



# 2021 IECC Design Guide

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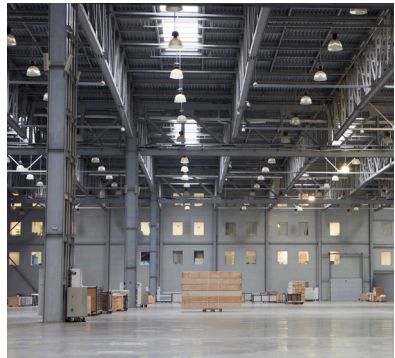
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units per day



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# Leviton Excellence for 2021 IECC Standards

IECC standards provide the minimum requirements for energy-efficient design of most buildings (excluding low-rise residential buildings). Leviton offers a wide spectrum of lighting and energy control solutions to bring any project up to standard. This reference guide provides examples of common applications, 2021 IECC compliance considerations and Leviton solutions to meet the functionality and standards compliance needs of any space.

## Code and Solutions Summary

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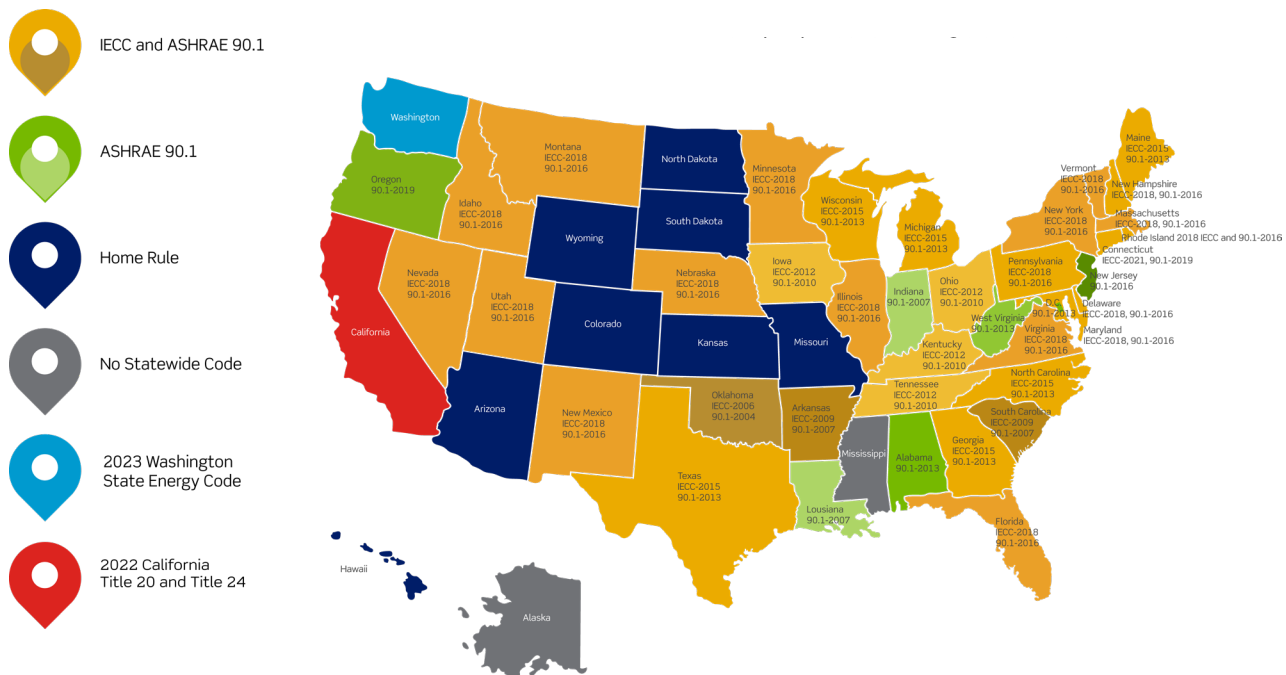
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## Energy Standards By State

Commercial State Energy Code Status as of June 5, 2023

Note: For Canadian code compliance, refer to your provincial code



SOURCE: Office of Energy Efficiency & Renewable Energy, [energycodes.gov](http://energycodes.gov)

This document is for informational purposes only. Each project will have its own specific requirements for satisfying 2021 IECC standard compliance based on a variety of factors. Other exceptions or details may apply. Review the standard for specific requirements and/or consult with a professional advisor. Leviton Mfg. Co., Inc. is not responsible for any loss resulting from the use of any information found in this document. Solutions are subject to change without notice. For additional assistance, contact your local Leviton representative.

# Code Comparison: IECC, ASHRAE 90.1 & 2022 Title 24, Part 6

See the table below for an overview of how the big three energy codes and standards compare.

Note that updates for 2021 IECC are highlighted.

Control Type	2021 IECC	ASHRAE 90.1 2019	2022 Title 24, Part 6
 <p>Automatic Receptacle Control</p>	<p>Required in:</p> <ul style="list-style-type: none"> <li>Enclosed offices</li> <li>Conference rooms</li> <li>Rooms used primarily for copy or print functions</li> <li>Break rooms</li> <li>Classrooms</li> <li>Individual workstations, including those installed in modular partitions and module office workstation systems</li> </ul>	<p>Required in:</p> <ul style="list-style-type: none"> <li>Private offices</li> <li>Computer classrooms</li> <li>Break rooms</li> <li>Conference rooms</li> <li>Printing/copy rooms</li> <li>Classrooms</li> <li>Individual workstations</li> <li>25% of branch circuit feeders installed for modular furniture</li> <li>Must be turned off via time-of-day control, or control system/occupancy sensor after 20 minutes of vacancy</li> </ul>	<p>Required in:</p> <ul style="list-style-type: none"> <li>Private offices</li> <li>Open office spaces</li> <li>Reception lobbies</li> <li>Conference rooms</li> <li>Kitchenettes</li> <li>Copy rooms</li> <li>Hotel/motel guest rooms</li> </ul>
 <p>Automatic Shutoff</p>	<ul style="list-style-type: none"> <li>Automatic time switches are required in most areas that are not controlled by an occupancy sensor; the switch must also have a manual override and allow for manual control in locations where occupants have ready access</li> <li>Occupancy sensors are required in a number of applications that must auto-OFF after 20 minutes of vacancy, and be manual-ON or auto-ON to no more than 50% power and include a manual control</li> <li>Occupancy sensors must auto-OFF within 20 minutes of occupants leaving the space, and manual-ON or auto-ON to 50%</li> </ul>	<ul style="list-style-type: none"> <li>Interior lighting must have an automatic control to turn the lights OFF</li> <li>This device can be a scheduling control, an occupancy sensor, or a BAS/BMS system</li> <li>Applicable spaces must be capable of the following:                             <ul style="list-style-type: none"> <li>Manual-ON OR partial-ON—auto-ON to 50%</li> <li>Bi-level control—step between 30-70% or continuous dimming”</li> <li>Automatic daylight controls</li> <li>Automatic partial-OFF—reduce to 50% when unoccupied for some spaces</li> <li>Automatic full-OFF OR scheduled shutoff</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Occupant sensing controls are required for offices 250 sq ft or small and multi-purpose rooms less than 1,000 sq ft, classrooms, conference rooms and restrooms and must automatically shut OFF all lights in 20 minutes or less after the control zone is unoccupied</li> <li>In office spaces greater than 250 square feet, general lighting shall be controlled with occupant sensing controls. Lighting shall be controlled separately in zones &lt;600 sq. ft. Luminaires with embedded occupant sensor considered own zone.</li> <li>Partial-ON may only activate lights between 50-70% power</li> <li>Controls shall be provided that allow the lights to be manually shut OFF in accordance with Section 130.1(a)</li> </ul>
 <p>Manual Space Control</p>	<ul style="list-style-type: none"> <li>Every area enclosed by walls or floor-to-ceiling partitions must have a manual control</li> <li>Controls must be located within the area served by the controls, or must be a remote switch clearly identifying the lights it controls with a status indicator</li> <li>Occupancy sensors must also incorporate a manual control</li> <li>Manual control to reduce the connected load by at least 50% only in areas controlled by a time switch by controlling all lamps (dimming), dual switching, inboard/outboard switching or controlling each fixture/lamp independently</li> </ul>	<ul style="list-style-type: none"> <li>All spaces shall include manual control devices that are continuous or stepped dimming control devices that control an area no larger than 2,500 sq ft if space is smaller than 10,000 sq ft. If 10,000 sq ft or more, then it must control an area no larger than 10,000 sq ft</li> </ul>	<ul style="list-style-type: none"> <li>Manual-ON/OFF override control is required in each area enclosed by ceiling-height partitions</li> <li>If lighting is dimmable, controls must be on a dimmer with dimming and manual-ON/OFF capabilities</li> <li>General/display/ornamental lighting must be separately controlled</li> <li>Scene controllers may comply with this requirement provided at least one scene turns ON general lighting only, and the control provides a means to manually turn lights OFF</li> </ul>

Control Type	2021 IECC	ASHRAE 90.1 2019	2022 Title 24, Part 6
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Parking Garage Control

