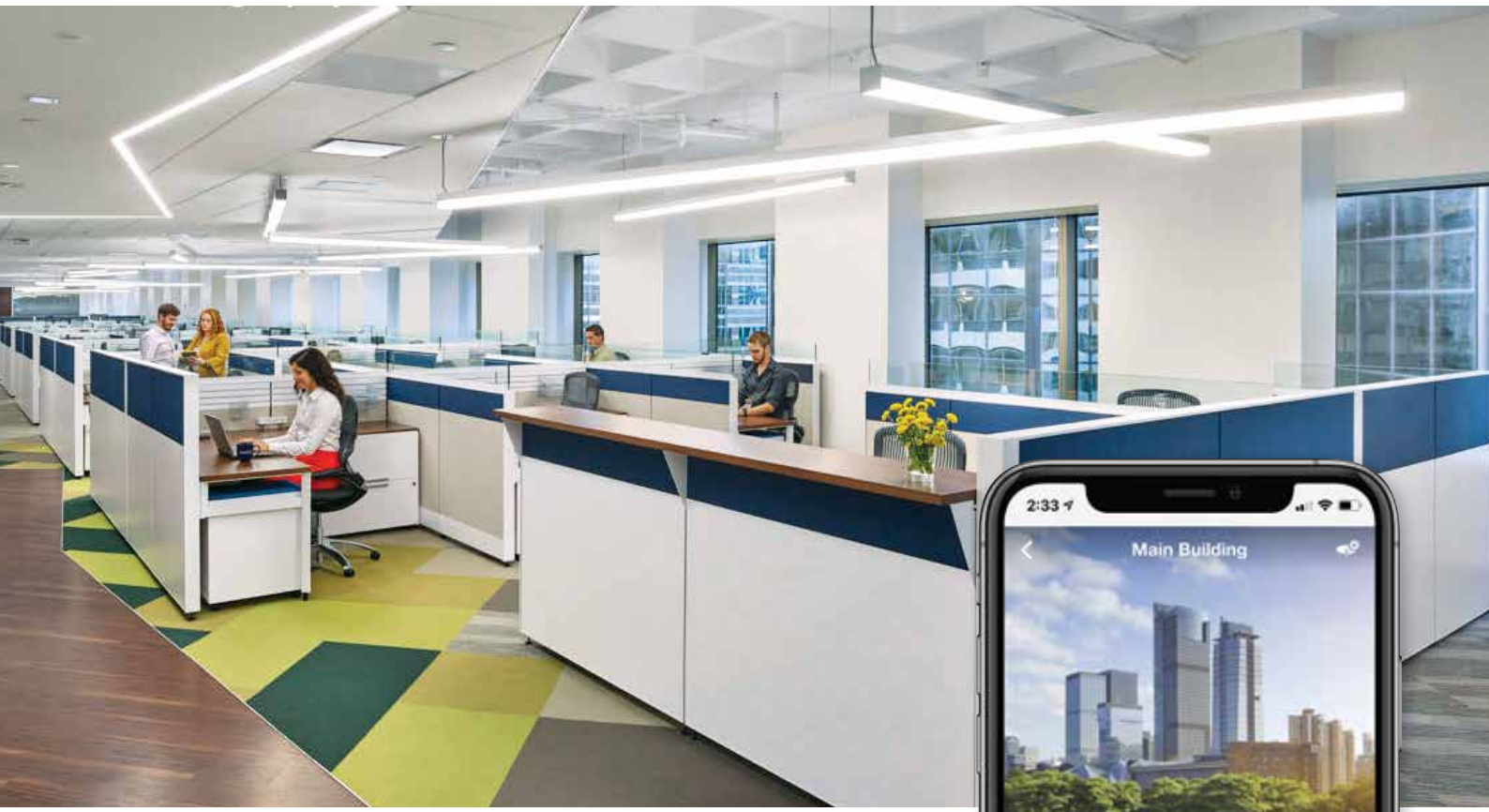




Simple, scalable, wireless  
**lighting control**



Flexible control every step of the way

**A simple wireless lighting control solution  
for new and existing commercial buildings.**





How can you make every office, school, or university campus an efficient, comfortable and productive place to work or learn?

### Vive is the answer.

Vive by Lutron is a simple, scalable, wireless control system that can be installed in a single space or throughout an entire campus. It's designed to save energy and create the right environment for the people working or learning in the space.

With Vive, adding lighting control to your new construction or retrofit project is easier than ever — and Vive has many options to meet your budgetary needs.

And with a wide family of products— including sensors, remotes, and load controls— Vive provides the capability to select the products you want and handle any on-site challenges with ease.

Vive Installation  
Madison College — Madison, Wisconsin



Wireless hub  
page 28



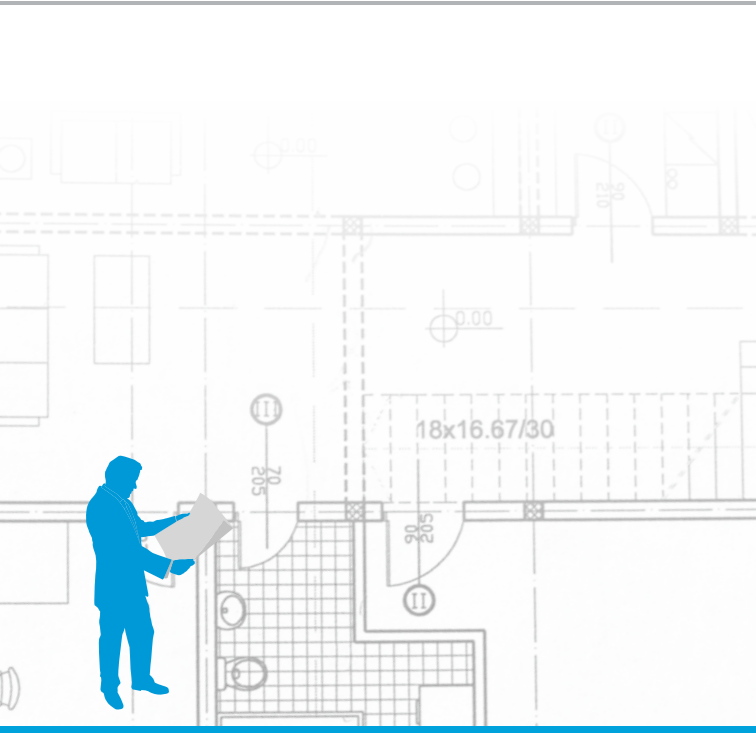
Wireless load controls  
page 30



Wireless remotes  
page 40



Wireless Sensors  
page 44



## DESIGN

The flexibility you need to design your building

**Build your system from a full suite of products** — specify a simple occupancy sensor solution, or design a fully integrated lighting management system using the same suite of products

**Easily match controls to the fixture package** — switching, DALI, 0–10V, or any combination

**Expand the system at any time** — add control options, add new areas, easily upgrade software to add new features

## INSTALL

Wireless simplifies installation and reduces callbacks

**Less wiring makes installation faster** — reduce labour time by up to 70%<sup>1</sup>

**Setup is as simple as pushing a button or using your smart device** — no manufacturer commissioning required, further reducing time and labour cost (the Lutron services team is always available if you want some additional support)

**Start small and expand at any time** — with no new wiring — meet budget requirements and changing space needs

**Eliminate callbacks** — Lutron’s proven reliability helps you stay within budget and reduces your time on the job

## MAINTAIN

Maximise productivity and building performance

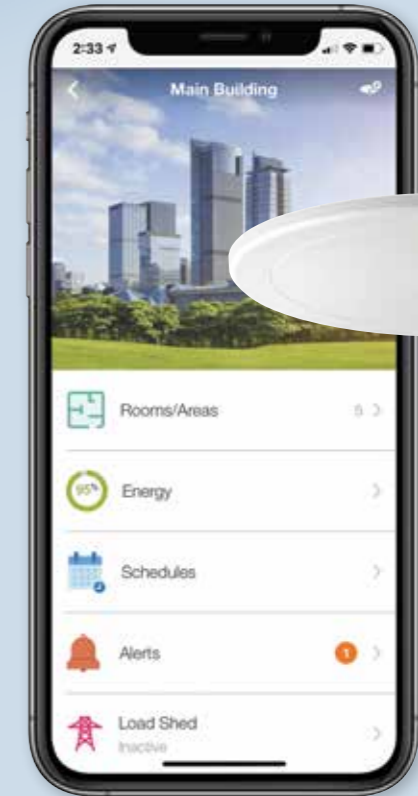
**Monitor, adjust, and manage your system from any smart device** — easily adjust the lighting control to accommodate building churn, improve occupant comfort, and enhance energy efficiency

**Energy savings** — lighting uses more electricity than any other building system. Lutron solutions can save up to 60%<sup>2</sup> or more of that lighting energy

**Minimise down time** — wireless controls install quickly to minimise disruption to building occupants

**Expand capability** — add new controls or upgrade software at any time without replacing the existing system

**Simplify integration** — using BACnet protocol, connect with other building systems at the time of initial installation or whenever you expand the system



Vive wireless hub



Vive software

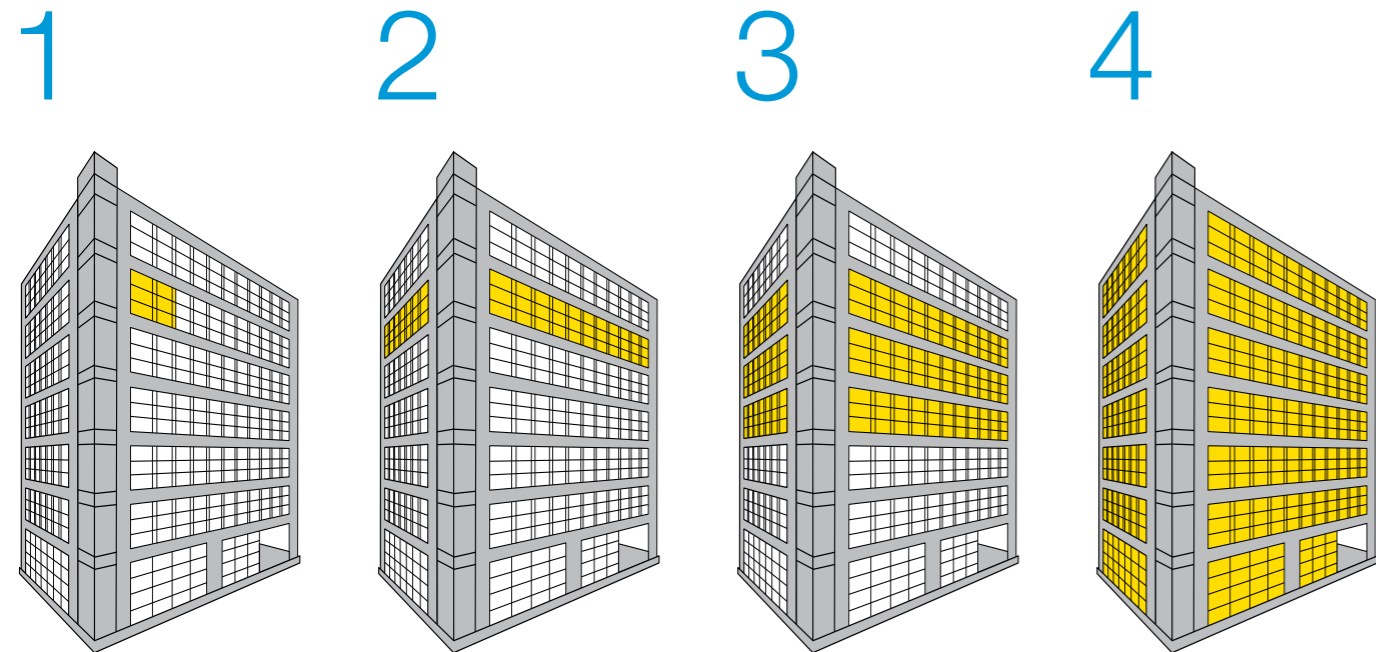
The Vive wireless family gives you the right solution now and for years to come

- Flexible budgets
- Area, fixture and sensor controls
- Meet latest building regulations and standards
- No factory setup required

**When you choose Lutron solutions, you can be confident that the system just works, and it will keep working.**



Vive wireless solutions offer a multi-strategy approach that accommodates your budget and performance needs now, and for the future of your building.



