Vive Application Guide

Wireless lighting control solutions at an affordable price
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## Applications

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Why Lutron?
Lutron is a global organisation committed to delivering value to its customers. We developed the first solid state dimmer. Today, we continue to develop innovative, energy-saving lighting control solutions that provide flexibility, ambiance, and comfort in residential and commercial applications.

The company offers:
- Proven technology: 2,500 active patents
- Upfront project service support
- After-sales support
- Reduced end-user callbacks
- Products designed and manufactured for reliability with 100% pre-shipment inspection
- Significant portfolio to cover all your project requirements: +15,000 SKUs

Why Invest in Lighting Controls?

Occupant comfort — Increased productivity and well being
Meet demand — Lighting controls are growing in popularity to improve the aesthetics, functionality, and value of any space
Increase revenue — Lighting controls provide an additional revenue opportunity for the contractor
Comply with legislation — Evolving rules are requiring stricter requirements for energy efficiency, while allowances are also being made for lighting controls

Energy-saving lighting control strategies

<table>
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<tr>
<th>Strategy</th>
<th>Potential savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occupancy/vacancy sensing</td>
<td>20–60% Lighting</td>
</tr>
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<td>Daylight harvesting</td>
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</tr>
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<td>Scheduling</td>
<td>10–20% Lighting</td>
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<td>Load shedding</td>
<td>30–50% During peak period</td>
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<td>High-end trim/tuning</td>
<td>10–30% Lighting</td>
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<tr>
<td>Personal dimming control</td>
<td>10–20% Lighting</td>
</tr>
<tr>
<td>HVAC integration</td>
<td>5–15% HVAC</td>
</tr>
</tbody>
</table>

*Go to lutron.com/references for more information

Lutron Product Capabilities: Commercial Applications

Local Solutions | Vive | Vive with wireless hub* | Energi Savr Node | Quantum
---|---|---|---|---
Wallbox | | | |
Vive | | | |
Vive with wireless hub* | | | |
Energi Savr Node | | | |
Quantum | | | |

Occupancy sensing
Multi-level lighting control
Daylight harvesting
Timeclock
Demand response
Energy monitoring
BACnet integration

* For the latest information on products compatible with the Vive wireless hub go to lutron.com/vive-europe.
** Requires QS timeclock.
† Automated Demand Response capability requires signal from a third-party device.

Annual electricity use in commercial buildings

Lighting | Cooling and Ventilation | Heating | Office Equipment | Other
---|---|---|---|---
20.8% | 21.2% | 26.1% | 5.8% | 26.1%
0 | 5 | 10 | 15 | 20

Lutron solutions can help your clients save energy

Save 60% of lighting energy
Save 5-15% of HVAC energy
Define your space

The appropriate control solution is defined by the needs of the space and its occupants. Use the following steps to plan and design an ideal energy-saving solution.

Step 1

Control your loads

- Select the controller appropriate for the loads on your job
- Options available for:
  - 0–10V, DALI
- Simply wire control with power into your circuit.

Step 2

Control your lights where you need to

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

Step 3

Add sensors to your job

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

Flexible, wireless controls and sensors for simple, scalable design

Add wireless hubs for centralised control and integration (optional)
This application guide is designed to help specifiers and contractors understand Lutron controls in a simple manner. Each of the pages will lay out different spaces, the corresponding lighting control products for those spaces, and the way the system is set up in the space.

**For Specifiers**
Use this application guide for design suggestions, to understand the way the system operates and to specify the relevant products for each space.

**For Contractors**
Use this application guide to understand how the system is installed, the way the system must operate, and to order the correct products for each application.

### Room type

[Select Room Type]

### Type of solution

[Select Type of Solution]

---

**This guide offers up to three solutions per space type.**

- **Switching:** Basic functionality and energy savings.
- **Dimming:** Increased control, ambiance, and energy savings.
- **The Recommended Solutions** have advanced functionality for greater comfort and energy savings.

### School Classroom | Dimming

#### Visible System Components

- Rico wireless control
- Radio-Powr Spur wireless control: moveable occupancy sensor and daylight sensor

#### Control Functionality

**Occupant Enters:** Lights do not automatically turn on when an occupant enters the space; lights must be turned on manually. Maximum light level is set to 80%.

**When Occupied:** Automatic Overhead lights dim/harden based on daylight availability. There is one perimeter daylight zone.

