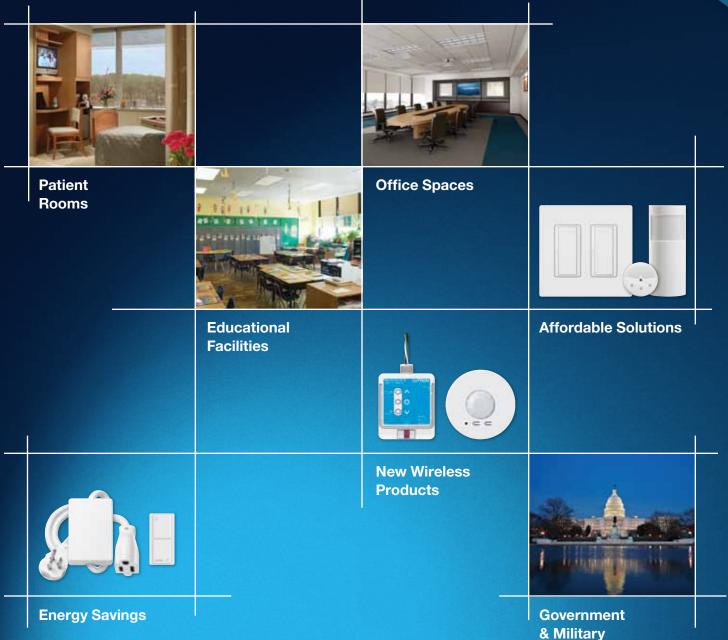
#### Lutron energy-saving products





# **Retrofit Solutions**

Energy-saving products for single rooms





## Costs of lighting

Lighting represents 38% of electricity use in commercial buildings. Lutron solutions can save 60%<sup>1</sup> or more lighting energy.

#### A significant amount of energy is used for lighting when compared to other building systems.

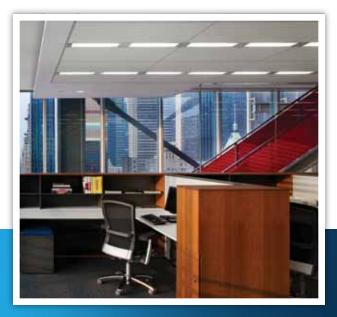
Controlling your lighting is often the easiest and most visible way to manage your energy costs while enhancing your space.



Annual electricity u	se
Lighting	<b>38%</b>
Cooling	13%
Ventilation	13%
Refrigeration	12%
Personal Computers	5%
Space Heating	4%
Office Equipment	2%
Water Heating	2%
Cooking	1%
Other	12%

# It costs \$448.95 per year to light this room for 16 hours every day.

If this room is used only 8 hours per day, the potential energy savings with occupancy sensing alone is \$224 per year, or 50%. This savings can be increased even more with the addition of other strategies, like daylighting, high-end trim, and dimming.



## Start saving energy today.

The best way to start saving energy immediately is with solutions that are easy to retrofit and use. Lutron's wireless products utilize key energy-saving strategies and, using one or more of these, you can add energy savings to any space with little to no disruption—installation and set up can be done in minutes, not hours.

#### Choose from a wired or wireless solution based on the needs of the space.

Energy-saving light control strategies Potential savin					
Full On Dim	<b>Dimming</b> incandescent or halogen bulbs by 25% saves 20% electricity. Dim more and you'll save even more.	Variable			
Full On Dim	<b>Personal dimming control</b> provides individual control of light levels to accommodate different tasks and activities. <sup>2</sup>	10% Lighting			
Max: 100%         80%           Max: 80%	<b>High-end trim</b> sets the maximum light level based on customer requirements in each space. <sup>5</sup>	20% Lighting			
Occupied: On Vacant: Off	<b>Occupancy/vacancy sensors</b> turn lights on when a person enters a space and off when the person leaves the space. <sup>3</sup>	15% Lighting			
Full On Dim	<b>Daylight harvesting</b> dims electric light or switches it off during the day to take advantage of available daylight. <sup>4</sup>	15% Lighting			
Appliance On Appliance Off	<b>Appliance control</b> turns off standby power to electronic appliances when you're not using them.	Variable			

#### With Lutron retrofit solutions you'll save time, save money, and save energy.

#### **Table of contents**

Solutions for every space2
Wireless retrofit solutions 4
Creating a retrofit solution
Wireless sensors and controls
Load controllers 10

Wireless applications14	ļ
Energy Retrofit packages 20	)
Wired solutions: in-wall sensors	
Sensor coverage diagrams 24	ļ
Part numbers and pricing 26	5

# Lutron offers occupancy/vacancy sensors for every size space and load type.

Choose from wired or wireless sensors based on the needs of the space, the potential for expansion, and whether you wish to take advantage of additional energy-saving strategies.

Lutron occupancy sensors use a patented, revolutionary sensing technology, XCT<sub>TM</sub>, which enhances the sensors' ability to detect fine motion, such as turning the page of a book or other similar desk activities. Picking up fine motions is vital to ensuring lights operate properly and don't leave occupants in the dark. XCT also significantly reduces false tripping due to interference, so lights do not turn on when rooms are empty.

Radio Powr Savr<sup>TM</sup> wireless sensors also include a Test Mode to assist in verifying the ideal sensor location before installation. Test Mode allows for temporary mounting of the sensor to test that it detects occupancy in all desired areas. The sensor can be moved until it is in the correct position before being permanently mounted. Radio Powr Savr sensors also feature a 10-year battery life to reduce maintenance costs.