**1**  
Single office space

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

**2**  
Single floor

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

**3**  
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.

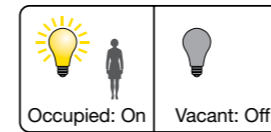
**4**  
Entire building

Vive offers seamless integration to other building management systems to control every light in your building.

Combine lighting control strategies to maximize efficiency

**What is the savings opportunity?**

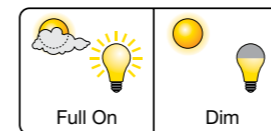
Lutron solutions can save 60%<sup>3</sup> or more lighting energy.



**Occupancy/vacancy sensing** turns lights on when occupants are in a space and off when they vacate the space.

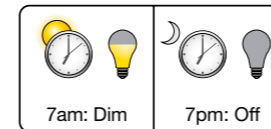
**Potential savings**

20–60%  
Lighting<sup>4</sup>



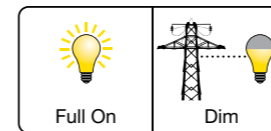
**Daylight harvesting** dims electric lights when daylight is available to light the space.

25–60%  
Lighting<sup>5</sup>



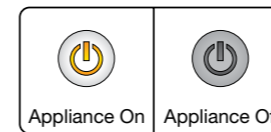
**Scheduling** provides pre-programmed changes in light levels based on time of day.

10–20%  
Lighting<sup>6</sup>



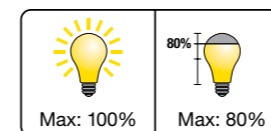
**Demand response** automatically reduces lighting loads during peak electricity usage times.

30–50%  
Peak Period<sup>7</sup>



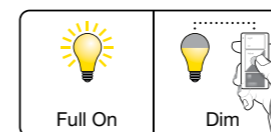
**Plug load control** automatically turns off loads after occupants leave a space.

15–50%  
Controlled Load<sup>8</sup>



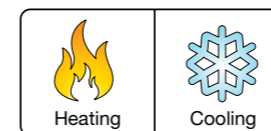
**High-end trim** sets the maximum light level based on customer requirements in each space.

10–30%  
Lighting<sup>9</sup>



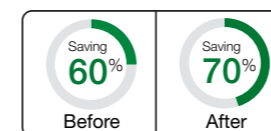
**Personal dimming control** gives occupants the ability to adjust the light level.

10–20%  
Lighting<sup>10</sup>



**HVAC integration** controls heating, ventilation, and air conditioning systems through contact closure, or BACnet protocol.

5–15%  
HVAC<sup>11</sup>

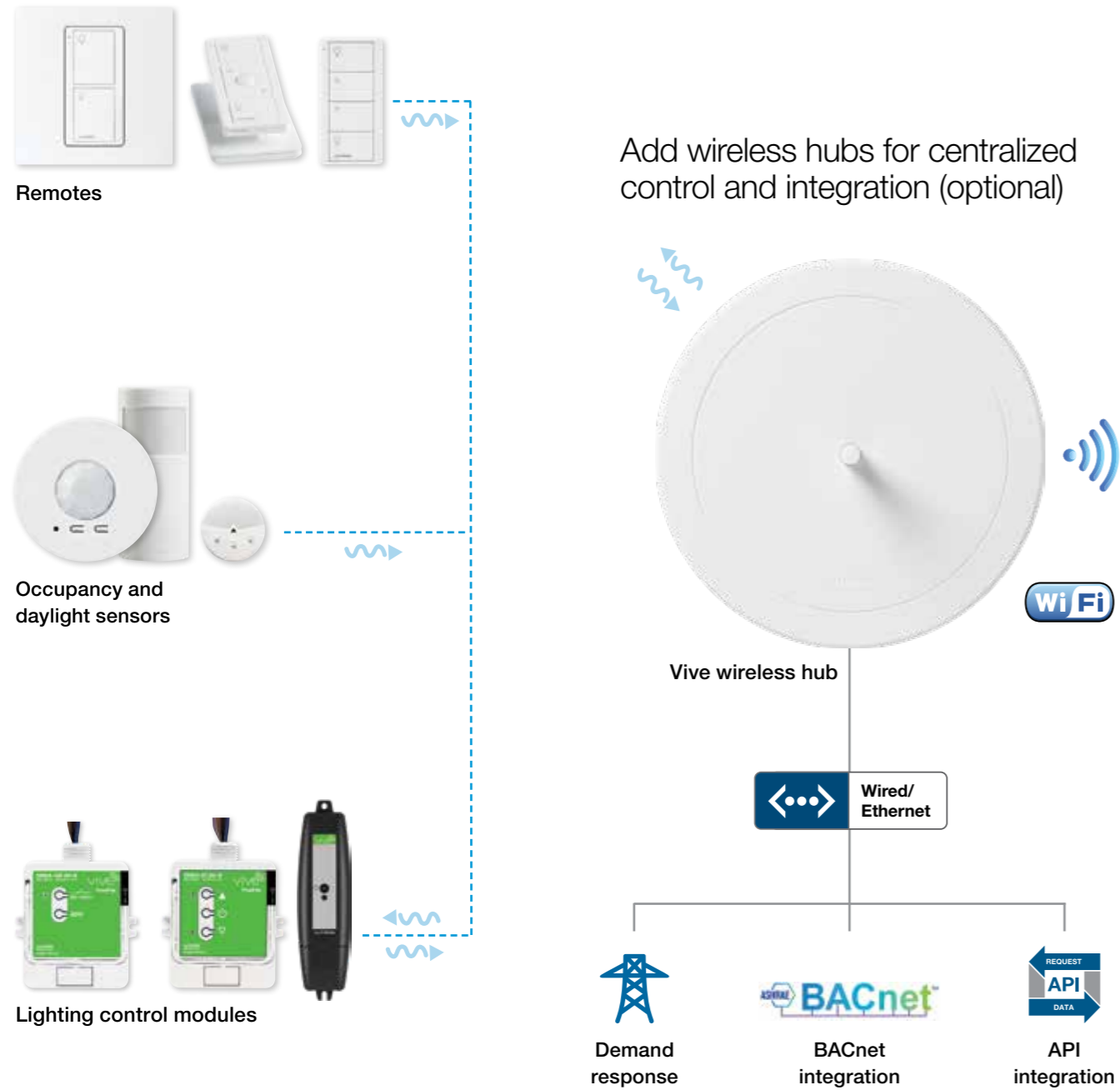


**System Optimization Service** from Lutron identifies important lighting control adjustments to save additional energy and create a more productive work environment on an ongoing basis.

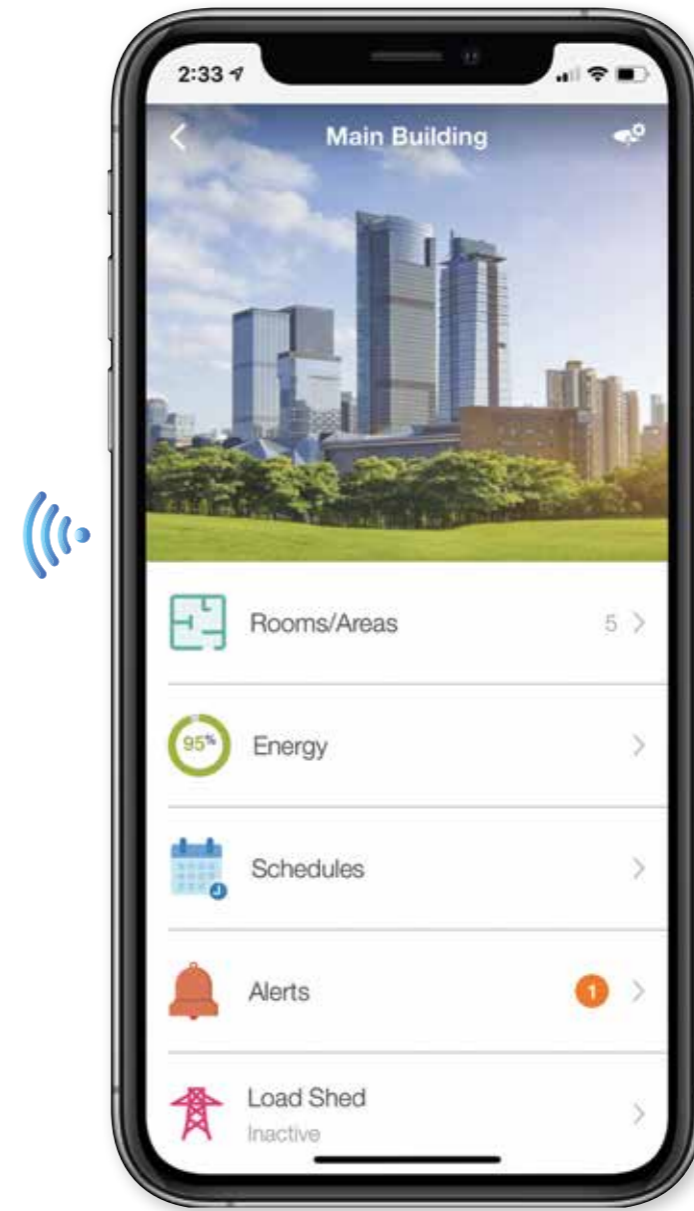
Variable

For a list of sources please visit [lutron.com/references](http://lutron.com/references).

Wireless controls and sensors



Simple-to-use software



Vive software

Communication protocols



## The right control in the right space

The Vive product family lets you personalise control to each space in your building without locking you into more or less control than you need.

### Simple switching

#### Classroom

Occupancy sensors control all lights together by switching lights on and off in response to room occupancy.



