



Fast. Proven. Reliable.

Built to get your job done.



Vive features fast installation and setup in new and existing commercial buildings, backed by over 25 years of wireless excellence.

VIVE WIRELESS LIGHTING CONTROL

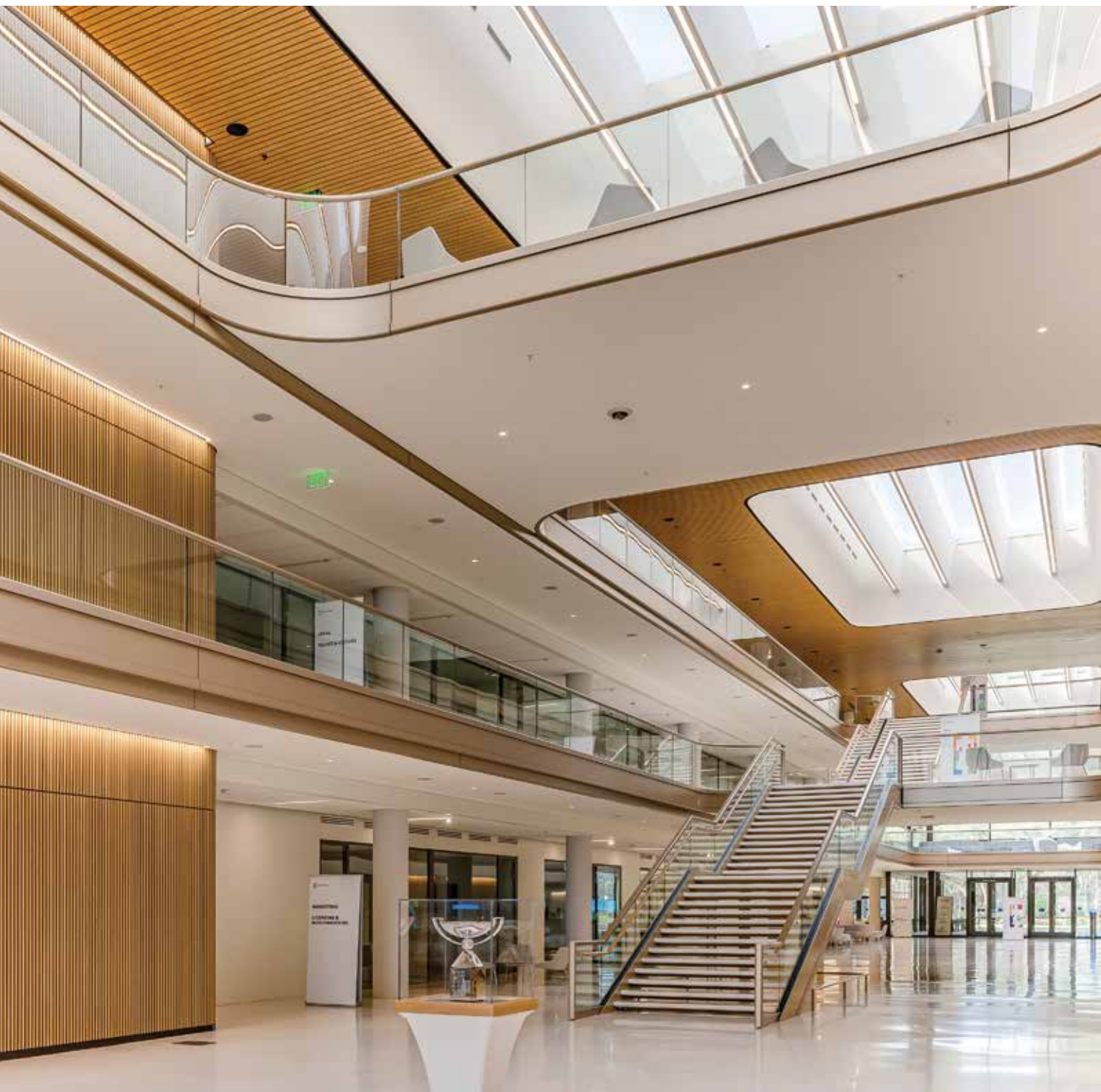
How can you make office, school, and university environments more efficient, comfortable, and productive?

THE ANSWER IS VIVE WIRELESS.

Vive by Lutron is a fast, proven, reliable wireless solution that can be installed in a single space or throughout an entire campus. It is designed to meet today's energy codes in new construction or retrofit situations, and work within your timeline and budget.

With a wide family of products – including sensors, remotes, load controllers, and an available software management suite – Vive provides the flexibility to select the products you want and handle any on-site challenges with ease.



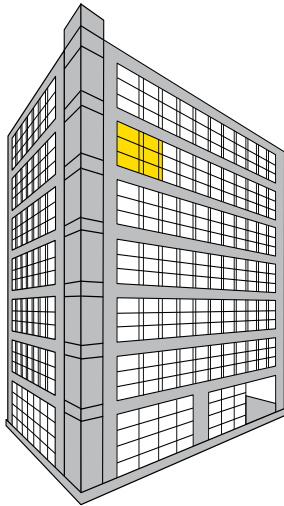


SMART SOLUTIONS — THAT CAN START SMALL AND GROW

Vive wireless systems offer smart control solutions for projects ranging from conference rooms to tenant fit-outs to entire buildings, with a wide variety of budget and performance options.

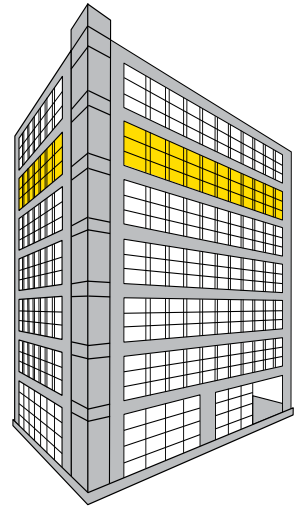
SINGLE SPACE

Start by adding control in a single space and expand as budgets and timelines allow.



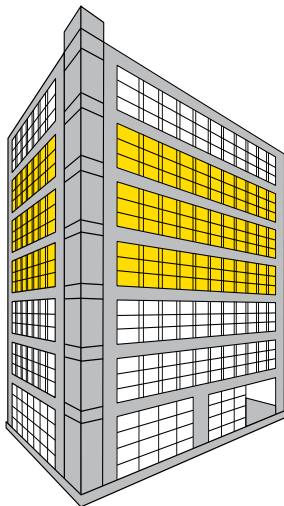
SINGLE FLOOR

Expand to new areas or an entire floor at any time without reprogramming or replacing existing equipment.



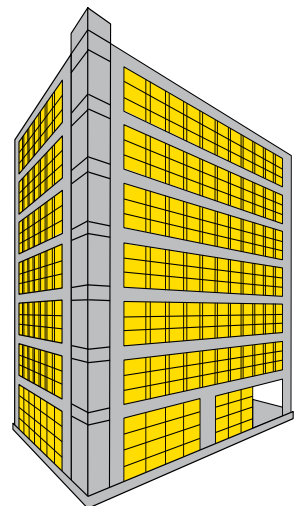
MULTIPLE FLOORS

Duplicate the success of one floor across other floors as your business expands or tenants change. Control can be independent on each floor or linked via Vive wireless hubs.



ENTIRE BUILDING

Vive offers seamless integration to other building management systems for control of every light in the building.

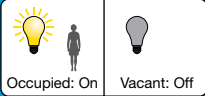
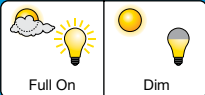
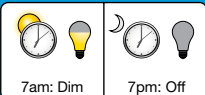
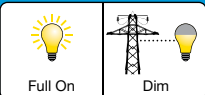
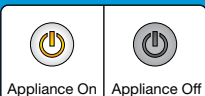
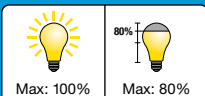
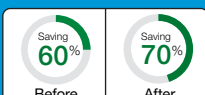


ENERGY-SAVING CONTROL STRATEGIES

Combine lighting control strategies to maximize efficiency.

What is the savings opportunity?

Lutron solutions can save 60% or more lighting energy.

		POTENTIAL SAVINGS
	Occupancy/vacancy sensing turns lights on when occupants are in a space and off when they vacate the space.	20 – 60% LIGHTING
	Daylight harvesting dims electric lights when daylight is available to light the space.	25 – 60% LIGHTING
	Scheduling provides pre-programmed changes in light levels based on time of day.	10 – 20% LIGHTING
	Demand response automatically reduces lighting loads during peak electricity usage times.	30 – 50% PEAK PERIOD
	Plug load control automatically turns off loads after occupants leave a space.	15 – 50% CONTROLLED LOAD
	High-end trim sets the maximum light level based on customer requirements in each space.	10 – 30% LIGHTING
	Personal dimming control gives occupants the ability to adjust the light level.	10 – 20% LIGHTING
	HVAC integration controls heating, ventilation, and air conditioning systems through contact closure or BACnet protocol.	5 – 15% HVAC
	System optimization service from Lutron identifies important lighting control adjustments to save additional energy and create a more productive work environment on an ongoing basis.	VARIABLE

For a list of sources please visit lutron.com/references.

TRANSFORM EXISTING BUILDINGS WITH WIRELESS LIGHTING CONTROLS

A variety of controls and sensors for simple, code-compliant design



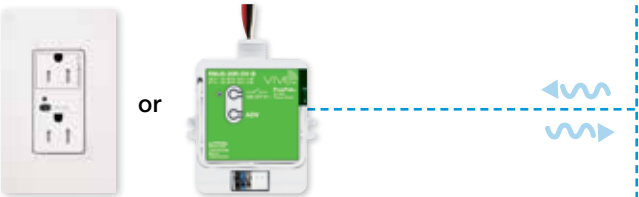
Wireless manual controls



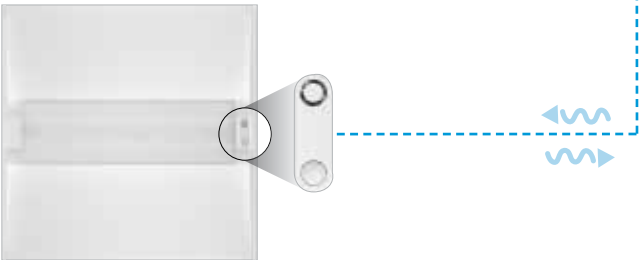
Occupancy and daylight sensors



Wireless load controllers



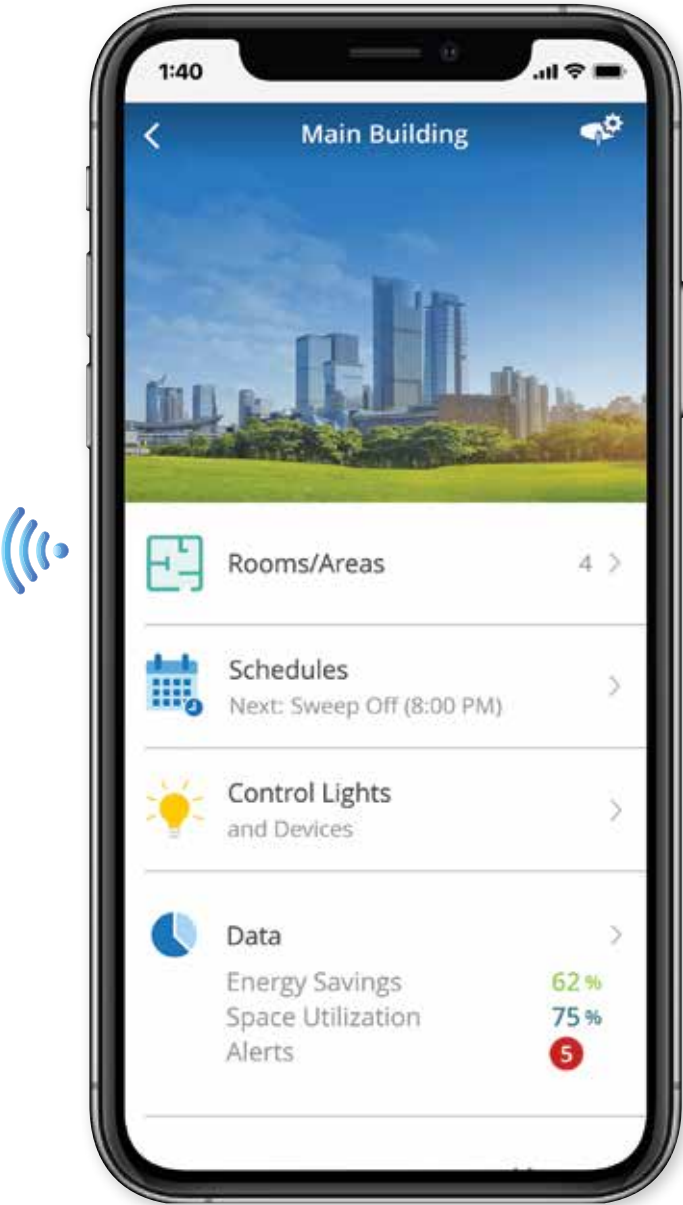
Plug load controllers



Integrated fixture control and sensing



Simple-to-use software



Vive software

Communication protocols



Communicate via RF
to control components



Communicate via WiFi
to smart devices



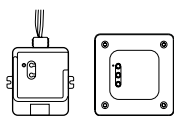
Communicate via wired
Ethernet to Vive hub

AREA CONTROL—SELECTING AND INSTALLING WIRELESS CONTROLS IS EASY

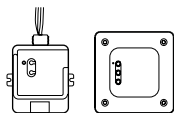
STEP 1

Control your loads

- Select the controller appropriate for the loads on your job
- Options available for:
 - switching, 0-10V, phase dimming, EcoSystem, contact closure
- Simply wire one load controller for each group of lights you want to control together



Switching



Dimming



Contact closure

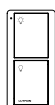


Wireless load controllers

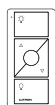
STEP 2

Control your lights where you need to

- Wireless devices can be mounted to any surface with no wiring needed
- Pico controls communicate wirelessly with the controls in the ceiling
- 10-Year battery life



Switching



Dimming



Scene



Pico wireless remotes

STEP 3

Add sensors to your job

- Occupancy/vacancy sensors turn lights on and off for convenience and energy savings
- Wireless devices can be mounted to any surface with no wiring needed
- Sensor controls communicate wirelessly with the controls in the ceiling
- 10-Year battery life



Corner



Wall



Ceiling



Wireless occupancy/vacancy sensors

Load controller



Occupancy sensor



Pico remote



Pico remote



AREA CONTROL—SELECTING AND INSTALLING WIRELESS CONTROLS IS EASY

STEP 4

Add daylight harvesting to meet codes and save energy

- Save energy by dimming the lights when natural light is available
- Wireless devices can be mounted to any surface with no wiring needed
- 10-Year battery life



Daylight sensor

STEP 5 (optional)

System software and control

- Timeclock
- Demand response
- BACnet and API integration
- Energy and occupancy information
- Proactive maintenance alerts



Vive software

See easy system programming on pages 16 and 17

Vive hub

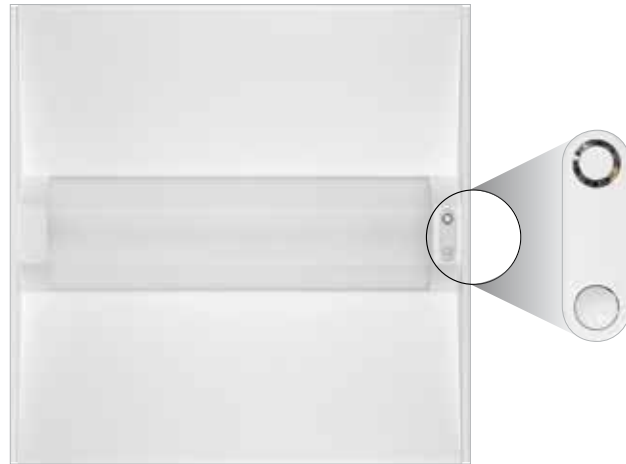
Daylight sensor

INDIVIDUAL FIXTURE CONTROL—SELECTING AND INSTALLING WIRELESS CONTROLS IS EASY

STEP 1

Simply count the fixtures—the technology is built in

- Visit lutron.com/hpfl for a list of fixtures that come with Vive wireless technology built in
- Fixtures are shipped with occupancy, vacancy, and daylight sensing already installed

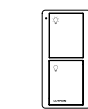


Occupancy/vacancy sensors

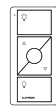
STEP 2

Control your lights where you need to

- Wireless devices can be mounted to any surface with no wiring needed
- Pico controls communicate wirelessly with the controls in the ceiling
- 10-Year battery life



Switching



Dimming



Scene



Pico wireless remotes

STEP 3 (optional)

System software and control

- Timeclock
- Demand response
- BACnet and API integration
- Energy and occupancy information
- Proactive maintenance alerts



Vive software

See easy system programming on pages 16 and 17

Integral fixture controller



Vive hub



Pico remote



Pico remote



SIMPLE TO DESIGN

Access to tools and resources is at your fingertips.

Get access and quick answers to keep your project moving.



EASY-TO-USE DESIGN SOFTWARE

Lutron Designer+ for Vive is an intuitive, easy-to-use software tool that allows you to design a Lutron Vive lighting control system with visual “drag and drop” layout and connections. It also allows you to generate comprehensive system design documentation including bills of materials, one-line diagrams, and sequence of operations.

For access, please contact myLutronsupport@lutron.com.



QUICK HELP VIDEOS

Get access to Lutron Vive videos 24/7. Step-by-step setup, installation, and programming help whenever you need it.

lutron.com/viveresources



ONLINE TRAINING

Visit lutron.com/LCIOne — Sign up for free, online training modules with practice exercises that walk you through the Vive system.