**Manual Occupant:** Users can dimmer to set desired light levels for both general and whiteboard lights.

**Occupant Exit:** All lights automatically shut off 10 minutes (by default) after all occupants exit.

Add a Vise wireless hub to enable simple setup and existing system monitoring, feedback functionality, and advanced integration.

#### Control Strategies

- **High-end Trim/Tuning**
- **Daylight Harvesting**
- **Personal Dimming**

#### Lighting Energy Savings*

60%

*Go to lutron.com/references for more information.

---

Learn more about the products used in the space.
Learn about the products visible in the space and the different options available for these.
Learn what energy savings you achieve over manual shut-off.
Understand how the space functions with the installed system.
This is a high-level overview of the local solutions layout. For individual room requirements refer to the detailed room type solutions in this guide. A single PowPak module can control single or multiple fixtures. The products shown here are representative of local solutions. Multiple product options are available to meet the needs of the space.

**Vive wireless hub features:**
- Central control, management, and monitoring of Vive devices via web browser
- Supports astronomic and time-of-day events
- Two contact closure inputs for third-party integration, such as Automatic Demand Response
- Wi-Fi access for easy commissioning
- Control up to 929 m² (10,000 sq. ft.) with a single hub
- Optional BACnet integration

* Go to lutron.com/vive-asia for complete compatibility and design details.
Visible System Components

Lighting Functionality

**Occupant Enters:**
All lights automatically turn on.

**When Occupied:**
Manual: Occupant uses wall switches to turn zones on and off.

**Occupant Exits:**
All lights automatically shut off 15 minutes (by default) after all occupants exit.

Add a Vive wireless hub to enable simple setup and re-zoning, system monitoring, timeclock functionality, and advanced integration.

Control Strategies

**Occupancy/Vacancy**

- **Partial On Auto Off**
- **Occupancy/Vacancy**

---

**Lighting Energy Savings***

35%

* Go to lutron.com/references for more information.
Visible System Components

- Pico wireless control
- Radio Powr Savr wireless ceiling-mount occupancy sensor and daylight sensor

Lighting Functionality

**Occupant Enters:**
All lights automatically turn on to maximum light level. Maximum light level is set to 80%.

**When Occupied:**
- Automatic: Overhead lights dim/brighten based on daylight availability. There is one perimeter daylight zone.
- Manual: Occupant uses wall dimmers to set desired light levels for all lights.

**Occupant Exits:**
All lights automatically shut off 15 minutes (by default) after all occupants exit.

Control Strategies

- Occupancy/Vacancy
- Daylight Harvesting
- High-end Trim/Tuning

Control Strategies

Add a Vive wireless hub to enable simple setup and rezing, system monitoring, timeclock functionality, and advanced integration.

Lighting Energy Savings*

55%

* Go to lutron.com/references for more information.

<table>
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<tr>
<th>Symbol</th>
<th>Model Number</th>
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<td>LPFP-S2-TAW</td>
<td>Pico Wireless Faceplate (Dual)</td>
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</table>
Visible System Components

- Pico wireless switch
- Radio Powr Savr wireless ceiling-mount occupancy sensor

Control Functionality

**Occupant Enters:**
Lights do not automatically turn on when an occupant enters the space; lights must be turned on manually.

**When Occupied:**
Manual: Occupant uses wall switch to turn on and turn off all lights.

**Occupant Exits:**
All lights automatically shut off 15 minutes (by default) after all occupants exit.

Add a Vive wireless hub to enable simple setup and rezone, system monitoring, timeclock functionality, and advanced integration.

Control Strategies

**Occupyancy/Vacancy**

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<td>LPFP-S1-TAW</td>
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</table>

Lighting Energy Savings*

30%

* Go to lutron.com/references for more information.
Private Office | Dimming

Visible System Components

Control Functionality

Control Strategies

Lighting Energy Savings* 60%

* Go to lutron.com/references for more information.
Visible System Components

- Pico wireless switch
- Radio Powr Savr wireless ceiling-mount occupancy sensor

Control Functionality

**Occupant Enters:**
Lights do not automatically turn on when an occupant enters the space; lights must be turned on manually.

**When Occupied:**
- Manual: Occupant uses wall switch to turn on and turn off all lights.

**Occupant Exits:**
All lights automatically shut off 15 minutes (by default) after all occupants exit.

Add a Vive wireless hub to enable simple setup and rezeoning, system monitoring, timeclock functionality, and advanced integration.

