebates – North and South Carolina

Energy savings and rebates for light fixture upgrades in your area.

Electricity rate = \$0.10/KWh  
Utility – Progress Energy Carolinas  
Notes: Electricity rates and rebates vary by utility. Contact your local utility for utility rates and rebates.

**Solution 1 Stairwell Solution**  
Energy savings<sup>1</sup> – 60% Annual Savings – \$66  
Rebate details:  
\$0.06/kWh saved in the first year; Custom rebate for proven savings.  
Rebate per fixture – \$45

Stairwell solutions include stairwell fixture and occupancy sensors.

**Solution 2 High Bay Solution**  
Energy savings<sup>2</sup> – 61% Annual Savings – \$122  
Rebate details:  
\$0.06/kWh saved in the first year; Custom rebate for proven savings.  
Rebate per fixture – \$88

High bay solutions include warehouse high bay fixture.

Find out more about Lutron fixture solutions:  
email: [fixtures@lutron.com](mailto:fixtures@lutron.com)  
Call: 610.282.7472

**LUTRON.**

### Lutron Rebate and Incentives Locator

[www.lutron.com/incentives](http://www.lutron.com/incentives)

email: [incentives@lutron.com](mailto:incentives@lutron.com)





# Stairwell fixtures and Energi TriPak®

Stairwell fixtures are also a part of another Lutron energy-saving solution: Energi TriPak. Energi TriPak consists of transmitting devices that send out radio frequency (RF) commands to load controllers. The load controllers receive the RF command and perform the appropriate action based on the information received.

Energi TriPak provides the opportunity to use energy-saving solutions in areas other than stairwells, such as conference rooms, private offices, and classrooms.

## Transmitting devices

### Sense

#### Radio Powr Savr™ wireless sensors



Occupancy/vacancy



Daylight\*

### Adjust

#### Pico® wireless control



Wallmount\*



Tabletop



Hand-held

## Load controllers

### Conserve

#### NEW PowPak® load controllers



Dimming module with EcoSystem®

Relay module

Contact closure output module



Plug-in dimming module



Plug-in appliance module



Stairwell fixture

#### Maestro Wireless®



Dimmer



Switch



Tabletop lamp dimmer

\* Stairwell fixtures and retrofit kits are not compatible with Radio Powr Savr daylight sensors or Pico wireless controls.

# Lutron® Stairwell Fluorescent Fixture



The Stairwell fluorescent fixture is a T5 or T8 fixture available in 2', 4', and 8' models. This solution can save up to 70%<sup>1</sup> of lighting energy and meet building codes and standards.

## Features and capacities

- Lutron dimming ballast standard
- Integral wireless control (PowPak® stairwell controller)
- Frosted Acrylic lens or Opal Acrylic lens
- 1, 2, or 4 lamps
- T8, reduced wattage T8, T5HE, or T5HO
- 120-277 V~ universal input voltage
- Optional emergency ballast battery backup available

## Typical applications

- Stairwells, corridors, hallways

## Dimensions and mounting

### 4-foot fixture (standard; shown above)

- Length: 52.25 in (1327 mm)  
Height: 3.75 in (95 mm)  
Width: 3.25 in (83 mm)
- Can be mounted to wall or ceiling; surface mount
- 2' and 8' also available

## Communications and wiring

- Fixture communicates via Clear Connect® RF technology
- 3-wire control standard

## Related components

(required for the solution to work)



Radio Power Savr™ occupancy sensors  
(LRF2-OWLB-P-WH) wall  
(LRF2-OKLB-P-WH) corner  
(LRF2-OCR2B-P-WH) ceiling  
(LRF2-OHLB-P-WH) hall

# How to order a stairwell fluorescent fixture

## Example model number

FX SW XX 12 SL 1 14 U 51 SM XX WH  
1 2 3 4 5 6 7 8 9 10 11 12

### Fixture Options

#### 1 Product

FX = Fixtures

#### 2 Family

SW = Stairwell

#### 3 Fixture type

XX = Standard

#### 4 Size

12 = 1' x 2'

14 = 1' x 4'

18 = 1' x 8'

#### 5 Lens options

SL = Standard Lens

#### 6 Lamps

1 = 1 Lamp

2 = 2 Lamps

4 = 4 Lamps, 8'