EASILY MEET CODE

Access a summary of code requirements for lighting control.

Vive wireless solutions ensure you can meet new construction and retrofit (lighting alterations) code requirements for three major energy codes: ASHRAE, IECC, and Title 24.

For specific commercial building code lighting requirements in your state, please visit lutron.com/energycodes.



APP GUIDES TO HELP YOU MEET CODES

Codes can often be complicated and difficult to navigate. We have commercial application guides that include examples of different spaces and corresponding Lutron products for those spaces. Guides show you how you can use Lutron solutions to meet or exceed major energy code requirements.

Available online at lutron.com/appguides



VIVE WIRELESS TECHNICAL SPECIFICATIONS

Specifying wireless lighting control reduces design time and allows flexibility for changes during the project without the need to make revisions. Simply copy and paste Vive technical specifications into your project submittals.

Available online at lutron.com/appguides



ENERGY CODE QUICK REFERENCE GUIDES

Get the lighting and receptacle control requirements along with suggested functionality to meet the latest versions of ASHRAE 90.1, IECC, and Title 24 all on one page.

Available online at lutron.com/appguides

SIMPLE TO DESIGN

Simple setup and programming options with the Vive wireless hub

AUTOMATIC FIXTURE IDENTIFICATION

Lutron technology automatically finds and sorts the wireless devices closest to the control.



1 PRESS AND HOLD ON WIRELESS DEVICE

Pico wireless remote is a flexible and easy-to-use device that allows the user to control devices from anywhere in the space.

For systems without a Vive wireless hub

PUSH-BUTTON SET UP

Use simple button-press programming to select and associate wireless devices—it's as easy as saving a favorite streaming channel in your car.



Press and hold wireless
dimmer for 6 seconds

+



Press and hold wireless
occupancy sensor for 6 seconds.
Now the wireless sensor talks to the
wireless dimmer.



2 MOBILE PHONE SETUP

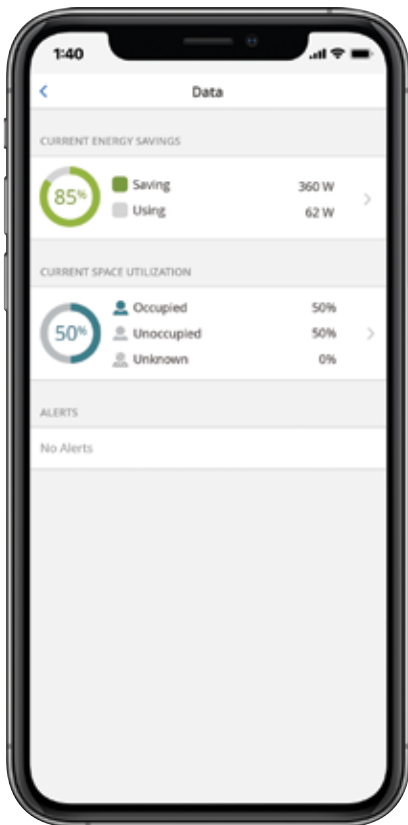
Use Vive software on any smart device to wirelessly connect system controls and program system settings—no ladder required. Lutron's RF signal-strength detection automatically finds nearby devices making job setup faster.

SIMPLE TO DESIGN



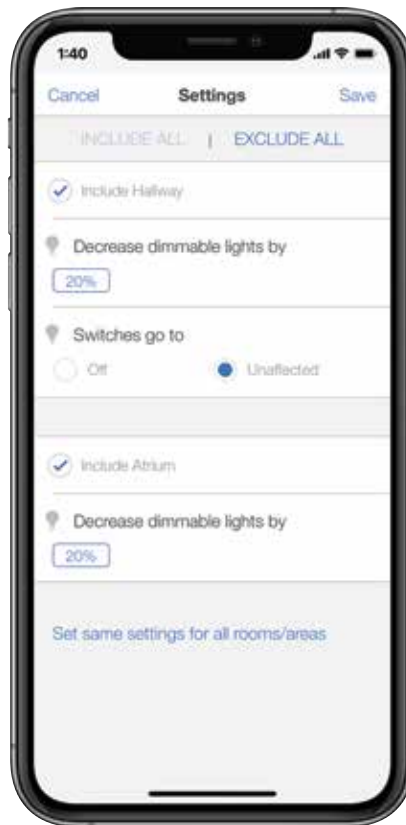
ENERGY SAVINGS AND SPACE UTILIZATION

Quickly view and display energy-usage information to drive decision-making and demonstrate savings.



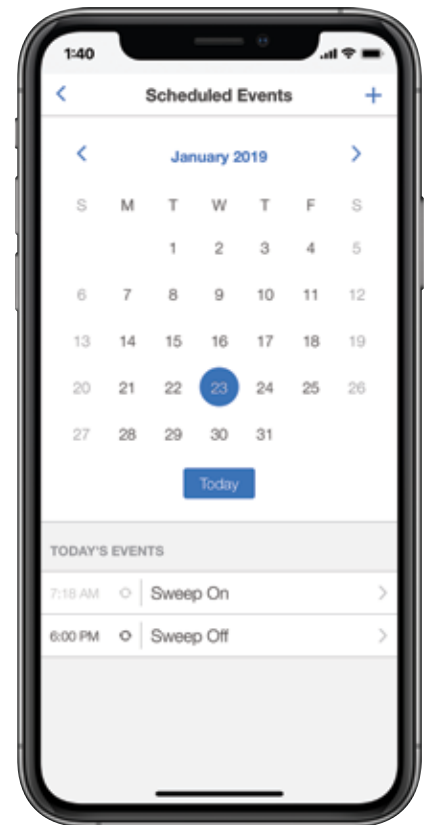
LOAD SHED OPENADR COMPATIBLE

Easily set lighting reduction levels that automatically respond during peak electricity usage times.



SCHEDULES

Use a 365-day calendar to automatically adjust lights based on time of day, including single-day and holiday events.



Seamlessly integrate with your building system

The BACnet/IP protocol is the primary means of integration. BACnet is embedded or native to the Vive wireless hub, which means no external interfaces or gateways are required in order to communicate with other systems.

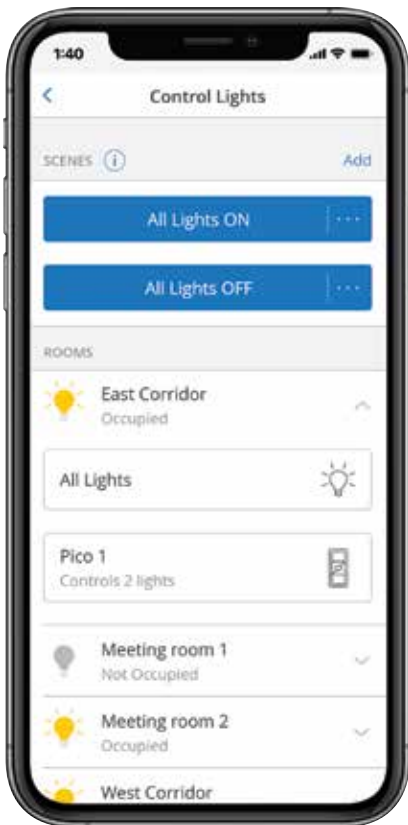
API integration, native to the Vive hub, enables integration with third-party devices, systems, and software. RESTful APIs are available over the Ethernet.





SCENE CONTROL

Create and configure scenes to control individual devices, areas, or groups of areas on demand.



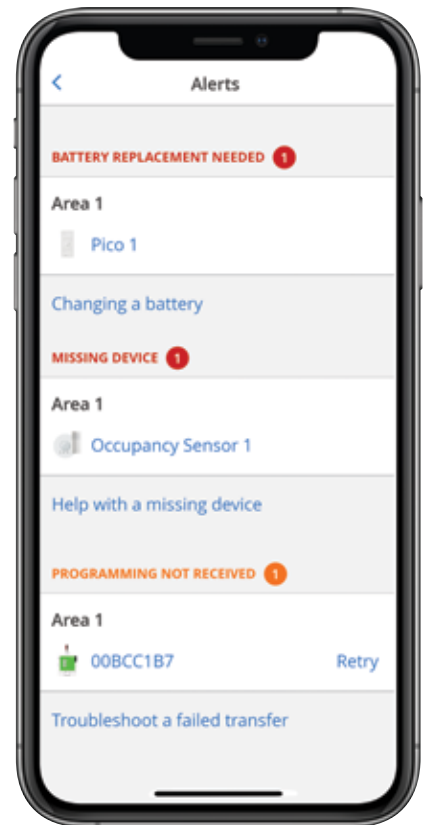
LIGHT CONTROL

Directly adjust the light levels remotely from any smart device. Easily respond to occupant requests without needing to be in the physical space.



ALERTS

View proactive alerts that show issues such as low batteries or inactive devices to help improve building maintenance efficiency.



Building/Energy Management Systems (BMS/EMS)



Energy Dashboards and Analytics Packages



API



HVAC



Audio & Video



IT

A SMART BUILDING IS NOW SIMPLE

Vive Vue software

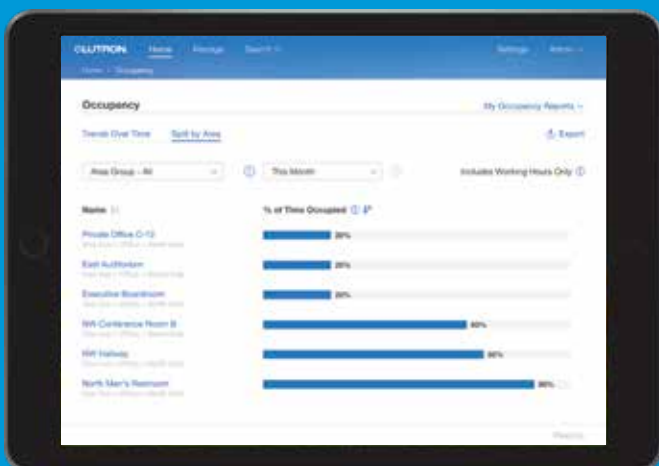
Vive Vue software now provides the ability to tie multiple Vive hubs together in one software interface. Built with the wireless building blocks of the Vive system, Vive Vue software delivers the advanced intelligence necessary for today's smart buildings.





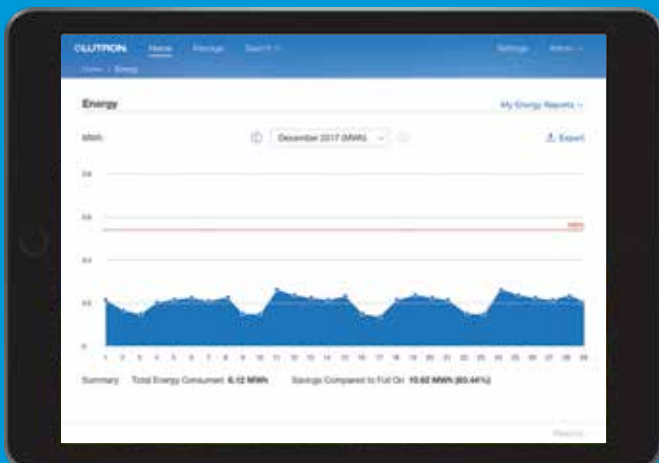
INTUITIVE CONTROL

View status, control lights, and optimize your building quickly and efficiently with a graphical floorplan.



OPTIMIZE YOUR SPACE

Improve building layout based on actual occupancy and usage information. With space utilization reports, you can quickly identify over-used and under-used spaces to improve building efficiency without expanding the building footprint.



SAVE ENERGY PURPOSEFULLY

Energy reports allow you to view and monitor your energy savings. With trending energy information over time and easily customizable reports, Vive Vue software helps you demonstrate the energy-saving advantages of wireless lighting control.



We build security into the product and the process from conception to installation, and for the lifetime of the system.

Everything we do is backed by the first, and guiding, Lutron principle — Take Care of the Customer with Superior Goods and Services. Every product, every system, and every solution is designed, manufactured, and tested to work as expected.

SECURITY BY DESIGN

When building any new system, Lutron utilizes a dedicated security team to ensure best practices are implemented. Security is built in. It is not an afterthought or add-on.

Examples of security features designed into Vive include:

1. Isolated wired and wireless architecture which strictly limits the possibility of the Vive Wi-Fi or Clear Connect being used to access the corporate network to gain confidential information
2. A distributed security architecture — each hub has its own unique keys
3. NIST-recommended best practices for securing passwords, including salting and use of SCrypt
4. AES 128-bit encryption for network communications
5. HTTPS (TLS 1.2) protocol for securing connections to the hub over the wired network
6. WPA2 technology for securing connections to the hub over the Wi-Fi network

THIRD-PARTY VALIDATION

Security is complicated. Lutron has a dedicated team of internal experts, but we also leverage external experts to double- and triple-check our work.

1. Multiple external experts engaged during design process
2. Third-party penetration testing to identify and fix potential vulnerabilities before they reach the field

CONTINUOUS MONITORING AND IMPROVEMENTS

Security is a constantly moving target. Lutron uses a dedicated security team to continuously monitor the market for potential threats and, when needed, send out security patches to update installed systems.

ONGOING SUPPORT

Lutron has the resources you need to answer questions about security when they arise.

1. IT deployment guides
2. Guidance from our world-class, 24/7 technical support organization with IT expertise throughout the product lifecycle



LUTRON RELIABILITY

Clear Connect wireless technology

All Lutron wireless products utilize Lutron patented Clear Connect wireless technology. The result is ultra-reliable communication and smooth dimming performance with no flicker or delay. Other devices will not interfere with the Lutron lighting control system.

Clear Connect



LUTRON CLEAR CONNECT WIRELESS TECHNOLOGY

Lutron devices operate in an uncongested frequency band, providing ultra-reliable operation.



26

WIRELESS HUB

28

LOAD CONTROLLERS

48

IN-WALL CONTROLS

52

WIRELESS REMOTES

58

WIRELESS SENSORS

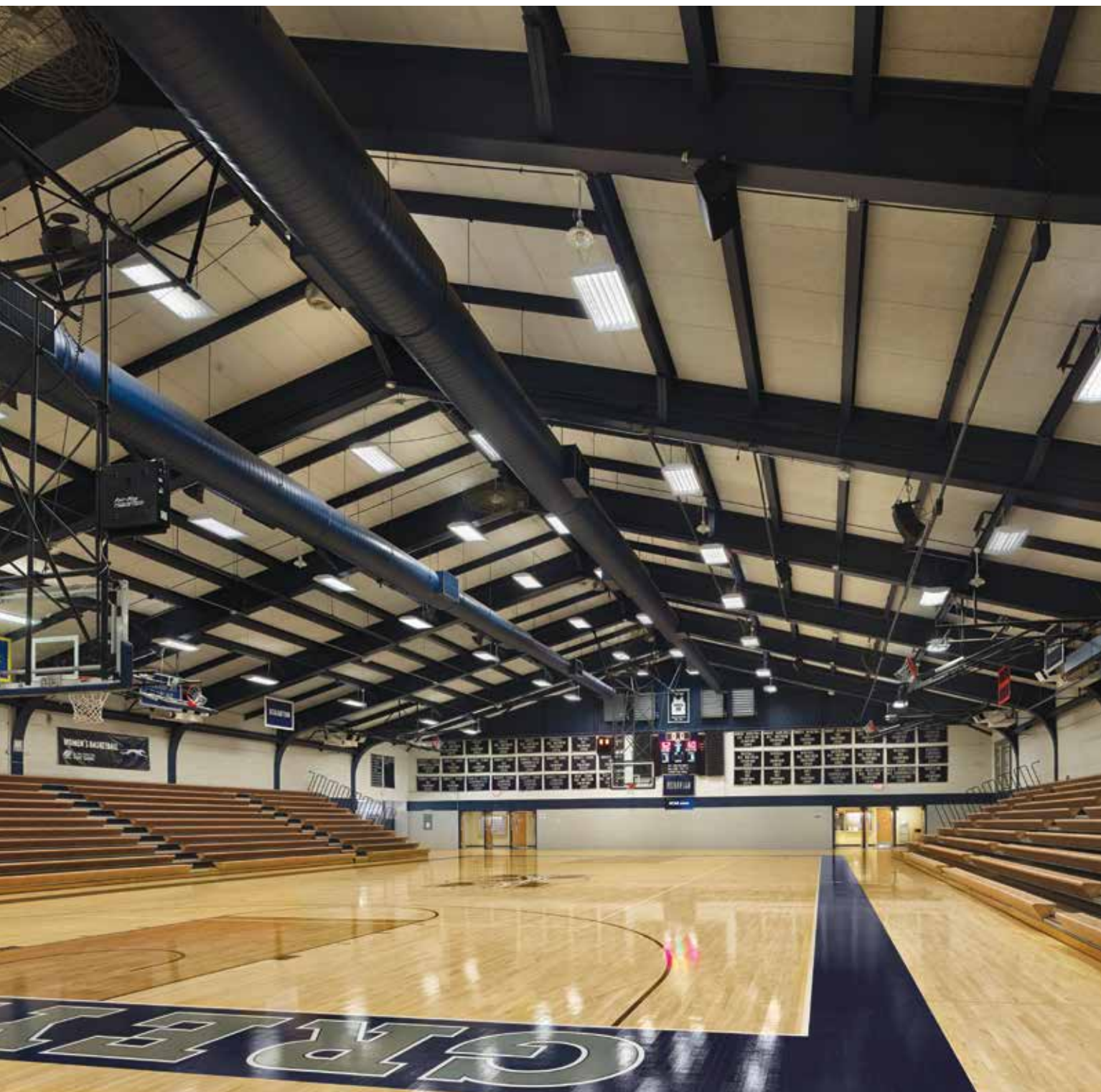
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LUTRON SERVICE SOLUTIONS