#### Wired sensors

Maestro<sub>®</sub> in-wall occupancy/vacancy sensors



Wireless sensors Radio Powr Savr occupancy/vacancy sensors



### Why wired?

Lutron offers in-wall occupancy/vacancy sensors with either a dimmer or a switch.

- · Ideal for single rooms without obstructions to the wall switch
- · Directly replaces an existing control with no new wiring
- · Makes it easy and affordable to start saving energy immediately

#### Occupancy/vacancy vs. vacancy only sensors

Lutron sensors are offered in both occupancy/vacancy and vacancy only versions. Occupancy/vacancy sensors are auto-on and auto-off, while the vacancy only sensors are manual-on and auto-off.

### Why wireless?

Lutron's wireless products are designed to work together to **save energy**. These products communicate using Lutron's reliable Clear Connect<sub>TM</sub> RF Technology, which ensures lights work every time. Clear Connect operates on a low frequency band to **avoid interference** from other wireless devices.

#### It's easy.

Lutron's wireless products are simple to install, set up, and use. They require no new wiring, making them **ideal for renovation and retrofit**, and because they're wireless they can easily be moved if a space is reconfigured.

#### It's expandable.

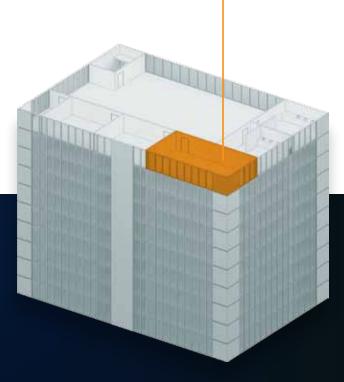
Wireless technology means new products can be added at any time—start with as few as two devices and **add on as needed**. Combine up to ten total devices in a single area to create a custom solution.

#### It's affordable.

Because no new wiring or power packs are required, you **save on labor and installation** costs—and, with Lutron's convenient wireless packages, you can purchase a retrofit solution at a discount from individual components. Your project may also **qualify for a utility rebate**. Check for opportunities at www.lutron.com/incentives.



Save energy in any space with Lutron retrofit solutions.



#### **Lower Your Installed Cost**

Wireless products offer a cost advantage over installing wired components because they take significantly less time to install. Additionally, Lutron offers competitive pricing on its wireless solutions to save you even more.

- No pulling new wire
- No cutting into drywall or installing new backboxes or powerpacks
- Less materials, less waste
- Lower installed cost

## Energi TriPakm wireless retrofit solutions

# Occupancy/vacancy and daylight sensors



Radio Powr Savr™ ceiling-mount occupancy/ vacancy sensor Turns lights on when room

is occupied and off when

room is vacant



#### Pico<sub>®</sub> wireless control

Wireless controls

- Battery-powered remote wirelessly controls lights and appliances
- Pico can be used free standing, wall-mounted, or on a pedestal for convenient wireless dimming or switching control



#### Radio Powr Savr wall/corner/hall-mount occupancy/vacancy sensor Turns lights on when room is occupied and off when room is vacant

-	
-	-1
	2



Radio Powr Savr ceiling-mount daylight sensor Adjusts lights based on the amount of available daylight

8		Ì
		l
	ĩ	l
	ľ	L

#### Pico offers ultimate flexibility in how and where you control your lights



Pedestal Keep a Pico on a desk or on a conference room table to easily control lights at the touch of a button.



Wall-mount Add a new point of control by mounting a Pico to the wall with a wallplate.

#### Handheld

Pico controls are easily portable for adjustment during classes or presentations.



## Load controllers



# Maestro Wireless® switch (pictured) and dimmer

Models available for:

- Incandescent/halogen
- Magnetic low voltage
- 3-wire fluorescent
- Electronic low voltage
- Dual voltage switch



#### PowPak™ modules

- Dimming
- Switching
- Contact closure output (CCO)



#### Maestro Wireless tabletop lamp dimmer Integrates floor and table lamps into wireless lighting control system



#### **Stairwell Retrofit Solution** Lighting fixture with integral lighting control device and programmed ballast



#### PowPak™ plug-in modules

Dim/switch version for lighting loads
General purpose switch

for appliance loads

## Easy steps to create a retrofit solution

#### Identify what will be controlled:





Overhead lighting

Stairwell lighting



Task lighting

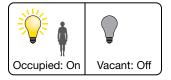


Office equipment computer monitor, laser printer, etc.



Third-party equipment

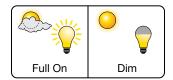
#### 2 Identify the savings strategy:



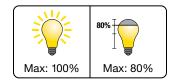
Occupancy/vacancy sensing



Dimming



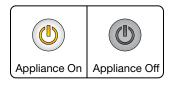
Daylight harvesting



High-end trim



Personal control



Appliance control







wireless switch

wireless dimmer



dimming module with EcoSystem

6

switching module with SoftSwitch

plug-in tabletop

lamp dimmer

CCO module



plug-in appliance module

plug-in dimming

module

stairwell retrofit solution

#### **Choose wireless devices:**



occupancy/vacancy sensor See page 23-24 for coverage diagrams



daylight sensor



wireless control



### Alternative solution:

In-wall occupancy/ vacancy sensor-see page 21-22 for details.