#### 7 Lamp type

14 = 14W T5HE, 2'

17 = 17W T8, 2'

24 = 24W T5HO, 2'

28 = 28W T5HE, 4'

32 = 32W T8, 4'

54 = 54W T5HO, 4'

RW = 25, 28, 30W T8  
Reduced Wattage, 4'

#### 8 Region

U = UL – North America

B = BAA (Buy American Act)<sup>4</sup>

#### 9 Control options

51 = 50% Occupied, 10% Unoccupied

82 = 80% Occupied, 20% Unoccupied

#### 10 Mounting type

SM = Surface Mount

#### 11 Options

XX = None

E1 = T8 Emergency Ballast<sup>5,6</sup>

E3 = T5HE Emergency Ballast<sup>5,6</sup>

E5 = T5HO Emergency Ballast<sup>5,6</sup>

#### 12 Color Finish

WH = Matte White

Custom options available—contact  
[fixtures@lutron.com](mailto:fixtures@lutron.com).

# Lutron® Stairwell LED Fixture



The stairwell LED fixture provides an energy-saving solution with a concealed wireless control and architectural design. Utilizing integral LEDs as the light source lowers power usage and maintenance, saving up to 80%<sup>1</sup> of lighting energy while meeting building codes and standards.

## Features and capacities

- Lutron dimming driver standard
- Concealed wireless control (PowPak® stairwell controller)
- Frosted acrylic architectural lens
- Integral 4000K color temperature LED module
- 120-277V~ universal input voltage
- Optional emergency driver battery backup available

## Typical applications

- Stairwells, corridors, hallways

## Dimensions and mounting

### 4-foot fixture (standard; shown above)

- Length: 52.25 in (1327 mm)  
Height: 3.75 in (95 mm)  
Width: 3.25 in (83 mm)
- Can be mounted to wall or ceiling; surface mount
- 2' also available

## Communications and wiring

- Fixture communicates via Clear Connect® RF technology
- 3-wire control standard

## Related components

(required for the solution to work)



Radio Power Savr™  
occupancy sensors  
(LRF2-OWLB-P-WH) wall  
(LRF2-OKLB-P-WH) corner  
(LRF2-OCR2B-P-WH) ceiling  
(LRF2-OHLB-P-WH) hall

# How to order a stairwell LED fixture

## Example model number

FX SW XX 12 SL L C1 U 51 SM XX WH  
1 2 3 4 5 6 7 8 9 10 11 12

### Fixture Options

- 1 Product**  
FX = Fixtures

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- 2 Family**  
SW = Stairwell

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- 3 Fixture type**  
XX = Standard

---

- 4 Size**  
12 = 1' x 2'  
14 = 1' x 4'

---

- 5 Lens options**  
SL = Standard Lens

---

- 6 Lamps**  
L = LEDs

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- 7 Lamp type**  
C1\* = 17W, 4000K, 1500 Lumens  
C3 = 29W, 4000K, 2200 Lumens  
C4 = 44W, 4000K, 3600 Lumens

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- 8 Region**  
U = UL – North America

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- 9 Control options**  
51 = 50% Occupied, 10% Unoccupied  
82 = 80% Occupied, 20% Unoccupied

- 10 Mounting type**  
SM = Surface Mount (Wall/Ceiling)

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- Options**  
11 XX = None  
E7 = LED Emergency Driver

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- Color Finish**  
12 WH = Matte White

\*2 foot only

Custom options available—contact [fixtures@lutron.com](mailto:fixtures@lutron.com).

# Lutron® Stairwell Retrofit Kit Solution

## Lutron stairwell retrofit kit solution

The stairwell retrofit kit solution allows you to transform high-cost/high-maintenance fluorescent fixtures into energy efficient solutions through the addition of dimming/occupancy sensing capabilities and updating your fixture with more efficient lamps (i.e. T12 to T5). We also group the components you need—per fixture—together, instead of shipping everything in separate boxes.