Wireless remote | PowPak | Occupancy sensor

### Simple switching



### Area dimming and sensing

#### Open office

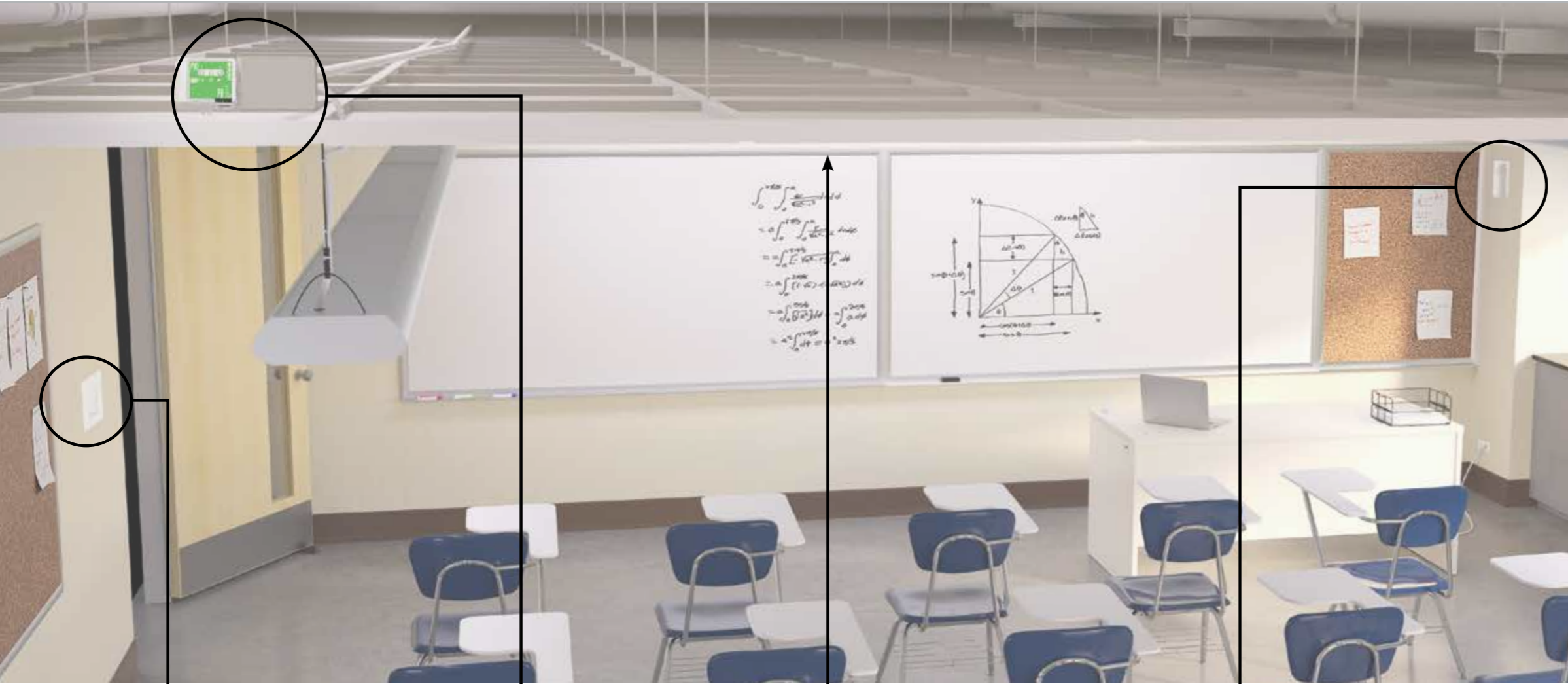
Dim a group of lights together while also providing manual control. Save additional energy with daylight harvesting.



Dimming module | Occupancy sensor | Daylight sensor | Pico remote

### Area dimming and sensing





**Wireless Remote**  
Mount anywhere

**No wires —**  
Put it where it is most accessible  
10-year battery life



**Wireless Load Control**  
Junction box

**Easy Retrofit —**  
PowPak modules mount  
on a standard junction box or  
marshalling box in the ceiling  
to control a group of lights



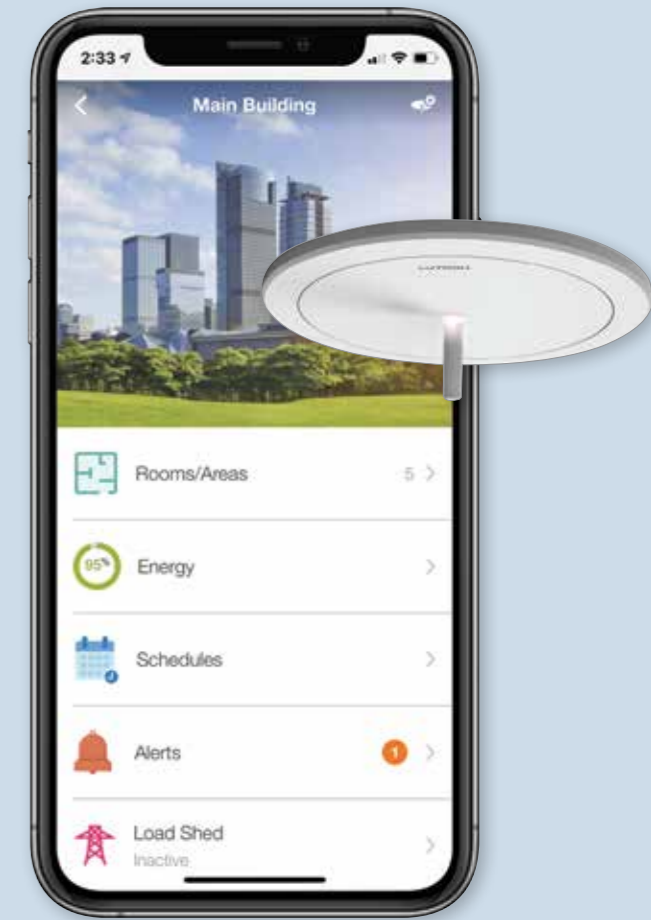
**Wireless Daylight  
Sensor**  
Ceiling mount

**No wires —**  
10-year battery life



**Wireless Occupancy Sensor**  
Corner/ceiling/wall mount

**No wires —**  
Easily mount it anywhere  
10-year battery life



**Vive Wireless Hub**

- Add a Vive Hub to any job for simple set-up, control and monitoring
- Each hub wirelessly communicates with devices in a 929m<sup>2</sup> (10,000 ft<sup>2</sup>) area

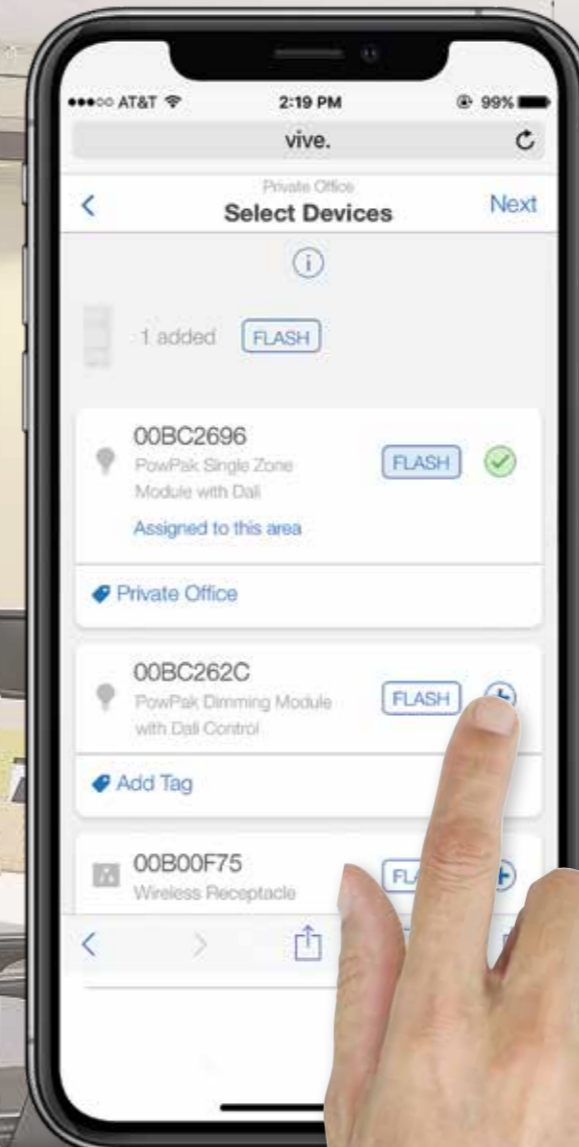
### Simple setup and programming options with the Vive wireless hub

#### Mobile phone setup

Using Vive software on any smart device you can wirelessly connect system controls and program system settings — no ladder required. Lutron's patent pending RF signal strength detection automatically finds nearby devices, making job setup faster.

**1 Press and hold on wireless device**

**2 Automatic fixture identification**  
Lutron patent-pending technology automatically finds and sorts the wireless devices closest to the control.



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 setting a station on your car radio.