**Coverage diagrams** on page 23-24.

## Creating an Energi TriPak™ solution





**Personal control** 

Dim

Full On

1

**PowPak**<sup>™</sup> **dimming module with EcoSystem**<sup>®</sup> (mounted in ceiling) dims lighting loads in response to wireless sensors and controls



#### Pico<sub>®</sub> wireless controls

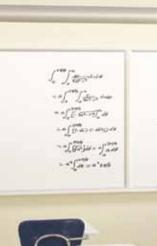
manually control loads with wireless controls that can be placed on the wall or tabletop

## Energy-saving strategies

Personal control Occupancy/vacancy sensing Daylight harvesting High-end trim 10% lighting15% lighting15% lighting20% lighting

## Potential energy savings:

60%









#### 

**EcoSystem H-Series digital ballast** combines superior 1% dimming performance and Lutron reliability

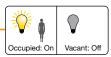
#### **Daylight harvesting**





**Radio Powr Savr**<sup>TM</sup> **daylight sensor** communicates with load controllers to dim lights based on amount of daylight available

#### occupancy/vacancy sensing



Radio Powr Savr corner-mount occupancy/vacancy sensor communicates with load controllers to turn lights on or off based on occupancy

## Radio Powr Savr™ wireless occupancy/vacancy ceiling sensor

- Ideal for providing unobstructed sensor coverage and is now available at a **new low price**
- Features compact form factor and can now be recess mounted
- Uses dependable Lutron XCT<sup>™</sup> Technology for fine motion detection without false trips
- · Easy to install-requires no wiring
- Test Mode assists in verifying ideal sensor location before installation
- 10-year battery life
- Works with Maestro Wireless<sub>®</sub> controls, PowPak™ modules and stairwell retrofit solution

#### **Savings Strategy—save 15%<sup>3</sup> or more:**

Occupancy/vacancy sensing

#### Radio Powr Savr wireless occupancy/vacancy wall/corner/hall sensors

- Three versions:
  - 180-degree, wall-mount
  - 90-degree, corner-mount
  - hallway
- Uses dependable Lutron XCT Technology for fine motion detection without false trips
- · Easy to install-requires no wiring
- Test Mode assists in verifying ideal sensor location before installation
- 10-year battery life
- Works with Maestro Wireless controls, PowPak
   modules and stairwell retrofit solution

#### Savings Strategy—save 15% <sup>3</sup> or more:

Occupancy/vacancy sensing



## Radio Powr Savr wireless daylight sensor

- Lowers or turns off electric light when sufficient daylight is available
- · Easy to install-requires no wiring
- Create stepped daylighting in bi-level switching applications with wallbox controls
- 10-year battery life
- Works with Maestro Wireless controls and PowPak modules

#### **Pico**<sub>®</sub> wireless controls

- Use a Pico to wirelessly control lights from anywhere in a space—can be used for personal dimming control or in conference rooms to enhance presentations
- Add a new point of control without pulling wire by mounting a Pico to any wall surface—fits in the space of a designer-opening wallplate
- Choose from four button configurations for dimming or switching applications
- Works with Maestro Wireless controls and PowPak modules

#### Savings Strategy—save 15% <sup>4</sup> or more:

#### Savings Strategy—save 10%<sup>2</sup> or more:

Personal dimming control

泛





#### Maestro Wireless<sub>®</sub> switch (shown) and dimmer

- Easy to install and set up-requires no new wiring
- Single-pole and multi-location controls—control lights from up to 10 total locations with Maestro® companion switches and dimmers
- Works with Radio Powr Savr™ wireless sensors and Pico<sub>®</sub> wireless controls
- Each control works with up to 9 wireless devices, limit 1 daylight sensor per load control
- New low price for dual-voltage switch

#### **Savings Strategy:**

- Dimming (dimmer only)
- High-end trim (dimmer only)
- Switch to "off"

#### Maestro Wireless tabletop lamp dimmer

- Control lamps with the tabletop control or from anywhere in the room with a Pico wireless control or Radio Powr Savr wireless sensor
- Easy plug-in installation
- Ideal for workspace applications—user can adjust light levels for optimum comfort, while an occupancy sensor ensures lights turn off when the space is unoccupied

#### **Savings Strategy:**

- Dimming
- · Switch to "off"



#### PowPak™ plug-in dimming module

- Hides under or behind furniture—control lamps using a Pico wireless control or Radio Powr Savr wireless sensor
- Easy plug-in installation
- Can configure to a switch for non-dim lighting
- Ideal for office task lighting, hotel room
   applications and more

#### PowPak plug-in appliance module

- Hides under or behind furniture—switch nondim lighting or appliances using a Pico wireless control or Radio Powr Savr wireless sensor
- Easy plug-in installation
- Ideal to switch off computer monitors, laser printers and other devices that use energy even when they are not in active use

#### Savings Strategy:

Appliance control

#### **Savings Strategy:**

- Dimming (dimmer configuration only)
- Switch to "off"



## Load controls

## PowPak<sub>™</sub> dimming module with EcoSystem<sub>®</sub>

- Wireless, plenum-rated digital dimming control of EcoSystem lighting loads
- Mounts through a knock-out to a junction box or fluorescent fixture, or inside a standard junction box
- Controls up to 32 EcoSystem, EcoSystem H-Series, or Hi-lume<sub>®</sub> 3D ballasts or Hi-lume A-Series LED drivers
- Works with Radio Powr Savr™ wireless sensors and Pico<sub>®</sub> wireless controls
- Allows for high-end trim
- 120 V / 277 V input

#### **Savings Strategy:**

- Dimming
- High-end trim

## PowPak relay module with SoftSwitch₀

- Wireless, plenum-rated switching control of lighting, motor, and receptacle loads
- Mounts through a knock-out to a junction box or fluorescent fixture, or inside a standard junction box
- Works with Radio Powr Savr wireless sensors and Pico wireless controls
- Optional single dry contact closure output for integration with third party equipment
- 16 A general purpose switch
- 120 V / 277 V input