- |   |  |  |
|---|--|--|
| <ul style="list-style-type: none"> <li>• Must adhere to the standard requirements for lighting control, space control and automatic daylight control with stepped control or continuous dimming OR manual switched daylighting control</li> </ul> | <ul style="list-style-type: none"> <li>• Parking garage lighting zones must be controlled by a device that reduces power by 30% (50% in 2019) after 20 (10 mins in 2019) mins of vacancy</li> <li>• Open exterior walls must utilize automatic daylight harvesting</li> <li>• Covered vehicle entrances and exits must automatically reduce lighting by 50% from sunset to sunrise</li> <li>• Perimeter fixtures must be controlled in response to daylight</li> </ul> | <ul style="list-style-type: none"> <li>• Occupancy sensors must reduce power with one control step between 20-50% of lighting power</li> <li>• No more than 500W of lighting may be controlled per zone</li> <li>• Automatic controls must turn lights to full-ON and be activated from all paths of egress</li> </ul> |
|---|--|--|



Automatic Daylight Control

- |  |  |   |
|--|--|---|
| <ul style="list-style-type: none"> <li>• Control required in daylight control zones that provide these areas with separate control that is independent of the general lighting in the space, which can be stepped or continuous dimming</li> <li>• Calibration must be readily accessible</li> <li>• Required in spaces where more than 150W of lighting is installed in the Sidelit and Toplit zones</li> <li>• Toplit zones must be controlled independent of lights in Sidelit zones</li> <li>• Offices, classrooms, labs, and library reading rooms must dim lights continuously from full power to 15% of full light output and capable of full shutoff of all controlled lights</li> <li>• Daylit zones in different orientations (N/S/E/W) over 150W must be controlled separately</li> </ul> | <ul style="list-style-type: none"> <li>• Sidelit and toplit zones must be readily accessible for calibration and located no higher than 11 feet above finished floor. Calibration shall not require the physical presence of a person</li> <li>• Photocell to reduce power to 20% or less and off</li> <li>• General lighting in overlapping toplit and sidelit zones shall be controlled together with the general lighting in the daylight area under the skylights or rooftop monitors</li> </ul> | <ul style="list-style-type: none"> <li>• General lighting in skylit, primary, and secondary daylight zones and combined primary and secondary daylight zones in parking garages shall be provided with controls that automatically adjust the power of the installed lighting up and down to keep the total light level stable</li> <li>• Automatic daylighting controls shall provide separate control for general lighting in each of daylight zone</li> <li>• Automatic daylighting shall:               <ul style="list-style-type: none"> <li>• Adjust lighting via continuous dimming or stepped dimming</li> <li>• Ensure that in areas other than parking garages, the daylight illuminance is greater than 150 percent of the illuminance provided and the controlled lighting power in that daylight zone shall be reduced by a minimum of 90 percent;</li> <li>• Ensure photosensors are not readily accessible to unauthorized personnel and the location where calibration adjustments are made be readily accessible to authorized personnel</li> </ul> </li> </ul> |
|--|--|---|




Multi-Level Area Lighting Controls


- |  |   |   |
|--|---|---|
| <ul style="list-style-type: none"> <li>• Each area required to have manual control is also required to be able to reduce the lighting by 80% for open offices</li> </ul> | <ul style="list-style-type: none"> <li>• For areas requiring bi-level lighting control, the space shall be controlled to provide at least one step in lighting power or continuous dimming between 30% and 70%</li> </ul> | <ul style="list-style-type: none"> <li>• The general lighting of any enclosed area 100 sq ft or larger with a connected lighting load that exceeds 0.5 watts/sq ft shall provide multi-level lighting controls that adjust the lighting levels up and down and:</li> <li>• Meet uniformity requirements specified in Table 130.1-A</li> </ul> |
|--|---|---|


# Code Comparison: IECC, ASHRAE 90.1 & 2022 Title 24, Part 6

See the table below for an overview of how the big three energy codes and standards compare.

Note that updates for 2021 IECC are highlighted.

Control Type	2021 IECC	ASHRAE 90.1 2019	2022 Title 24, Part 6
 <p>Exterior Lighting Control</p>	<ul style="list-style-type: none"> <li>Exterior lighting designated for dusk to dawn operation shall be controlled by an astronomical time clock or photocontrol</li> <li>Lights shall be automatically turned off when daylight is present and satisfies the lighting needs</li> <li>Lighting not designated for dusk to dawn operation shall be controlled by either a combination of a photocontrol and time switch, or an astronomical time clock</li> <li>Non-facade or landscape lighting must automatically reduce lighting by at least 30% in the following times:                             <ul style="list-style-type: none"> <li>- From midnight to 6 am</li> <li>- During any period when activity has not been detected for 15 minutes</li> </ul> </li> <li>Building facade or landscape lighting shall automatically shut off no later than one hour after business closing to no earlier than one hour before business opening</li> </ul>	<ul style="list-style-type: none"> <li>All lighting exterior lighting must be turned off when sufficient daylight is available</li> <li>Facade and Landscape lighting must be automatically turned off during specified times of day. Not just dependent on opening and closing time.</li> <li>Lighting not specified as facade or landscape lighting and signage shall be automatically reduced by 50% during specified times of day</li> <li>Luminaires serving outdoor parking areas with a rated wattage greater than 78W and a mounting height of 24ft or less must be controlled to automatically reduce the lighting power by 50% when no activity has been detected or 15 minutes</li> </ul>	<ul style="list-style-type: none"> <li>All outdoor lighting must be controlled with a photocontrol and an automatic time switch OR astronomical time switch control</li> <li>Automatic scheduling and motion sensing controls must be capable of reducing outdoor lighting power by at least 50% and no more than 90% and be capable of turning lights OFF during scheduled unoccupied periods</li> <li>Motion sensing controls are required to reduce outdoor lighting to its dim or OFF state no longer than 15 minutes after the area has been vacated, and of returning the lighting to its ON state when it becomes occupied</li> <li>Outdoor must remain independently controlled via automatic scheduling</li> <li>Shall allow scheduling of a minimum of two nighttime periods with independent lighting levels, and may include an override function that turns lighting ON during its scheduled dim or OFF state for no more than two hours when an override is initiated</li> </ul>
 <p>Functional Testing</p>	<ul style="list-style-type: none"> <li>All lighting controls must be tested by a party not involved with the design or construction team to ensure that the products are working properly</li> </ul>	<ul style="list-style-type: none"> <li>The construction documents shall state the party who will conduct and certify the functional testing (Removed in 2019)</li> <li>The party responsible shall not directly be involved in either the design or construction of the project</li> </ul>	<ul style="list-style-type: none"> <li>All lighting controls must be tested by a Certified Lighting Control Acceptance Test Technician (CLCATT)</li> <li>This can be done by the same electrical contractor that did the work if they are CLCATT</li> </ul>

Control Type	2021 IECC	ASHRAE 90.1 2019	2022 Title 24, Part 6
 <p data-bbox="175 808 259 850">Demand Response</p>	<p data-bbox="324 766 341 777">—</p>	<p data-bbox="714 766 730 777">—</p>	<ul data-bbox="1104 346 1510 1201" style="list-style-type: none"> <li>• Nonresidential lighting systems subject to the requirements of Section 130.1(b) with a general lighting power of 4,000 watts or greater shall be capable of automatically reducing lighting power in response to a Demand Response Signal</li> <li>• For compliance testing, the lighting controls shall demonstrate a 15 percent or greater reduction in lighting power reduction in controlled spaces of a minimum of 15 percent below the total installed lighting power as described in NA7.6.3</li> <li>• For buildings where demand response controls are required, demand responsive controls shall control general lighting that is subject to requirements of Section 130.1(b) and may control additional lighting</li> <li>• General lighting shall be reduced in a manner consistent with the uniform level of illumination requirements in TABLE 130.1-A</li> <li>• Controlled receptacles in buildings shall be capable of automatically turning off all loads connected to the receptacle in response to a demand response signal in buildings that require to have demand responsive lighting controls</li> </ul>

 <p data-bbox="146 1554 284 1627">Disaggregation of Electrical Circuits</p>	<ul data-bbox="324 1291 714 1974" style="list-style-type: none"> <li>• New buildings with a gross conditioned floor area of 25,000 square feet (2322 m2) or larger shall be equipped to measure, monitor, record and report energy consumption data in compliance with Sections C405.12.1 through C405.12.5</li> <li>• Electrical energy monitoring required for all electrical energy supplied to the building and its associated site</li> <li>• Meters or other approved measurement devices shall be provided to collect energy use data for each end-use category indicated in Table C405.12.2</li> <li>• Meters or other measurement devices required by this section shall be configured to automatically communicate energy consumption data to the data acquisition system required by Section C405.12.4</li> </ul>	<ul data-bbox="714 1459 1104 1732" style="list-style-type: none"> <li>• Measurement devices must be installed in new buildings to separately monitor energy usage for total electrical energy, HVAC systems, interior lighting, exterior lighting and receptacle circuits</li> <li>• All data required above must be recorded a minimum of every 15 minutes and reported on hourly, daily, monthly, and annual intervals</li> </ul>	<ul data-bbox="1104 1522 1510 1669" style="list-style-type: none"> <li>• Specifications for the separation of 10 types of electrical loads for switchboards, panels and motor control centers required to be disaggregated per Table 130.5-B</li> </ul>
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Service Metering



- New buildings with a gross conditioned floor area of 25,000 square feet (2322 m<sup>2</sup>) or larger shall be equipped to measure, monitor, record and report energy consumption data in compliance with Sections C405.12.1 through C405.12.5
- Electrical energy monitoring required for all electrical energy supplied to the building and its associated site
- Meters or other approved measurement devices shall be provided to collect energy use data for each end-use category indicated in Table C405.12.2
- Meters or other measurement devices required by this section shall be configured to automatically communicate energy consumption data to the data acquisition system required by Section C405.12.4
- Measurement devices must be installed in new buildings to separately monitor energy usage for total electrical energy, HVAC systems, interior lighting, exterior lighting and receptacle circuits
- All data required above must be recorded a minimum of every 15 minutes and reported on hourly, daily, monthly, and annual intervals
- Each electrical service or feeder shall have a permanently installed metering system which measures electrical energy use in accordance with TABLE 130.5-A
- **EXCEPTION:** Service or feeder for which utility company provides metering system that indicates instantaneous kW demand and kWh for a utility-defined period





# 2018 and 2021 IECC Requirements Summary

Note that updates for 2021 IECC are highlighted.