74

IN-WALL STANDALONE SOLUTIONS

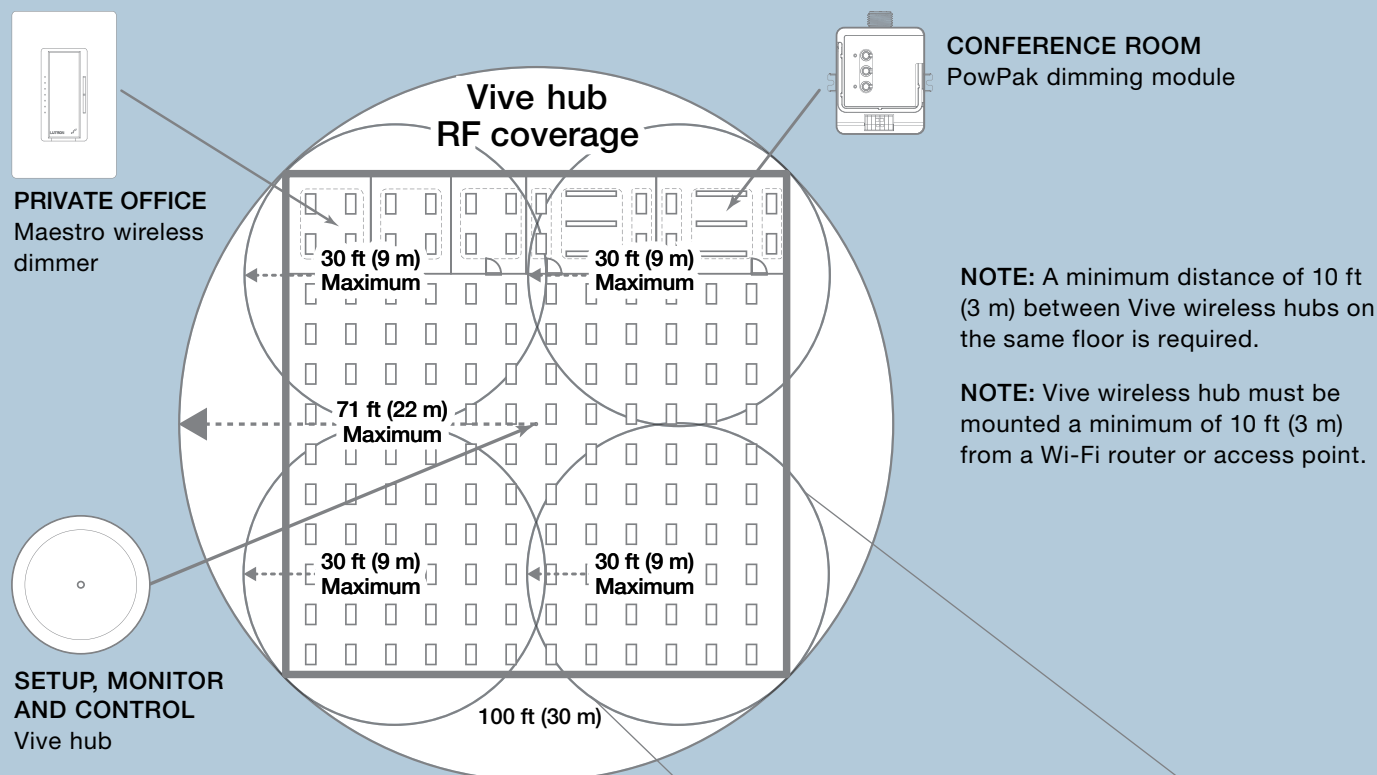




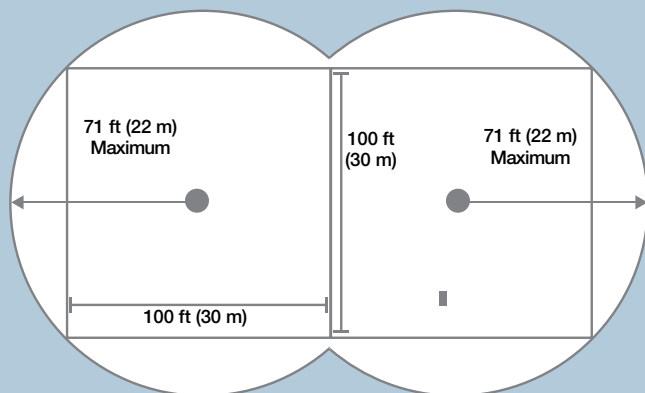
VIVE WIRELESS HUB

How it works

All wireless devices to be associated to the Vive wireless hub must be within 71 ft (22 m) of the Vive wireless hub and must be on the same floor as the Vive wireless hub.



RANGE WITH MULTIPLE VIVE HUBS



NOTE: A corporate Wi-Fi network can interfere with the Wi-Fi on the Vive wireless hub. Where a corporate Wi-Fi network exists, it is recommended to do the following: connect the Vive wireless hub to the corporate network using the Ethernet connection on the hub, and disable the hub's Wi-Fi.

FEATURES AND BENEFITS

- Communicates with controls on a floor using Lutron wireless Clear Connect technology (range radius of 71 ft [22 m])
- Distributed system architecture
 - Pico remote controls and sensors communicate directly with the load devices they control and must be located within 30 ft (9 m) of the device with which they are associated
- Supports timeclock events based on both sunrise and sunset or fixed time of day
- Two contact closure inputs to enable load shed from other devices for Title 24 compliance and utility integration
- OpenADR 2.0b compatible for integration with utilities for demand response/loadshed and code compliance
- Each hub provides an individual dashboard for its coverage area and allows you to link to other hub dashboards from the mobile application
- API integration, native to the Vive hub, to enable integration with third-party devices, systems, and software. RESTful APIs are available over the Ethernet.
- Proactive alerts, i.e. low battery or possible device malfunction, help to ensure system operates as expected
- Override and lockout support for emergency devices to send the emergency lights to defined levels and lock out controls in the case of a fire alarm, power loss, or security incident. This may be activated manually or with an integration

PRODUCT OPTIONS—Vive Wireless Hub Models

Starter (up to 75 devices)	
HJS-0-FM	Flush mount
Standard	
HJS-1-FM	Flush mount
HJS-1-SM	Surface mount
H-MOUNT-SM	Surface-mount installation adapter
Premium (with BACnet and API)	
HJS-2-FM	Flush mount
HJS-2-SM	Surface mount
HJS-UPDATE	Software upgrade license to add BACnet and API
HJS-DEVICES	Software upgrade license expands device limit to 700 devices



Vive wireless hub

Dimensions

W: 6.5" (165 mm)
H: 1.5" (38 mm)
D: 2.8" (71 mm)



Vive hub power supply

Dimensions

W: 4.0" (102 mm)
H: 1.7" (43 mm)
D: 2.8" (71 mm)



LOAD CONTROLLER: J-BOX MOUNTED SWITCHES AND DIMMERS

How to design and specify

- **ONE RELAY MODULE**
For each controlled lighting zone in the space
- **CONTROL**
Select appropriate model based on the size of the connected load

16 A:	1920 W	or	1/2 HP @ 120 V
	4432 W	or	1 1/2 HP @ 277 V
5 A:	600 W	or	1/6 HP @ 120 V
	1385 W	or	1/3 HP @ 277 V
- **CONTACT CLOSURE OUTPUT**
For sending occupancy information to third-party equipment such as HVAC systems
- **INPUT:** 120/277 V

PRODUCT OPTIONS

16 A models	
RMJS-16R-DV-B	
RMJS-16RCCO1-DV-B	One contact closure output
5 A models	
RMJS-5R-DV-B	
RMJS-5RCCO1-DV-B	One contact closure output



PowPak relay module

Dimensions

- W: 2.89" (48 mm)
- H: 3.44" (87 mm)
- D: 1.25" (32 mm)

How to design and specify

- **ONE SINGLE ZONE CONTROLLER**
For each EcoSystem/DALI lighting zone in the space
- **CONTROL**
EcoSystem/DALI: up to 32 drivers per controller
- Multiple drivers/ballasts connected to control module will always work together as single zone
- **INPUT:** 120/277 V

PRODUCT OPTIONS

EcoSystem single zone

RMJS-ECO32-SZ



**PowPak single zone
EcoSystem/DALI**

Dimensions

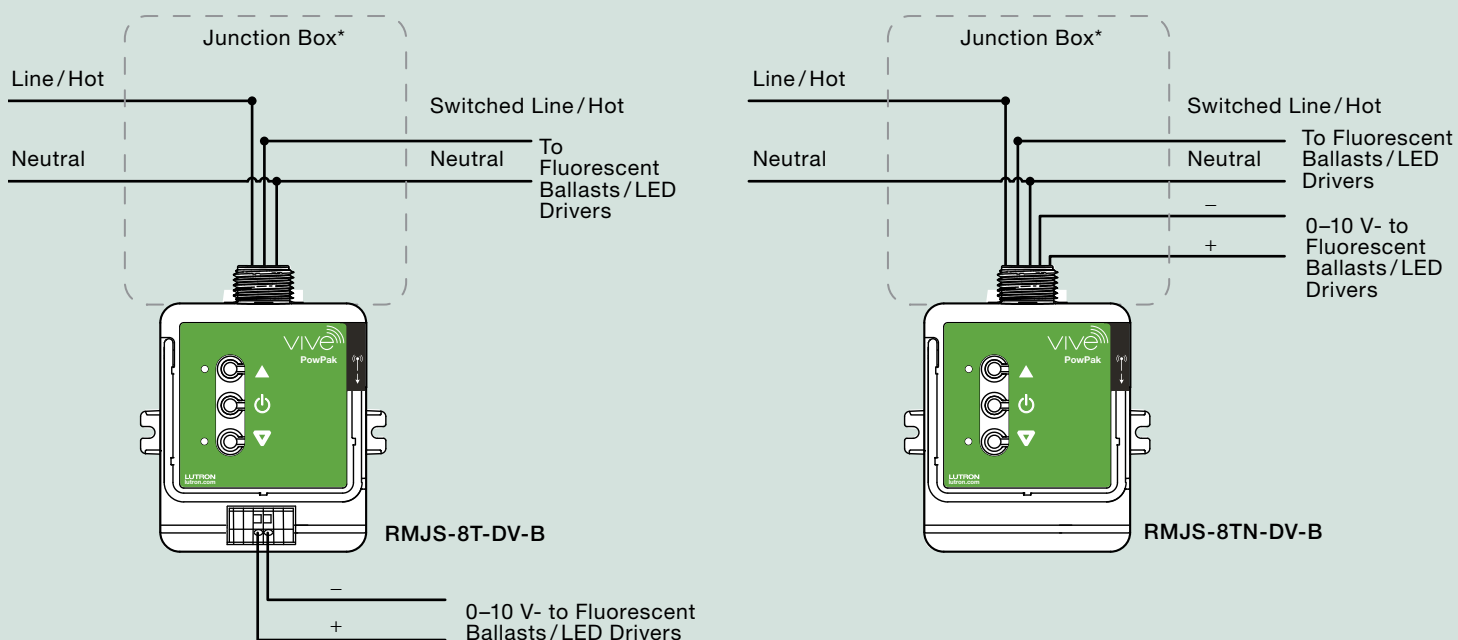
W: 2.89" (48 mm)
H: 3.44" (87 mm)
D: 1.25" (32 mm)

LOAD CONTROLLER: J-BOX MOUNTED SWITCHES AND DIMMERS

How to design and specify

Two versions of the PowPak 0-10 V are available; they optimize for different wiring practices. The -8T model has a connector on the back of the box which is optimized for Class 2 wiring outside of the standard conduit. The -8TN model has the 0-10 V wires coming out of the threaded end, optimized for wiring inside a junction box and used when the 0-10 V wires are run in the cable or conduit with the Class 1 wiring. Both versions can have the 0-10 V control wires installed using NEC Class 1 or Class 2 wiring methods.

WIRING SCHEMATIC



* **NOTE:** The control module mounts to the exterior of a U.S.-style junction box.

How to design and specify

- **ONE DIMMING MODULE WITH 0-10 V CONTROL**
For each controlled 0-10 V lighting zone in the space
- **CONTROL**
 - 8 A: 0-10 V controlled fixtures and switches
compatible with third-party 0-10 V fluorescent ballasts, LED drivers, and fixtures
- **INPUT:** 120/277 V
- **0-10 V LINK:** Communicates with up to 60 mA of fixtures

PRODUCT OPTIONS

8 A models with 0-10 V control

RMJS-8T-DV-B

RMJS-8TN-DV-B



PowPak dimming module with 0-10V control

Dimensions

W: 2.89" (48 mm)

H: 3.44" (87 mm)

D: 1.25" (32 mm)

How to design and specify

- **ONE DIMMING MODULE FOR PHASE CONTROL**
For each controlled phase-dimmable lighting zone in the space.
- **CONTROL**
 - LED drivers (reverse-phase) 450 VA
 - Lutron Hi-lume 1% 2-wire LED driver 3 A (13 drivers max)
 - LED bulbs, self-ballasted lamps (reverse-phase) 450 VA
 - LED NEMA SSL 7A-2015 (forward-phase) B, H 200 W
 - Incandescent/halogen 450 W
 - ELV (reverse-phase) 450 W
 - Fluorescent (forward-phase) 400 VAF
 - Neon/cold cathode, MLV C, D 400 VAF (320 W)
- **INPUT:** 120/277 V

PRODUCT OPTIONS

450W/VA PowPak Phase Select dimming module

RMJS-PNE-DV



**450W/VA PowPak
Phase Select dimming
module**

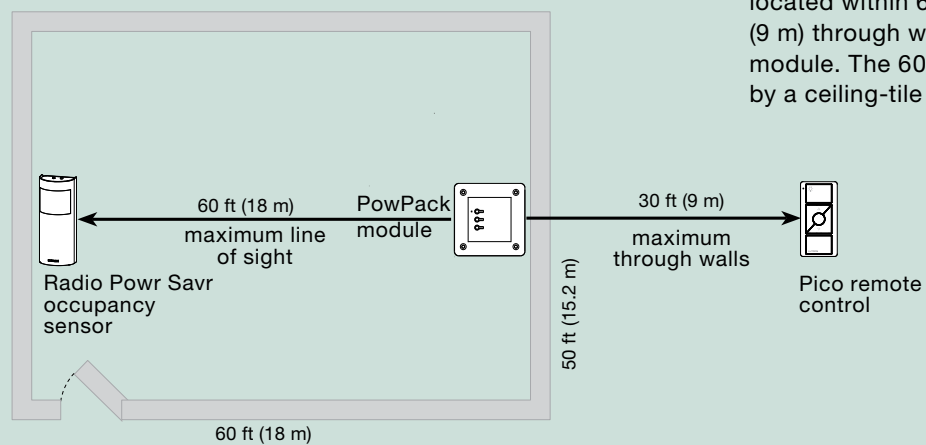
Dimensions

- W:** 4.53" (114.90 mm)
H: 4.53" (114.90 mm)
D: 1.80" (45.60 mm)

MOUNTING: Mounts in a standard 4 in. x 4 in. (101.6 mm x 101.6 mm) junction box. **NOTE:** Must use metal junction box, minimum depth 2.125 in. (53.975 mm). Adding an extension ring is recommended for junction box depth extension. See installation guide 041808 for additional information.

RANGE DIAGRAM

PowPak module

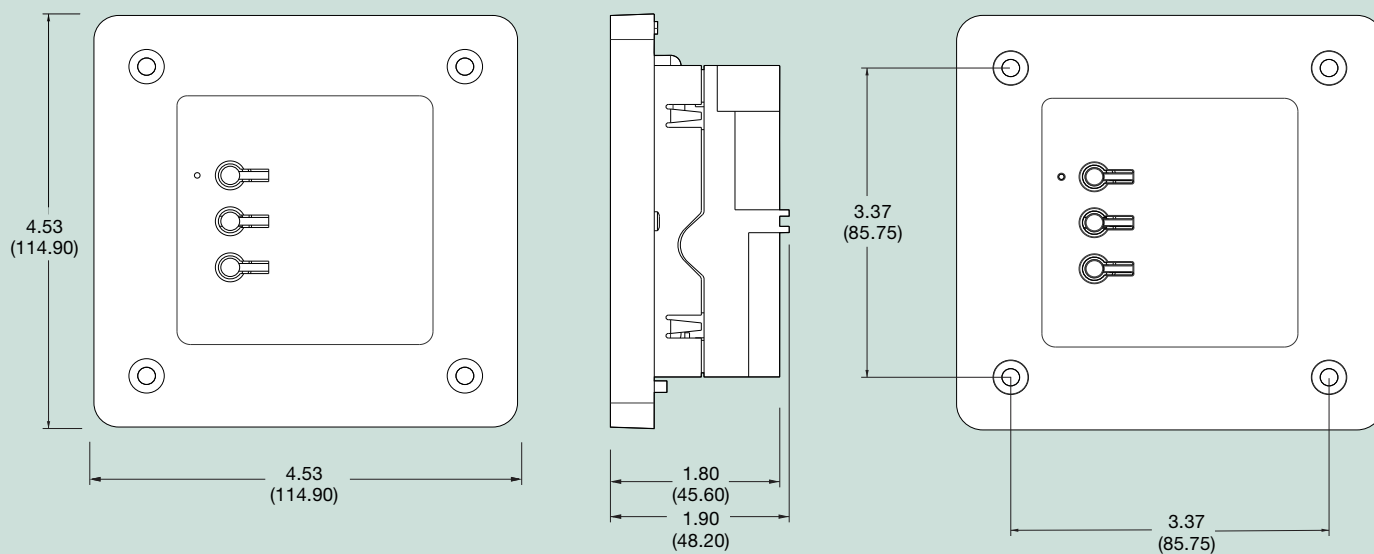


Contact Lutron first for applications using foil-backed or metallic ceiling tiles.