PowPak

**Press and hold for 6 seconds**



Occupancy sensor

**Press and hold for 6 seconds**

**It works! Sensor now talks to the wireless dimmer**





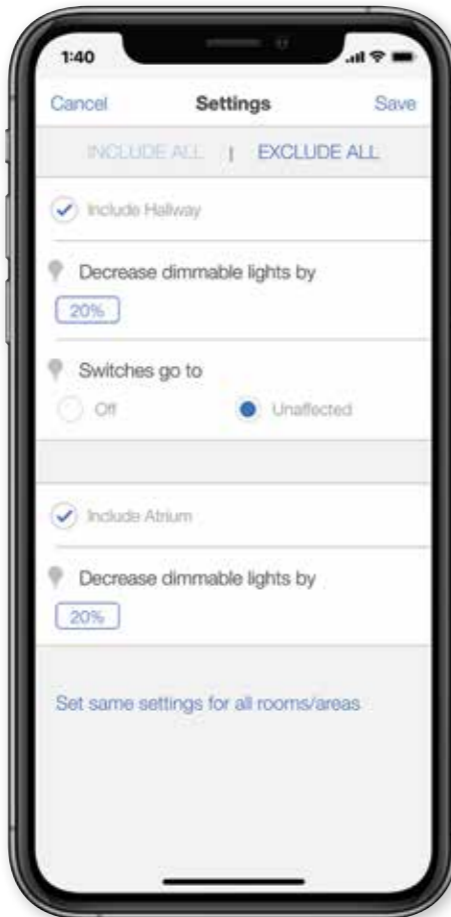
### Energy Reporting

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



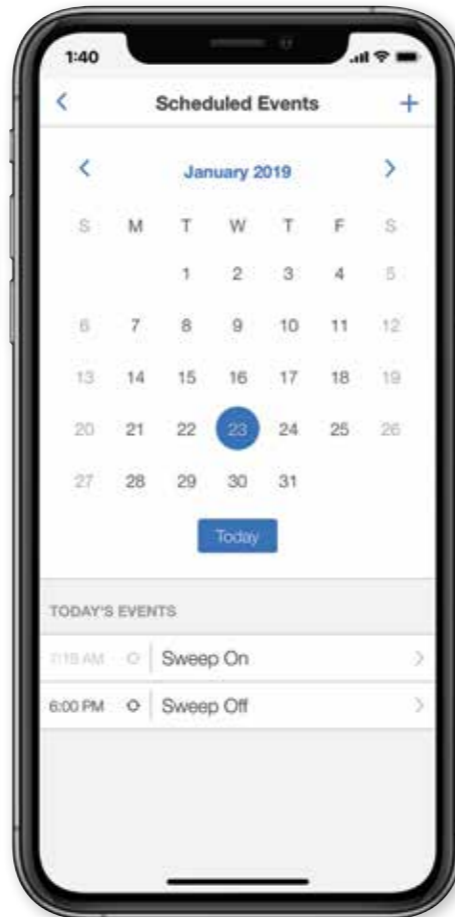
### Load shed Open ADR Compatible

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



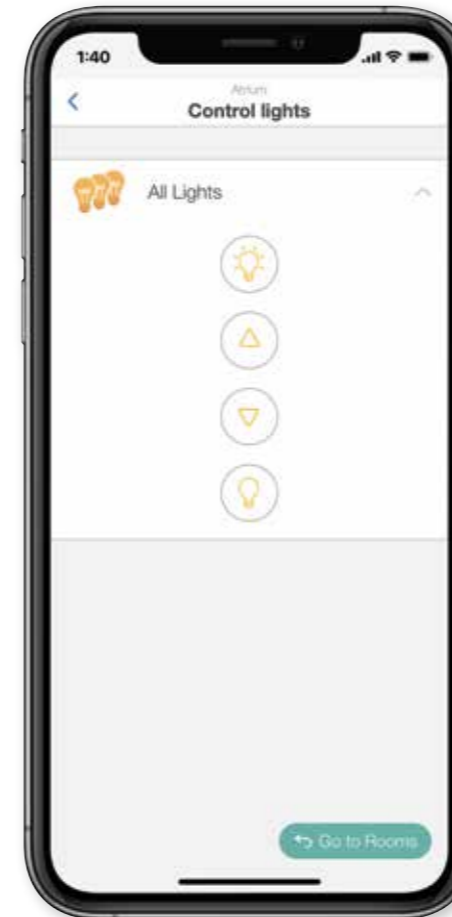
### Schedules

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



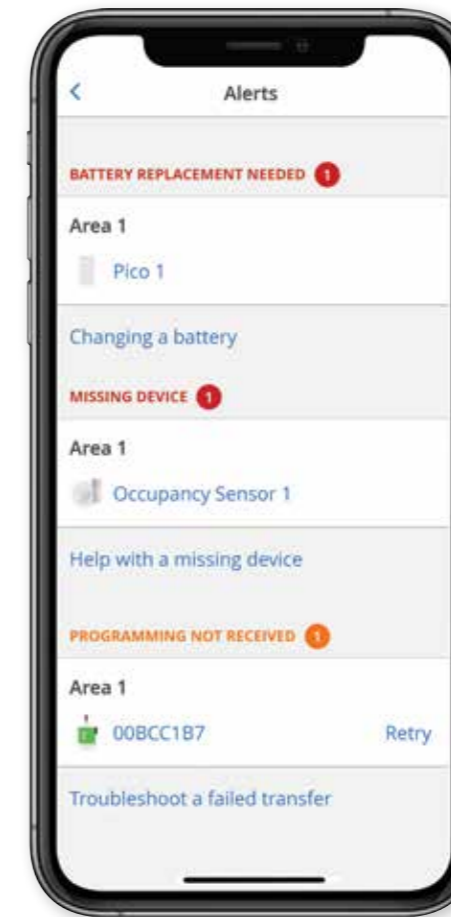
### Light Control

Directly adjust the light levels.



### Alerts

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



## Seamlessly integrate with your building system

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

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



Building/Energy Management Systems (BMS/EMS)

HVAC

Energy Dashboards and Analytics Packages

Audio & Video

API

IT

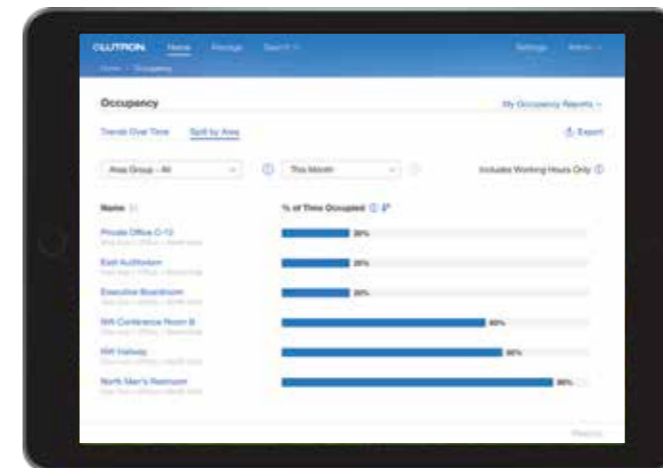
## Vive Vue software

Vive Vue software now provides the ability to tie multiple Vive hubs together in one software interface. Built with the simple, scalable, wireless building blocks of the Vive Wireless system, Vive Vue software now delivers the advanced intelligence necessary for today's smart buildings and the IoT. A smart building is now easier than ever to achieve.



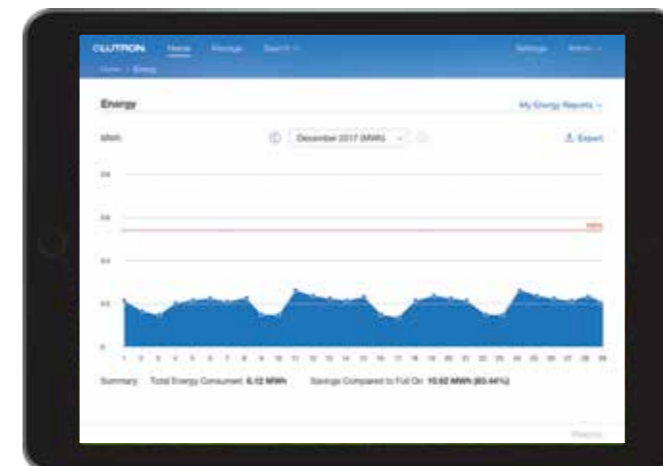
### Intuitive control

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.

### Manage data and operations for multiple Lutron lighting and blind control solutions

- A single data and management platform for your connected buildings
- The system interface delivers a simple, consistent user experience from any PC or tablet
- Open, easy integration with BACnet and web APIs leverages the IoT to enhance smart-building performance

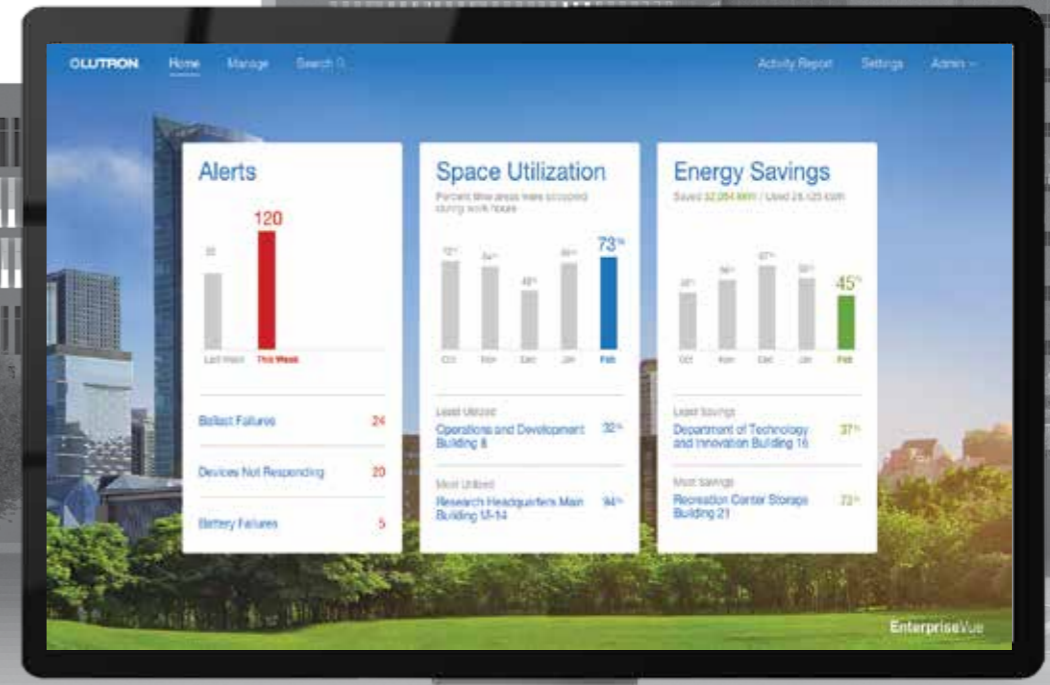
Enterprise Vue

VIVE

VIVE

QUANTUM

QUANTUM



Enterprise Vue home screen



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

Everything we do is backed by Lutron's first, and guiding, 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



### Clear Connect wireless technology

All Lutron wireless products utilize Lutron patented Clear Connect wireless technology, which operates in an uncongested radio frequency band. 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



#### 434 MHz: Lutron Clear Connect wireless technology

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



### Other frequency bands



#### 2.4 GHz: Cordless phones | Bluetooth devices | Wireless security cameras

Other devices operate in congested frequency bands, creating a high potential for wireless interference.



### XCT sensing technology

Lutron's occupancy sensing will not leave occupants in the dark and eliminates callbacks

- Lutron sensors provide exceptional prevention of false-ons and false-offs
- Superior sensitivity – recognises the difference between fine human motion and background noise



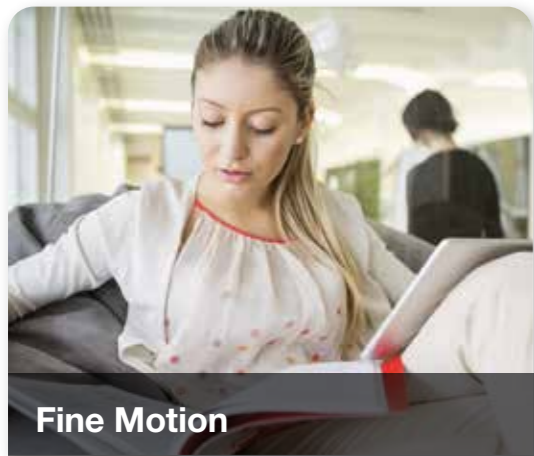
**Major Motion**

Person walking 1 metre (3 feet)



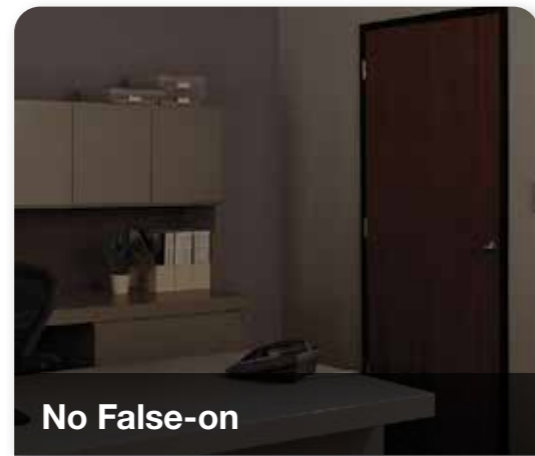
**Minor Motion**

Movements like extending our arms



**Fine Motion**

Small movements like flipping pages of a book



**No False-on**

Lights stay off when room is unoccupied

### Access to tools and resources at your fingertips.

Exclusive access and quick answers keep your project moving.



#### Designer+ for Vive

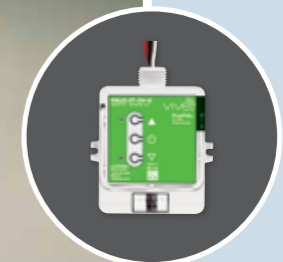
Lutron Designer+ for Vive is an intuitive, easy-to-use software tool that allows you to design a Lutron Vive lighting control system with visual “drag and drop” layout and connections. It also allows you to generate comprehensive system design documentation, including bills of materials, one-line diagrams, and sequence of operations. For **free** access please contact [myLutronSupport@lutron.com](mailto:myLutronSupport@lutron.com).



Vive Installation  
Suncrest Bank — Visalia, California



**Wireless hub**  
page 28



**Wireless load controls**  
page 30



**Wireless remotes**  
page 40



**Wireless Sensors**  
page 44



Vive wireless hub

Dimensions

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



Vive hub power supply

Dimensions

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



Features and benefits

- Communicates with controls on a floor using Lutron wireless Clear Connect technology (range radius of 22 m [71 ft])
- Distributed system architecture
  - Pico remote controls and sensors communicate directly with the load devices they control and must be located within 9 m (30 ft) 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
- Open ADR 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 on the Vive hub, to enable integration with third party devices, systems, and software. RESTful APIs are available over the ethernet.
- Proactive alerts to inform batteries are low or devices may not be working to ensure system operates as expected.