Control Type	Summary	Quick Take
 <p><b>C405.2.1</b> Occupancy Sensors</p>	<p>Occupancy sensors shall be installed in the following locations:</p> <ul style="list-style-type: none"> <li>• Classrooms/lecture/training rooms</li> <li>• Conference/meeting/multi-purpose rooms</li> <li>• Corridors</li> <li>• Employee lunch and break rooms</li> <li>• Enclosed offices</li> <li>• Open plan office areas</li> <li>• Private offices</li> <li>• Restrooms</li> <li>• Storage rooms</li> <li>• Janitorial closets</li> <li>• Other spaces 300 sq ft or less enclosed by floor-to-ceiling-height partitions</li> <li>• Copy/print rooms</li> <li>• Lounges/breakrooms</li> <li>• Locker rooms</li> <li>• Warehouse storage areas                             <ul style="list-style-type: none"> <li>• Occupancy sensor control devices shall be installed to automatically turn lights off within 20 minutes of all occupants leaving the space, and shall either be manual-ON or controlled to automatically turn the lighting on to <b>no more than 50% power</b>. They must incorporate a manual control to allow occupants to turn lights off in readily accessible areas. <b>Lighting in each warehouse aisle must be controlled independently.</b></li> </ul> </li> </ul> <p>Full auto-ON controls with no manual control shall be permitted to control lighting in the following exempt areas:</p> <ul style="list-style-type: none"> <li>• Corridors</li> <li>• <b>interior parking areas</b></li> <li>• <b>Library stacks</b></li> <li>• <b>Lobbies</b></li> <li>• <b>Locker rooms</b></li> <li>• Stairways</li> <li>• Restrooms</li> <li>• <b>Areas where manual operations would endanger occupant safety or security</b></li> </ul>	<p>Occupancy sensors are required in a number of common smaller-sized commercial applications.</p> <p>The installed occupancy sensors must auto-OFF after 20 minutes of vacancy, and either be manual-ON or auto-ON to <b>no more than 50% power</b>. They must also include a manual control.</p> <p><b>Leviton Product Solutions</b></p> <ul style="list-style-type: none"> <li>• Smart Wallbox Sensors</li> <li>• Occupancy sensors</li> <li>• Vacancy sensors</li> </ul>
 <p><b>C405.2.1.3</b> Open Plan Office Control</p>	<p>If open office area is less than 300 sq ft, follow C405.2.1.1 for general occupancy sensor requirements shall comply with the following:</p> <ul style="list-style-type: none"> <li>• The controls shall be configured so that general lighting can be controlled separately in control zones with floor areas not greater than 600 feet</li> <li>• General lighting in each control zone shall be permitted to automatically turn on upon occupancy within the control zone. General lighting in other unoccupied zones within the open plan office space shall be permitted to turn on to not more than 20 percent of full power or remain unaffected.</li> <li>• The controls shall automatically turn off general lighting in all control zones within 20 minutes after all occupants have left the open plan office space</li> </ul> <p><b>Exception: Where general lighting is turned off by time-switch control complying with Section C405.2.2.1</b></p> <ul style="list-style-type: none"> <li>• General lighting in each control zone shall turn off or uniformly reduce lighting power to an unoccupied set point of not more than 20 percent of full power within 20 minutes after all occupants have left the control zone</li> </ul>	<p>Occupancy sensing controls are required in open office plan areas and must control separate zones, dim lighting power and automatically turn lights off after 20 minutes when a space is vacant</p> <p><b>Leviton Product Solutions</b></p> <ul style="list-style-type: none"> <li>• Occupancy sensors</li> <li>• Vacancy sensors</li> <li>• Photocells</li> </ul>

Control Type	Summary	Quick Take
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**C405.2.2.1**  
Automatic  
Time Switch  
Control

Automatic time switch controls shall be installed to control lighting in all areas of the building not controlled by occupancy sensors.\*

- The automatic time switch control device shall include an override switching device that complies with the following:
  - Automatically turn lights OFF when the space is scheduled to be unoccupied
  - Have a minimum 7-day clock
  - Be capable of being set for seven different day types per week.
  - Incorporate an automatic holiday "shutoff" feature, which turns off all controlled lighting loads for not fewer than 24 hours and then resumes normally scheduled operations
  - Have program backup capabilities, which prevent the loss of program and time settings for not fewer than 10 hours, if power is interrupted
  - Include an override switch that complies with the following:
    - The override switch shall be a manual control
    - The override switch, when initiated, shall permit the controlled lighting to remain on for not more than 2 hours
    - Any individual override switch shall control the lighting for an area not larger than 5,000 square feet (465 m2)

Exceptions within mall concourses, arcades, auditoriums, sales areas, manufacturing facilities and sports arenas:

- The time limit shall be permitted to exceed 2 hours provided the override switch is a captive key device
- The area controlled by the override switch is permitted to exceed 5,000 sq ft but shall not exceed 20,000 sq ft

Automatic time switches are required in all areas that are not controlled by an occupancy sensor. The switch must also have a manual override.

Several applications, including malls, arcades, auditoriums, single-tenant retail and industrial, have specific requirements and exceptions.

**Leviton Product Solutions**

- Provolt™ Room Controller
- IRC
- Lumina™ RF Wireless
- Intellect™
- GreenMAX® DRC
- GreenMAX® Relays
- Sapphire™



**C405.2.2.3**  
Interior  
Manual  
Lighting  
Controls  
**C405.2.6**  
in 2021

Manual controls for lights shall comply with the following:

- In a location readily accessible to occupants
- Located where controlled lights are visible or identify the area served by the lights and indicate their status

Most indoor spaces must have at least one manual lighting control that controls that room.

**Leviton Product Solutions**

- Smart Wallbox Sensors
- Wall Box Dimmers
- Wall Switch Sensors
- Lumina™ RF Wireless
- Intellect™
- GreenMAX® DRC
- Sapphire™

\*Standard includes exceptions; please refer to 2018 and 2021 IECC for more information

# 2018 and 2021 IECC Requirements Summary

Note that updates for 2021 IECC are highlighted.

Control Type	Summary	Quick Take
 <p><b>C405.2.1.2</b> Light Reduction Controls (C405.2.3.1 in 2021)</p>	<p>Spaces required to have light-reduction controls shall have a manual control that allows the occupant to reduce the connected lighting load by not less than 50 percent in a reasonably uniform illumination pattern with an intermediate step in addition to full on or off, or with continuous dimming control, using one of the following or another approved method:</p> <ul style="list-style-type: none"> <li>• Continuous dimming of all luminaires from full output to less than 20 percent of full power</li> <li>• Switching all luminaires to a reduced output of not less than 30 percent and not more than 70 percent of full power</li> <li>• Switching alternate luminaires or alternate rows of luminaires to achieve a reduced output of not less than 30 percent and not more than 70 percent of full power</li> </ul>	<p>Lighting that requires manual control as defined in Section C405.2.3.1 must also have partial-OFF capabilities that reduce lighting by at least 50%</p> <p>Standard includes additional requirements for open office areas; see 2021 IECC for more information</p> <p><b>Leviton Product Solutions</b></p> <ul style="list-style-type: none"> <li>• Smart Wallbox Sensors</li> <li>• Wall Box Dimmers</li> <li>• Wall Switch Sensors</li> <li>• Provolt™ Room Controller</li> <li>• IRC</li> <li>• Lumina™ RF Wireless</li> <li>• Intellect™</li> <li>• GreenMAX® DRC</li> <li>• GreenMAX® Relays</li> <li>• Sapphire™</li> </ul>



**C405.2.3**  
Daylight Responsive Controls  
(C405.2.4 in 2021)

- Daylight responsive controls must control daylight zones within the following spaces:
- Spaces with more than 150W of general lighting within primary sidelit daylight zones (excludes areas required to have specific application control)
  - Spaces with more than 150W of general lighting within toplit daylight zones
  - Spaces with a total of more than 300 watts of general lighting within sidelit daylight zones
- Such controls must comply with the following guidelines:
- Lighting in toplit daylight zones must be independently controlled separate from lights in sidelit daylight zones
  - Lights in the primary sidelit daylight zone shall be controlled independently of lights in the secondary sidelit zones
  - Calibration mechanisms must be in a location with ready access; daylight responsive controls must be calibrated by authorized personnel
  - Daylight responsive controls shall dim lights continuously from full light output to 15 percent output or lower
  - Must be capable of complete shutoff of all controlled lighting
  - Daylight responsive controls must continue to adjust electric light levels after occupancy sensor controls have reduced lighting power to an unoccupied setpoint
  - Lighting in sidelit daylight zones facing different directions (i.e. within 45 degrees of due north, east, south, west) must be controlled independently from one another
  - Exceptions: spaces in healthcare facilities where patient care is directly provided, sidelit daylight zones on the first floor, new buildings where the total connected lighting power calculated in accordance with Section C405.3.1 is not greater than the adjusted interior lighting power allowance
  - Toplit and sidelit zones are defined and calculated within the code—see 2021 IECC for specific details
  - Lights in the primary sidelit daylight zone shall be controlled independently of lights in the secondary sidelit daylight zone

Daylight responsive controls are required in both toplit and sidelit daylight areas, which must be independently controlled with accessible calibration devices. See code for specific calculations and guidelines for determining toplit and sidelit areas.