Control Strategies

- Occupancy/Vacancy

<table>
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<tr>
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<td>LPFP-S1-TAW</td>
<td>Pico Wireless Faceplate (Single)</td>
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</table>

Lighting Energy Savings*

*Go to lutron.com/references for more information.*
Conference Room | Dimming

Visible System Components

Control Functionality

Occupant Enters:
Lights do not automatically turn on when an occupant enters the space; lights must be turned on manually.

When Occupied:
Automatic: Overhead lights dim/brighten based on daylight availability.
Manual: Occupant uses wall dimmer to set desired light levels for all lights.

Occupant Exits:
All lights automatically shut off 15 minutes (by default) after all occupants exit.

Add a Vive wireless hub to enable simple setup and rezoning, system monitoring, timeclock functionality, and advanced integration.

Control Strategies

Occupancy/Vacancy
Daylight Harvesting
High-end Trim/Tuning
Personal Dimming

Symbol | Model Number | Description | Qty
---|---|---|---
RMNS-DAL32-SZ | PowPak Single Zone Module with DALI | 1
LRF5-OKLB-P-WH | Radio Powr Savr Wireless Corner Occupancy Sensor | 1
LRF5-DCRB-P-WH | Radio Powr Savr Wireless Daylight Sensor | 1
PN2-3BRL-TAW-L01 | Pico Wireless Control On/Off and Raise/Lower | 1
LPFP-S1-TAW | Pico Wireless Faceplate (Single) | 1

Lighting Energy Savings*

55%

* Go to lutron.com/references for more information.
Conference Room | Scenes

Visible System Components

- Pico wireless control
- Radio Powr Savr wireless corner-mount vacancy sensor and daylight sensor

Control Functionality

**Occupant Enters:**
Lights do not automatically turn on when an occupant enters the space; lights must be turned on manually.

**When Occupied:**
*Automatic:* Overhead lights dim/brighten based on daylight availability.
*Manual:* Occupant uses wall dimmer to set desired light levels for all lights.

**Occupant Exits:**
All lights automatically shut off 15 minutes (by default) after all occupants exit.

**Advanced Functionality:**
Set the right lighting by using the 4 button Pico, which can be easily configured manually or through the Hub.

- Add a Vive wireless hub to enable simple setup and rezing, system monitoring, timeclock functionality, and advanced integration.

Control Strategies

- **Occupancy/Vacancy**
- **Daylight Harvesting**
- **High-end Trim/Tuning**
- **Personal Dimming**

Symbol | Model Number | Description | Qty
--- | --- | --- | ---
RMNS-DAL32-SZ | PowPak Single Zone Module with DALI | 1
RMNS-DAL4-SZ | PowPak Single Zone Module with DALI | 1
LRF5-OKLB-P-WH | Radio Powr Savr Wireless Corner Occupancy Sensor | 1
LRF5-DCRB-P-WH | Radio Powr Savr Wireless Daylight Sensor | 1
PN2-3BRL-TAW-L01 | Pico Wireless Control On/Off and Raise/Lower | 1
PN2-4B-TAW-L01 | Pico Wireless Control 4 Button | 1
LPFP-S2-TAW | Pico Wireless Faceplate (Dual) | 1

Lighting Energy Savings*

55%

* Go to lutron.com/references for more information.
Visible System Components

<table>
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<td></td>
<td>LPFP-S1-TAW</td>
<td>Pico Wireless Faceplate (Single)</td>
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</tbody>
</table>

Control Functionality

- **Occupant Enters:** All lights automatically turn on.
- **When Occupied:** Manual: Occupant uses wall switch to turn all lights off.
- **Occupant Exits:** All lights automatically shut off 15 minutes (by default) after all occupants exit.

Add a Vive wireless hub to enable simple setup and rezoning, system monitoring, timeclock functionality, and advanced integration.

Control Strategies

Restroom | Switching

Lighting Energy Savings*

50%

* Go to lutron.com/references for more information.
Visible System Components

Control Functionality

**Occupant Enters:**
All lights automatically turn on to maximum light level. Maximum light level is set to 80%.

**When Occupied:**
Manual: Occupant uses wall dimmer to set desired light levels for all lights.

**Occupant Exits:**
All lights automatically shut off 15 minutes (by default) after all occupants exit.

Add a Vive wireless hub to enable simple setup and rezing, system monitoring, timeclock functionality, and advanced integration.