*** NOTE:** Wireless sensors and controls must be located within 60 ft (18 m) line of sight, or 30 ft (9 m) through walls, of the associated control module. The 60 ft (18 m) range is not reduced by a ceiling-tile obstruction.

DIMENSIONS

Dimensions are shown as: in (mm)



LOAD CONTROLLER: 4in. x 4in. BOX-MOUNTED SWITCHES AND DIMMERS

How to design and specify

- **ONE DIMMING MODULE WITH 0-10V CONTROL**
For each controlled 0-10V lighting zone in the space
- **CONTROL**
5A: 0-10V controlled fixtures and switches compatible with third-party 0-10V fluorescent ballasts, LED drivers, and fixtures
- **INPUT:** 347V
- **0-10V LINK:** Communicates with up to 60 mA of fixtures

PRODUCT OPTIONS

5 A model with 0-10 V control

RMJS-5T-347 0-10 V- dimming and
5 A switching

Divider for Class 1 & Class 2 separation

5T-347-DIVIDER



347V Dimming module with 0-10V control

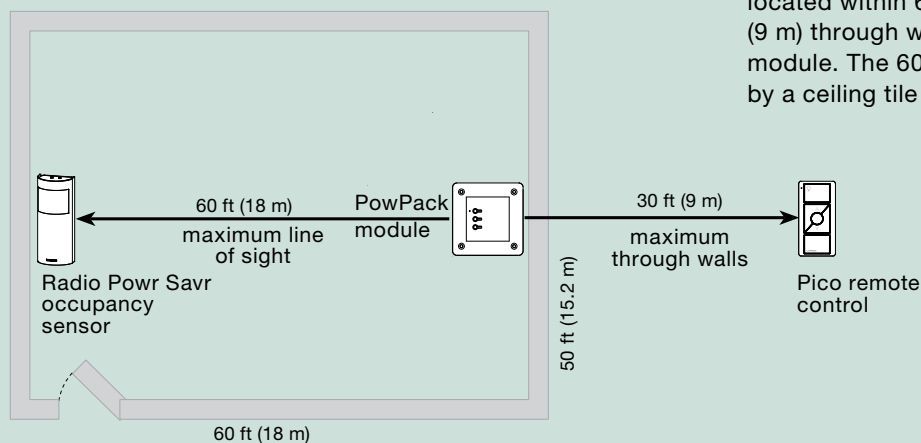
Dimensions

W: 4.53" (114.90 mm)
H: 4.53" (114.90 mm)
D: 1.80" (45.60 mm)

MOUNTING: Mounts in a standard 4 in. x 4 in. (101.6 mm x 101.6 mm) junction box. **NOTE:** Must use metal junction box, minimum depth 2.125 in. (53.975 mm). Adding an extension ring is recommended for junction box depth extension. See Installation guide 041773 for additional information.

RANGE DIAGRAM

PowPak module



Contact Lutron first for applications using foil-backed or metallic ceiling tiles.

* **NOTE:** Wireless sensors and controls must be located within 60 ft (18 m) line of sight, or 30 ft (9 m) through walls, of the associated control module. The 60 ft (18 m) range is not reduced by a ceiling tile obstruction.

How to design and specify

- **ONE RELAY MODULE**
For each controlled 0-10V lighting zone in the space
- **CONTROL**
Switches up to 5 A total of LED drivers or fluorescent ballasts
- **INPUT: 347V**

PRODUCT OPTIONS

5 A relay module

RMJS-5R-347	5 A switching only
-------------	--------------------



**347V Dimming module
with 0-10V control**

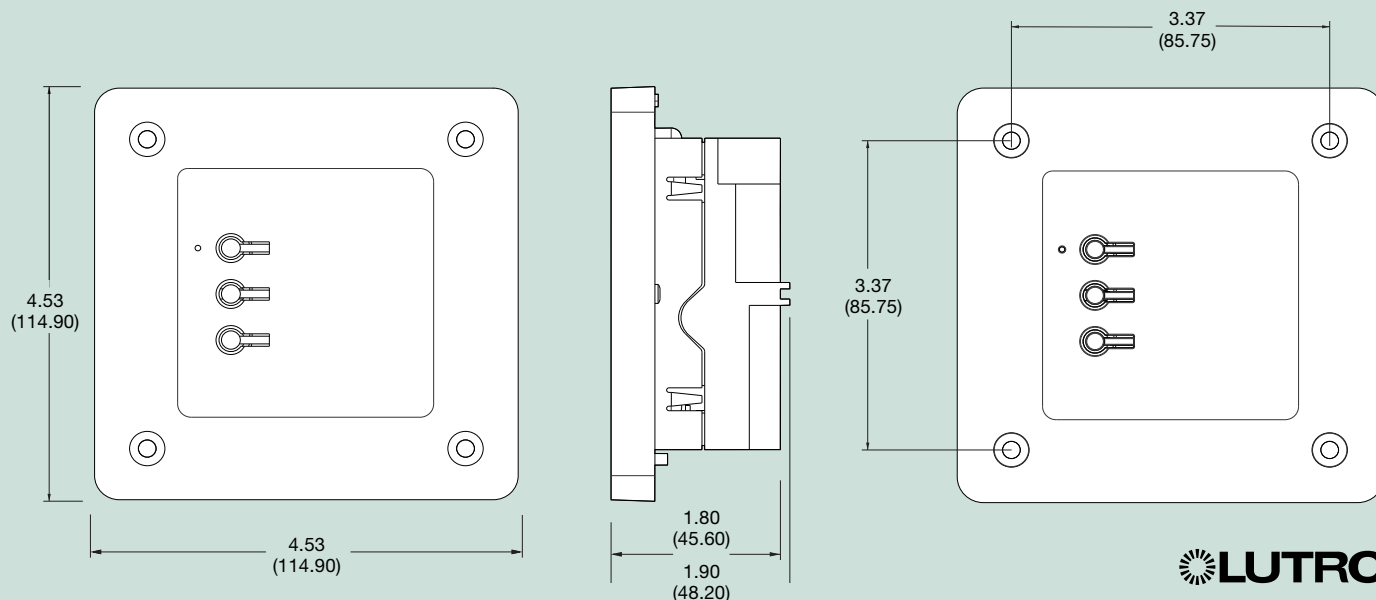
Dimensions

W: 4.53" (114.90 mm)
H: 4.53" (114.90 mm)
D: 1.80" (45.60 mm)

MOUNTING: Mounts in a standard 4 in. x 4 in. (101.6 mm x 101.6 mm) junction box. **NOTE:** Must use metal junction box, minimum depth 2.125 in. (53.975 mm). Adding an extension ring is recommended for junction box depth extension. See installation guide 041828 for additional information.

DIMENSIONS

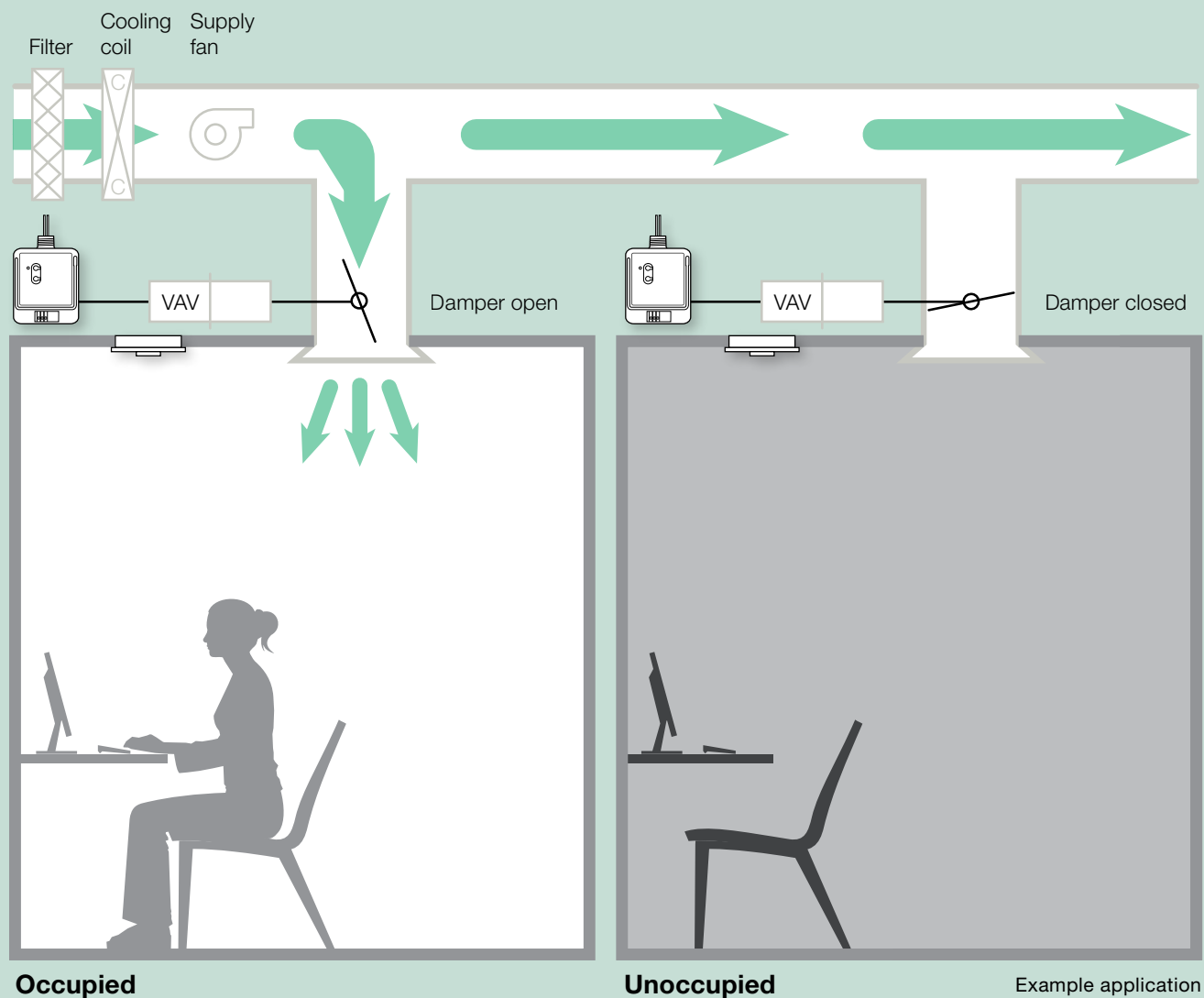
Dimensions are shown as: in (mm)



LOAD CONTROLLER: J-BOX MOUNTED SWITCHES AND DIMMERS

How it works

In response to information received from a Radio Powr Savr occupancy/vacancy sensor, the PowPak contact closure output module communicates room occupancy to the VAV terminal unit. By not heating or cooling an unoccupied room, the electricity consumed by the HVAC system can be reduced.



Radio Powr Savr
occupancy/vacancy
sensor (ceiling mount)



PowPak contact closure
output module

How to design and specify

- **ONE CONTACT CLOSURE OUTPUT MODULE**

For each additional contact closure output you require

PRODUCT OPTIONS

Standard

RMJS-CCO1-24-B	Contact closure output
-----------------------	------------------------

NOTE: If using a relay module with the contact closure output, you do not need to add a contact closure output module unless a second contact closure output is needed.



PowPak contact closure output module

Dimensions

W: 2.89" (48 mm)

H: 3.44" (87 mm)

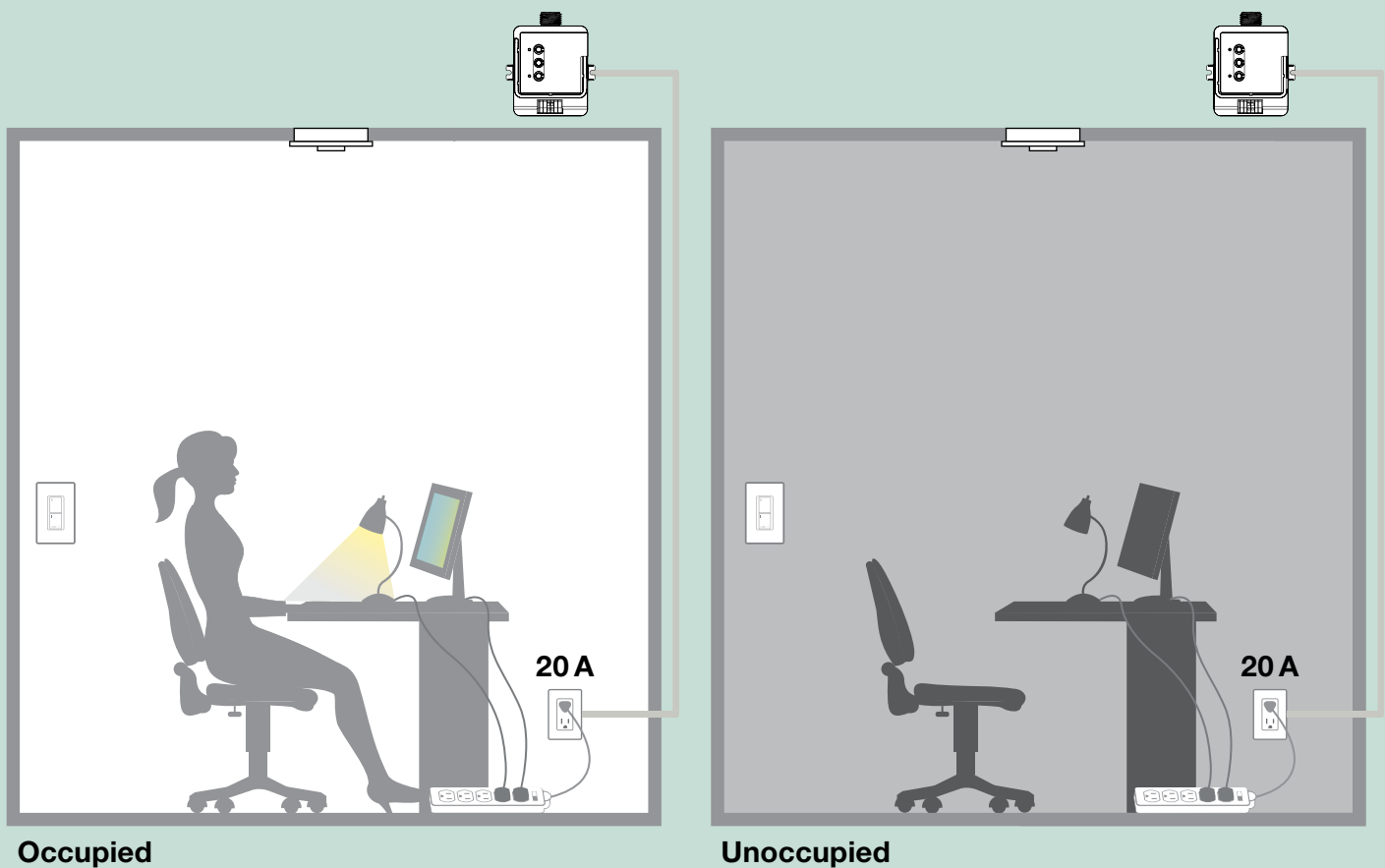
D: 1.25" (32 mm)

LOAD CONTROLLER: PLUG LOAD CONTROL

How it works

Plug loads, such as task lighting, computer monitors, and printers, account for greater than 5% of commercial electricity usage. Many energy codes now require control of receptacles for compliance.

The occupancy/vacancy sensor wirelessly communicates room occupancy to the relay module. Based on the occupancy status received, the relay module switches the power to the receptacles on or off, reducing the amount of energy consumed.



Radio Powr Savr
occupancy/vacancy sensor
(ceiling mount)



Pico control
with wallplate



PowPak 20 A relay
receptacle module

How to design and specify

- **ONE RELAY MODULE**
For each 20 A receptacle circuit you want to control
- **INPUT:** 120/277 V

PRODUCT OPTIONS

20 A models

RMJS-20R-DV-B	General purpose switch 120-277 V receptacles
RMJS-20RCCO1-DV-B	General purpose switch 20 A, 120-277 V receptacles with one contact closure output



PowPak relay module

Dimensions

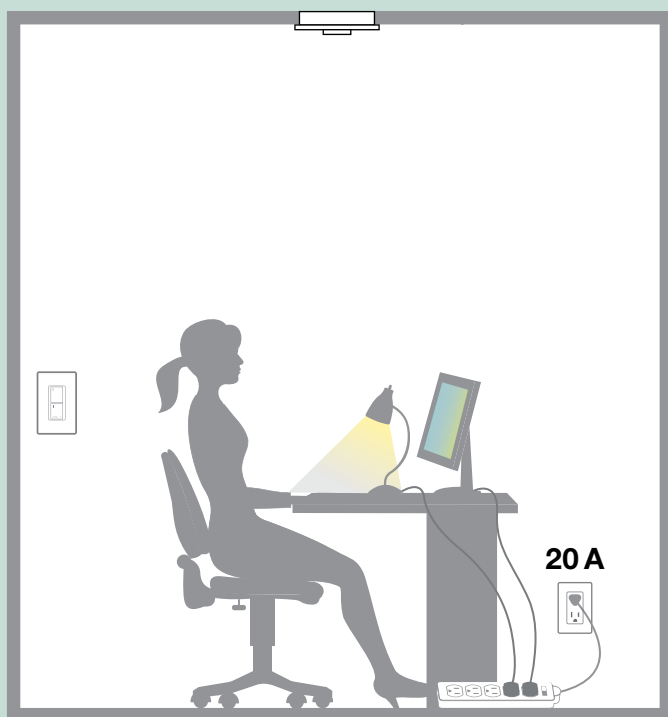
W: 2.89" (48 mm)
H: 3.44" (87 mm)
D: 1.25" (32 mm)

LOAD CONTROLLER: PLUG LOAD CONTROL

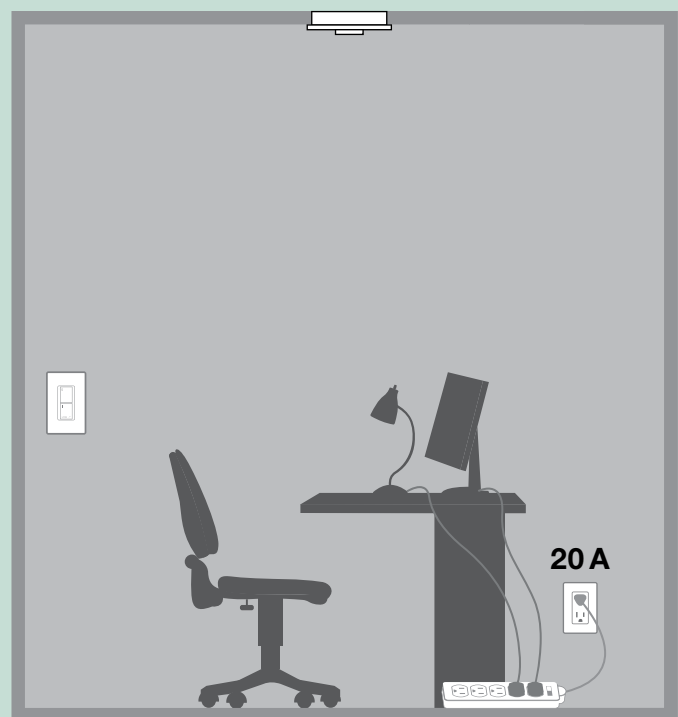
How it works

Plug loads, such as task lighting, computer monitors, and printers, account for greater than 5% of commercial electricity usage. Many energy codes now require control of receptacles for compliance.