- Leviton Product Solutions**
- Photocells
  - Provolt™ Room Controller
  - IRC
  - Lumina™ RF Wireless
  - Control Solutions
  - Intellect™
  - GreenMAX® DRC
  - GreenMAX® Relays
  - Sapphire™

Control Type	Summary	Quick Take
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**C405.2.3 and C405.2.3.1**  
C405.2.3  
Daylight  
Zone Control  
(C405.2.3 and C405.2.4.1 in 2021)

Daylight responsive controls complying with Section C405.2.4.1 shall be provided to control the general lighting within daylight zones in the following spaces:

- Spaces with a total of more than 150 watts of general lighting within primary sidelit daylight zones
- Spaces with a total of more than 300 watts of general lighting within sidelit daylight zones
- Spaces with a total of more than 150 watts of general lighting within toplit daylight zones
- Lights in toplit daylight zones shall be controlled independently of lights in sidelit daylight zones in accordance with Section C405.2.4.2.
- Lights in the primary sidelit daylight zone shall be controlled independently of lights in the secondary sidelit daylight zone.
- Daylight responsive controls within each space shall be configured so that they can be calibrated from within that space by authorized personnel.
- Calibration mechanisms shall be in a location with ready access.
- Daylight responsive controls shall dim lights continuously from full light output to 15 percent of full light output or lower.
- Daylight responsive controls shall be configured to completely shut off all controlled lights.
- When occupant sensor controls have reduced the lighting power to an unoccupied setpoint in accordance with Sections C405.2.1.2 through C405.2.1.4, daylight responsive controls shall continue to adjust electric light levels in response to available daylight, but shall be configured to not increase the lighting power above the specified unoccupied setpoint.
- Lights in sidelit daylight zones in accordance with Section C405.2.4.2 facing different cardinal orientations [within 45 degrees (0.79 rad) of due north, east, south, west] shall be controlled independently of each other.
- Exceptions: Spaces in health care facilities where patient care is directly provided.

Daylight responsive controls must be provided in primary sidelit daylighting zones, sidelit zones, and toplight zones and must be controlled independently in accordance to Section C405.2.4.2.

Daylight responsive controls shall be configured and dim lights continuously according to the code

**Leviton Product Solutions**

- Smart Wallbox Sensors
- Photocells
- Provolt™ Room Controller
- IRC
- Lumina™ RF Wireless
- Intellect™
- GreenMAX® DRC
- GreenMAX® Relays
- Sapphire™



**C405.2.4**  
Specific  
Application  
Controls  
(C405.2.5 in 2021)

Specific application controls shall be controlled by an occupant sensor or time-switch control AND be manually controlled separately from general lighting:

- Display and accent lighting for display case lighting
- Supplemental task lighting including permanently installed under-shelf or cabinet lighting
- Hotel/motel sleeping units and guest suites
- Must have a master control device at the main room entry that controls all permanently installed luminaires and switched receptacles and switches OFF within 20 minutes of vacancy
- Demonstration lighting in education
- Lighting for non-visual applications such as plant growth and food warming
- Task lighting for medical and dental purposes that is in addition to general lighting shall be provided with a manual control.



Everything must be independently controlled and also be controlled by an occupancy or time switch AND be manually controlled separately from general lighting


**Leviton Product Solutions**

- Smart Wallbox Sensors
- Wall Box Dimmers
- Wall Switch Sensors
- Lumina™ RF Wireless
- Receptacle Controls











# 2018 and 2021 IECC Requirements Summary

Note that updates for 2021 IECC are highlighted

Control Type	Summary	Quick Take
	<p>Exterior lighting systems shall be provided with controls that comply with sections C405.2.7.1 through C405.2.7.4.</p> <p>Exceptions:</p> <ul style="list-style-type: none"> <li>• Lighting for covered vehicle entrances and exits from buildings and parking structures where required for eye adaptation</li> <li>• Lighting controlled from within dwelling units</li> <li>• Lights shall be automatically turned off when daylight is present and satisfies the lighting needs</li> <li>• Building facade and landscape lighting shall automatically shut off from not later than 1 hour after business closing to not earlier than 1 hour before business opening</li> </ul> <p>Lighting that is not controlled in accordance with Section C405.2.7.2 shall comply with the following:</p> <ul style="list-style-type: none"> <li>• Be controlled so that the total wattage of such lighting is automatically reduced by not less than 50 percent by selectively switching off or dimming luminaires at one of the following times:             <ul style="list-style-type: none"> <li>• From not later than midnight to not earlier than 6 a.m.</li> <li>• From not later than one hour after business closing to not earlier than one hour before business opening.</li> <li>• During any time where activity has not been detected for 15 minutes or more.</li> </ul> </li> <li>• Luminaires serving outdoor parking areas and having a rated input wattage of greater than 78 watts and a mounting height of 24 feet (7315 mm) or less above the ground shall be controlled so that the total wattage of such lighting is automatically reduced by not less than 50 percent during any time where activity has not been detected for 15 minutes or more. Not more than 1,500 watts of lighting power shall be controlled together.</li> <li>• Time-switch controls for exterior lighting shall comply with the following:             <ul style="list-style-type: none"> <li>• They shall have a clock capable of being programmed for not fewer than 7 days</li> <li>• They shall be capable of being set for seven different day types per week</li> <li>• They shall incorporate an automatic holiday setback feature</li> <li>• They shall have program backup capabilities that prevent the loss of program and time settings for a period of not less than 10 hours in the event that power is interrupted</li> </ul> </li> </ul>	<p>All exterior lighting requires a combination of specific controls, which vary depending on dusk-to-dawn operation.</p> <p><b>Leviton Product Solutions</b></p> <ul style="list-style-type: none"> <li>• Photocells</li> <li>• GreenMAX® Relays</li> </ul>
<p><b>C405.2.6</b> Exterior Lighting Controls <b>(C405.2.7.1-3 in 2021)</b></p>		
	<p>Parking garage lighting shall be controlled by an occupant sensor complying with C405.2.1.1 or a time switch control complying with C405.2.2.1. Additional lighting controls shall be provided:</p> <ul style="list-style-type: none"> <li>• Lighting power of each luminaire shall be automatically reduced by not less than 30 percent when there is no activity detected within a lighting zone for 20 minutes</li> <li>• Lighting zones for this requirement shall be not larger than 3,600 square feet (334.5 m<sup>2</sup>)</li> <li>• Exceptions: Lighting zones provided with less than 1.5 footcandles of illumination on the floor at the darkest point with all lights on are not required to have automatic light reduction controls</li> <li>• Where lighting for eye adaptation is provided at covered vehicle entrances and exits from buildings and parking structures, such lighting shall be separately controlled by a device that automatically reduces lighting power by at least 50 percent from sunset to sunrise</li> <li>• The power to luminaires within 20 feet (6096 mm) of perimeter wall openings shall automatically reduce in response to daylight by at least 50 percent</li> </ul>	<p>Parking garages shall be controlled by an occupant sensor or a time switch control.</p> <p><b>Leviton Product Solutions</b></p> <ul style="list-style-type: none"> <li>• Occupancy sensors</li> <li>• Vacancy sensors</li> <li>• GreenMAX® Relays</li> </ul>
<p><b>C405.2.8</b> Parking Garage Lighting Controls</p>		