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)

HJS-2-FM Flush mount

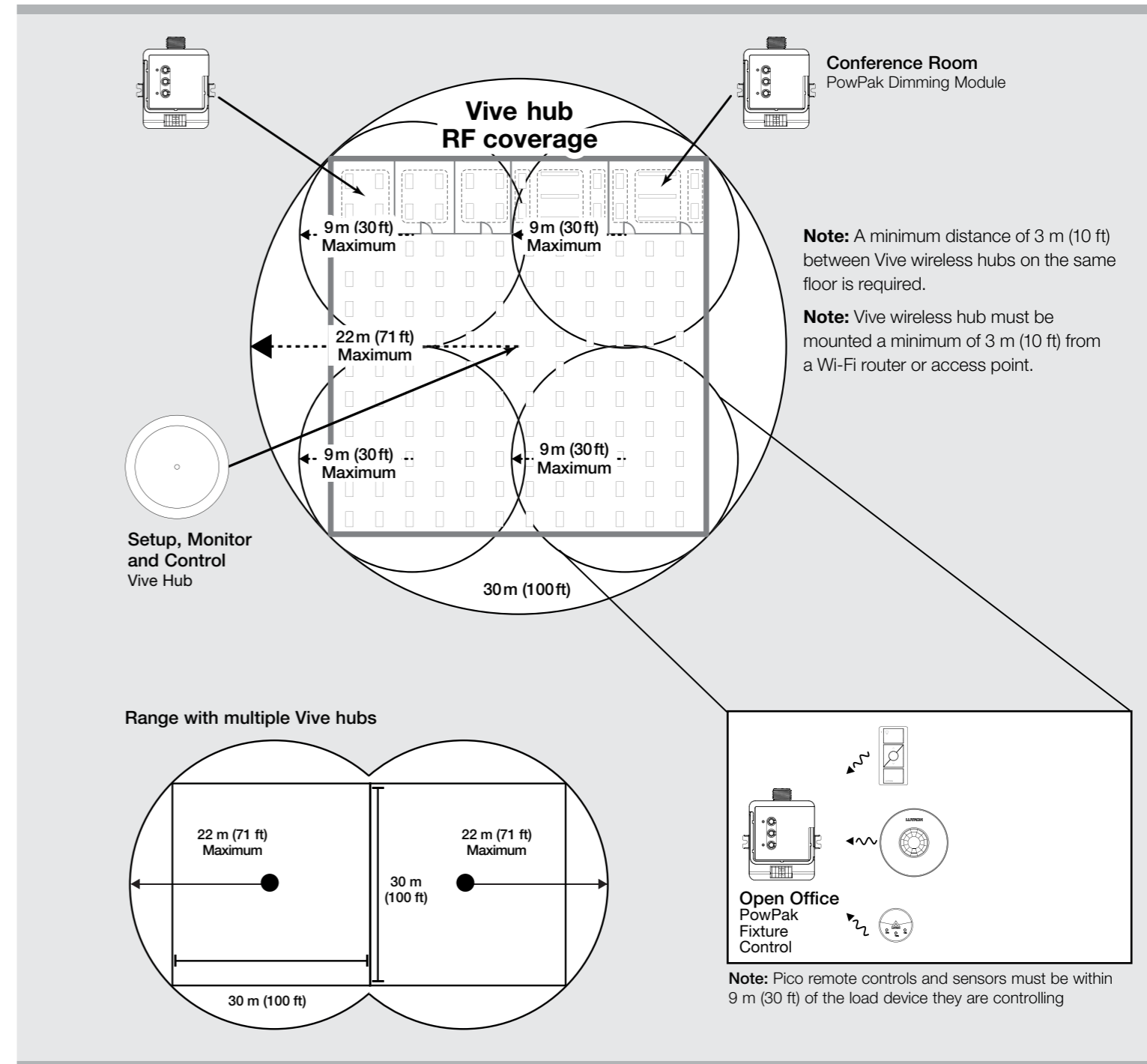
HJS-2-SM Surface mount

HJS-UPDATE Software upgrade license to add BACnet

HJS-DEVICES Software upgrade license expands device limit to 700 devices

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.



**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 connect the Vive wireless hub to the corporate network using the Ethernet connection on the hub, and disable the hub's Wi-Fi.

## Load controllers: J-box mounted switches and dimmers



**PowPak relay module**

### Dimensions

**W:** 72 mm (2.89")  
**H:** 87 mm (3.44")  
**D:** 32 mm (1.25")

### 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
  - 16A:** 1920 W or 1/2 HP @ 120V or 4432 W or 1 1/2 HP @ 277V
  - 5A:** 600 W or 1/6 HP @ 120V or 1385 W or 1/3 HP @ 277V
- **Contact closure output**  
For sending occupancy information to third-party equipment such as HVAC systems
- **Input** 120/277V

### Product options

#### 16A models

**RMJS-16R-DV-B**

**RMJS-16RCCO1-DV-B** One contact closure output

#### 5A models

**RMJS-5R-DV-B**

**RMJS-5RCCO1-DV-B** One contact closure output



**PowPak single zone EcoSystem/DALI**

### Dimensions

**W:** 72 mm (2.89")  
**H:** 87 mm (3.44")  
**D:** 32 mm (1.25")



**In-line dimmer**

### Dimensions

**W:** 46 mm (1.8")  
**H:** 153 mm (6.0")  
**D:** 32 mm (1.25")

### 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/balasts connected to control module will always work together as single zone
- **Input** 120/277V  
Eco System module is also DALI-2 compatible

### Product options

#### EcoSystem single zone

**RMJS-ECO32-SZ**

### How to design and specify

- **One in-line dimmer**  
For each controlled phase dimmable LED, incandescent, halogen, or ELV lighting zone in the space.
- **Control**
  - 1A:150W:** Trailing edge capable, phase dimmable LED
  - 1A: 250W:** Incandescent, halogen, ELV loads
- **Input** 220–240 V~ 50/60 Hz

### Product options

#### In-line dimmer

**RMQS-250NE** Trailing edge capable, phase dimmable LED, incandescent, halogen, ELV loads



## Load controllers: J-box mounted switches and dimmers



**PowPak dimming module with 0-10V control**

**Dimensions**

W: 72mm (2.89")  
 H: 87mm (3.44")  
 D: 32mm (1.25")

### How to design and specify

- **One dimming module with 0-10V control**  
 For each controlled 0-10V lighting zone in the space
- **Control**  
**8A:** 0-10V controlled fixtures and switches compatible with third-party 0-10V fluorescent ballasts, LED drivers, and fixtures
- **Input** 120/277V
- **0-10V Link:** Communicates with up to 60 mA of fixtures

### Product options

**8A models with 0-10V control**

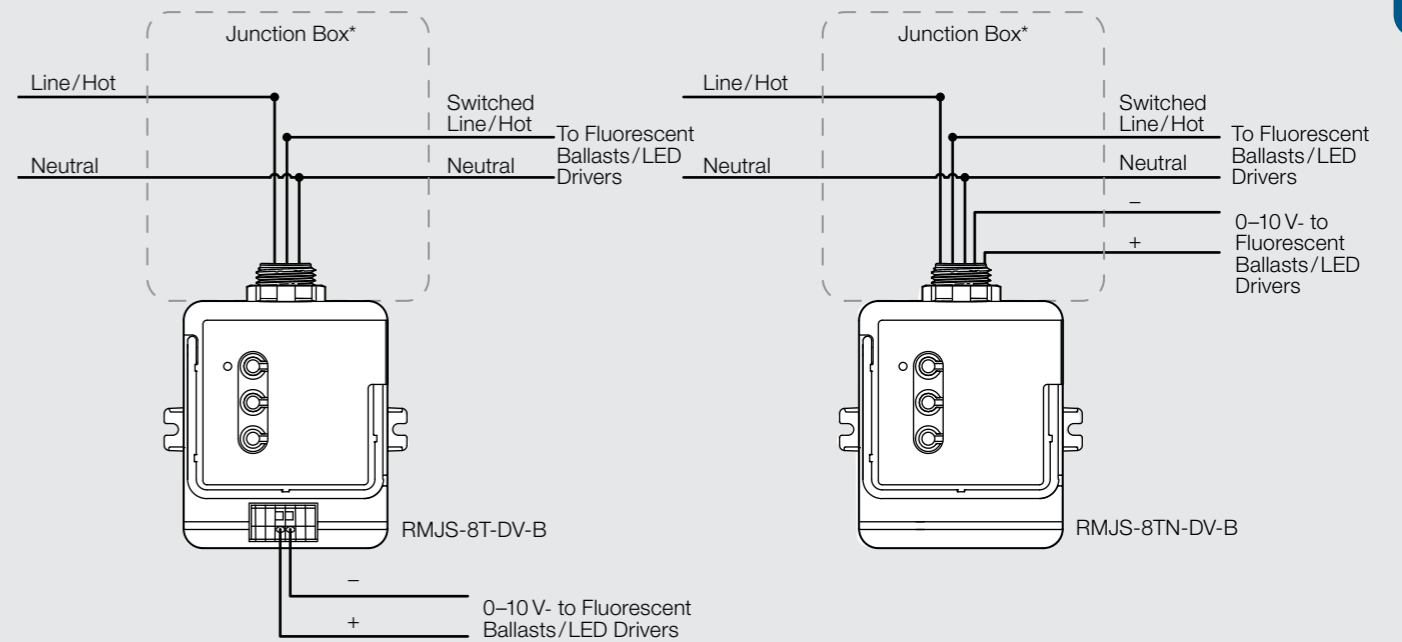
RMJS-8T-DV-B

RMJS-8TN-DV-B

### How it works

Two versions of the PowPak 0-10V are available that 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 0-10V wires coming out of the threaded end, optimized for wiring inside a junction box and used for when the 0-10V wires are run in the cable or conduit with the Class 1 wiring. Both versions can have the 0-10V control wires be installed using NEC® Class 1 or Class 2 wiring methods.

### Wiring Schematic



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



**PowPak contact closure output module**

**Dimensions**

W: 72mm (2.89")

H: 87mm (3.44")

D: 32mm (1.25")

How to design and specify

- **One contact closure output module**  
For each additional contact closure output you require