#### **Savings Strategy:**

- Switch to "off"
- Appliance control
   (control of third-party equipment





#### PowPak CCO module

- Wireless, plenum-rated device provides one dry contact closure output for integration with third party equipment
- Provides both normally open and normally closed dry contacts; maintained outputs; non-latching relays
- Communicate occupancy via Radio Powr Savr wireless occupancy/vacancy sensors
- Provide on/off control utilizing Pico wireless controls
- Low voltage 24 V~ and 24 VDC input

#### **Stairwell Retrofit Solution**

- Integral wireless lighting control works with Radio Powr Savr wireless occupancy/vacancy sensors
- Fixture turns on to a specified light level when a stairwell is occupied, and turns to a lower light level when it is unoccupied
- Occupied/unoccupied levels are field adjustable
- Simple installation, with no wiring required for the occupancy sensors
- · Ceiling or wall surface mount
- Group multiple fixtures to a single sensor and/ or multiple sensors to a single fixture to ensure lit and safe conditions
- Multiple length and lamp options available
- 120/277 V-universal input voltage

#### **Savings Strategy:**

- Dimming
- High-end trim



### Savings Strategy:

Appliance control

### Private office, 12' x 12'

#### Save up to 38%<sup>3</sup> energy in private offices with occupancy sensing

- Turn office lights off when space is unoccupied
- Add a plug-in appliance module to turn off computer monitor or other devices when a space
   is unoccupied



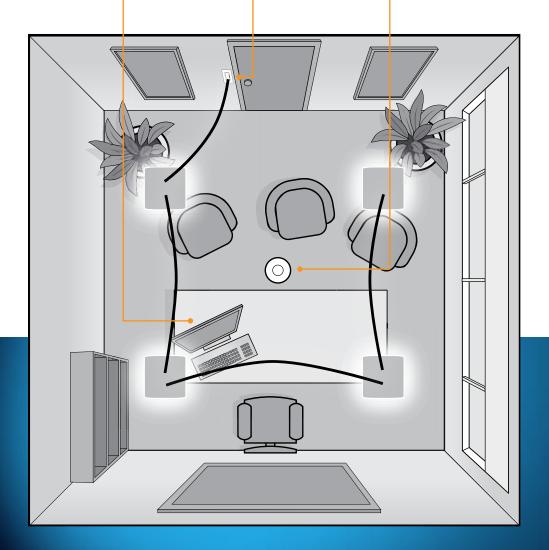




Plug-in appliance module

Maestro Wireless® switch

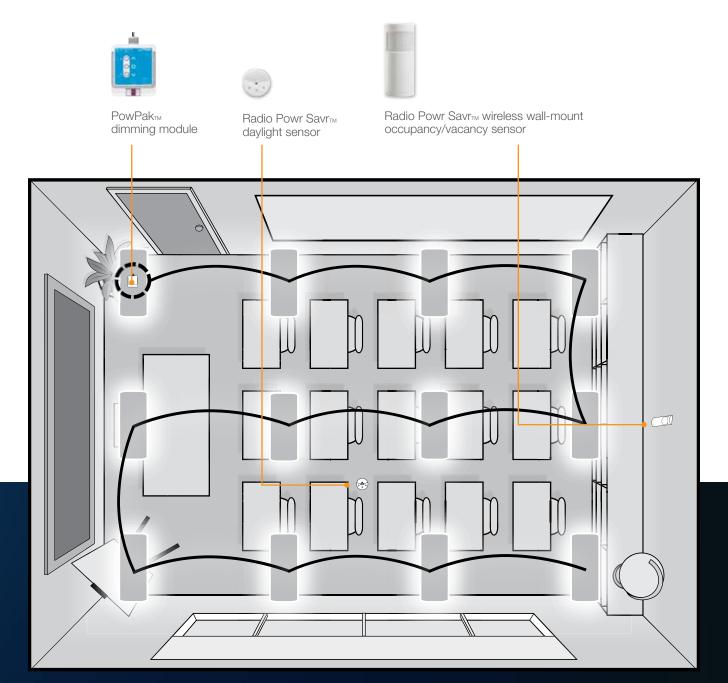
Radio Powr Savrm wireless ceiling-mount occupancy/vacancy sensor



## Classroom, 16' x 12'

#### Save energy by combining occupancy and daylight sensing

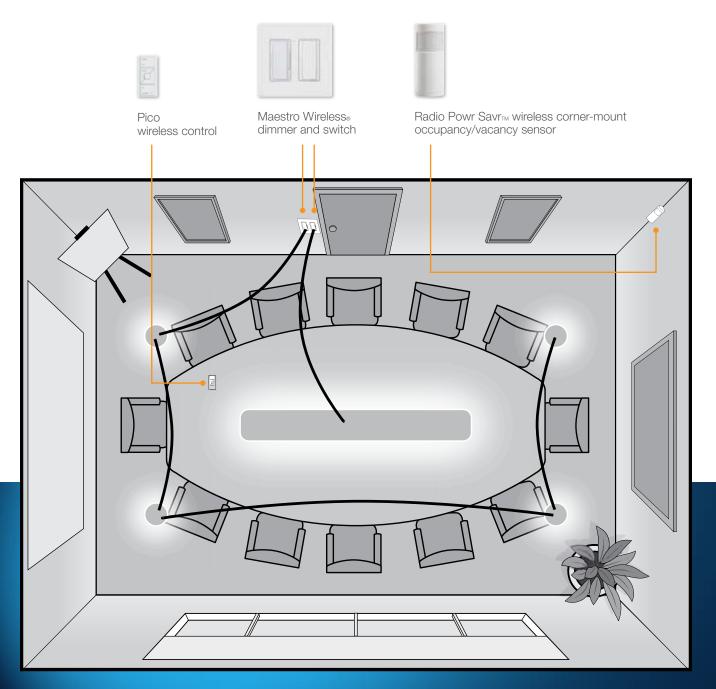
- Energy expenses in schools are second to payroll and cost more than textbooks and computers combined; sensors turn lights off in unoccupied spaces
- · Add a wireless daylight sensor, when appropriate, to increase savings