Control Type	Summary	Quick Take
 <p data-bbox="203 630 300 735"><b>C405.11.1</b> Automatic Receptacle Control</p>	<p data-bbox="389 336 1201 367">The following shall have automatic receptacle control complying with Section C405.11.1:</p> <ul data-bbox="389 367 1201 514" style="list-style-type: none"> <li>• At least 50 percent of all 125V, 15- and 20-amp receptacles installed in enclosed offices, conference rooms, rooms used primarily for copy or print functions, breakrooms, classrooms and individual workstations, including those installed in modular partitions and module office workstation systems.</li> <li>• At least 25 percent of branch circuit feeders installed for modular furniture not shown on the construction documents</li> </ul> <p data-bbox="389 514 1201 546">Automatic receptacle controls shall comply with the following:</p> <ul data-bbox="389 546 1201 630" style="list-style-type: none"> <li>• Either split controlled receptacles shall be provided with the top receptacle controlled, or a controlled receptacle shall be located within 12 inches (304.8 mm) of each uncontrolled receptacle</li> </ul> <p data-bbox="389 630 1201 661">One of the following methods shall be used to provide control:</p> <ul data-bbox="389 661 1201 1029" style="list-style-type: none"> <li>• A scheduled basis using a time-of-day operated control device that turns receptacle power off at specific programmed times and can be programmed separately for each day of the week. The control device shall be configured to provide an independent schedule for each portion of the building of not more than 5,000 square feet (464.5 m<sup>2</sup>) and not more than one floor. The occupant shall be able to manually override an area for not more than 2 hours. Any individual override switch shall control the receptacles of not more than 5,000 feet (1524 m).</li> <li>• An occupant sensor control that shall turn off receptacles within 20 minutes of all occupants leaving a space</li> <li>• An automated signal from another control or alarm system that shall turn off receptacles within 20 minutes after determining that the area is unoccupied.</li> <li>• All controlled receptacles shall be permanently marked in accordance with NFPA 70 and be uniformly distributed throughout the space</li> <li>• Plug-in devices shall not comply</li> </ul>	<p data-bbox="1226 420 1502 535">Controlled receptacles are required to be located within 12" of each uncontrolled receptacle</p> <p data-bbox="1226 556 1502 693">Receptacles must be controlled by time of day, occupancy sensors or a signal from another control or alarm system</p> <p data-bbox="1226 724 1502 756"><b>Leviton Product Solutions</b></p> <ul data-bbox="1226 756 1502 945" style="list-style-type: none"> <li>• Provolt™ Room</li> <li>• Controller</li> <li>• IRC</li> <li>• Lumina™ RF Wireless</li> <li>• Intellect™</li> <li>• GreenMAX® DRC</li> <li>• GreenMAX® Relays</li> </ul>
 <p data-bbox="203 1428 300 1543"><b>C405.12-C405.12.5</b> Energy Monitoring</p>	<ul data-bbox="389 1039 1201 1932" style="list-style-type: none"> <li>• New buildings with a gross conditioned floor area of 25,000 square feet (2322 m<sup>2</sup>) or larger shall be equipped to measure, monitor, record and report energy consumption data in compliance with Sections C405.12.1 through C405.12.5</li> <li>• For all electrical energy supplied to the building and its associated site, including but not limited to site lighting, parking, recreational facilities and other areas that serve the building and its occupants, meters or other measurement devices shall be provided to collect energy consumption data for each end-use category required by Section C405.12.2</li> <li>• Meters or other approved measurement devices shall be provided to collect energy use data for each end-use category indicated in Table C405.12.2. Where multiple meters are used to measure any end-use category, the data acquisition system shall total all of the energy used by that category</li> <li>• Not more than 5 percent of the measured load for each of the end-use categories indicated in Table C405.12.2 shall be permitted to be from a load that is not within that category</li> <li>• Meters or other measurement devices required by this section shall be configured to automatically communicate energy consumption data to the data acquisition system required by Section C405.12.4. Source meters shall be allowed to be any digital type meter Lighting, HVAC or other building systems that can monitor their energy consumption shall be permitted instead of meters. Current sensors shall be permitted, provided that they have a tested accuracy of ±2 percent. Required metering systems and equipment shall have the capability to provide at least hourly data that is fully integrated into the data acquisition system and graphical energy report in accordance with Sections C405.12.4 and C405.12.5.</li> <li>• A data acquisition system shall have the capability to store the data from the required meters and other sensing devices for a minimum of 36 months. The data acquisition system shall have the capability to store real-time energy consumption data and provide hourly, daily, monthly and yearly logged data for each end-use category required by Section C405.12.2.</li> <li>• A permanent and readily accessible reporting mechanism shall be provided in the building that is accessible by building operation and management personnel. The reporting mechanism shall have the capability to graphically provide the energy consumption for each end-use category required by Section C405.12.2 at least every hour, day, month and year for the previous 36 months.</li> </ul>	<p data-bbox="1226 1165 1502 1249">Energy monitoring is required for new buildings 25,000 sq. ft and larger</p> <p data-bbox="1226 1270 1502 1354">Data acquisition systems are required to store data for 36 months</p> <p data-bbox="1226 1375 1502 1438">Graphical reporting mechanisms are required</p> <p data-bbox="1226 1459 1502 1512">Energy use categories include:</p> <ul data-bbox="1226 1512 1502 1701" style="list-style-type: none"> <li>• Total HVAC system</li> <li>• Interior lighting</li> <li>• Exterior lighting</li> <li>• Plug loads</li> <li>• Process load</li> <li>• Building operations and other miscellaneous loads</li> </ul> <p data-bbox="1226 1722 1502 1753"><b>Leviton Product Solutions</b></p> <ul data-bbox="1226 1753 1502 1806" style="list-style-type: none"> <li>• VerifEye™ Submetering Solutions</li> </ul>

# Leviton Solutions at a Glance

2021 IECC Standards										
	C405.2.1 Occupancy Sensors	C405.2.2.1 Automatic Time Switch Control	C405.2.3 Daylight Zone Control	C405.2.3.1 Light Reduction Controls	C405.2.5 Specific Application Controls	C405.2.6 Interior Manual Lighting Controls	C405.2.7.1 Exterior Lighting Control	C405.8 Parking Garages	C405.11 Plug Load Control	C405.12 Energy Monitoring
										
Product Solutions										
Occupancy Sensors	×	--	×	×	×	--	×	--	×	--
Vacancy Sensors	×	--	--	--	×	--	--	--	--	--
Smart Wallbox Sensors	×	×	×	--	×	×	--	--	--	--
Photocells	--	--	×	×	×	×	×	--	--	--
Provolt Room Controller (PRC)	×	×	×	×	×	×	--	×	--	--
IRC	×	×	×	×	×	--	--	×	--	--
Lumina™ RF Standalone Wireless Room Control System	×	×	×	×	×	--	--	×	×	--
Intellect-Enabled Fixtures	×	×	--	×	×	--	--	×	--	--
GreenMAX® DRC	×	×	×	×	×	--	--	×	×	--
GreenMAX®	×	×	×	×	×	×	×	×	×	--
Track Light Limiting Panel (TLLP)	--	--	--	--	×	×	--	--	--	--
Sapphire™	×	×	--	×	×	--	--	--	--	--
Marked Controlled Receptacles	--	--	--	--	--	--	--	--	×	--
VerifEye™ Submetering Solutions	--	--	--	--	--	--	--	--	--	×

**NOTE:** All Leviton solutions are manufactured to the highest quality and performance standards, which can easily be demonstrated at the time of installation to fulfill IECC 2021 Section C408.3 for Functional Testing

**NOTE:** Solutions may require other products to complete a code compliant energy control solution—consult Leviton for more information.



# Leviton Applications at a Glance

Note: All indicated applications can be found in the IECC Applications Cookbook. Solutions represented in this Design Guide are represented by a **green X**.

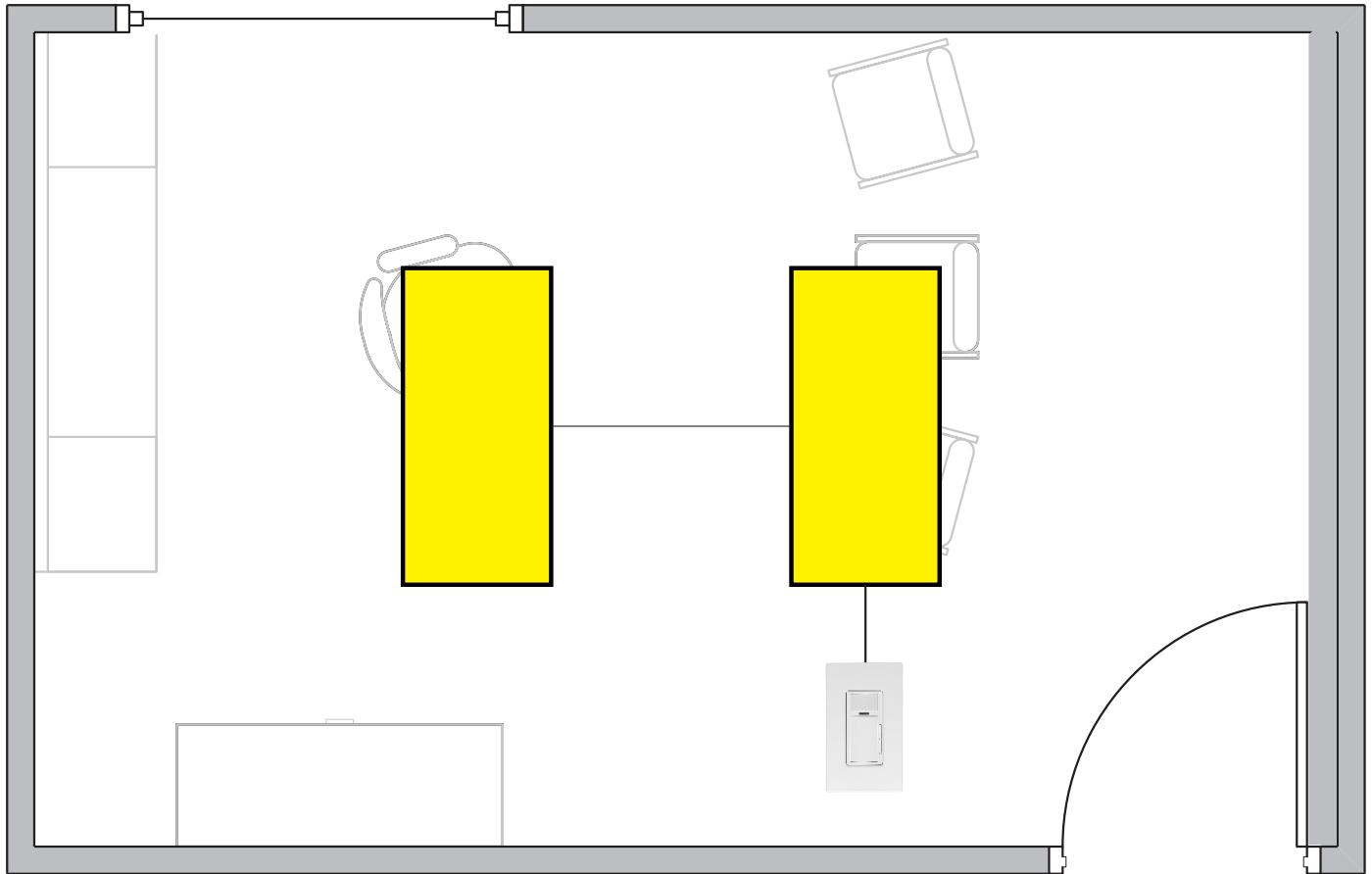
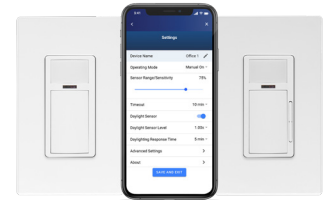
2021 IECC Standards									
	Small Office	Open Office	Conference Room	Classroom	Common Area	Library	Restaurant	Warehouse	Energy Monitoring
Product Solutions									
Occupancy Sensors	X	X	X	X	X	X	X	X	--
Vacancy Sensors	X	X	X	X	X	X	X	X	--
Smart Wallbox Sensors	X	--	--	--	X	--	--	--	--
Photocells	X	X	X	X	X	X	X	X	--
Provolt Room Controller (PRC)	X	X	X	X	X	X	X	X	--
IRC	X	X	X	X	X	X	X	X	--
Lumina RF Standalone Wireless Room Control System	X	X	X	X	X	X	X	X	--
Intellect-enabled Fixtures	X	X	X	X	X	X	X	X	--
GreenMAX DRC	X	X	X	X	X	X	X	X	--
GreenMAX	X	X	X	X	X	X	X	X	--
Track Light Limiting Panel (TLLP)	--	--	--	--	--	--	X	X	--
Sapphire™	X	X	X	X	X	--	X	--	--
Marked Controlled Receptacles	X	X	X	X	X	X	X	X	--
VerifEye™ Submetering Solutions	X	X	X	X	X	X	X	X	X

