

# Lutron Stairwell Retrofit Kit Solution



# Lutron® Stairwell Retrofit Kit Solution

The new stairwell retrofit kit solution adds Lutron wireless dimming and occupancy sensing capabilities to a fixture to save energy, lower costs, and meet stairwell safety code requirements. It's an easy and cost-efficient way for you to upgrade a fixture with Lutron's dimming and occupancy sensing technologies—and expand your business. Once installed, the fixture can communicate with Lutron Radio Powr Savr™ occupancy sensors to adjust light levels. (The retrofit kit solution is field adjustable to meet specific project requirements.)

The retrofit kit contains Lutron dimming ballasts with pre-wired leads, a Lutron wireless control (Powpak® stairwell controller), and optional rapid-start sockets, which allows any T12, T8, or T5 fluorescent fixture to be converted into a wireless stairwell solution.



Pre-wired ballast



Wireless control and wallplate



Rapid-start sockets (optional)\*\*

## Retrofit kit solution benefits

The Lutron stairwell retrofit kit solution provides the following benefits:

**Energy savings** – the ability to [save over 70%](#)<sup>1</sup> lighting energy

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

**High ROI** – payback as low as 3.5 years; utility rebates available in most locations<sup>2</sup>

**Flexibility** – you can assign multiple fixtures to a single occupancy sensor and assign multiple occupancy sensors to a single fixture

### 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% 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.
3. Parking garages.

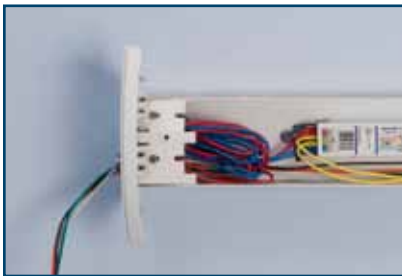
# How does the retrofit kit solution work?

The Radio Powr Savr sensor immediately detects when someone enters the stairwell. The sensor then sends a signal to the Lutron Powpak stairwell controller via Lutron reliable Clear Connect® RF technology, which illuminates the stairwell at the preset occupied (high end) level.

When the person leaves the stairwell, the sensor sends a signal to the wireless control at the preset time out which dims the light to the preset unoccupied (low end) level.

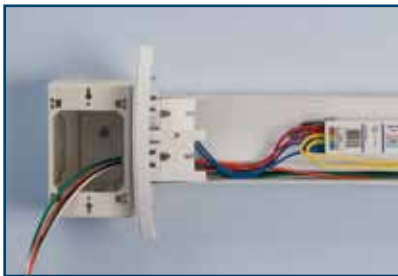
## Easy installation

Installing the stairwell retrofit kit solution is a simple, three-step process (reference the installation guide available at [fixtures@lutron.com](mailto:fixtures@lutron.com)).



### Step 1

Add ballast leads



### Step 2

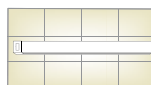
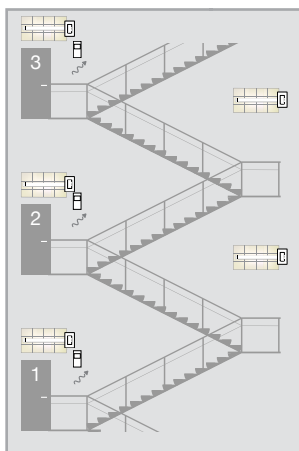
Add wireless control junction box



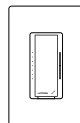
### Step 3

Add control with wallplate

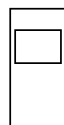
## Typical stairwell retrofit kit solution application



Your stairwell fixture with Lutron ballast



Wireless control and wallplate  
(attached to fixture)



Radio Powr Savr wireless occupancy sensor\*

- 1 Savings based on replacing a 4ft T12 fixture (2-40W lamps at 100% output), with a 4ft T8 Lutron stairwell solution (2-32W lamps at 50% high-end output, 10% low-end output); or a 2ft T8 fixture (2-17W lamps at 100% output) with a 2ft LED Lutron stairwell solution (29W at 80% high-end output, 20% low-end output). Existing system operation is based on 8760 hours of annual use. Replacement system operation is based on 2190 hours at high end and 6570 hours at low end. Actual savings may vary based on existing fixture wattage and stairwell occupancy. Note: Ensure replacement fixture meets the required light levels.
- 2 System includes one occupancy sensor and two 4ft T8 stairwell fixtures per floor. Payback based on an electricity rate of 15 cents/kWh including a utility rebate of \$50/fixture. For more information on utility rebates, visit [www.lutron.com/incentives](http://www.lutron.com/incentives).

# Lutron® Stairwell Retrofit Kit Solution

## 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, 3, 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
- 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

\*Go to [lutron.com/rps](http://lutron.com/rps) for sensor specifications.

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



Lutron Electronics Co., Inc.  
7200 Suter Road  
Coopersburg, PA 18036-1299

World Headquarters 1.610.282.3800  
Technical Support 1.800.523.9466 (Available 24/7)  
Customer Service 1.888.LUTRON1 (1.888.588.7661)

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## Example model number:

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

### 1 Product

FXRS = Fixtures Retrofit Kit Solution

### 2 Family

SW = Stairwell

### 3 Fixture type

XX = Standard

### 4 Size

12 = 1'x2'

13 = 1'x3'

14 = 1'x4'

18 = 1'x8'

### 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.

