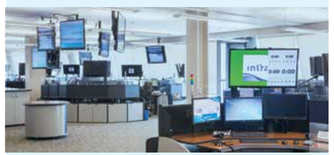
designed to be better™



Wattstopper®

Customer Care
7 am - 7 pm CST
800.927.9287

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7 am - 7 pm CST
800.879.8585

Service & Support
www.legrand.us/support/wattstopper

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ENERGY EFFICIENT DESIGN

COMMERCIAL SPACES

legrand®

Wattstopper, North America
www.legrand.us/wattstopper

FOLLOW US

designed to be better.™

legrand®

Many building owners are quickly adopting LED lighting fixtures for the long-term benefits of sustainability and cost savings. Adding lighting controls to a workspace increases energy efficiency and provides added comfort. New energy codes require lighting controls as part of their energy reduction programs.

Wattstopper delivers an unmatched depth and breadth of lighting control solutions to meet the evolving needs of today's workspaces. Our lighting control solutions feature everything from dimmers that help improve ambiance in a space, to sensors that automatically enhance energy savings, to timers and systems that manage everything intelligently. Wattstopper lighting controls offer a variety of commercial solutions that are both stylish and sustainable. No matter your space, this guide will help you select the Wattstopper lighting control system that is right for you.

BASIC

B BASIC ENERGY SAVINGS: DIMMERS

- Manual lighting control for spaces without code requirements
- Enhance ambiance and mood
- Dim lights to fit the task

ENHANCED

E ENHANCED ENERGY SAVINGS: OCCUPANCY & VACANCY SENSORS

- Lighting control systems like wall and ceiling occupancy sensors, power packs, and timer systems for spaces that require ASHRAE 90.1 and IECC code compliance
- Automate lighting controls based on occupancy
- Add energy efficiency and personalized controls to lighting programs

INTELLIGENT

I INTELLIGENT ENERGY SAVINGS: DIGITAL LIGHTING MANAGEMENT

- Networked energy control for Title 24 code compliance
- The most effective lighting and energy control design for the most comprehensive energy code compliance
- Provides integration with Building Management Systems and provides visualization and data analytics of the building performance

LIGHTING CONTROL SOLUTIONS FOR ANY APPLICATION

Small Offices	Bedrooms & Living Rooms	Conference Rooms	Open Offices	Hallways & Stairs	Restrooms	Partitioned Restrooms	Lunch & Break Rooms	Utility & Storage Rooms	Exteriors
15 to 30%	up to 50%	up to 40%	up to 30%	40 to 80%	50 to 70%	50 to 70%	15 to 30%	20 to 30%	20 to 40%

Potential Energy Savings shown in percentage.

SMART BUILDING DESIGN

The ultimate lighting controls solution is configurable and adaptable, and it enhances the productivity of the building's environment. Wattstopper understands that every customer is unique, so we've created a customizable 'best fit' energy-efficient lighting control solution that provides maximum energy savings, easier code compliance, and increased convenience and productivity. Wattstopper commercial spaces are simply designed to be better.

COMMERCIAL SPACES

- Small Private Offices
- Executive Offices
- Small Conference Rooms
- Large Conference Rooms
- Small Restrooms
- Large Restrooms
- Break/Lunch Rooms
- Open Office Areas
- Utility/Storage Rooms

IT'S EASY TO SAVE ENERGY WITH THE RIGHT LIGHTING CONTROLS SOLUTION

PIR

Passive infrared technology (PIR) detects heat emitted from a human body in motion and relies on a clear line of sight. Ideal for:

- Small offices
- Conference rooms

Ultrasonic

Ultrasonic technology detects occupant movement within a room and has the ability to detect movement around partitions. Ideal for:

- Large restrooms
- Hallways
- Open offices

Dual Technology

Combines PIR and ultrasonic technology for hard-to-sense spaces when maximized sensitivity is required. Ideal for:

- Executive offices
- Large conference rooms
- Classrooms

SMALL PRIVATE OFFICE 12'x12'

Wall switch occupancy sensors are optimal for these spaces. They provide outstanding energy control performance by turning lighting off when rooms are unoccupied, and the low-profile design and color-matched lenses provide appealing aesthetics. Passive infrared technology detects line-of-sight movement which is perfectly suited for an enclosed single occupant office.

B BASIC Dimmers

radiant Dimmer

radiant® Dimmer

These dimmers are all about style. The large paddle switch is easy to see and use, and the slide controller provides effortless operation.