The occupancy/vacancy sensor wirelessly communicates room occupancy to the wireless receptacle. Based on the occupancy status received, the wireless receptacle switches the power on or off, reducing the amount of energy consumed. The wireless receptacle will control normal receptacles downstream.



Occupied



Unoccupied



Radio Powr Savr
occupancy/vacancy sensor
(ceiling mount)



Pico control
with wallplate



RF receptacle
with top control

How to design and specify

- **ONE WIRELESS RECEPTACLE**

For each receptacle circuit you want to control

One wireless receptacle can also control standard receptacles wired downstream

- **INPUT: 120 V**

PRODUCT OPTIONS

15 A models

CAR2S-15-STR - 15A	Split (half switching; single pole/downstream)
--------------------	---

CAR2S-15-DTR - 15A	Duplex (dual switching; single pole/downstream)
--------------------	--

20 A models

CAR2S-20-STR - 20A	Split (half switching; single pole/downstream)
--------------------	---

CAR2S-20-DTR - 20A	Duplex (dual switching; single pole/downstream)
--------------------	--



**RF receptacle with
top controlled**

Dimensions

W: 2.94" (75 mm)

H: 4.69" (119 mm)

D: 1.4" (36 mm)

LOAD CONTROLLER: WIRELESS INDIVIDUAL FIXTURE CONTROL

How to design and specify

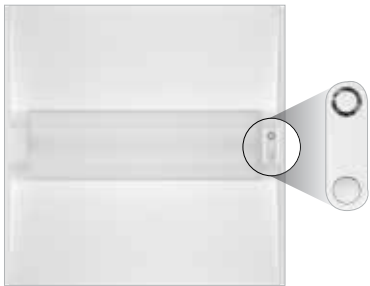
- **VIVE INTEGRAL FIXTURE CONTROL**
For each fixture in the space
- **DIGITALLY CONTROLS** up to three drivers/ballasts per fixture
- **SELECT EITHER** Clear Connect (RF) only or Clear Connect (RF) and XCT sensing

PRODUCT OPTIONS

Wireless individual in-fixture control	
DFCSJ-OEM-RF	Clear Connect (RF) only
DFCSJ-OEM-OCC	Clear Connect (RF) and occupancy/daylight sensing

Contact your local fixture representative and ask for a Vive-enabled fixture or visit lutron.com/findafixture

NOTE: Wireless sensors and controls must be located within 60 ft (18 m) line of sight, or 30 ft (9 m) through walls, of each other.



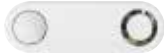
Vive integral fixture control

Dimensions

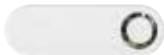
W: .827" (21 mm)
H: 2.477" (62.9 mm)

Dimensions with occupancy/daylight sensor

W: .927" (23.5 mm)
H: 2.577" (65.4 mm)



Clear Connect (RF) + Sensing

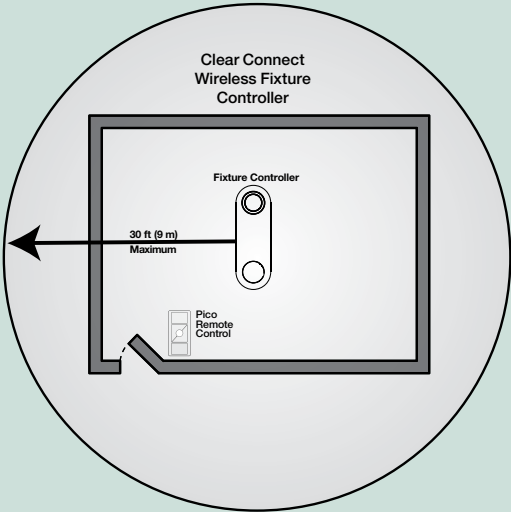
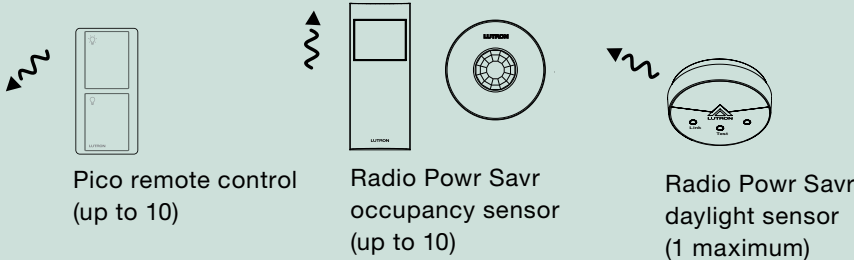


Clear Connect (RF) Only

FIXTURE SENSOR COVERAGE DIAGRAMS

Applies to both products

CLEAR CONNECT (RF)



How to design and specify

- **ONE POWPAK WIRELESS FIXTURE CONTROL** for each fixture in the space
- **CONTROLS** 1A of lead or up to three drivers/ballasts per fixture
- **SELECT EITHER** area sensing or individual fixture sensing
- **POWPAK FIXTURE SENSOR** combined occupancy/daylight sensor

PRODUCT OPTIONS

0-10 V control models

FCJS-010

FCJS-010-BULK8 8-pack

EcoSystem control models

FCJS-ECO

FCJS-ECO-BULK8 8-pack

Sensor models

FC-SENSOR Occupancy/daylight sensor

FC-VSENSOR Vacancy/daylight sensor



Vive wireless fixture controller

Sensor dimensions

W: 2.89" (48 mm)

H: 3.44" (87mm)

D: 1.25" (32 mm)

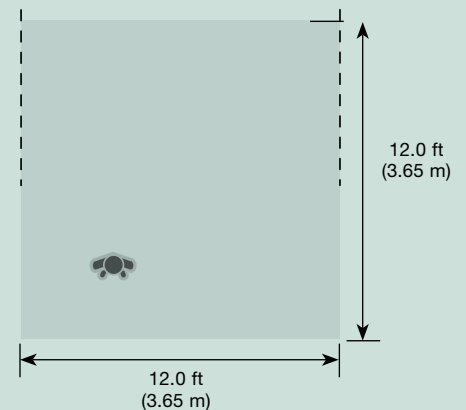
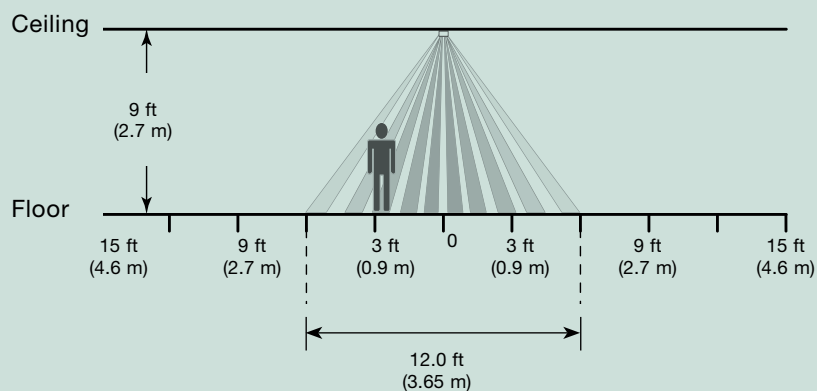
How it works

Install the fixture control directly to a fixture or on a junction box nearest to the fixture. Install the sensor on the ceiling near the fixture to optimize coverage in the desired area.

NOTE: Avoid mounting the fixture sensor in direct sunlight or in the light which is cast from the fixture.

XCT OCCUPANCY/VACANCY SENSING

RANGE DIAGRAMS



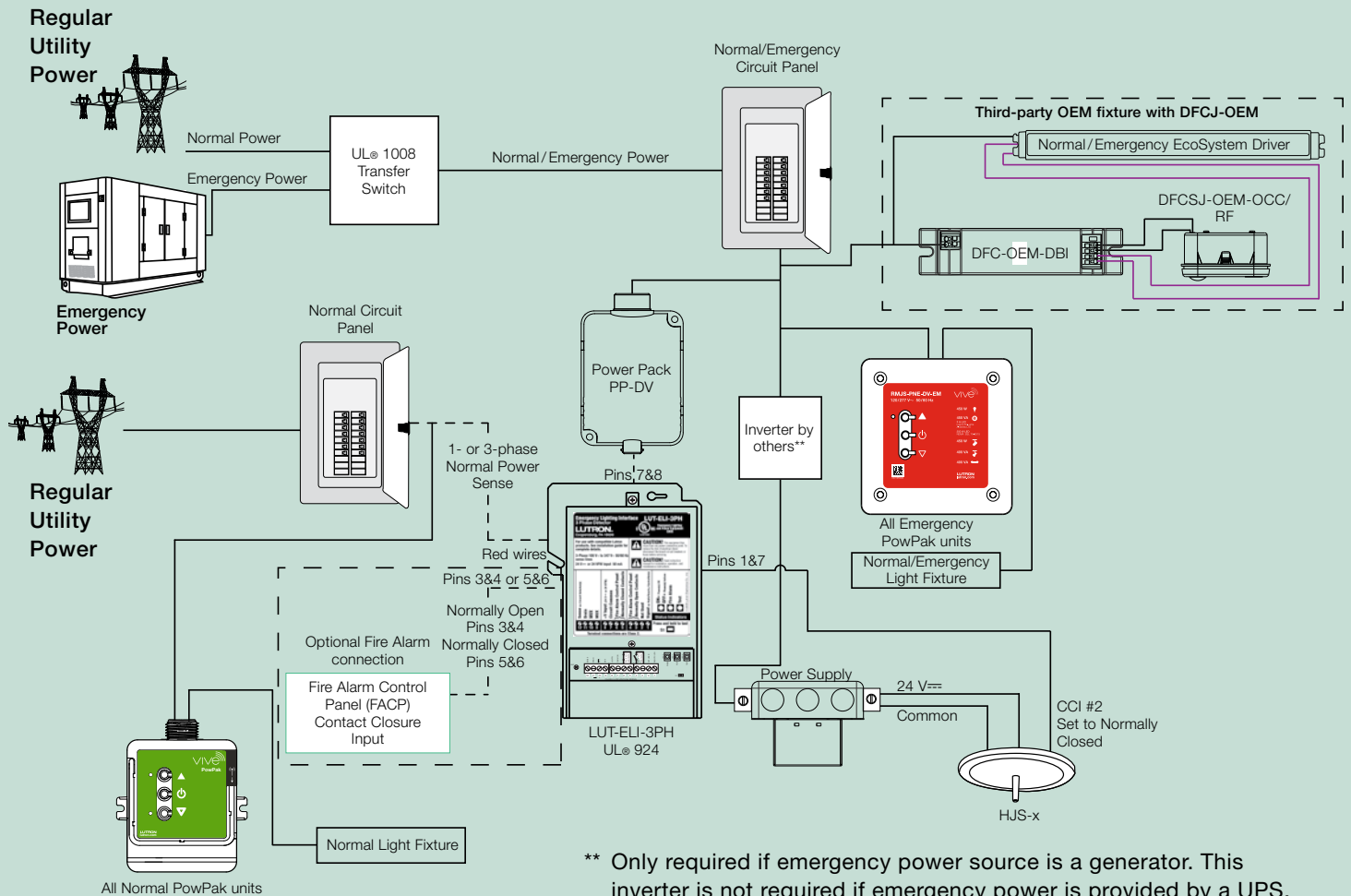
LOAD CONTROLLER: EMERGENCY-RATED WIRELESS CONTROLLERS

How it works

During normal power conditions, emergency PowPak modules can dim loads and respond to local button presses, Pico wireless controls, and occupancy/daylight sensors.

If utility power fails, the LUT-ELI-3PH senses the loss of normal power and will open the contact closure input (CCI2) on the Vive hub. The Vive hub will send the emergency-rated PowPak modules to their emergency lighting level until the LUT-ELI-3PH senses normal power and re-makes the contact with CCI2 on the Vive hub. The Vive hub will then release the Vive integral fixture controllers designated as emergency and emergency PowPak modules to their normal operation. It will again accept local button control, input from Pico wireless controls, and occupancy/daylight sensors.

System Wiring Diagram (Vive hub with emergency PowPak)



****** Only required if emergency power source is a generator. This inverter is not required if emergency power is provided by a UPS.
NOTE: Lutron recommends the LVU-2 provided by LVS Controls.

How to design and specify

- One emergency-rated module per lighting zone or fixture, depending on model
 - **RELAY MODULE CONTROL:**
 - 16 A: 1920 W or 1/2 HP @ 120 V
4432 W or 1/2 HP @ 277
 - **0-10 V MODULE CONTROL:**
 - 8 A: 0-10 V controlled fixtures and switches compatible with third-party 0-10 V fluorescent ballasts, LED drivers, and fixtures
- Fixture control:** Communicates with up to 60 mA of fixtures
- 1 A: of load or up to 3 drivers and ballasts
- **INPUT (ALL MODELS):** 120/277 V

PRODUCT OPTIONS

Relay

RMJS-16R-DV-B-EM

0-10 V

RMJS-8T-DV-B-EM

Fixtures

FCJS-010-EM

FCJS-ECO-EM



Emergency PowPak modules

Dimensions

W: 2.89" (48 mm)

H: 3.44" (87 mm)

D: 1.25" (32 mm)

How it works

If utility power fails, the LUT-ELI-3PH senses the loss of normal power and will open the contact closure input (CCI2) on the Vive hub. The Vive hub will send the emergency rated PowPak modules to their emergency lighting level until the LUT-ELI-3PH senses normal power and re-makes the contact with CCI2 on the Vive hub. The Vive hub will then release the Vive integral fixture controllers designated as emergency and emergency PowPak modules to their normal operation. It will again accept local button control, input from Pico wireless controls, and occupancy/daylight sensors.

****** Only required if emergency power source is a generator. This inverter is not required if emergency power is provided by a UPS.
NOTE: Lutron recommends the LVS-2 provided by LVS Controls.

How to design and specify

- One CSA C22.2 No. 141-15 Listed dimming module with 0-10V control per lighting zone
- **0-10V MODULE CONTROL:**
 - 5A: 0-10V controlled fixtures and switches compatible with third-party 0-10V fluorescent ballasts, LED drivers, and fixtures
- **0-10V LINK:** Communicates with up to 60 mA of fixtures
- **INPUT:** 347 V

PRODUCT OPTIONS

5 A model with 0-10V control

RMJS-5T-347-EM

5 A model

RMJS-5R-347-EM

How to design and specify

- **ONE DIMMING MODULE FOR PHASE CONTROL**
For each controlled phase dimmable lighting zone in the space.
- **CONTROL:**
 - LED drivers (reverse-phase) 450 VA
 - Lutron Hi-lume 1% 2-wire LED driver A 3 A (13 drivers max)
 - LED bulbs, self-ballasted lamps (reverse-phase) 450 VA
 - LED NEMA SSL 7A-2015 (forward-phase) B, H 200 W
 - Incandescent/halogen 450 W
 - ELV (reverse-phase) 450 W
 - Fluorescent (forward-phase) 400 VAF
 - Neon/cold cathode, MLV C, D 400 VAF (320 W)
- **INPUT:** 347 V

PRODUCT OPTIONS

450W/VA Emergency PowPak Phase Select dimming module

RMJS-PNE-DV-EM



347V emergency lighting module

Dimensions

W: 4.53" (114.9 mm)
H: 4.53" (114.90 mm)
D: 1.80" (45.60 mm)



450W/VA Emergency PowPak Phase Select dimming module

Dimensions

W: 4.53" (114.9 mm)
H: 4.53" (114.90 mm)
D: 1.80" (45.60 mm)

MOUNTING: Mounts in a standard 4 in x 4 in (101.6 mm x 101.6 mm) junction box. NOTE: Must use metal junction box, minimum depth 2.125 in (53.975 mm). Adding an extension ring is recommended for junction box depth extension. See installation guide 048781 for additional information.