Product options

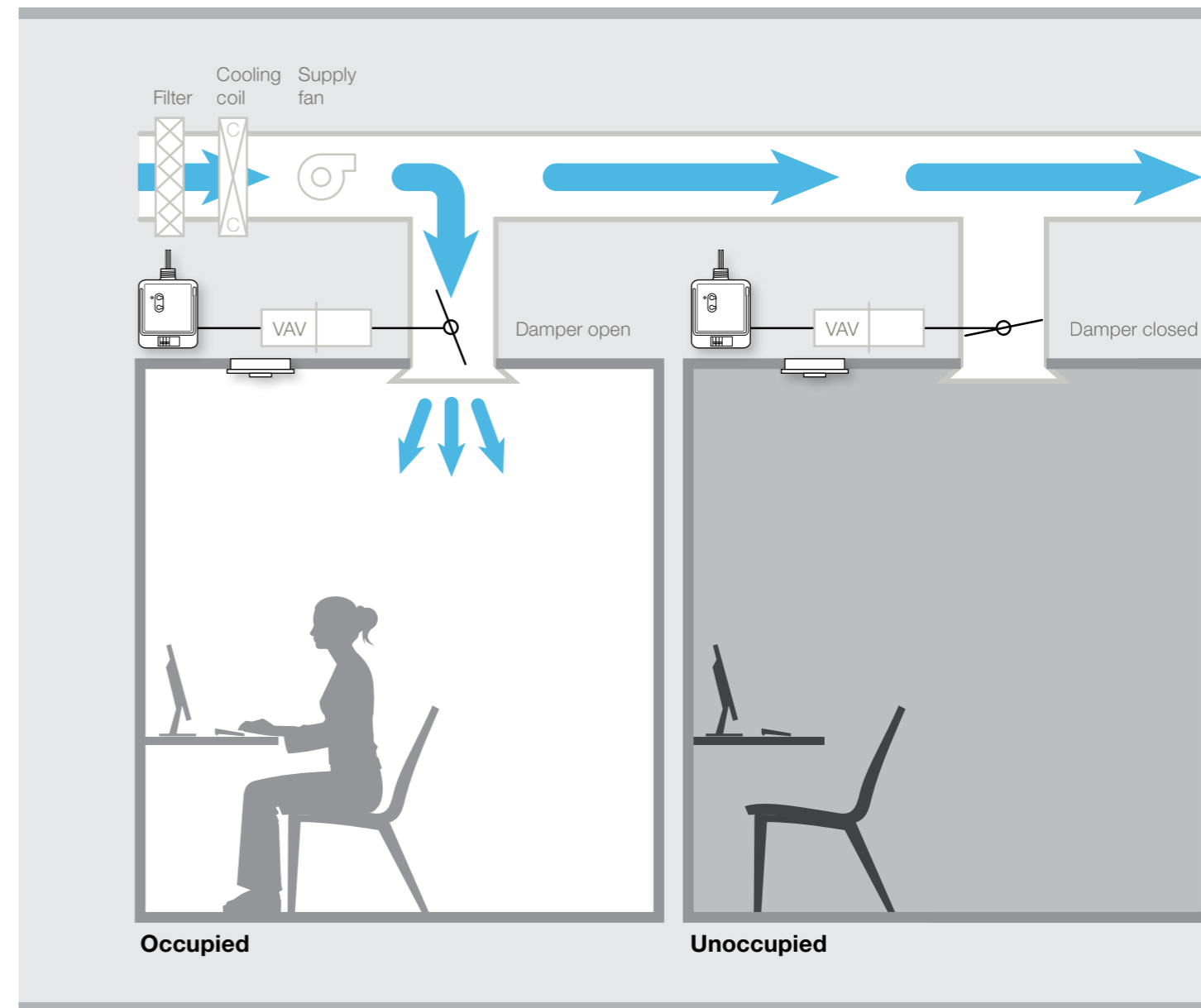
**Standard**

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

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

Load controllers

## Load controllers: Plug load control



**PowPak relay module**

**Dimensions**

**W:** 72mm (2.89")  
**H:** 87mm (3.44")  
**D:** 32mm (1.25")

### How to design and specify

- **One relay module**  
For each 20A receptacle circuit you want to control
- **Input** 120/277V

### Product options

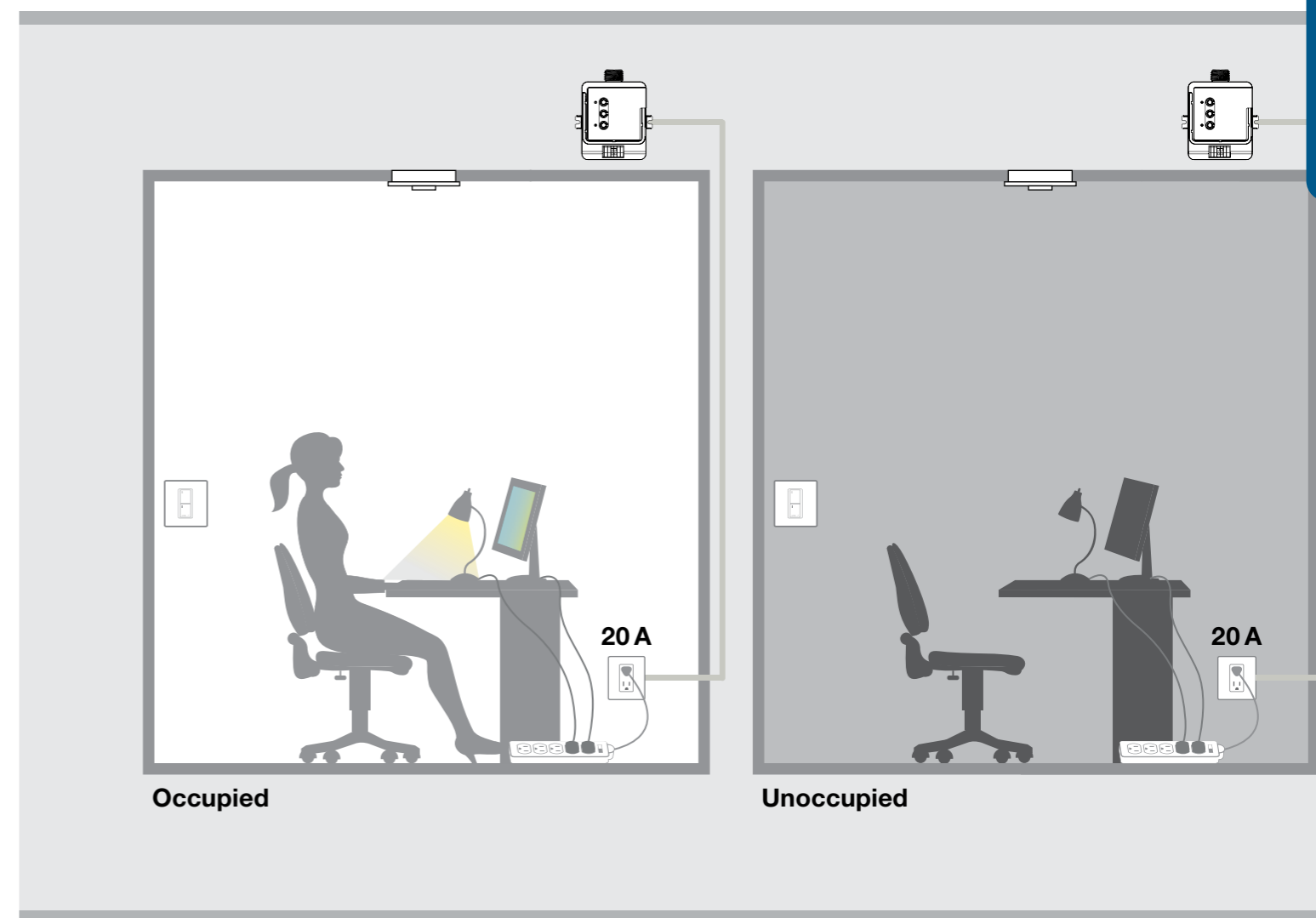
**20A models**

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

### How it works

Plug loads, such as task lighting, computer monitors, and printers, account for greater than 5% of commercial electricity usage<sup>3</sup>. 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.



Load controllers



For a list of sources please visit [lutron.com/references](http://lutron.com/references).



Vive Wireless fixture controller

### Sensor Dimensions

- W: 72mm (2.89")
- H: 87mm (3.44")
- D: 32mm (1.25")

## How to design and specify

- **One PowPak wireless fixture control**  
For each fixture in the space
- **Controls** 1A of load 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

### 0-10V 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

## How it works

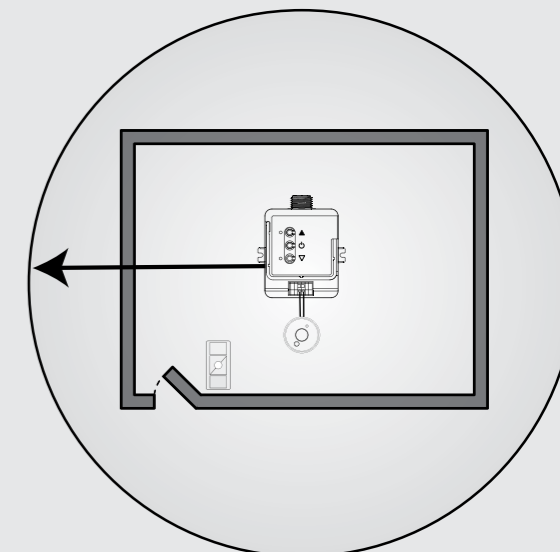
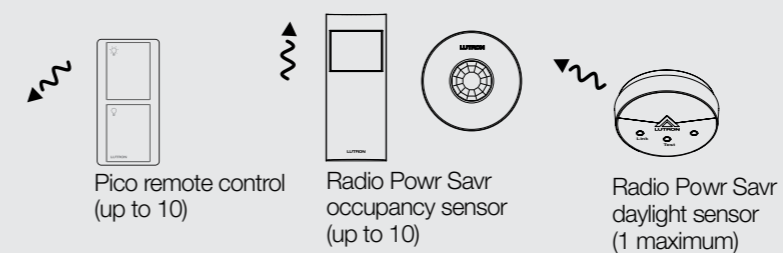
Install the fixture control directly to a fixture or on a junction box nearest to the fixture. Install the sensor on the ceiling near the fixture to optimize coverage in the desired area.

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

## Fixture sensor coverage diagrams

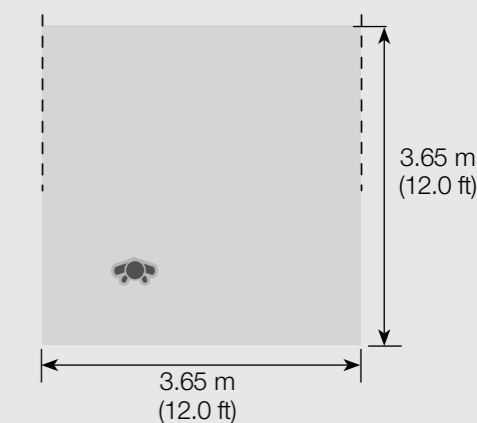
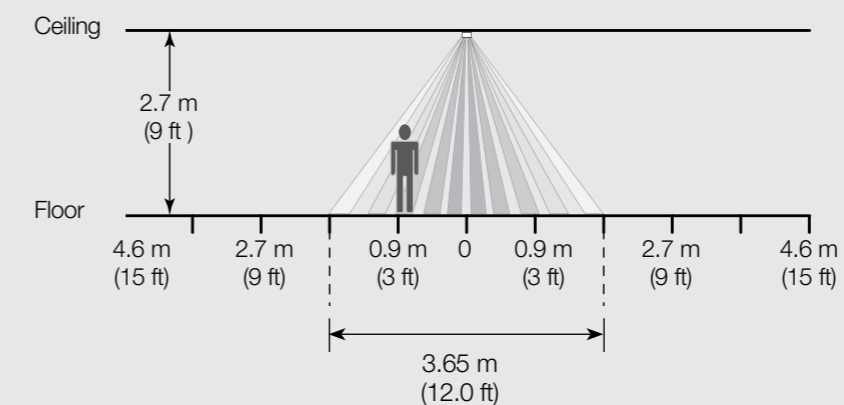
Applies to both products