E Wall Occupancy Sensors

PW-311

PIR Occupancy Sensors

WS-301 or **PW-301** provide code-compliant occupancy sensing. If LED lighting is installed, the **PW-311** provides 0-10V dimming to the space.

E Ceiling Sensors

CX-105

Ceiling Sensor or Corner Mount Sensor, Wall Switch and a Power Pack

Choose a **WPIR** or **CX-105** corner mount sensor. Package the system with a **BZ-150** power pack and a **DCLV,** or **LVSW** wall switch.

DLM Options

LMRC-111, LMPC-100, or LMPW-102, LMSW or LMDM, WRC-20-1, WRC-TX-LM

Digital Lighting Management (DLM) options provide the most automated control and are ideal for networked offices. Facility managers can audit offices with our Segment Manager network controller to ensure proper energy usage and performance.

OPTIONS: Consider **Isole Plug Load powerstrip** with sensor to turn off unecessary electrical loads like printers, monitors, and space heaters. Add radiant screwless wall plates to wall devices to create a clean aesthetic.

EXECUTIVE OFFICE 18'x15'

Executive offices benefit from our discrete and effective dual technology ceiling and wall sensors. These sensors have a bird's-eye view of the room and are not affected by furniture layout. Wattstopper dual technology models ensure unparalleled sensitivity and coverage, even from obstructions in the room, such as filing cabinets or indoor plants.

B BASIC Dimmers

radiant Dimmer

radiant Dimmer

radiant dimmers are stylish and simple to use. The ergonomic slider enhances the professional appearance of any executive suite.

E Wall Occupancy Sensors

DW-311

Dual Technology Occupancy Sensor

The **DSW-301** is an excellent choice for an executive office. Offices that are upgrading to LED lighting should leverage the **DW-311** to incorporate or control 0-10V dimming.

E Ceiling Sensors

DT-305

Ceiling Sensor or Corner Mount Sensor BZ-150 Power Pack, and a Wall Switch

The **DT-205** or **DT-305** are best for this space and work well with LVSW or DCLV-1 wall switches.

DLM Options

LMRC-112 or LMRC-211, LMDM-101, LMDC-100, WRC-TX-LM, LMDX-100, WRC-15-1, LMLS-400

In a networked office, DLM provides automated lighting control solutions that go beyond code compliance.

OPTIONS: Consider wireless receptacle controls (WRC). These Plug Load controllers can turn off unnecessary loads like monitors or printers when a room is unoccupied. Add a TP26xx or RWP26xx wall plate to dimmers and wall sensors.

SMALL CONFERENCE ROOM 12'x12'

Wall switch occupancy sensors turn the lights off when a space is vacated, making them ideal for transient conference rooms. Passive infrared ceiling sensors are another cost-effective solution, offering greater mounting and flexibility options.

B BASIC Dimmers

radiant Dimmer

radiant or Toggle Dimmer

radiant and Toggle dimmers are ideal in these spaces since the dimming option is intuitive to use.

E Wall Occupancy Sensors

PW-311

PW Series Occupancy Sensors

PW series occupancy sensors are great in spaces with direct line of sight and feature color matched & vandal proof lenses to improve safety and the style of the room.

E Ceiling Sensors

CI-305

CI-305 Sensor, BZ-150 Power Pack, and a LVSW or DCLV Wall Switch

Low voltage PIR ceiling sensors, like the CI-305, are perfect in these small transient spaces.

DLM Options

LMRC-111 or LMRC-112, LMPW-102,LMPL-101, LMLS-400, LMSW-10x

The DLM platform provides control infrastructure at every switch, outlet, and lighting load for optimal energy performance. Intuitive user interfaces and Plug n' Go™ configuration make DLM simple to install and use.

OPTIONS: Choose dual technology ceiling sensors in rooms with suspended lighting fixtures. Add wall plates to enhance the room design.

These spaces often have two lighting zones: one for general lighting and one for lighting at the front of the room. The room may also have two entrances, which would require the wall switches to have multi-way capability in order for the devices to work in concert with each other. Whether a ceiling or wall switch sensor is chosen, dual technology is recommended for best performance since there is little motion during meetings.

LARGE CONFERENCE ROOM 18'x15'

B BASIC Dimmers

Titan Dimmers

Titan® Dimmers

Titan dimmers can manage large loads and handle multi-way controls which allow devices to work together to control the space.

E Wall Occupancy Sensors

DW-311

DW-311 Occupancy Sensors

Dual technology wall switch occupancy sensors, like the **DW-311**, are ideal in large conference rooms since they are able to dim the lights during presentations. The **DW-311** also allows for multi-way configuration in rooms with multiple entryways.