Kit includes:



Pre-wired ballast



Wireless control and wallplate



Rapid-start sockets (optional)



Stairwell retrofit kit solution (up to three kits per box)

### Features and capacities

- Pre-wired Lutron dimming ballast for T8, T5HE, or T5HO lamps
- Wireless control (PowPak® stairwell controller)
- Wallplate (Claro® single gang)
- Rapid-start sockets (optional)
- Compatible with 2', 3', 4', or 8' fixtures
- 1, 2 or 4 lamp options available
- 120-277V~ universal input voltage

### Typical applications

- Stairwells, corridors, hallways

### Communications and wiring

- Fixture communicates via Clear Connect® RF technology with other wireless devices
- 3-wire control standard

### Related components

(required for the solution to work)



Radio Powr Savr™ occupancy sensors  
(LRF2-OWLB-P-WH) wall  
(LRF2-OKLB-P-WH) corner  
(LRF2-OCR2B-P-WH) ceiling  
(LRF2-OHLB-P-WH) hall

# How to order a stairwell retrofit kit solution

## Example model number

FXRS SW XX 12 1 14 U 51 XX  
1 2 3 4 5 6 7 8 9

### Fixture Options

**1 Product**  
FXRS = Fixtures Retrofit Kit Solution

**2 Family**  
SW = Stairwell

**3 Fixture type**  
XX = Standard

**4 Size**  
12 = 1' x 2'  
13 = 1' x 3'  
14 = 1' x 4'  
18 = 1' x 8'

**5 Lamps**  
1 = 1 Lamp  
2 = 2 Lamps  
3 = 3 Lamps, T8  
4 = 4 Lamps

**6 Lamp type**  
14 = 14W T5HE, 2'  
17 = 17W T8, 2'  
21 = 21W T5HE, 3'  
24 = 24W T5HO, 2'  
25 = 25W T8, 3'  
28 = 28W T5HE, 4'  
32 = 32W T8, 4'  
39 = 39W T5HO, 3'  
54 = 54W T5HO, 4'  
RW = 25, 28, 30W T8  
Reduced Wattage, 4'

**7 Region**  
U = UL – North America

**8 Control options**  
51 = 50% Occupied, 10% Unoccupied  
82 = 80% Occupied, 20% Unoccupied

**9 Socket options**  
XX = None  
SK = Sockets\*

\*Two rapid-start sockets per lamp; each lamp gets 18" of power leads (white, black) and 40" of lamp leads (yellow, blue) per lamp.

Custom options available—contact  
[fixtures@lutron.com](mailto:fixtures@lutron.com).

# Sources

<sup>1</sup> Potential savings for different scenarios listed below. The savings are based on the proposed Lutron solution operating at high end (80% or 50%) for 6 hours a day and low end (20% or 10%) during the remaining hours. Actual savings may vary based on project. Ensure replacement fixture meets the required light levels.

		Existing (24 Hours of Use)	
		T12 - 80W	T8 - 64W
Proposed	T8 (50/10%) - 64W	70%	60%
	T8 (80/20%) - 64W	60%	50%
	LED (50/10%) - 44W	84%	80%
	LED (80/20%) - 44W	80%	75%

- <sup>2</sup> 3.5 year ROI based on a system with one occupancy sensor and two 4 ft T8 stairwell fixtures per floor. Payback based on an electricity rate of 15 cents/kWh including a utility rebate of \$50/fixture. 4ft LED stairwell fixture ROI is 5.2 years with same assumptions. For more information on utility rebates, visit [www.lutron.com/incentives](http://www.lutron.com/incentives).
- <sup>3</sup> Example assumes 7 landings in a 4 story building. The T12 fixture (80W) is assumed to operate 8760 hours at full output. The T8 fixture (64W) without a Lutron solution is assumed to operate 8760 hours at full output. The T8 fixture (64W) with a Lutron solution is assumed to operate for 2190 hours (25% occupancy) at 50% of full output, and at 10% of full output during the remaining hours. Ensure replacement fixture meets the required light levels.
- <sup>4</sup> Lutron offers stairwell solutions that are manufactured in the United States, making it easy for you to comply with the Buy American Act (**BAA**) and the Buy American provision of the American Recovery and Reinvestment Act (ARRA). BAA-compliant stairwell fixtures are available in 2' and 4' models only.
- <sup>5</sup> Emergency ballast “option” not available if 2’ “lamp type” is chosen.
- <sup>6</sup> Emergency ballast “option” is determined by “lamp type.”

[www.lutron.com/fixtures](http://www.lutron.com/fixtures)   

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