## Conference room, 16' x 12'

#### Save energy by combining occupancy/vacancy sensing with personal dimming control

- · Lighting represents the greatest opportunity for energy savings in office buildings
- Sensors turn lights off in unoccupied spaces
- Add a Pico<sub>®</sub> wireless control to adjust lights during presentations



## Hallway, 6' wide

#### Save energy with occupancy/vacancy sensing

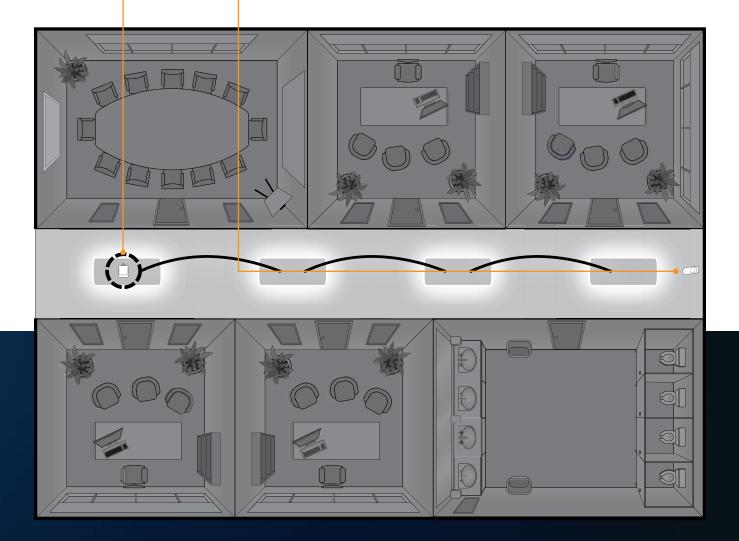
- Avoid unnecessary energy usage when hallways are empty
- Non-emergency lights turn off when the hallway is unoccupied; for safety purposes, some lights must remain on





PowPak™ switching module

Radio Powr Savrm wireless hallway occupancy/vacancy sensor

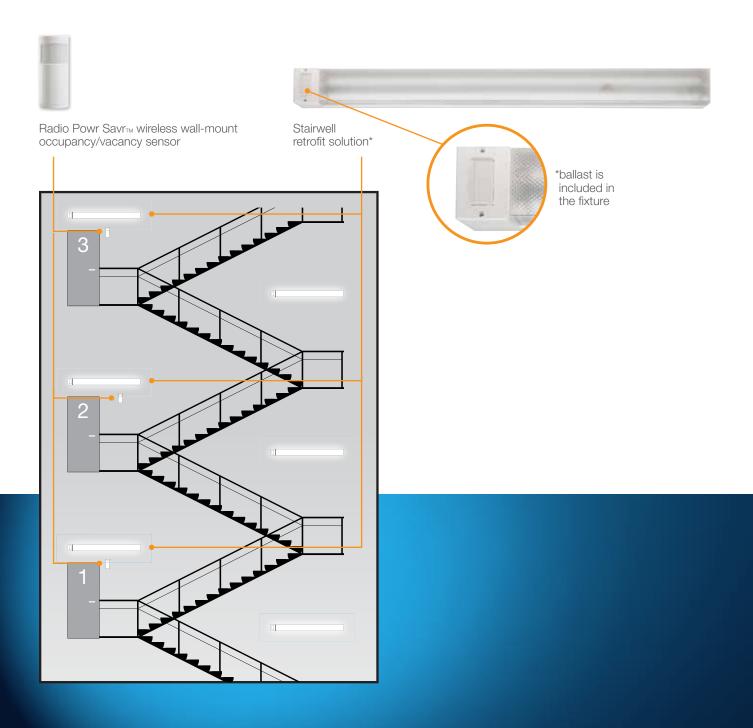


## Stairwell retrofit solution

### Stairwell

#### Save energy by combining occupancy/vacancy sensing with high-end trim

- · Occupancy sensor turns lights to a reduced level when the stairwell is unoccupied
- High-end trim reduces occupied light level



## Waiting room, 16' x 12'

#### Add a new point of control anywhere in a room

- Mount a Pico wireless control to a wall-easy installation with no new wiring required
- Pico communicates to PowPak module mounted in the ceiling—control groups of lights independently by using multiple Picos
- · Add an occupancy/vacancy sensor to enhance energy savings when the space is unoccupied