How to design and specify

- Select one switch per lighting zone
- Select appropriate model based on the size of the connected load
- If existing switch does not have a neutral, choose the model available for 120/277 V with no neutral required
- Select from up to 13 colors to complement the décor*
- Add an additional Pico remote for rooms with multiple switches for a single zone

PRODUCT OPTIONS

Dual voltage no-neutral switches	
MRF2S-8S-DV-XX	8 A lighting, 1/10 HP fan @ 120 V only, 120-277 V, no neutral
120 V neutral-required switches	
MRF2S-6ANS-XX	6 A lighting, 1/10 HP fan, 120 V only
MRF2S-8ANS-120-XX	8 A lighting, 1/4 HP fan, 120 V only



Maestro wireless switches

Dimensions

W: 2.94" (75 mm)
H: 4.69" (119 mm)
D: 1.44" (38 mm)

How to design and specify

- Select one wireless dimmer per lighting zone
- Select appropriate model based on the size and type of existing load
- Most models do not require a neutral
- Select from up to 13 colors to complement the décor*
- Add an accessory dimmer or a Pico wireless remote for rooms with multiple switches for a single zone
- Gray models (-GR) are plenum rated for mounting in ceiling applications

PRODUCT OPTIONS

Maestro wireless dimmers	
MRF2S-6CL-XX	150 W dimmable CFL/LED, 600 W incandescent/halogen
MRF2S-6ELV120-XX	600 W ELV, 120 V
MRF2S-6ND-120-XX	600 W/VA incandescent/halogen/MLV, 120 V 1-8 Lutron LTE drivers, 350 W max
MA-R-XX	Accessory dimmer for multi-location lighting controls, 120 V



Maestro wireless dimmers

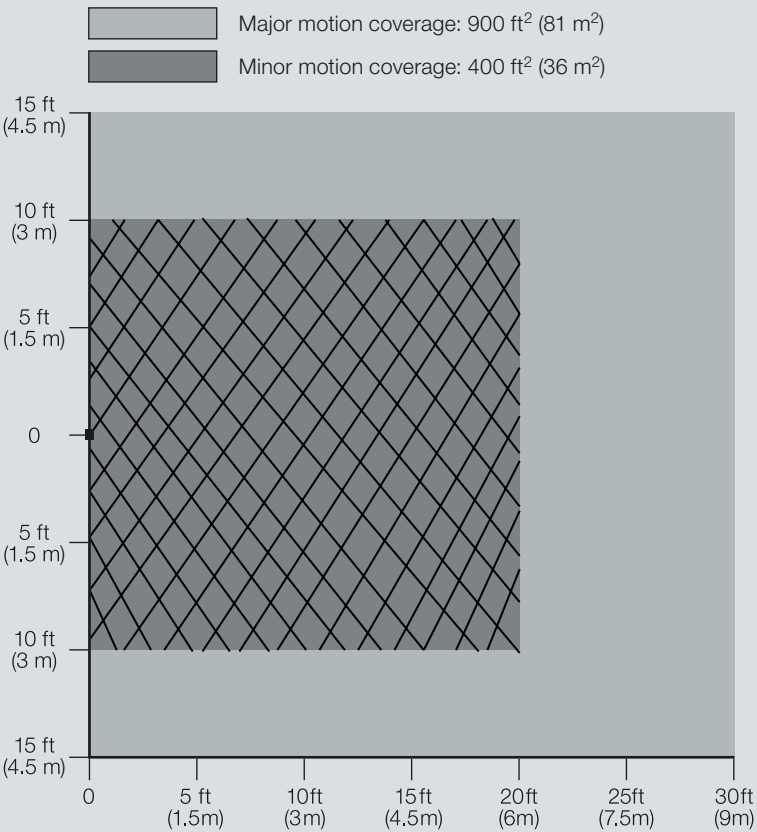
Dimensions

W: 2.94" (75 mm)
H: 4.69" (119 mm)
D: 1.44" (38 mm)

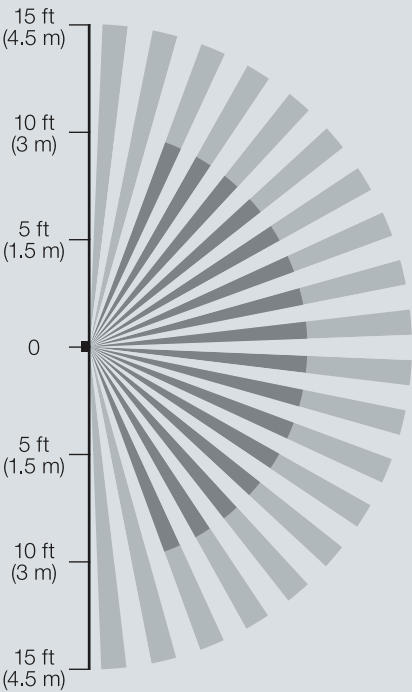
* (XX in the model number represents color/finish code; use WH for White; please visit lutron.com for other color choices.)

Sensor coverage diagrams

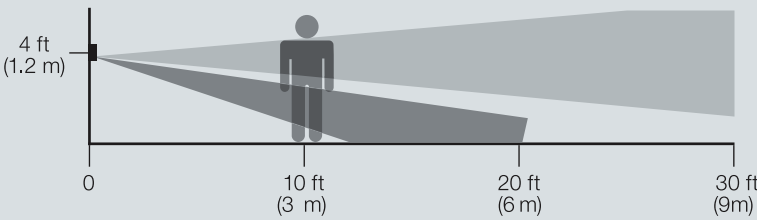
NEMA WD7 test grid coverage
(High sensitivity setting)



Horizontal beam diagram
(For reference only)



Vertical beam diagram
(For reference only)



Features and benefits

- Easy to install; directly replaces an existing control in a wallbox
- Combines occupancy sensing, manual control, and system connectivity in one piece of hardware
- Easily add additional wall controls and sensors without running any new wires
- Connect to a Vive wireless hub for system features such as timeclock, energy reporting, and demand response/load shed
- Lutron XCT technology for superior sensitivity prevents false ONs and false OFFs

How to design and specify

- Select one dimmer or switch per lighting zone
- Select appropriate model based on type of load:
 - 120 – 277 V~ 8 A electronic fluorescent ballast or LED drivers
 - Controls up to 50mA of 0-10V fixtures, sink only (0-10V dimmer version)
 - Neutral required
- Add additional Pico remotes for rooms with multiple switches for a single zone
- Add additional wireless occupancy and/or daylight sensors for additional coverage area and functionality

PRODUCT OPTIONS

Standard	
MRF2S-8SD010-XX	0-10 V wallbox occupancy/vacancy sensor dimmer
MRF2S-8SS-XX	Wallbox occupancy/vacancy sensor switch
MRF2S-8SDV010-XX	0-10 V wallbox vacancy sensor dimmer
MRF2S-8SSV-XX	Wallbox vacancy sensor switch

(XX in the model number represents color/finish code)



**Maestro wireless
0-10 V dimmer sensor**

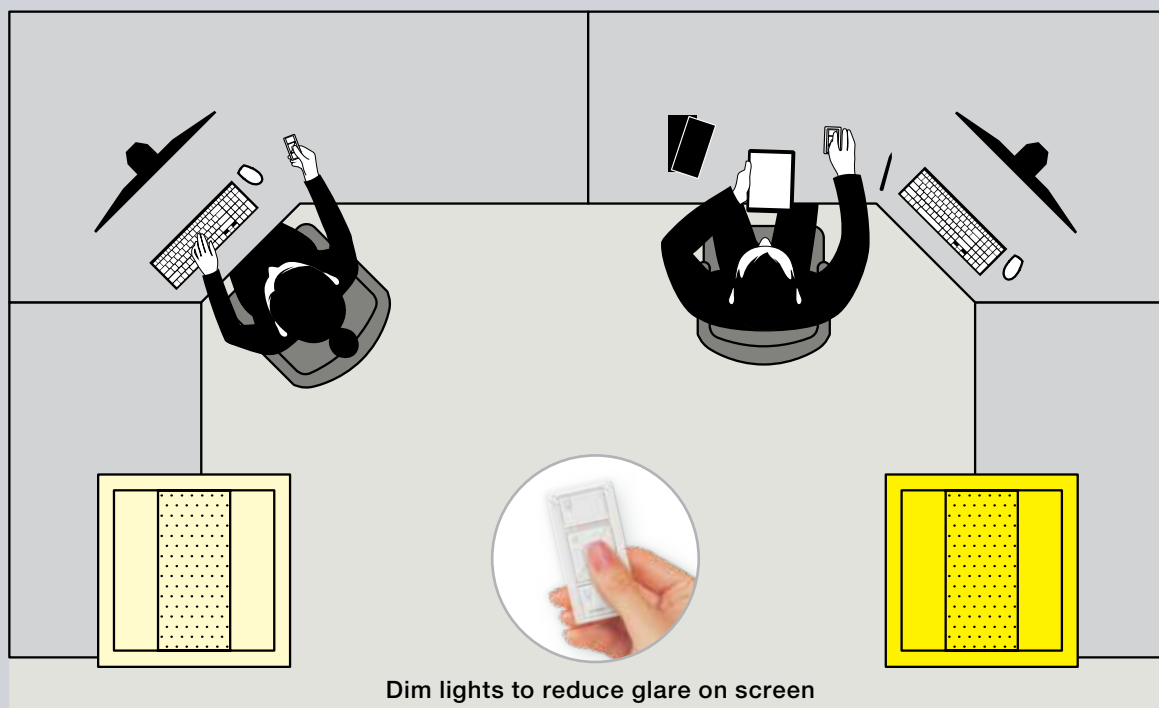
Dimensions

W: 2.94" (75 mm)
H: 4.69" (119 mm)
D: 1.44" (38 mm)

WIRELESS REMOTES: PICO WIRELESS REMOTES

How it works

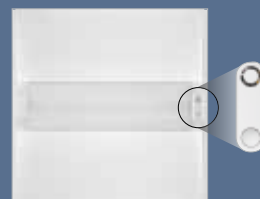
- No wires—put it where it's most accessible
- Pedestal mount for tabletop use
- Surface mount anywhere with Claro wallplate
- 10-Year battery life



Pico wall mounted (in a wallplate) — add a new point of control anywhere with absolutely no wires



Pico pedestal mounted— place control on a tabletop with absolutely no wires



Individual fixture control

How to design and specify

- Select one 2-button Pico wireless remote to add a location with ON/OFF control
- Select one 3-button Pico wireless remote to add a location with ON/OFF control and one preset
- Select one 2-button with raise/lower Pico wireless remote to add a location with ON/OFF and BRIGHTEN/DIM control
- Select one 3-button with raise/lower Pico wireless remote to add a location with ON/OFF, BRIGHTEN/DIM control and one preset
- Select whether a nightlight is needed (2-button and 3-button with raise/lower only)

NOTE: Spaces with a PowPak relay or dimming module will not have a local control in the room unless a Pico is added

PRODUCT OPTIONS

2-button remotes	
PJ2-2BRL-XXX-L01	2-button with raise/lower wireless remote
PJ2-2B-XXX-L01	2-button
PJN-2B-GXX-L01	2-button nightlight
3-button remotes	
PJ2-3BRL-XXX-L01	3-button with raise/lower
PJ2-3B-XXX-L01	3-button
PJN-3BRL-GXX-L01	3-button nightlight with raise/lower



Pico wireless remotes

3-button
with raise/
lower

3-button

3-button
nightlight
with raise/
lower



2-button
with raise/
lower

2-button

2-button
nightlight

Dimensions

W: 1.28" (33mm)

H: 2.60" (66 mm)

D: 0.33" (8 mm)

How to design and specify

- The Pico wireless remote is a flexible and easy-to-use device that allows the user to control Lutron wireless load-control devices from anywhere in the space. This battery-operated control requires no external power or communication wiring.

PRODUCT OPTIONS

4-button remotes	
PJ2-4B-GWH-L21P	2-Group control
PJ2-4B-GWH-L01	Zone control
PJ2-4B-GWH-L31	Scene control

- Custom-engraved models for zone control keypads (-L01, -S01) and scene control keypads (-L31, -S31) are available but require a different set of button marking codes when ordering

NOTE: 2-Group (-L21, -S21, -LS21) controls are not offered with the custom engraving option.

Button Marking Codes	Standard Engraving	Custom Engraving
Zone control		
Lights	-L01	-EL1
Shades	-S01	-ES1
Scene control		
Lights	-L31	-EL2
Shades	-S31	-ES2



Pico wireless remotes

4-button 2-group control	4-button zone control	4-button scene control
--------------------------------	-----------------------------	------------------------------

Dimensions

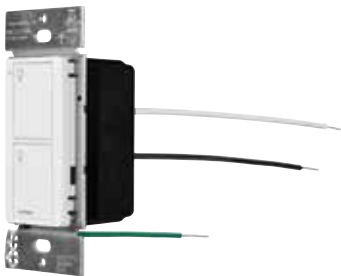
W:	1.28"	(33mm)
H:	2.60"	(66 mm)
D:	0.33"	(8 mm)

How to design and specify

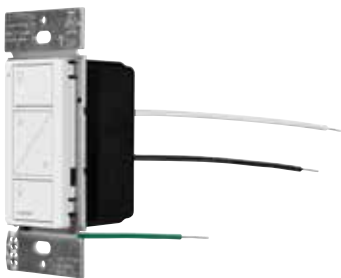
- The Pico line-powered wireless control is a flexible and easy-to-use device that allows the user to control Lutron wireless load-control devices from anywhere line voltage power is present in the space. This control requires connection to line voltage for power, and no wires for communication.

PRODUCT OPTIONS

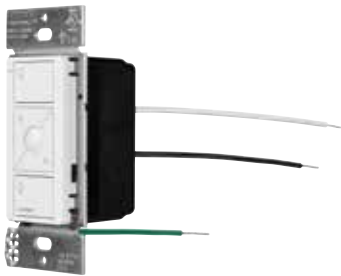
Tabletop accessories	
PJL-2B-GXX-L01	2-button
PJL-2BRL-GXX-L01	2-button with raise/lower
PJL-3BRL-GXX-L01	3-button with raise/lower



2-button



2-button with raise/lower



3-button with raise/lower

How to design and specify

- Select one Pico pedestal for each tabletop location based on the number of Pico remotes at each location

PRODUCT OPTIONS

Tabletop accessories	
L-PED1-WH	Pedestal for one Pico remote
L-PED2-WH	Pedestal for two Pico remotes
L-PED3-WH	Pedestal for three Pico remotes



Tabletop accessories

How to design and specify

- Select one Pico wallbox adapter for each Pico that you would like wall-mounted with a Claro-style wallplate
- Select one Claro wallplate (up to 4-gang) for all Pico and Maestro wireless wall-mounted control locations where Claro style is desired

PRODUCT OPTIONS

Wall-mount accessories	
PICO-WBX-ADAPT	Pico wallbox adapter
CW-1-WH	Claro 1-gang wallplate
CW-2-WH	Claro 2-gang wallplate
CW-3-WH	Claro 3-gang wallplate
CW-4-WH	Claro 4-gang wallplate



Wall-mount accessories

Pico wallplate adapter and
Claro wallplate

Dimensions

W: 2.94" (75 mm)
H: 4.69" (119 mm)
D: 1.44" (38 mm)

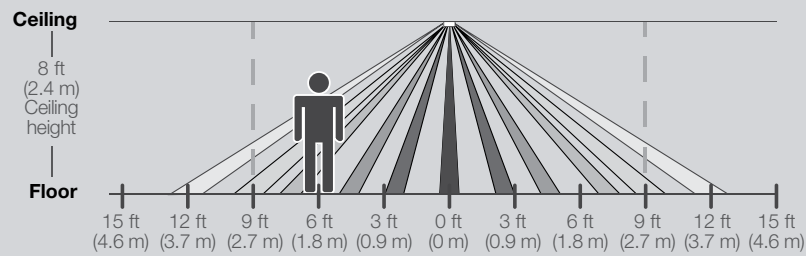
WIRELESS SENSORS: CEILING OCCUPANCY/VACANCY SENSORS

Sensor coverage diagrams

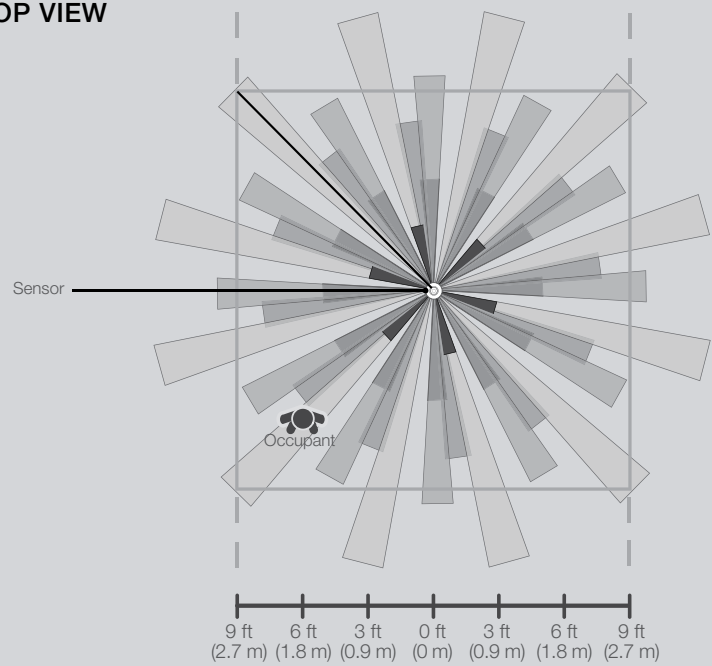
Ceiling mount, 360°

Coverage varies
by ceiling height

FLOOR VIEW



TOP VIEW



CEILING-MOUNT SENSOR COVERAGE CHART (for sensor mounted in center of room)

Ceiling height	Maximum room dimensions for complete floor coverage		Radius of coverage at floor
8 ft (2.4 m)	18 x 18 ft (5.5 x 5.5 m)	324 ft ² (30.2 m ²)	13 ft (4.0 m)
9 ft (2.7 m)	20 x 20 ft (6.1 x 6.1 m)	400 ft ² (37.2 m ²)	14.5 ft (4.4 m)
10 ft (3.0 m)	22 x 22 ft (6.7 x 6.7 m)	484 ft ² (44.9 m ²)	16 ft (4.9 m)
12 ft (3.7 m)**	26 x 26 ft (7.9 x 7.9 m)	676 ft ² (62.4 m ²)	19 ft (5.8 m)

* Sensor mounting shown at 7 ft (2.1 m). Mounting height should be between 6 and 8 ft (1.6 and 2.4 m).