# Small Office—Single Zone

## FEATURED LEVITON 2021 IECC SOLUTION

### Smart Wallbox Sensor

- Simple occupancy/vacancy sensing and dimming solution and fits in a standard wallbox
- Simple pushbutton programming
- Create multi-way capabilities for up to 5 devices on all models with Leviton Push to Pair (P2P) process
- App based configuration and customization make for a convenient, affordable solution that meets a range of needs



### Meets the Following Requirements:

- **Section C405.2.1**  
- Occupancy Sensor
- **Section C405.2.4**  
- Daylight Responsive Controls
- **Section C405.2.6**  
- Interior Manual Lighting Control
- **Section C408.3**  
- Functional Testing

### Features:

- 0-10V Dimming and Partial-ON/OFF and Auto-ON/OFF Control
- Occupancy or Vacancy Sensing
- Sensitivity Time outs

### What you will need

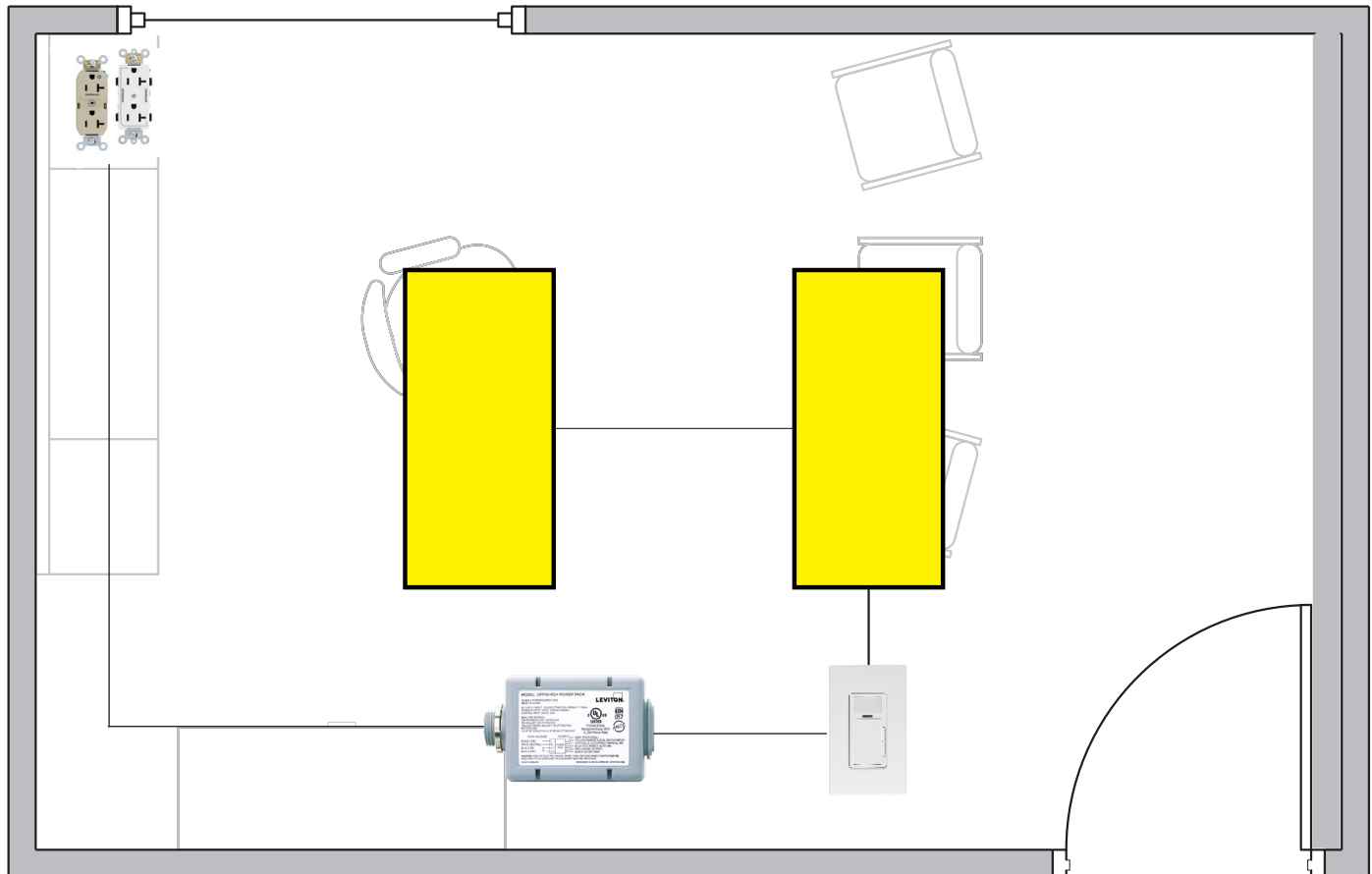
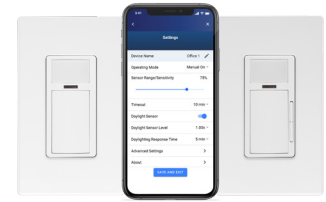
What you will need		Quantity
	<b>Smart PIR 0-10V Dimming Wallbox Sensor</b> ODD10-IDW/ODD10-IDI	1

# Small Office—Single Zone w/Plug Load Control

## FEATURED LEVITON 2021 IECC SOLUTION

### Smart Wallbox Sensor

- Simple occupancy/vacancy sensing and dimming solution and fits in a standard wallbox
- Simple pushbutton programming
- Create multi-way capabilities for up to 5 devices on all models with Leviton Push to Pair (P2P) process
- App based configuration and customization make for a convenient, affordable solution that meets a range of needs



### Meets the Following Requirements:




- **Section C405.2.1**  
- Occupancy Sensor
- **Section C405.2.4**  
- Daylight Responsive Controls
- **Section C405.2.6**  
- Interior Manual Lighting Control
- **Section C408.3**  
- Functional Testing
- **Section C405.11**  
- Receptacle Control

### Features:

- 0-10V Dimming and Partial-ON/OFF and Auto-ON/OFF Control
- Occupancy or Vacancy Sensing
- Sensitivity Time outs
- Plug Load Control