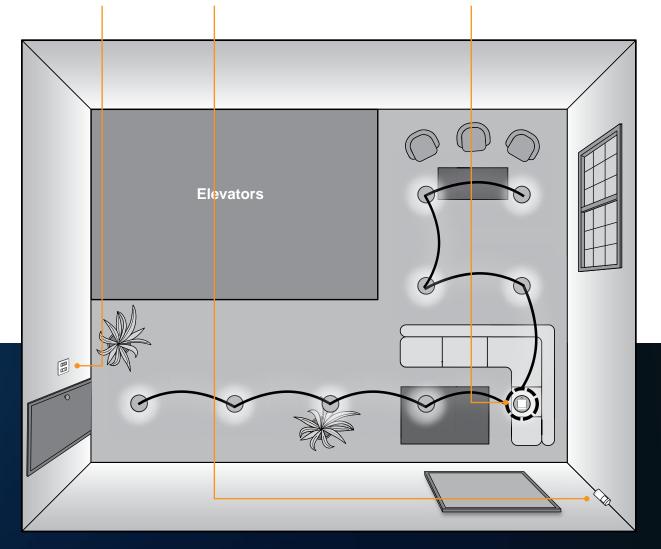




Pico wireless controls

Radio Powr Savrm wireless corner-mount occupancy/vacancy sensor

PowPak™ dimming module



### Maestro<sub>®</sub> with

#### occupancy/vacancy sensor

- · Easy to install-requires no new wiring
- · Available as a switch, or dimmer, with sensor
- Dual voltage, no neutral switch **now available at a new lower price**
- Single-pole and multi-location control (works with Maestro companion dimmers or switches)
- Dependable Lutron XCT<sub>TM</sub> Technology for fine motion detection
- Sensor must have unobstructed view and line-ofsight to room occupants
- Up to 30 ft x 30 ft major motion and 20 ft x 20 ft minor motion coverage
- 1, 3, 5, 15, or 30 minute timeout options

### Contractor 6-pack

#### Package includes:

- (6) Maestro dual voltage (120/277 V) switch with occupancy/vacancy sensor
- Utilize the Maestro switch with occupancy/vacancy sensor to save energy and money—save even more when purchased in lots of six
- Dual voltage (120 V/277 V) switch allows for this sensor to be installed quickly in any application, with no additional wiring, making it an ideal product to stock on every truck
- Now available at a new low price



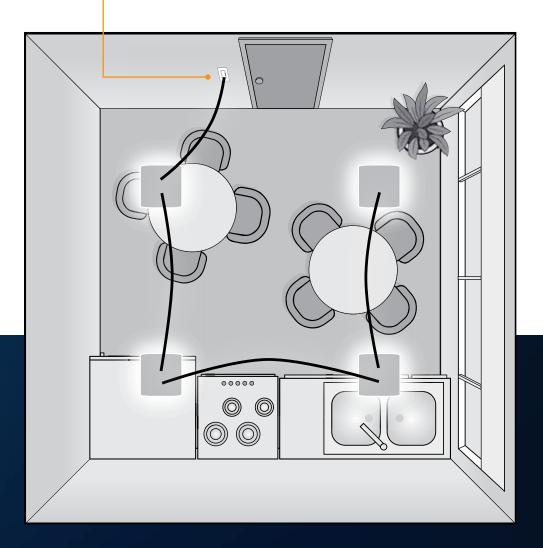
### Break room, 12' x 12'

## Break rooms can be unoccupied for hours at a time—save significant amounts of energy with an occupancy/vacancy sensor

- Turns lights off when the room is unoccupied
- · Sensors available to work with a variety of load types



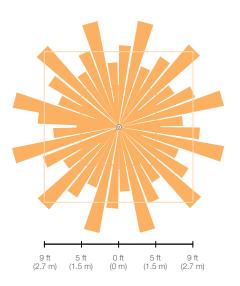
Maestro switch with occupancy/vacancy sensor



## Sensor coverage diagrams

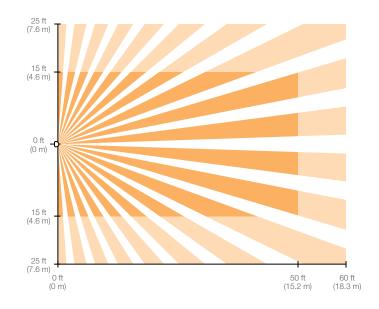
## Ceiling-mount, 360°

#### Coverage varies by ceiling height

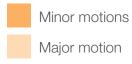


## Wall-mount, 180°

1,500 ft<sup>2</sup>-minor motion; 3,000 ft<sup>2</sup>-major motion



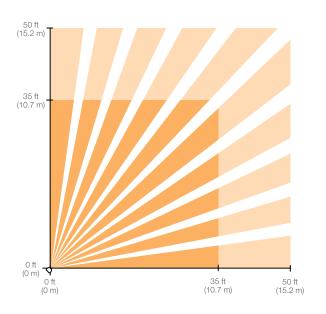
#### Key:



Coverage Chart for sensor mounted in center of room—includes major and minor motions						
Ceiling height	Max. room dimensions for complete coverage	Radius of coverage at floor				
8 ft (2.4 m)	18 x 18 ft (5.5 x 5.5 m)	13 ft (4.0 m)				
9 ft (2.7 m)	20 x 20 ft (6.1 x 6.1 m)	14.5 ft (4.4 m)				
10 ft (3.0 m)	22 x 22 ft (6.7 x 6.7 m)	16 ft (4.9 m)				
12 ft (3.7 m)	26 x 26 ft (7.9 x 7.9 m)	19 ft (5.8 m)				

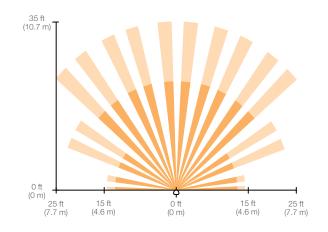
### Corner-mount, 90°

#### 1,223 ft<sup>2</sup>-minor motion; 2,500 ft<sup>2</sup>-major motion



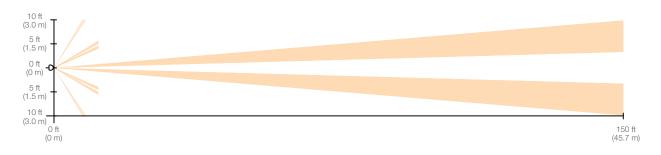
### In-wall, 180°

400 ft<sup>2</sup> – minor motion; 900 ft<sup>2</sup> – major motion



## Hallway, long narrow field of view

#### Coverage varies by hallways with and lenght



#### Maximum recommended hallway length

Width of hall	Length of hall
6 ft (1.6 m) or less	50 ft (15.2 m)
8 ft (2.4 m)	100 ft (30.5 m)
10 ft (3.0 m) or more	150 ft (45.7 m)