Control Strategies

Lighting Energy Savings*

*Go to lutron.com/references for more information.*
Visible System Components

Control Functionality

Occupant Enters:
All lights automatically turn on to maximum light level. Maximum light level is set to 80%.

When Occupied:
Manual: Occupant uses wall dimmer to set desired light levels for all lights.

Occupant Exits:
All lights automatically shut off 15 minutes (by default) after all occupants exit.

Advanced Functionality:
The CCO PowPak triggers the solenoid for an automatic flush.

Add a Vive wireless hub to enable simple setup and re zoning, system monitoring, time clock functionality, and advanced integration.

Control Strategies

Lighting Energy Savings*

60%

* Go to lutron.com/references for more information.
Visible System Components

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<td>LPFP-S2-TAW</td>
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Control Functionality

**Occupant Enters:**
Lights do not automatically turn on when an occupant enters the space; lights must be turned on manually.

**When Occupied:**
- Manual: Occupant uses wall switches to turn on and turn off general and whiteboard lights.

**Occupant Exits:**
All lights automatically shut off 15 minutes (by default) after all occupants exit.

Add a Vive wireless hub to enable simple setup and rezoning, system monitoring, timeclock functionality, and advanced integration.

Control Strategies

Lighting Energy Savings*

45%

* Go to lutron.com/references for more information.
Visible System Components

Control Functionality

Occupant Enters:
Lights do not automatically turn on when an occupant enters the space; lights must be turned on manually. Maximum light level is set to 80%.

When Occupied:
Automatic: Overhead lights dim/brighten based on daylight availability. There is one perimeter daylight zone.

Manual: Occupant uses wall dimmers to set desired light levels for both general and whiteboard lights.

Occupant Exits:
All lights automatically shut off 15 minutes (by default) after all occupants exit.

Add a Vive wireless hub to enable simple setup and rezoning, system monitoring, timeclock functionality, and advanced integration.

Control Strategies

<table>
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</table>

Lighting Energy Savings*

60%

* Go to lutron.com/references for more information.
**Visible System Components**

Radio Powr Savr wireless corner-mount occupancy sensor

**Control Functionality**

**Occupant Enters:**
All corridor lights automatically turn on.

**Occupant Exits:**
Corridor lighting remains on while connected rooms are occupied.

**Emergency Mode:**
All corridor lights automatically shut off 15 minutes after all occupants exit corridor and all connected rooms.

Add a Vive wireless hub to enable simple setup and rezing, system monitoring, timeclock functionality, and advanced integration.

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**Lighting Energy Savings**

30%

*Go to lutron.com/references for more information.*
Visible System Components

Radio Powr Savr wireless corner-mount occupancy sensor

Control Functionality

Occupant Enters:
All corridor lights automatically turn on.

Occupant Exits:
Corridor lighting remains on while connected rooms are occupied.

Emergency Mode:
All corridor lights automatically shut off 15 minutes after all occupants exit corridor and all connected rooms.

Advanced Functionality:
The lights in the corridor stay on while the classrooms are being used.

Add a Vive wireless hub to enable simple setup and rezoning, system monitoring, timeclock functionality, and advanced integration.

Control Strategies

Occupancy/Vacancy

Lighting Energy Savings*

30%

* Go to lutron.com/references for more information.
Break Room | Dimming

Visible System Components

Pico wireless switch
Radio Powr Savr wireless corner-mount occupancy sensor

Control Functionality

**Occupant Enters:**
Lights do not automatically turn on when an occupant enters the space; lights must be turned on manually.

**When Occupied:**
Manual: Occupant uses wall switch to turn all lights off.

**Occupant Exits:**
All lights automatically shut off 15 minutes (by default) after all occupants exit.

Add a Vive wireless hub to enable simple setup and reozoning, system monitoring, timeclock functionality, and advanced integration.

Control Strategies

Occupancy/Vacancy

Visible System Components

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Lighting Energy Savings*

40%

* Go to lutron.com/references for more information.
Further Information

Please visit lutron.com/vive-asia for more information, including videos and our Vive Wireless online training courses.

For more information or to join Vive training near you, please contact Lutron.