** 12 ft (3.7 m) is the maximum mounting height allowed.

How to design and specify

- A single occupancy sensor can communicate to all control devices in the room
- Use in small rooms or areas with medium to high partitions
- For 8 ft ceilings: 484 ft²
- For 12 ft ceilings: 676 ft²

PRODUCT OPTIONS

Ceiling-mount sensors

LRF2-OCR2B-P-WH	Occupancy/vacancy
-----------------	-------------------

LRF2-VCR2B-P-WH	Vacancy only
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Accessories

L-CMDPIRKIT	Ceiling-mount sensor lens masking kit
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L-CRMK-WH	Ceiling-mount sensor recess-mounting bracket
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L-WIRECAGE-C	Wire guard for ceiling-mount sensor
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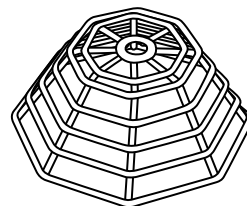
**Wireless occupancy/
vacancy sensors**

Dimensions

W: 3.57" (91 mm)

H: 3.57" (91 mm)

D: 1.13" (29 mm)



Wire cage guard

Dimensions

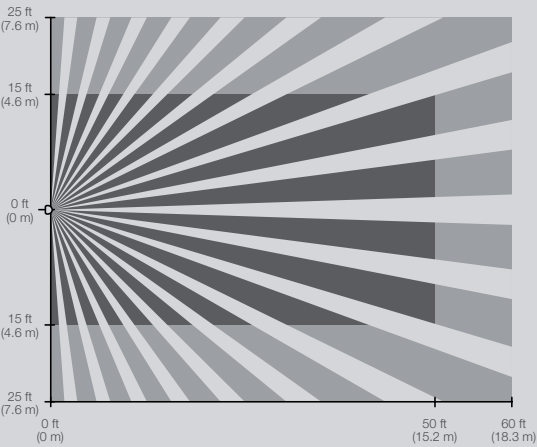
W: 7.0" (178 mm)

D: 3.25" (83 mm)

Sensor coverage diagrams

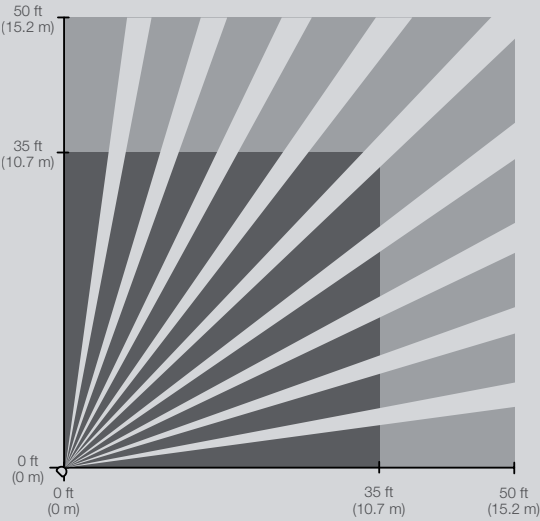
Wall mount*, 180°
1,500 ft²— Minor motion
3,000 ft²— Major motion

TOP VIEW



Corner mount*, 90°
1,225 ft²— Minor motion
2,500 ft²— Major motion

TOP VIEW



KEY::

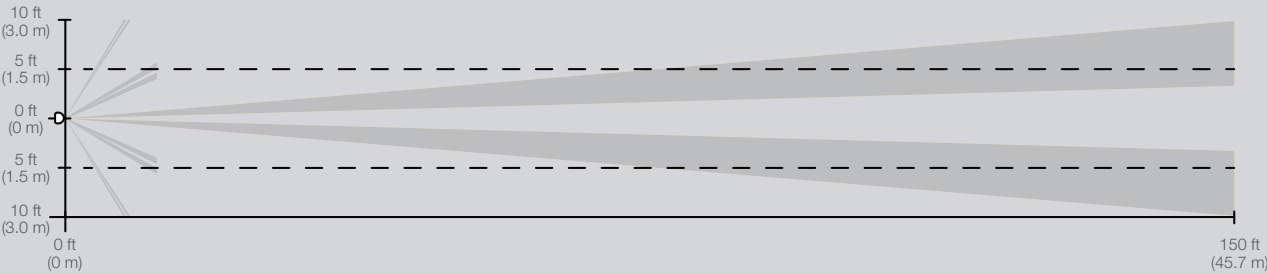
Minor motion

Major motion

Hallway*, long narrow field of view

Coverage varies by hallway width and length

TOP VIEW



HALLWAY SENSOR MAXIMUM RECOMMENDED LENGTH CHART (sensor centered within hallway)

Width of hallway		Length of hallway	
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)

* Sensor mounting shown at 7 ft (2.1 m). Mounting height should be between 6 and 8 ft (1.6 and 2.4 m).
** 12 ft (3.7 m) is the maximum mounting height allowed.

How to design and specify

- A single occupancy sensor can communicate to all control devices in the room

PRODUCT OPTIONS

Wall-mount sensors

- Use in large open rooms with few tall obstructions
- Coverage: 3,000 ft²

LRF2-OWLB-P-WH	Occupancy/vacancy
----------------	-------------------

LRF2-VWLB-P-WH	Vacancy only
----------------	--------------

Corner-mount sensors

- Use in medium to large open rooms with few tall obstructions
- Coverage: 2,500 ft²

LRF2-OKLB-P-WH	Occupancy/vacancy
----------------	-------------------

LRF2-VKLB-P-WH	Vacancy only
----------------	--------------

Hallway sensors

- For a 6 ft wide hallway: 50 ft coverage
- For a 10 ft wide hallway: 150 ft coverage

LRF2-OHLB-P-WH	Occupancy/vacancy
----------------	-------------------

LRF2-VHLB-P-WH	Vacancy only
----------------	--------------

Accessories

LRF-ARM-WH	Flexible armature mounting kit for Radio Powr Savr wall, hall, corner sensors
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L-WIRECAGE-C	Wire guard for ceiling-mount sensor
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L-WIRECAGE-W	Wire guard for in-wall sensor
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**Radio Powr Savr
wireless sensors**

Dimensions

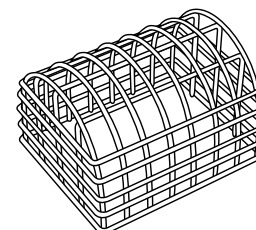
W: 1.8" (46 mm)
H: 4.35" (110 mm)
D: 1.35" (34 mm)



Flexible armature mounting kit

Dimensions

W: 3.62" (92 mm)
D: 2.18" (55 mm)



Wire cage guard

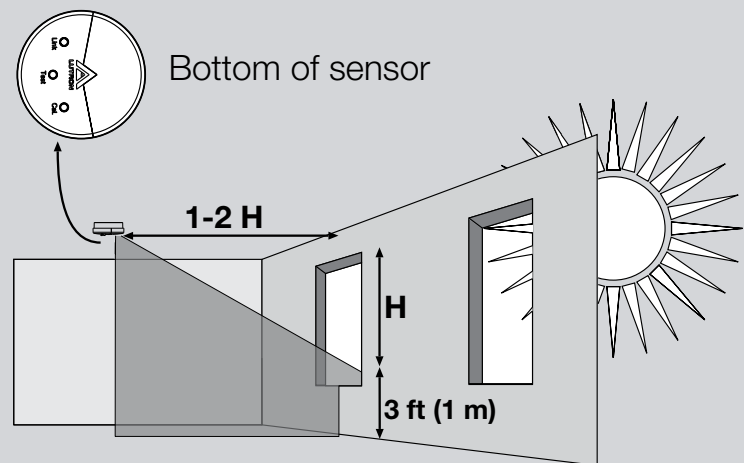
Dimensions

W: 7.0" (178 mm)
H: 5.75" (146 mm)
D: 4.5" (114 mm)

Sensor coverage diagrams

Location for average size areas

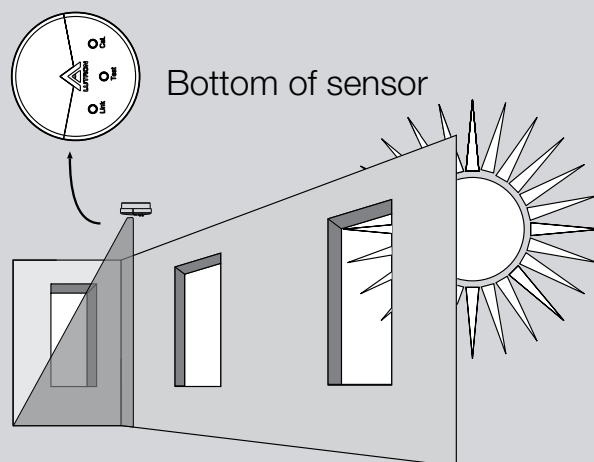
Arrow points towards the area viewed by the sensor (toward windows).



H = Effective window height

Location for narrow areas (corridors, private offices)

Arrow points towards the area viewed by the sensor (away from window).



How to design and specify

- A single daylight sensor is capable of controlling:
 - All Maestro switching and dimming zones
 - All PowPak switching zones
 - All PowPak dimming modules with 0-10V control

PRODUCT OPTIONS

Daylight sensor

LRF2-DCRB-WH

Daylight sensor

* Sensor mounting shown at 7 ft (2.1 m). Mounting height should be between 6 and 8 ft (1.6 and 2.4 m).

** 12 ft (3.7 m) is the maximum mounting height allowed.



Wireless daylight sensors

Dimensions

W: 1.6" (41 mm)

H: 1.6" (41 mm)

D: 0.7" (17 mm)

Available setup support services

Blocks of setup support time

- Lutron services representative — either onsite or remotely — supports the installation team in setting up the system
- Utilize the technician’s time in the way that best suits your needs: training, punch list items, or complete programming independently
- Mix and match remote and onsite blocks of time and use them when you need them during the construction timeline
- Choose the amount of time you need

PRODUCT OPTIONS

Blocks of setup support time

LSC-OS-PROG8-SP	8 hours of onsite setup support
LSC-OS-PROG4-SP	4 hours of onsite setup support
LSC-RMT-PROG4-SP	4 hours of remote setup support

Additional setup support services available with blocks and startup

LSC-ECPREP	EC preparation package consisting of: (1) onsite prewire and (1) post wire termination visit
LSC-PREWIRE-ONST	Onsite prewire
LSC-PREWIRE-RMTE	Remote prewire
LSC-CSO-VST	Customer system orientation visit
LSC-TRAINING	Customer-site solution training
LSC-AF-VISIT	Onsite scene and level tuning
LSC-WALK	Onsite performance— verification walk-through
LSC-TRAIN-RMTE	Remote supplemental training
LSC-PRG-AST-RMTE	Remote programming assistance
LSC-AH-VST	After hours service visit outside of system startup



Setup support services

- 4- & 8-hour onsite blocks
- 4-hour remote blocks
- Additional setup support services

Available setup support services

Onsite full-scope startup

- Lutron service representative onsite to ensure proper system startup and configuration
- Train facilities staff to best utilize and maintain the lighting control assets
- Reduce risk and keep your installation team small by having us do the setup for you
- Includes a Commercial System Limited Warranty
- Onsite startup enhancements available

Remote full-scope startup

- Lutron service representative onsite to ensure proper system startup and configuration
- Train facilities staff to best utilize and maintain the lighting control assets
- Reduce risk and keep your installation team small by having us do the setup for you
- Includes a Commercial System Limited Warranty
- Onsite startup enhancements available

PRODUCT OPTIONS

Setup service models

Full scope startup

LSC-OS-SU-VIVE	Onsite full-scope startup
----------------	---------------------------

LSC-RMT-SU-VIVE	Remote full-scope startup
-----------------	---------------------------

Startup enhancements (Available with onsite full-scope startup)

LSC-AH-SU	Startup performed at night or weekends (weekend work available in certain locations)
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LSC-SENS-LT	Sensor layout & tuning
-------------	------------------------

LSC-SPV-DOC	System performance—verification documentation
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LSC-SPV-DOC-T24	Title 24 acceptance test visit
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Full-scope startup

Onsite

Remote

Available operational services

- Support the facilities team to maximize system potential
- Reprogram the system as space needs change over time
- Support retro-commissioning requirements
- Pre-purchase with the system to capture costs in capital budget

PRODUCT OPTIONS

Operational service models	
Operational services	
LSC-TRAINING	Customer-site solution training
LSC-SYSOPT	System optimization service
LSC-OS-PROG8-EN	8 hours of onsite reconfiguration support
LSC-OS-PROG4-EN	4 hours of onsite reconfiguration support
LSC-RMT-PROG4-EN	4 hours of remote reconfiguration support



Operational services

- Solution training
- System optimization
- Onsite reconfiguration
- Remote reconfiguration

VIVE WARRANTY AND TECHNOLOGY SUPPORT

Commercial system limited warranty

The commercial system limited warranty offers 100% parts replacement coverage for years 1 through 5, 50% parts replacement coverage for years 6 through 8, 2 years of first-available diagnostic labor for system issues, and 24/7 technical support. Warranty included with onsite full-scope startup and available with remote full-scope startup.

PRODUCT OPTIONS

Vive limited warranty	
LSC-L2-P8LTD	Commercial System 8-Year Limited

Technology Support Plans (TSPs)

All Lutron TSPs provide 100% parts and diagnostic labor coverage for up to 10 years. Optional response-time guarantees and preventive maintenance visits enable the coverage to be customized to meet the facility's needs. TSPs are available for any Vive system; a warranty audit visit will be included with the purchase of a TSP when full-scope startup is not purchased.

PRODUCT OPTIONS

Vive Technology Support Plans	
LSC-SILV-IW	Silver Level Technology Support Plan
LSC-GOLD-IW	Gold Level Technology Support Plan
LSC-PLAT-IW	Platinum Level Technology Support Plan
LSC-WNTY-AUD	Warranty Audit Visit

Vive warranty information

Support Options	Commercial System Limited Warranty	Silver (TSP)	Gold (TSP)	Platinum (TSP)
Replacement Parts	• (5 years 100%, 8 years 50%)	•	•	•
Diagnostic Labor— First Available Response	• (2 yrs)			
Diagnostic Labor— 72-Hour Response		•		
Diagnostic Labor— 48-Hour Response			•	
Diagnostic Labor — 24-Hour Response				•
Priority Support Line				•
Annual Preventive Maintenance Visit			•	•

ORDERING INFORMATION:

Model number	Description	
Vive wireless hub		
	H-MOUNT-SM	Surface-mount installation adapter
	HJS-0-FM	Starter Vive wireless hub, flush mount
	HJS-1-FM	Standard Vive wireless hub, flush mount
	HJS-1-SM	Standard Vive wireless hub, surface mount
	HJS-2-FM	Premium Vive wireless hub, flush mount
	HJS-2-SM	Premium Vive wireless hub, surface mount
Vive Vue dashboard software		
	VIVE-VUE	Vive Vue software dashboard license
	HJS-UPDATE	Software upgrade license to add BACnet and API
	HJS-DEVICES	Software upgrade license expands device limit to 700 devices
PowPak relay module		
	RMJS-5R-DV-B	5 A relay
	RMJS-5RCCO1-DV-B	5 A relay with one contact closure output
	RMJS-16R-DV-B	16 A relay
	RMJS-16RCCO1DV-B	16 A relay with one contact closure output
PowPak dimming module		
	RMJS-8T-DV-B	8 A 0-10 V controller-connector
	RMJS-8TN-DV-B	8 A 0-10 V controller-flying leads
	RMJS-ECO32-SZ	Single zone EcoSystem/DALI controller
	RMJS-PNE-DV	Phase Select dimming module
	RMJS-5T-347	5A 0-10V dimmer for 347V
	5T-347-DIVIDER	Divider for class 1 and class 2 separation
	RMJS-5R-347	5 A switching only
PowPak contact closure output module		
	RMJS-CCO1-24-B	One contact closure output

NOTE: For up-to-date pricing, contact your Lutron sales representative.