### What you will need (sold separately)

### Quantity

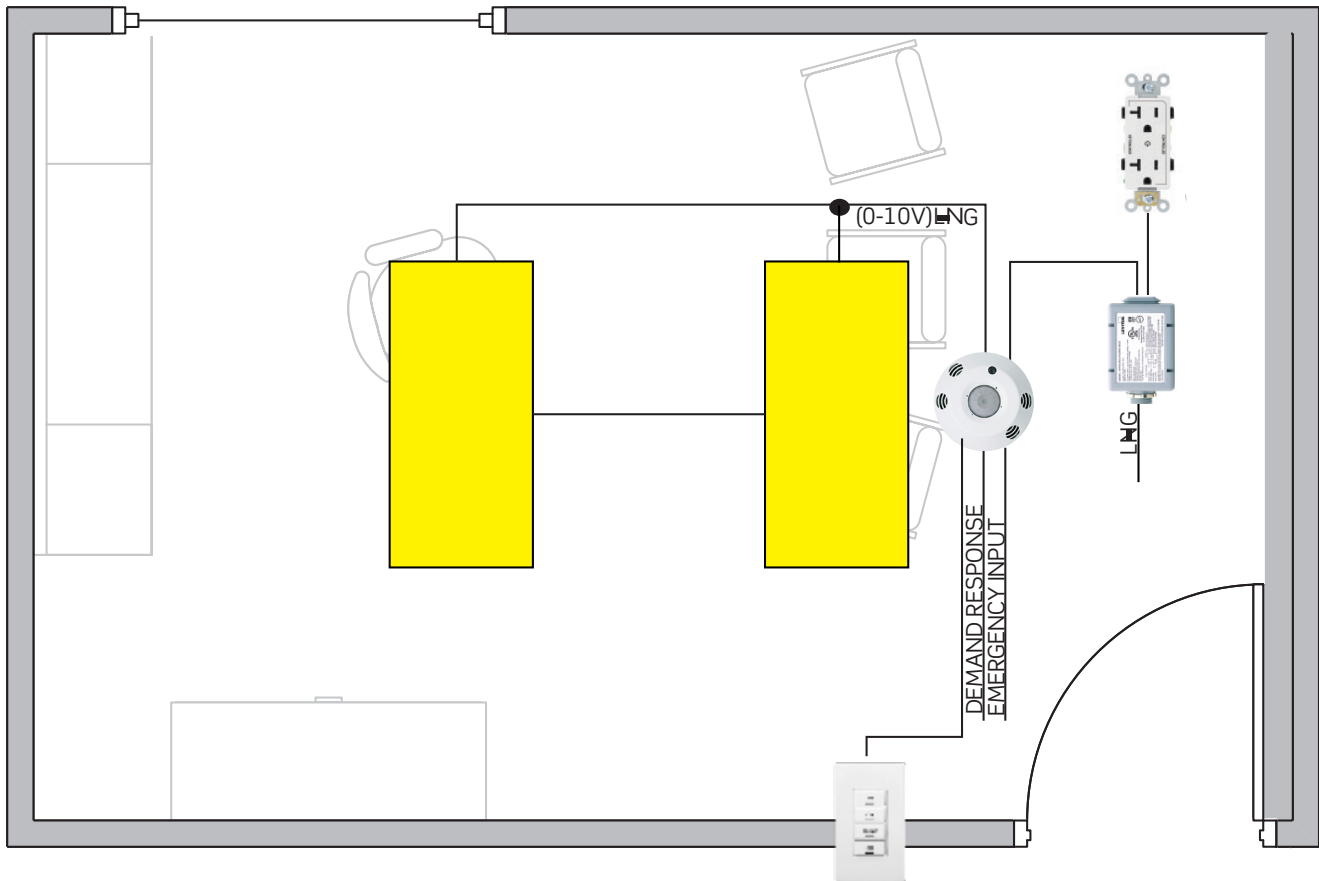
	<b>Smart PIR 24V Wallbox Sensor</b> ODD24-IDW	1
	<b>Super Duty Power Pack</b> OPP20-RD4	1
	<b>Marked "Controlled" Receptacles</b> 16352-2PW	1

# Small Office—Single Zone

## FEATURED LEVITON 2021 IECC SOLUTION

### Provolt™ Room Controller (PRC)

- Comprehensive solution integrates multiple lighting control strategies—occupancy sensing, 0-10V dimming, daylight harvesting, partial-ON, partial-OFF and demand response
- Combined line voltage multi-technology or PIR sensor, power pack and photocell in a self-contained, easy-to-install device
- Configure and test controls from an Android or Apple smart device via the Provolt Bluetooth Mobile App—reduces callbacks



### Meets the Following Requirements:

- **Section C405.2.1**  
- Occupancy Sensor
- **Section C405.2.4**  
- Daylight Responsive Controls
- **Section C405.2.6**  
- Interior Manual Lighting Control
- **Section C408.3**  
- Functional Testing
- **Section C405.11**  
- Receptacle Control

### Features:

- 0-10V Dimming Control
- Self-Contained Occupancy Sensor, Photocell and Power Pack
- Vacancy or Occupancy Sensing with Auto-OFF
- Auto Calibration
- Daylighting Set Point
- Adjustment through Entry Station
- Emergency Input
- Decora 4-Button Entry Station
- Plug Load Control
- Time Clock Input
- Demand Response

### What you will need (sold separately)

### Quantity

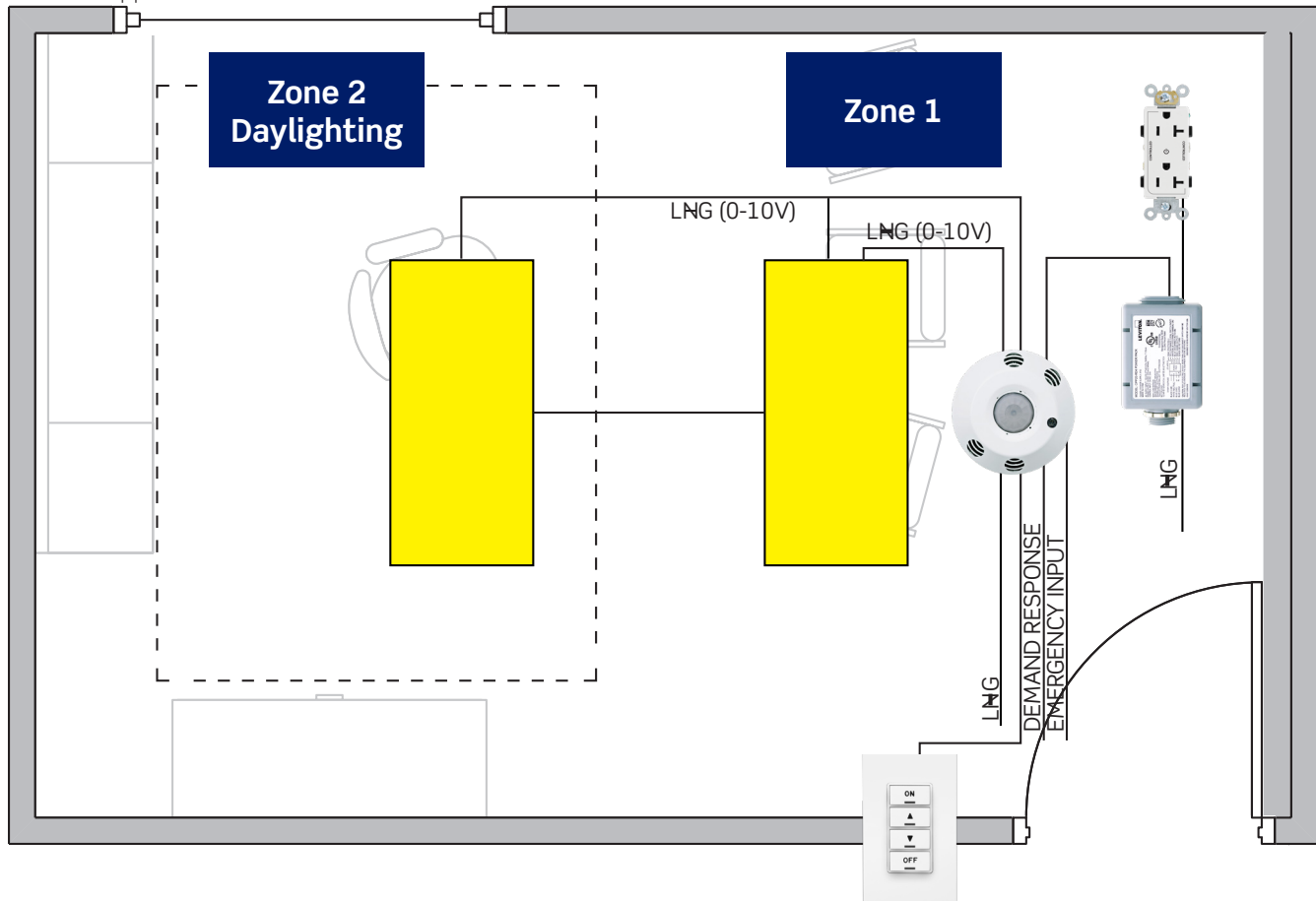
What you will need (sold separately)	Quantity
 Provolt Room Controller (PRC) O5C04-IDW	1
 Provolt Low-Voltage Keypad, 4-Button PLVSW-4LW	1
 OPP20 Super Duty Power Pack OPP20-OD1	1
 Marked "Controlled" Receptacles 16352-2PW	5

# Small Office—Dual Zone

## FEATURED LEVITON 2021 IECC SOLUTION

### Provolt™ Room Controller (PRC)

- Comprehensive solution integrates multiple lighting control strategies—occupancy sensing, 0-10V dimming, daylight harvesting, partial-ON, partial-OFF and demand response
- Combined line voltage multi-technology or PIR sensor, power pack and photocell in a self-contained, easy-to-install device
- Configure and test controls from an Android or Apple smart device via the Provolt Bluetooth Mobile App—reduces callbacks



### Meets the Following Requirements:

- **Section C405.2.1**  
- Occupancy Sensor
- **Section C405.2.4**  
- Daylight Responsive Controls
- **Section C405.2.6**  
- Interior Manual Lighting Control
- **Section C408.3**  
- Functional Testing
- **Section C405.11**  
- Receptacle Control

### Features:

- 0-10V Dimming Control
- Self-contained occupancy sensor, photocell and power pack
- Occupancy or Vacancy
- Sensing with Auto-OFF
- Auto Calibration
- Daylighting Set Point Adjustment through Entry Station
- Station
- Emergency Input
- Decora 4-Button Entry Station
- Plug Load Control
- Time Clock Input
- Demand Response