E Ceiling Sensors

DT-305

DT-305 Sensor, BZ-150 Power Pack, LVSW or DCLV Wall Switch

Low voltage dual technology ceiling sensors like the **DT-205** and **DT-305** are ideal in these transient spaces. Dual technology is ideal when there are obstructions in the ceiling such as projectors and suspended lighting fixtures.

DLM Options

LMRC-112 or LMRC-212, LMDC-100,LMLS-400, WRC-TX-LM or LMPL-101, WRC-20-1, LMSW-105

When conference rooms have large windows, simply add a photocell to adjust light levels in response to natural daylight contributions. This provides additional energy savings, while helping to meet code requirements.

OPTIONS: For conference rooms with multiple entryways, wall occupancy sensors can be cost-effective alternatives. Also, add wall plates to trim the wall sensors.

Ceiling sensors or DLM systems are ideal for open offices with cubicles. Dual technology options are preferred due to obstructions like partitions, furniture, filing cabinets, and indoor plants. Ceiling sensors provide clear visibility into the workspaces that are being utilized throughout the workday. Consider adding photocells to take advantage of daylight harvesting if there are windows or skylights that help illuminate the space.

OPEN OFFICE WITH CUBICLES

B BASIC Dimmers

Titan Dimmers

Titan Dimmers

Titan dimmers can be ganged and clearly labeled in these shared environments. Included screwless wall plate components make it easy to assemble multi-gang wall plates in any configuration.

E Ceiling Sensors

UT-305

UT-305 or DT-305 Sensor, BZ-150 Power Pack, LVSW Wall Switch

Ultrasonic or dual technology ceiling sensors provide the best coverage in these open spaces since they can sense occupancy of spaces that often have obstructions like cubicle partitions.

DLM Options

LMRC-211 or LMRC-213, LMSW-10x, LMDC-100, LMLS-500, WRC-TX-LM, WRC-20-1, LMPL-201

DLM allows the addition of daylight harvesting, and plug load controls. Plug loads can control phantom loads like printers, monitors, and space heaters.

OPTIONS: Consider adding an emergency lighting device, like the ELCU, to provide safety and code compliance. This ensures emergency lighting stays on if power is lost in these public spaces.

SMALL RESTROOM 8'x8'

For a clean design, architects and designers recommend PIR sensors. Adding occupancy sensing controls will yield the best energy savings results. Equipped with heavy duty vandal-resistant lenses, Wattstopper occupancy sensors are designed to prevent sensor lenses from being tampered with.

E Wall Occupancy Sensors

WS-301

WS-301 PIR Sensor

Turn the lights off when the room is not occupied. It features color matched & vandal resistant lenses to ensure safety and enhance aesthetics.

E Ceiling Sensors

CI-305

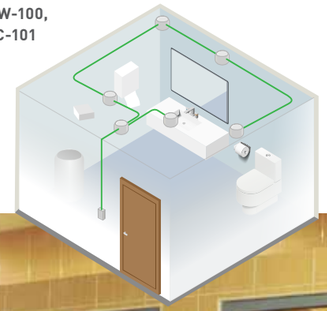
CI-305 Ceiling Sensor, BZ-150 Power Pack and LVSW Wall Switch

Choose a low-profile **CI-305** ceiling sensor for overhead applications. Package the system with a **BZ-150** power pack.

DLM Options

LMPW-101, LMSW-100, LMPC-100, LMRC-101

DLM options provide the most automated control.



OPTIONS: Consider adding TP26xx wall plates to complete the look for the room.

LARGE RESTROOM 15'x10'

Restrooms containing multiple stalls with intermittent usage throughout the day require ultrasonic or dual technology lighting control devices to ensure the lighting stays on while the spaces are occupied. These technologies can sense around barriers like stall walls to safeguard the inhabitants of the space. Ceiling sensors are ideal for larger restrooms.

E Ceiling Sensors

UT-305

UT-305, W or WT Series Ceiling Sensors, LVSW Wall Switch, BZ-150 Power Pack

Ultrasonic ceiling sensors provide the best coverage in these spaces since they can detect occupancy around stall walls.

DLM Options

LMRC-101, LMUC-100, LMSW-10x or LMDM-10x

DLM allows automated control over multiple lighting sources. Some codes require dimming in application spaces greater than 100 sq. ft.