Model number	Description
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PowPak relay module



RMJS-20R-DV-B	20 A receptacle control relay module
RMJS-20RCCO1DV-B	20 A receptacle control relay module with contact closure output

Wireless receptacle



CAR2S-15-STR	15 A split half switching; single pole/downstream, 120 V
CAR2S-15-DTR	15 A duplex dual switching; single pole/downstream, 120 V
CAR2S-20-STR	20 A split half switching; single pole/downstream, 120 V
CAR2S-20-DTR	20 A duplex dual switching; single pole/downstream, 120 V

Individual fixture control



FCJS-010	0-10 V control module
FCJS-ECO	EcoSystem control module
FCJS-010-BULK8	0-10 V control module 8-pack
FCJS-ECO-BULK8	EcoSystem control module 8-pack
FC-SENSOR	Occupancy/daylight sensor
FC-VSENSOR	Vacancy/daylight sensor
DFCSJ-OEM-RF*	Vive integral fixture control (RF only)
DFCSJ-OEM-OCC*	Vive integral fixture control (with sensing)

Emergency wireless load controllers



RMJS-16R-DV-B-EM	Emergency rated 16 A relay
RMJS-8T-DV-B-EM	Emergency rated 8 A, 0-10 V dimmer
FCJS-ECO-EM	Emergency rated EcoSystem control module
FCJS-010-EM	Emergency rated 0-10 V control module



RMJS-PNE-DV-EM	Emergency rated Phase Select dimming module
RMJS-5T-347-EM	5A 0-10V dimmer for 347V
RMJS-5R-347-EM	Emergency model, 5 A switching only

ORDERING INFORMATION:

Model number	Description	
Maestro Wireless switches*		
	MRF2S-6ANS-XX	6 A lighting, 3 A fan (1/10 HP motor), 120 V
	MRF2S-8S-DV-XX	8 A lighting, 3 A fan (1/10 HP motor, 120 V only), spec grade
	MRF2S-8ANS120-XX	8 A lighting, 5.8 A fan (1/4 HP motor), spec grade, 120 V
Maestro Wireless dimmers*		
	MRF2S-6CL-XX	150 W dimmable CFL/LED, 600 W incandescent, halogen
	MRF2S-6ELV120-XX	600 W ELV, 120 V
	MRF2S-6ND-120-XX	600 W/VA incandescent/halogen/MLV, 120 V
	MRF2S-8SD010-XX	0-10 V wallbox dimmer sensor
	MRF2S-8SS-XX	Wallbox sensor switch
Maestro Wireless/Maestro occupancy sensing control companion devices*		
	MA-AS-XX	Multi-location companion switch, 120 V
	MA-R-XX	Multi-location companion dimmer, 120 V

Maestro Colors

GLOSS COLORS

-  White (WH)
-  Ivory (IV)
-  Almond (AL)
-  Light Almond (LA)
-  Gray (GR)
-  Brown (BR)
-  Black (BL)

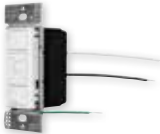
SATIN COLORS

-  Snow White (SW)
-  Midnight (MN)
-  Taupe (TP)
-  Biscuit (BI)
-  Palladium (PD)
-  Hot (HT)

* (XX in the model number represents color/finish code; use WH for White; please visit lutron.com for other color choices.)

NOTE: For up-to-date pricing, contact your Lutron sales representative.

Model number	Description
Pico wireless remotes*	
	PJ2-2BRL-XXX-L01 2-button with raise/lower
	PJ2-2B-XXX-L01 2-button
	PJN-2B-GXX-L01 Nightlight 2-button
	PJ2-3BRL-XXX-L01 3-button with raise/lower
	PJ2-3B-XXX-L01 3-button
	PJN-3BRL-GXX-L01 Nightlight 3-button with raise/lower
	PJ2-4B-XXX-L21 4-button with 2-group control
	PJ2-4B-XXX-L01 4-button with zone control
	PJ2-4B-XXX-L31 4-button with scene control

Pico line-powered wireless controls*	
	PJL-2B-GXX-L01 2-button
	PJL-2BRL-GXX-L01 2-button with raise/lower
	PJL-3BRL-GXX-L01 3-button with raise/lower

Pico accessories*	
	PICO-WBX-ADAPT Pico wireless remote wallbox adapter
	PICO-347WBX-ADAP Pico wireless remote wallbox adapter for 347V
	CW-1-XX Claro 1-gang wallplate
	CW-2-XX Claro 2-gang wallplate
	CW-3-XX Claro 3-gang wallplate
	CW-4-XX Claro 4-gang wallplate
	L-PED1-XX** Pico wireless remote single pedestal
	L-PED2-XX** Pico wireless remote double pedestal
	L-PED3-XX** Pico wireless remote triple pedestal

Pico Colors

GLOSS COLORS

 White (WH)	 Light Almond (LA)	 Black (BL)
 Ivory (IV)	 White/Gray (WG)	

SATIN COLORS

 Snow (SW)	 Midnight (MN)
 Biscuit (BI)	

* (XX in the model number represents color/finish code; use WH for White; please visit lutron.com for other color choices.)

** (XX in the model number represents color/finish code; use WH for White; please visit lutron.com for other color choices.)

NOTE: For up-to-date pricing, contact your Lutron sales representative.



ORDERING INFORMATION:

Model number

Description

Radio Powr Savr occupancy/vacancy sensors*



LRF2-OCR2B-P-WH	Ceiling-mount, 360° field-of-view, occupancy/vacancy sensor
LRF2-OWLB-P-WH	Wall-mount, 180° field-of-view, occupancy/vacancy sensor
LRF2-OKLB-P-WH	Corner-mount, 90° field-of-view, occupancy/vacancy sensor
LRF2-OHLB-P-WH	Hallway, occupancy/vacancy sensor

Occupancy/vacancy sensor accessories



L-CMDPIRKIT	Sensor lens masking kit for Radio Powr Savr ceiling sensor
L-CRMK-WH	Recess-mounting bracket for Radio Powr Savr ceiling sensor
LRF-ARM-WH	Flexible armature mounting kit for Radio Powr Savr wall, hall, corner sensors
L-WIRECAGE-WBX	Wire guard for in-wall sensor, white
L-WIRECAGE-C	Wire guard for ceiling-mount sensor, white
L-WIRECAGE-W	Wire guard for wall-mount and hallway sensors, white

Wired occupancy transmitter



RMJS-OT-DV	Wired occupancy transmitter
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Radio Powr Savr daylight sensor



LRF2-DCRB-WH	Ceiling-mount daylight sensor
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Wallplates*



CW-1-XX	Claro 1-gang wallplate
CW-2-XX	Claro 2-gang wallplate
CW-3-XX	Claro 3-gang wallplate
CW-4-XX	Claro 4-gang wallplate

* XX in the model number represents color/finish code; use WH for White; please visit lutron.com for other color choices.

NOTE: For up-to-date pricing, contact your Lutron sales representative.

Model number	Description	
Vive startup services		
	LSC-OS-SU-VIVE	Onsite full-scope startup
	LSC-RMT-SU-VIVE	Remote full-scope startup
	LSC-AH-SU	After hours startup
	LSC-SENS-LT	Sensor layout & tuning
	LSC-SPV-DOC	System performance-verification documentation
	LSC-SPV-DOC-T24	Title 24 acceptance test visit
Vive setup support services		
	LSC-OS-PROG8-SP	Onsite programming — 8-hour block
	LSC-OS-PROG4-SP	Onsite programming — 4-hour block
	LSC-RMT-PROG8-SP	Remote programming — 8-hour block
	LSC-PREWIRE	Prewire visit
	LSC-TRAINING	Customer-site solution training
	LSC-AF-VISIT	Onsite scene and level tuning
	LSC-WALK	Onsite performance-verification walkthrough
Vive operational services		
	LSC-TRAINING	Customer-site solution training
	LSC-SYSOPT	System optimization service
	LSC-OS-PROG8-EN	8 hours of onsite reconfiguration support
	LSC-OS-PROG4-EN	4 hours of onsite reconfiguration support
	LSC-RMT-PROG4-EN	4 hours of remote reconfiguration support
Vive limited warranty and technology support plans		
	LSC-L2-P8LTD	Commercial system limited warranty
	LSC-SILV-IW	Silver level technology support plan
	LSC-GOLD-IW	Gold level technology support plan
	LSC-PLAT-IW	Platinum level technology support plan
	LSC-WARR-AUD	Warranty audit visit

IN-WALL STANDALONE SOLUTIONS: OCCUPANCY/VACANCY SWITCHES

Other energy-saving devices by Lutron

THESE DEVICES DO NOT INTEGRATE WITH THE VIVE SYSTEM



Features and benefits

- Standalone solutions are not compatible with the Vive hub
- Lutron XCT technology for superior sensitivity prevents false ONs and false OFFs
- Automatically turns lights OFF when space is unoccupied
- Easy to install; directly replaces an existing control
- Lutron smart ambient light detection learns your preferences over time and adapts accordingly
- Lutron adaptive zero-cross switching extends relay lifetime
- 180° sensor field-of-view; must have unobstructed view
- Up to 900 ft² major motion coverage and 400 ft² minor motion coverage
- Adjustable timeout: 1-, 5-, 15-, and 30-minute options
- Vacancy/partial-ON models available to meet CA Title 24 requirements
- Dual-circuit sensors provide bi-level control of two circuits, as required by specific energy codes

PRODUCT OPTIONS

Maestro sensor switch*	
MS-OPS2-XX**	2 A lighting, 120 V PIR occupancy/vacancy; single pole, neutral optional
MS-OPS5M-XX**	5 A lighting, 120 V PIR occupancy/vacancy; 3 A fan, multi-location/3-way/single pole, no neutral
MS-OPS6M2-DV-XX**	6 A lighting, 120-277 V PIR occupancy/vacancy, 3 A fan multi-location/3-way/single pole (120 V only); neutral optional
Maestro dual-circuit sensor switch	
MS-OPS6-DDV-XX**	6 A lighting per circuit, 120-277 V PIR dual-circuit occupancy/vacancy; 4.4 A fan (120 V only) per circuit; single pole, neutral optional

* Vacancy-only models available. Replace the "O" in the model number with a "V".

** (XX in the model number represents color/finish code; use WH for White.) See Maestro colors on page 70.



Maestro sensor

Dimensions

W: 2.94" (75 mm)
H: 4.69" (119 mm)
D: 1.44" (38 mm)



Maestro dual-circuit sensor switch

Dimensions

W: 2.94" (75 mm)
H: 4.69" (119 mm)
D: 1.44" (38 mm)

Features and benefits

- Standalone solutions are not compatible with the Vive hub
- Lutron XCT technology greatly enhances the performance of dual-technology sensors, enabling them to detect very fine motion like typing
- Automatically turns lights off when space is unoccupied
- Easy to install; directly replaces an existing control
- Lutron smart ambient light detection learns your preferences over time and adapts accordingly
- Lutron adaptive zero-cross switching extends relay lifetime
- 80° sensor field-of-view; must have unobstructed view
- Up to 900 ft² major motion coverage and 400 ft² minor motion coverage
- Adjustable timeout: 1-, 5-, 15-, and 30-minute options
- Vacancy models available to meet CA Title 24 requirements
- Dual-circuit sensors provide bi-level control of two circuits, as required by specific energy codes

PRODUCT OPTIONS

Maestro sensor switch*	
MS-A102-XX**	6 A lighting, 120-277 V dual-tech occupancy/vacancy sensor, 4.4 A fan (120 V only); single pole, neutral optional
MS-B102-XX**	6 A lighting, 120-277 V dual-tech occupancy/vacancy sensor, 4.4 A fan (120 V only); multi-location/3-way, neutral required
Maestro dual-circuit sensor switch	
MS-A202-XX**	6 A lighting per circuit, 120-277 V dual-tech occupancy/vacancy, 4.4 A fan (120 V only) per circuit; single pole, neutral optional
MS-B202-XX**	6 A lighting per circuit, 120-277 V dual-tech occupancy/vacancy sensor, 4.4 A fan (120 V only) per circuit; 3-way, neutral required

* For dual-tech or 0-10 V vacancy models, Add "-V-" before the color code (XX).

** (XX in the model number represents color/finish code; use WH for Whites.) See Maestro colors on page 70.



Maestro dual-technology sensor switch

Dimensions

W: 2.94" (75 mm)
H: 4.69" (119 mm)
D: 1.44" (38 mm)



Maestro dual-technology, dual-circuit sensor switch

Dimensions

W: 2.94" (75 mm)
H: 4.69" (119 mm)
D: 1.44" (38 mm)

Features and benefits

- Standalone solutions are not compatible with the Vive hub
- Lutron XCT technology for superior sensitivity prevents false ONs and false OFFs
- Automatically turns lights off when space is unoccupied
- Easy to install; directly replaces an existing control
- Lutron Smart Ambient Light Detection learns your preferences over time and adapts accordingly
- 180° sensor field-of-view; must have unobstructed view
- Up to 900 ft² major motion coverage and 400 ft² minor motion coverage
- Adjustable timeout: 1-, 5-, 15-, and 30-minute options
- Vacancy models available to meet CA Title 24 requirements
- Controls electronic LED drivers and fluorescent ballasts
- Miswire and load incompatibility alert — lens will flash red if control is miswired or connected to an incompatible fixture
- Selectable dimming curve optimizes performance of 0-10 V LED drivers
- Lutron adaptive zero-cross switching extends relay lifetime

PRODUCT OPTIONS

0-10 V dimmer sensor*

MS-Z101-XX**

8 A lighting 120-277 V;
occupancy/vacancy; multi-
location/3-way/single pole

* For dual-tech or 0-10 V vacancy models, Add “-V-” before the color code (XX).

** (XX in the model number represents color/finish code; use WH for White.) See Maestro colors on page 70.



**Maestro 0-10V
dimmer sensor**

Dimensions

W: 2.94" (75 mm)
H: 4.69" (119 mm)
D: 1.44" (38 mm)

IN-WALL STANDALONE SOLUTIONS: OCCUPANCY/VACANCY SWITCHES

Features and benefits

- Standalone solutions are not compatible with the Vive hub
- LED+ dimmer for control of LED lighting

PRODUCT OPTIONS

LED+ dimmer sensor[†]

MSCL-OP153M-XX

LED+ dimmer with PIR sensor; occupancy/vacancy; multi-location/3-way/single pole; 150 W CFL/LED, 600 W incandescent/halogen

* (XX in the model number represents color/finish code; use WH for White.) See Maestro colors on page 70.

[†] Vacancy-only models available.
Replace the “O” in the model number with a “V”.



LED+ dimmer sensor

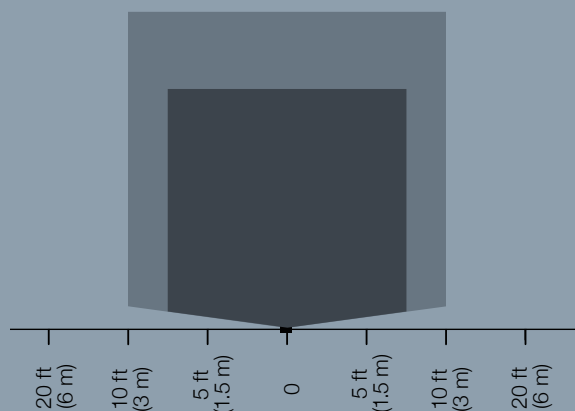
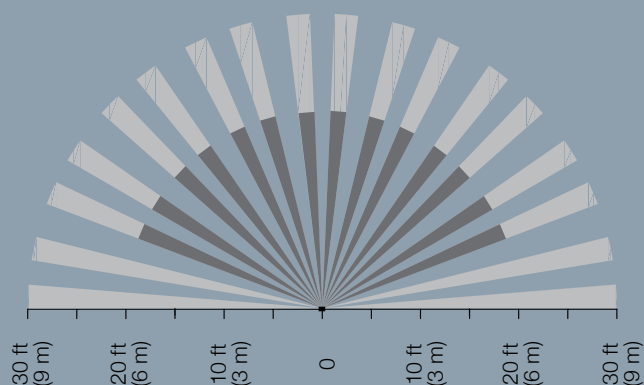
Dimensions

W: 2.94" (75 mm)
H: 4.69" (119 mm)
D: 1.44" (38 mm)

Sensor coverage diagrams

IN-WALL

PIR beam diagram
(for reference only)



* Sensor mounting shown at 7 ft (2.1 m). Mounting height should be between 6 and 8 ft (1.6 and 2.4 m).

Model number	Description	
Sensor switches *		
	MS-OPS2-XX	2 A lighting, 120 V PIR occupancy/vacancy; single pole, neutral optional
	MS-OPS5M-XX	5 A lighting, 120 V PIR occupancy/vacancy; 3 A fan, multi-location/3-way/single pole, neutral optional
	MS-OPS6M2-DV-XX	6 A lighting, 120-277 V PIR occupancy/vacancy, 3 A fan (120 V only); neutral optional
Dual-circuit sensor switches *		
	MS-OPS6-DDV-XX	6 A lighting per circuit, 120-277 V PIR dual-circuit occupancy/vacancy; 4.4 A fan (120 V only) per circuit; single pole
	MS-PPS6-DDV-XX	6 A lighting per circuit, 120-277 V PIR dual-circuit partial-on occupancy/vacancy, 4.4 A fan (120 V only) per circuit; single pole
Dual-technology sensor switches **		
	MS-A102-XX	6 A lighting per circuit, 120-277 V dual-tech occupancy/vacancy, 4.4 A fan (120 V only) per circuit; single pole, neutral optional
	MS-B102-XX	6 A lighting per circuit, 120-277 V dual-tech occupancy/vacancy sensor, 4.4 A fan (120 V only) per circuit; 3-way, neutral required
Dual-technology dual-circuit sensor switches **		
	MS-A102-XX	6 A lighting per circuit, 120-277 V dual-tech occupancy/vacancy, 4.4 A fan (120 V only) per circuit; single pole, neutral optional
	MS-B102-XX	6 A lighting per circuit, 120-277 V dual-tech occupancy/vacancy sensor, 4.4 A fan (120 V only) per circuit; 3-way, neutral required
Sensor dimmers **		
	MS-Z101-XX	8 A lighting 120-277 V; occupancy/vacancy; multi-location/3-way/single pole
	MSCL-OP153M-XX	LED+ dimmer with PIR sensor; occupancy/vacancy; single pole/3-way/multi-location; 150 W CFL/LED, 600 W incandescent/halogen

* Vacancy models available to meet California Title 24 section 119(j) requirements.

** For dual-tech or 0-10V vacancy models, add "-V-" before the color code (XX).

NOTE: For up-to-date pricing, contact your Lutron sales representative.



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