### Clear Connect (RF)



### XCT Occupancy/Vacancy sensing

#### Range Diagrams



## Remotes: Pico wireless remotes



### Pico wireless remotes

3-button with raise/lower      3-button



2-button with raise/lower      2-button

### Dimensions

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

## 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

**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

**PQ2-2BRL-TXX-L01**      2-button with raise/lower wireless remote

**PQ2-2B-TXX-L01**      2-button wireless remote

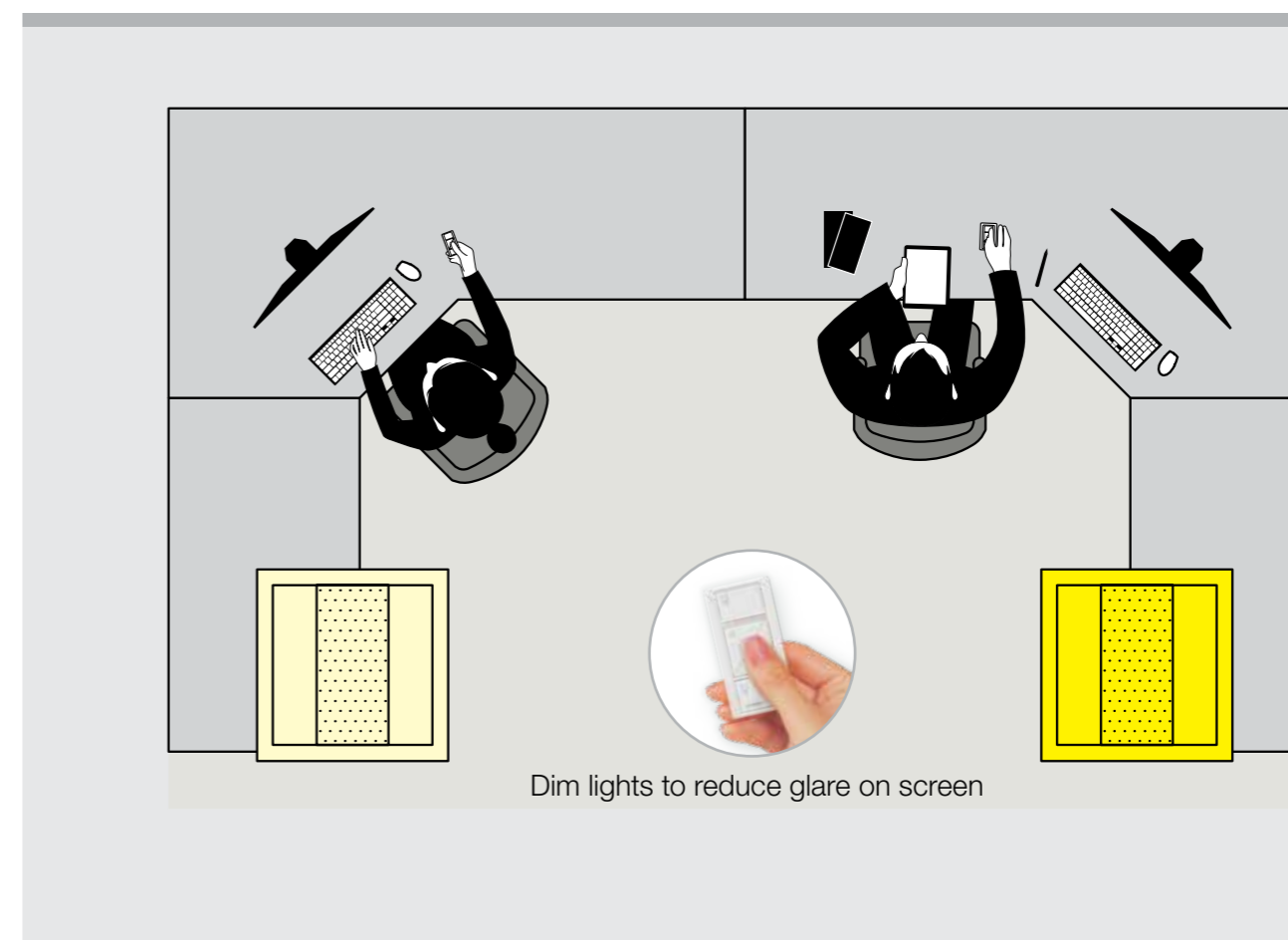
### 3-button remotes

**PQ2-3BRL-TXX-L01**      3-button with raise/lower wireless remote

**PQ2-3B-TXX-L01**      3-button wireless remote

## 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 remote



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



Raise lights for reading visibility

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

## Remotes: Pico wireless remotes and accessories



### Pico wireless remotes

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

### Dimensions

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

## 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

PQ2-4B-TXX-L21P	2-group control
PQ2-4B-TXX-L01	Zone control
PQ2-4B-TXX-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) and 4-Group Toggle (-L41) controls are not offered with the custom engraving option).

Button Marking Codes	Standard Engraving	Custom Engraving
<b>Zone Control</b>		
Lights	-L01	-EL1
Blinds	-S01	-ES1
<b>Scene Control</b>		
Lights	-L31	-EL2
Blinds	-S31	-ES2



### Tabletop accessories

## 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-XX	pedestal for one Pico remote
L-PED2-XX	pedestal for two Pico remotes
L-PED3-XX	pedestal for three Pico remotes



### Wall-mount accessories

Pico wallplate adapter and wallplate

### Dimensions

**W:** 89mm (3.50")  
**H:** 89mm (3.50")  
**D:** 10mm (0.38")

## How to design and specify

- Select one Pico wallbox adapter for each Pico that you would like wall mounted with a wallplate

## Product options

### Wall-mount accessories

LPFP-S1-TXX	International Pico 1 column wallplate
LPFP-S2-TXX	International Pico 2 column wallplate

## Sensors: Ceiling occupancy/vacancy sensors



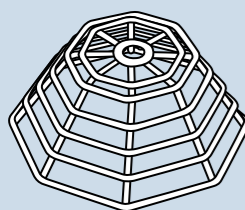
### Wireless occupancy/vacancy sensors

#### Dimensions

W: 91 mm (3.57")

H: 91 mm (3.57")

D: 29 mm (1.13")



### Wire cage guard

#### Dimensions

W: 178 mm (7.0")

D: 83 mm (3.25")

## 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 2.4 m (8 ft) ceilings: 44.9 m<sup>2</sup> (484 ft<sup>2</sup>)
- For 3.7 m (12 ft) ceilings: 62.4 m<sup>2</sup> (676 ft<sup>2</sup>)
- Settings adjustable to change behaviour including occupancy to vacancy sensing, occupied and unoccupied levels
- Timeout options include: 30 min, 15 min (default), 5 min

## Product options

### Ceiling-mount sensors

LRF7-OCR2B-P-WH      Occupancy/vacancy

### Accessories

L-CMDPIRKIT      Ceiling-mount sensor lens masking kit

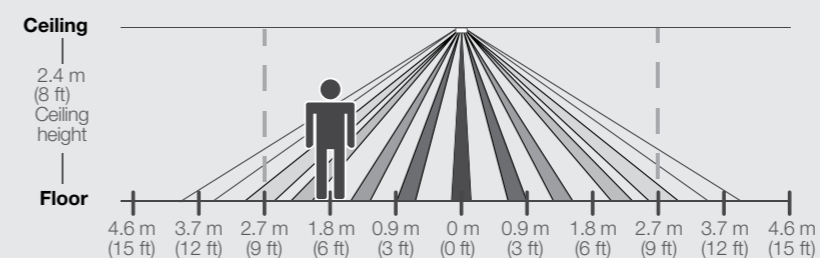
L-CRMK-WH      Ceiling-mount sensor recess-mounting bracket

L-WIRECAGE-C      Wire guard for ceiling-mount sensor

## Sensor coverage diagrams

### Ceiling mount, 360°

#### Floor view



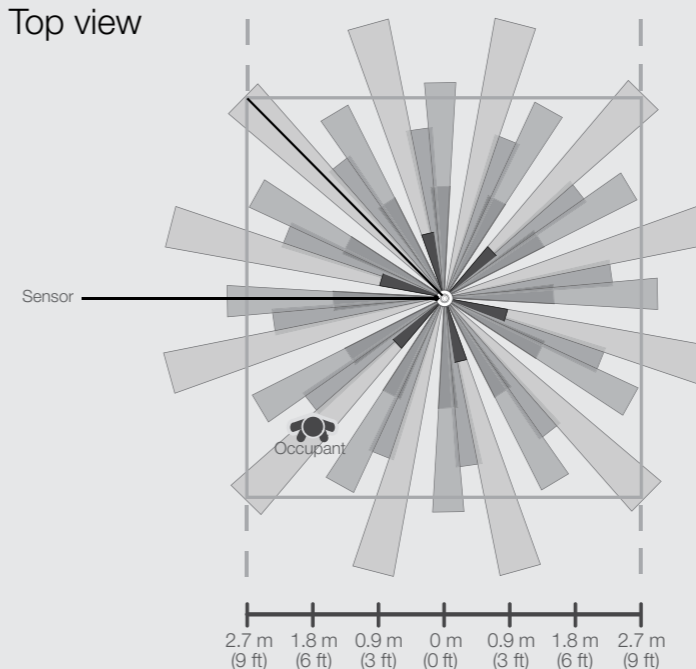
Coverage varies by ceiling height

#### Key:

■ Minor motion

■ Major motion

#### Top view



### Ceiling-mount sensor coverage chart (for sensor mounted in centre of room)

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

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

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

## Sensors: Wall-/Hall-/Corner-mount occupancy/vacancy sensors



### Radio Powr Savr Wireless sensors

#### Dimensions

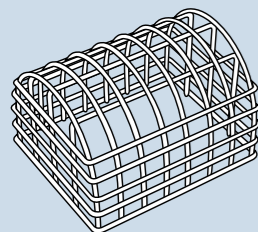
**W:** 46mm (1.8")  
**H:** 110mm (4.35")  
**D:** 34mm (1.35")



### Flexible armature mounting kit

#### Dimensions

**W:** 92mm (3.62")  
**H:** 55mm (2.18")



### Wire cage guard

#### Dimensions

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

## 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: 278.7 m<sup>2</sup> (3,000 ft<sup>2</sup>)

**LRF7-OWLB-P-WH**      Occupancy/vacancy

### Corner-mount sensors

- Use in medium to large open rooms with few tall obstructions
- Coverage: 232 m<sup>2</sup> (2,500 ft<sup>2</sup>)

**LRF7-OKLB-P-WH**      Occupancy/vacancy

### Hallway sensors

- For a 1.82 m (6 ft) wide hallway: 15.24 m (50 ft) coverage
- For a 3.0 m (10 ft) wide hallway: 45.72 m (150 ft) coverage

**LRF7-OHLB-P-WH**      Occupancy/vacancy

### Accessories

**LRF-ARM-WH**      Flexible armature mounting kit for Radio Powr Savr wall, hall, corner sensors

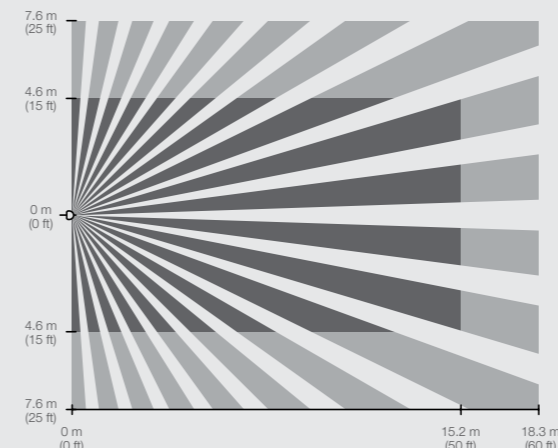
**L-WIRECAGE-W**      Wire guard for in-wall sensor

## Sensor coverage diagrams

### Wall mount\*, 180°

139.4 m<sup>2</sup> (1,500 ft<sup>2</sup>)—minor motion  
278.7 m<sup>2</sup> (3,000 ft<sup>2</sup>)—major motion

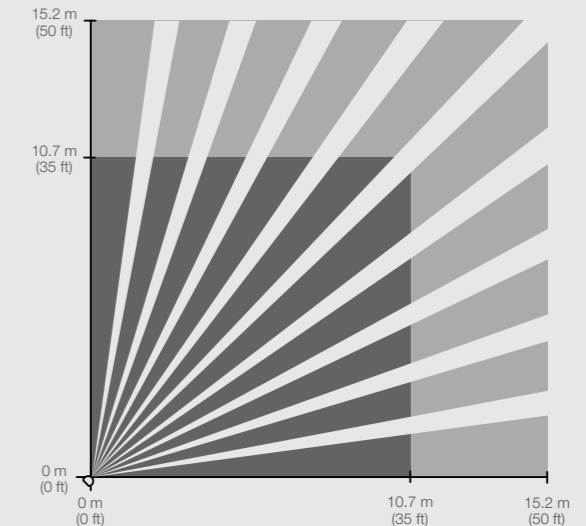
#### Top view



### Corner mount\*, 90°

113.8 m<sup>2</sup> (1,225 ft<sup>2</sup>)—minor motion  
232.3 m<sup>2</sup> (2,500 ft<sup>2</sup>)—major motion