## Part numbers & pricing

	Lutron P/N	Description	Features	(US) List Price**
	LRF2-OCR2B-P-WH*	Radio Powr Savr wireless sensor	360° ceiling-mount occupancy/vacancy sensor, auto-on/auto-off or manual on/auto-off, 3.572" diameter	\$ 85.00
	LRF2-OCRB-P-*		360° ceiling-mount occupancy/vacancy sensor, auto-on/auto-off or manual on/auto-off, 4" diameter	\$ 130.00
	LRF2-OWLB-P-WH*		180° wall-mount occupancy/vacancy sensor, auto-on/auto-off or manual on/auto-off	\$ 130.00
	LRF2-OKLB-P-WH*		90° corner-mount occupancy/vacancy sensor, auto-on/auto-off or manual on/auto-off	\$ 130.00
u Weie	LRF2-OHLB-P-WH*		Hallway occupancy/vacancy sensor, auto-on/auto-off or manual on/auto-off	\$ 130.00
	LRF2-DCRB-WH		ceiling-mount daylight sensor	\$ 120.00
	MRF2-3BRL-L-	Pico wireless control	5-button with on/off, raise/lower and favorite	\$ 56.00
	MRF2-2BRL-L-		4-button with on/off and raise/lower	\$ 56.00
	MRF2-3B-L-		3-button with on/off and favorite	\$ 56.00
	MRF2-2B-L-		2-button with on/off	\$ 56.00
	L-PED1-	Pedestal stand	Single table stand for Pico wireless control	\$ 60.00
	L-PED2-		Double table stand for Pico wireless control	\$ 80.00
	PICO-FP-ADAPT	Faceplate adapter	Wallbox adapter kit for Pico wireless control	\$ 8.00
	CW-1-	Claro wallplate	1-gang opening	\$ 4.90
	FXSW23214HDU51***	Stairwell retrofit solution	4ft, 2 lamp, T8, field programmable high and low end, factory preset: 50% high end, 10% low end	\$ 390.00
	FXSW23214HDU82***		4ft, 2 lamp, T8, field programmable high and low end, factory preset: 80% high end, 20% low end	\$ 390.00

\* Vacancy models available to meet residential California Title 24 section 119(j) requirements all occupancy/vacancy sensors meet commercial requirements

\*\* List price indicated for gloss colored products

\*\*\* Additional fixture lenghts, lamps types, quanticies, and light levels are available. Call Customer service or visit lutron.com.stairwellfixture for a complet list.

Lutron P/N	Description	Features	(US) List Price**
MRF2-600M-	Maestro Wireless dimmer	Single-pole/multi-location dimmer 120 V, 600 W incandescent/halogen	\$ 88.00
MRF2-6MLV-		Single-pole/multi-location dimmer 120 V, 600 W incandescent/halogen, MLV	\$ 100.00
MRF2-10D-120-		Single-pole/multi-location dimmer 120 V, 1000 W incandescent/halogen, MLV voltage	\$ 130.00
 MRF2-6ND-120-		Single-pole/multi-location neutral wire dimmer 120 V, 600 W incandescent/halogen, MLV	\$ 130.00
MA-R-	Maestro companion dimmer	Multi-location companion dimmer 120 V, provides multi-location dimming for up to 9 additional locations	\$ 27.50
MRF2-8S-DV-	Maestro Wireless switch	Single-pole/multi-location dual volt no-neutral switch, 120 V/277 V, 8A light, inc./halogen, MLV, ELV, non-dim fluorescent ballasts	\$ 150.00
MRF2-6ANS-		Single-pole/multi-location switch 120 V, 6 A light or 3 A fan, incandescent, halogen, MLV, ELV, non-dim fluorescent ballasts, and general purpose fans	\$ 88.00
MRF2-6ANS-277-		Single-pole/multi-location switch 277 V, 6 A light, MLV, ELV, non-dim fluorescent ballasts	\$ 88.00
MA-AS-	Maestro companion switch	Multi-location companion switch 120 V, provides multi- location switching for up to 9 additional locations	\$ 35.50
MA-AS-277-		Multi-location companion switch 277 V, provides multi- location switching for up to 9 additional locations	\$ 44.00
MRF2-3LD-	Maestro Wireless tabletop lamp dimmer	300W, incandescent/halogen for table or floor lamps	\$ 130.00
MRF2-3PD-1-	Plug-in dimming module	Plug-in dimming/switching module; 300 W, inc./ halogen for table or floor lamps, 1 receptacle	\$ 99.00
MRF2-3PD-3-	-	Plug-in dimming/switching module; 300 W, inc./ halogen for table or floor lamps, 3 receptacles	\$ 99.00
MRF2-15APS-1-	Plug-in appliance module	Plug-in general purpose switch; 15 A, 1 receptacle	\$ 99.00
MRF2-15APS-3-		Plug-in general purpose switch; 15 A, 1 receptacle	\$ 99.00
MRF2-1S8A-10C*	Simple Energy Retrofit Package	<ul> <li>(1) Maestro Wireless 8 A no-neutral switch, 120V/277V</li> <li>(1) Radio Powr Savr wireless ceiling-mount occupancy/vacancy sensor; 3.572" diameter, (1) Claro 1-gang wallplate</li> </ul>	\$ 198.00
MRF2-1S8A-10*	Simple Energy Retrofit Package	<ul> <li>(1) Maestro Wireless 8 A no-neutral switch, 120 V/277 V,</li> <li>(1) Radio Powr Savr wireless ceiling-mount occupancy vacancy sensor; 4" diameter, (1) Claro 1-gang wallplate</li> </ul>	\$ 290.00

Additional Maestro Wireless switches, dimmers and accessories are available. Contact customer service for full details.