BREAK ROOM LUNCH ROOM

PIR ceiling sensors offer a clean, low-profile look that disappears into the décor. Line and low voltage models are available to accommodate any ceiling type. Consider adding plug load controls to provide added energy savings and safety as they control phantom loads from water coolers, toaster ovens, and the like.

B BASIC Dimmers

Titan Dimmers

radiant or Titan Dimmer

radiant dimmers provide a clean, stylish aesthetic, while Titan dimmers can be clearly labeled for occupants.

E Wall Occupancy Sensors

PW-301

WS-301, PW-301, or PW-311 Occupancy Sensor

PW-301 can provide multi-way capability in spaces that have multiple entry points. **PW-311** is ideal if the space uses LED fixtures.

E Ceiling Sensors

CI-205

CI-205 or WPIR Ceiling Sensor, BZ-150 Power Pack and a LVSW Wall Switch

PIR ceiling sensors like the **CI-205** and **WPIR** are great for these small spaces that are often occupied for only short periods of time.

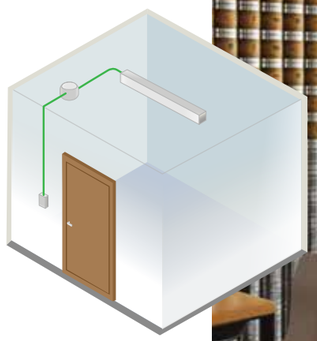
I DLM Options

LMRC-111 or 112, LMPC-100, LMPX-100, LMDM-100, WRC-TX-LM or LMPL-101, WRC-20-1

LMRJ cables are available in various lengths and connect DLM components without the need for additional tools.

OPTIONS: Use the half-controlled plug load devices to control phantom loads like water coolers and toaster ovens, while ensuring that essential devices like refrigerators are not affected. To enhance the room's design, add TP26xx wall plates to trim wall sensors.

UTILITY STORAGE ROOM



Utility and storage rooms are typically used only for short periods throughout the day. Time switches provide convenient, pushbutton control to turn lights on for the brief intervals when lighting is needed. After the pre-set time, the switch automatically turns lights off.

E Time-Based Controls

TS-400

Timers

Time-based controls like the **RT-20** or **TS-400** ensure that the lights turn off after a set time period.

E Ceiling Sensors

WPIR

WPIR Sensor, UT-305 Sensor, BZ-150 Power Pack, LVSW-101 Wall Switch

The **WPIR** device is an economical choice for smaller spaces with well-defined coverage areas.

HALLWAY STAIRS

Choose ultrasonic devices to turn lighting on when the space is occupied, regardless of the entry point in these spaces.

E Ceiling Sensors

UT-305

UT-305 or W-500/1000/2000A Ceiling Sensor, BZ-50 Power Pack

Ultrasonic ceiling sensors provide the best coverage in these spaces since they can sense occupancy of spaces that often have corners or multi-level stairs.

I DLM Options

LMRC-101, LMUC-100 or LMDX-100

DLM provides a code-compliant solution in networked offices and provides the most automated lighting control solution.

OPTIONS: ELCU emergency lighting devices should be installed in these environments to ensure the safety of the space by providing light to the emergency fixtures, even if power is lost to the facility.

WAREHOUSE

The evolution of LED into warehouse environments enables enhanced control and dramatically reduces energy consumption. Wattstopper's HBP sensors are an ideal option in high and low bay applications with 15-40 foot mounting heights. An optional snap-on masking device is also available to provide greater control in aisleways.

E Ceiling Sensors

HBP-112-L7

HBP-112

Basic snap-on sensor that allows simple on/off lighting control.

E Ceiling Sensors

HBP-111 and FSIR

HBP-111

HBP-111 uses FSIR to control the commissioning of the product from the ground level remotely, without the use of ladders or scissor lifts.

E Contractor Panels

LC8

LC8 and LP8

Contractor Panels like the **LC8** and **LP8** provide zone-based control of exterior and interior lighting.

I DLM Options

LMCP-8/24/48,ELCU-200, LMRC-211, LMPC-100-5, LMLS-600

DLM provides an easy-to-install and configure option in high bay applications.

RAISE YOUR EXPECTATIONS, LOWER YOUR COSTS

Wattstopper lighting controls systems are cost-effective, enhance energy efficiency, improve ROI, and prolong the life of lighting investments. These lighting controls options are easy to install, simple to use, and scalable to the contractors' and facility managers' needs.

As a leader in code compliance and education, Wattstopper can help you work with building owners and specifiers to design a lighting solution that enhances the space, fits budgets, and ensures the latest ASHRAE 90.1, IECC, and Title 24 code requirements are met.