#### Top view



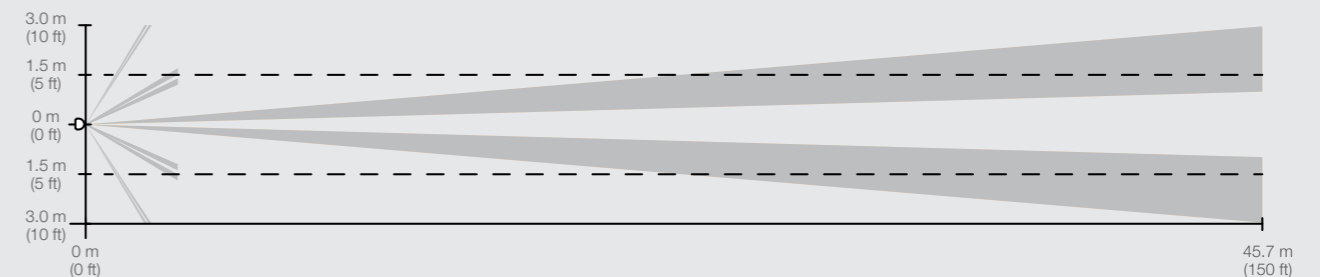
#### Key:

- 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
1.8 m (6 ft) or less	15.2 m (50 ft)
2.4 m (8 ft)	30.5 m (100 ft)
3.0 m (10 ft) or more	45.7 m (150 ft)

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

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





**Wireless daylight sensors**

**Dimensions**

**W:** 41 mm (1.6")

**H:** 41 mm (1.6")

**D:** 17 mm (0.7")

**How to design and specify**

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

**Product options**

**Daylight sensor**

<b>LRF7-DCRB-WH</b>	Daylight sensor
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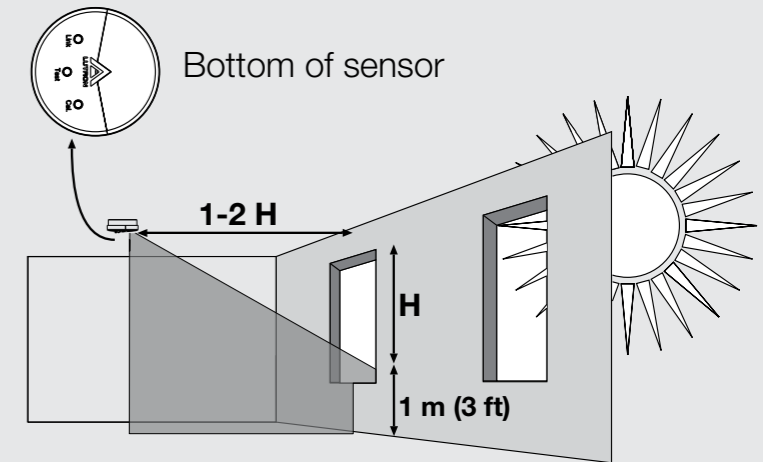
\* Sensor mounting shown at 7 ft (2.1 m). Mounting height should be between 6 and 8 ft (1.6 and 2.4 m).

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

**Sensor coverage diagrams**

**Location for average size areas**

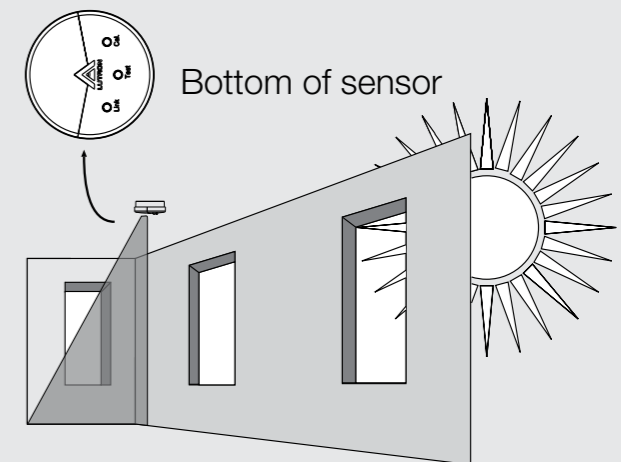
Arrow points towards the area viewed by the sensor (towards windows).



**H** = Effective Window Height

**Location for narrow areas (corridors, private offices)**

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





**Full-scope startup**

- Onsite
- Remote

## Available startup services

### Onsite full-scope startup

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

## Product options

### Setup service models

#### Full scope startup

<b>LSC-OS-SU-VIVE</b>	Onsite full-scope startup
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#### Startup enhancements (Available with onsite full-scope startup)

<b>LSC-AH-SU</b>	Startup performed at night or weekends (weekend work available in certain locations)
<b>LSC-SENS-LT</b>	Sensor layout & tuning
<b>LSC-SPV-DOC</b>	System performance — verification documentation

Commercial System Limited Warranty 1 year limited warranty. The customer can register the product to increase the warranty period from 1 year to 5 years.



**Operational services**

- Solution training
- System optimisation
- Onsite reconfiguration

## Available Operational Services

- Support from Lutron to maximise 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

<b>LSC-TRAINING</b>	Customer-site solution training
<b>LSC-SYSOPT</b>	System optimisation service
<b>LSC-OS-PROG8-EN</b>	8 hours of onsite reconfiguration support
<b>LSC-OS-PROG4-EN</b>	4 hours of onsite reconfiguration support

Onsite services are also available for purchase after the system is in operation at hourly, half-day and full-day rates; contact Lutron at [lscwarranty@lutron.com](mailto:lscwarranty@lutron.com) for more information.

Model Number	Description
<b>Vive wireless hub</b>	
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



<b>Vive Vue Dashboard Software</b>	
VIVE-VUE	Vive Vue Software Dashboard License
HJS-UPDATE	Software upgrade license to add BACnet
HJS-DEVICES	Software upgrade license expands device limit to 700 devices

<b>PowPak relay module</b>	
RMJS-5R-DV-B	5A relay
RMJS-5RCCO1-DV-B	5A relay with one contact closure output
RMJS-16R-DV-B	16A relay
RMJS-16RCCO1-DV-B	16A relay with one contact closure output



<b>In-line dimmer</b>	
RMQS-250NE	Controls up to 150 W of phase dimmable LED & up to 250 W of incandescent, halogen, or ELV loads



<b>PowPak dimming module</b>	
RMJS-8T-DV-B	8A 0-10 V controller-connector
RMJS-8TN-DV-B	8A 0-10 V controller-flying leads
RMJS-ECO32-SZ	Single zone EcoSystem/DALI controller



<b>PowPak contact closure output module</b>	
RMJS-CCO1-24-B	One contact closure output

Model Number	Description
<b>Individual fixture controller</b>	
FCJS-010	0-10 V Control Module
FCJS-ECO	Ecosystem Control Module
FC-SENSOR*	Occupancy/ Daylight Sensor
FC-VSENSOR	Vacancy/ Daylight Sensor



<b>Pico wireless remotes</b>	
PQ2-2BRL-TXX-L01	2-button with raise/lower
PQ2-2B-TXX-L01	2-button
PQ2-3BRL-TXX-L01	3-button with raise/lower
PQ2-3B-TXX-L01	3-button
PQ2-4B-TXX-L21	4-button with 2 group control
PQ2-4B-TXX-L01	4-button with zone control
PQ2-4B-TXX-L31	4-button with scene control



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

<b>Pico accessories</b>	
L-PED1-XX	Pico wireless remote single pedestal
L-PED2-XX	Pico wireless remote double pedestal
L-PED3-XX	Pico wireless remote triple pedestal



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

## Pico Colours

### Colours

- White (AW)
- Black (BL)



Model Number	Description
<b>Radio Powr Savr occupancy/vacancy sensors*</b>	
LRF7-OCR2B-P-WH	Ceiling-mount, 360° field-of-view, occupancy/vacancy sensor
LRF7-OWLB-P-WH	Wall-mount, 180° field-of-view, occupancy/vacancy sensor
LRF7-OKLB-P-WH	Corner-mount, 90° field-of-view, occupancy/vacancy sensor
LRF7-OHLB-P-WH	Hallway, occupancy/vacancy sensor
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



<b>Radio Powr Savr daylight sensor</b>	
LRF7-DCRB-WH	Ceiling-mount daylight sensor



<b>Wallplates*</b>	
LPFP-S1-TXX	Pico 1 column wallplate
LPFP-S1-TXX	Pico 2 column wallplate

\* (XX in the model number represents colour/finish code)

Notes

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## **WORLDWIDE HEADQUARTERS**

Lutron Electronics Co., Inc.  
7200 Suter Road  
Coopersburg, PA 18036-1299  
USA  
Toll-free: 1 888 LUTRON1  
TEL: +1 610 282 3800  
FAX: +1 610 282 1243  
intsales@lutron.com

## **EUROPEAN HEADQUARTERS**

Lutron EA Ltd.  
4th Floor  
52 Leadenhall Street  
London EC3A 2EB, UK  
Phone: +44 (0)20 7702 0657  
Toll Free: 0800 282 107  
Fax: +44 (0)20 7480 6899  
lutronlondon@lutron.com

## **ASIAN HEADQUARTERS**

Lutron GL Ltd.  
390 Havelock Road  
#07-04 King's Centre  
Singapore 169662  
TEL: +65 6220 4666  
FAX: +65 6220 4333  
lutronsea@lutron.com

## **INTERNATIONAL OFFICES**

### **Brazil: São Paulo**

TEL: +55 11 3257 6745

### **China: Beijing**

TEL: +86 10 5925 1340

### **China: Guangzhou**

TEL: +86 20 2885 8378

### **China: Hong Kong**

TEL: +852 2104 7733

### **China: Shanghai**

TEL: +86 21 6165 0990

### **Colombia: Bogotá**

TEL: +57 1 467 2760

### **France: Paris**

TEL: +33 1 56 59 16 64

### **Germany: Berlin**

TEL: +49 309 710 4590

### **India: Bangalore**

TEL: +91 80 6759 0485

### **India: Mumbai**

TEL: +91 22 4070 0867

### **India: Gurgaon (New Delhi)**

TEL: +91 124 439 0130

### **Italy: Milan**

Tel: +39 800 979 208

### **Japan: Tokyo**

TEL: +81 3 6866 8444

### **Mexico: Chihuahua**

TEL: +1 610 282 6701

### **Russia: Moscow**

TEL: +7 495 649 6094

### **Saudi Arabia: Riyadh**

TEL: +966 1 466 1546

### **South Africa: Johannesburg**

TEL: +27 (0) 83 731 0066

### **Spain Madrid**

TEL: +34 915 678 479

### **UAE: Dubai**

TEL: +971 4 299 1224

For all the resources including videos  
for Vive wireless solutions, please visit  
**[lutron.com/vive](http://lutron.com/vive)**

### **lutron.com**

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

### **Customer Assistance**

Online: [lutron.com/help](http://lutron.com/help)

Email: [support@lutron.com](mailto:support@lutron.com)

Phone: 1.844.LUTRON1 (588.7661) — includes 24/7 technical support

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