\* Vacancy models available to meet residential California Title 24 section 119(j) requirements all occupancy/vacancy sensors meet commercial requirements

\*\* List price indicated for gloss colored products

# Part numbers & pricing

	Lutron P/N	Description	Features	(US) List Price**
	RMJ-ECO32-DV-B	PowPak dimming module with EcoSystem	Controls up to 32 EcoSystem, EcoSystem H-Series, or Hi-lume 3D ballasts or Hi-lume A-Series LED drivers, 120 V/277 V	\$ 170.00
	RMJ-16R-DV-B	PowPak switching module with SoftSwitch	16 A general purpose switch, 120 V/277 V	\$ 109.00
	RMJ-16RCCO1-DV-B		16 A general purpose switch with (1) contact closure output, 120 V/277 V	\$ 119.00
	RMJ-CCO1-24-B	PowPak CCO module	(1) contact closure output; low voltage 24 V~ /24 VDC input	\$ 89.00
ñ	EHDT528CU110	EcoSystem H-Series Ballast 120 - 277 V	T5 linear, 28 W, 1-lamp, 1.0 ballast factor	\$ 89.00
	EHDT528CU210		T5 linear, 28 W, 2-lamp, 1.0 ballast factor	\$ 89.00
	EHDT554CU110		T5-HO linear, 54 W, 1-lamp, 1.0 ballast factor	\$ 89.00
	EHDT832CU110		T8, 32 W, 1-lamp, 1.0 ballast factor	\$ 79.00
R	EHDT832CU117		T8, 32 W, 1-lamp, 1.17 ballast factor	\$ 79.00
	EHDT832CU210		T8, 32 W, 2-lamp, 1.0 ballast factor	\$ 79.00
	EHDT832CU217		T8, 32 W, 2-lamp, 1.17 ballast factor	\$ 79.00
	EHDT832GU310		T8, 32 W, 3-lamp, 1.0 ballast factor	\$ 129.00
	EHDT832GU317		T8, 32 W, 3-lamp, 1.17 ballast factor	\$ 129.00

Lutron P/N	Description	Features	(US) List Price**
MS-OPS5AM-	Maestro in-wall sensor with switch	single-pole/multi-location switch with occupancy/vacancy sensor, 120 V, 5 A light, inc/halogen, MLV, ELV, non-dim fluorescent ballasts	\$ 52.00
MS-VPS5AM-*		single-pole/multi-location switch with vacancy sensor, 120 V, 5 A light, inc/halogen, MLV, ELV, non-dim fluorescent ballasts	\$ 52.00
MS-OPS6M-DV-		single-pole/multi-location switch with occupancy/vacancy sensor, 120 V/277 V, 6 A light, inc/halogen, MLV, ELV, non-dim fluorescent ballasts	\$ 62.00
MS-VPS6M-DV- *		single-pole/multi-location switch with vacancy sensor, 120 V/277 V, 6 A light, inc/halogen, MLV, ELV, non-dim fluorescent ballasts	\$ 62.00
MS-OPS6M-DV6***		Contractor 6-pack single-pole/multi-location switch with occupancy/vacancy sensor, 120 V/277 V, 6 A light, inc/halogen, MLV, ELV, non-dim fluorescent ballasts	\$ 336.00
MS-OP600M-	Maestro in-wall sensor with dimmer	single-pole/multi-location dimmer with occupancy/vacancy sensor, 120 V, 600 W incandescent/halogen	\$ 54.00
MS-VP600M-*		single-pole/multi-location dimmer with vacancy only sensor, 120 V, 600 W inc/halogen	\$ 54.00
MA-AS-	Maestro companion switch	120 V, provides multi-location switching for up to 9 additional locations	\$ 35.50
MA-AS-277-		277 V, provides multi-location switching for up to 9 additional locations	\$ 44.00
MA-R-	Maestro companion dimmer	120 V, provides multi-location dimming for up to 9 additional locations	\$ 27.50

<sup>\*</sup> Vacancy models meet residential California Title 24 section 119(j) requirements—all occupancy/vacancy sensors meet commercial requirements \*\* List price indicated for gloss colored products

### Sources

- 1 Actual savings may vary depending on use and application. Stated savings based on a 1.0 W/ft2, 1000 ft2, 30% savings, 14 hours per day for 250 days and an electricity cost starting at \$.102/kWh with a 10% yearly inflation rate.
- 2 IESNA 2000 Proceedings, Paper #34: Occupant Use of Manual Lighting Controls in Private Offices. "Giving the occupant manual switching and dimming provided a total of 15% added savings above the 43% achieved by motion sensors."
- 3 IESNA 2000 Proceedings, Paper #43: An analysis of the energy and cost savings potential of occupancy sensors for commercial lighting systems. "Occupancy sensor savings range from 17% to 60% depending upon space type and time delay settings."
- 4 US Department of Energy. How to Select Lighting Controls for Offices and Public Buildings. Claim: 27% potential savings using daylight harvesting.
- 5 California energy study. < http://www.energy.ca.gov/efficiency/lighting/VOLUME01.PDF>.

www.lutron.com World Headquarters 1.610.282.3800 Technical Support Center 1.800.523.9466 (Available 24/7) Customer Service 1.888.LUTRON1





© 06/2011 Lutron Electronics Co., Inc. | P/N 367-1767 REV D