### What you will need (sold separately)

### Quantity

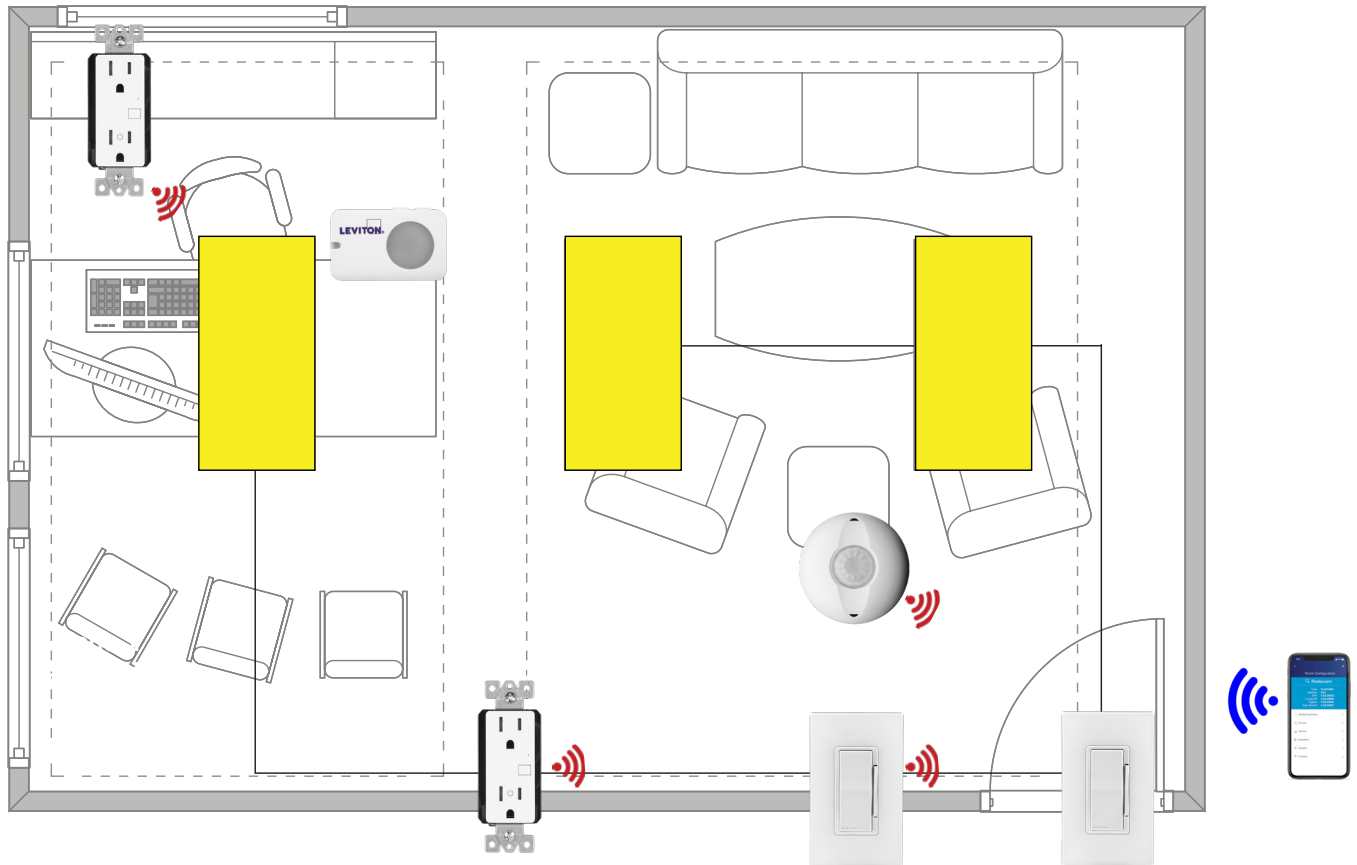
What you will need (sold separately)	Quantity
Provolt Room Controller (PRC) O5C04-IDW	1
Provolt Low-Voltage Keypad, 4-Button PLVSW-4LW	1
OPP20 Super Duty Power Pack OPP20-0D1	1
Marked "Controlled" Receptacles 16352-2PW	5

# Small Office—Dual Zone

## FEATURED LEVITON 2021 IECC SOLUTION

### Lumina™ RF Standalone Wireless Room Control System

- Add wireless control to virtually any ON/OFF or dimming device with Lumina RF devices
- Compatible with virtually all lamp fixtures and load control devices
- Scalable, flexible wireless mesh solution to meet the unique control needs of virtually any space all without having to pull new wires
- Configure, monitor, and control the system with the Lumina RF Standalone App using an Android or iOS smart device for Ladderless Commissioning



### Meets the Following Requirements:

- **Section C405.2.1**  
- Occupancy Sensor
- **Section C405.2.4**  
- Daylight Responsive Controls
- **Section C405.2.6**  
- Interior Manual Lighting Control
- **Section C408.3**  
- Functional Testing
- **Section C405.11**  
- Receptacle Control

### Features:

- 0-10V Dimming Control
- Occupancy or Vacancy
- Multi-Zone Daylight Harvesting
- Plug Load Control
- Wireless Communication via Mesh Network

### What you will need (sold separately)

### Quantity

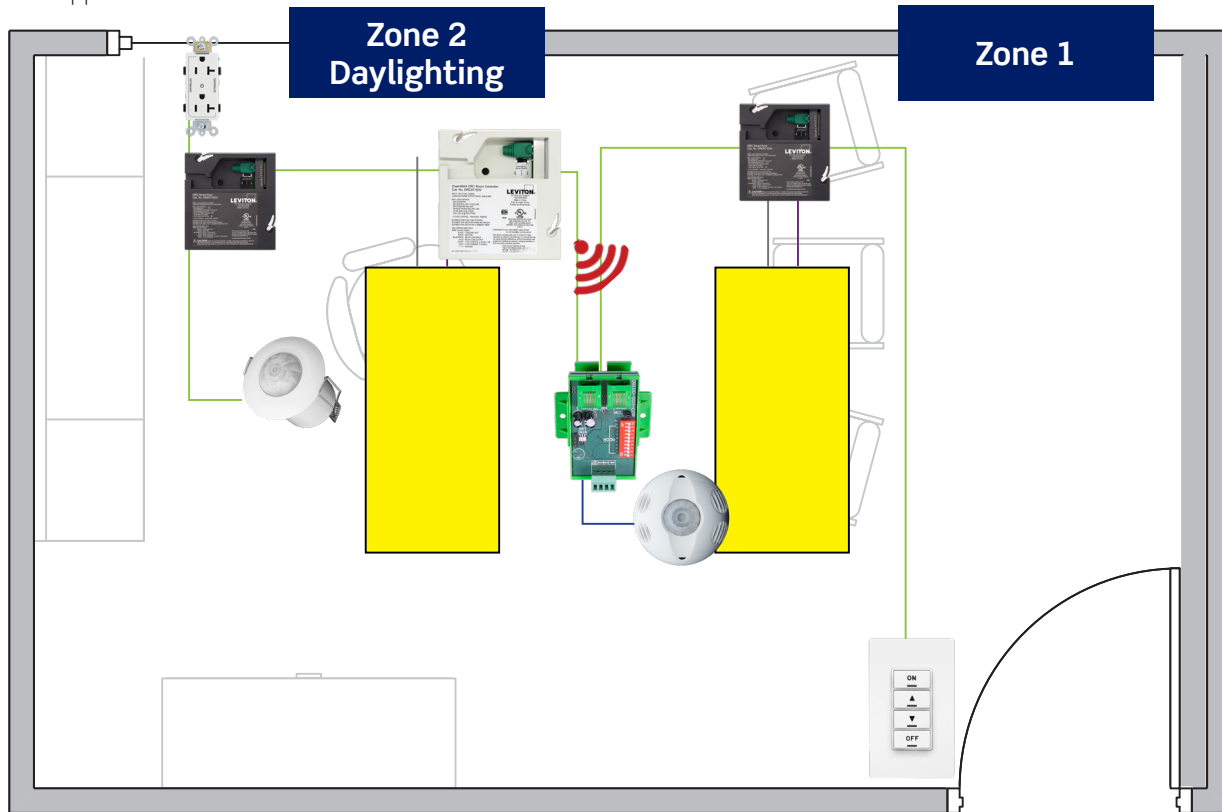
	What you will need (sold separately)	Quantity
	Lumina RF 0-10V Dimmer Room Controller with 5A Relay DL057-D0Z	1
	Wireless 0-10V Wall Dimmer ZS057-D0Z	1
	Wireless PIR Occupancy Sensor ZSC04-INW	1
	Wireless Photocell LURPC-01W	1
	Zigbee Controlled Receptacle ZSTLR-1HW	2

# Small Office—Dual Zone

## FEATURED LEVITON 2021 IECC SOLUTION

### GreenMAX® DRC Wired Room Control System

- Fully distributed room control system
- Room agnostic—each room operates independently of other rooms—not dependent on network processors or centralized controllers for operation
- Easy-to-specify, scalable—add and rearrange products to accommodate the evolving needs of any application, and re-zone/re-group and adjust settings with ease through the GreenMAX DRC App for smart devices



#### Meets the Following Requirements:

- **Section C405.2.1**  
- Occupancy Sensor
- **Section C405.2.4**  
- Daylight Responsive Controls
- **Section C405.2.6**  
- Interior Manual Lighting Control
- **Section C408.3**  
- Functional Testing
- **Section C405.11**  
- Receptacle Control

#### Features:

- Occupancy/Vacancy Sensing
- Scene Control
- Daylighting
- Plug Load Control
- Emergency Lighting

#### What you will need (sold separately)

#### Quantity

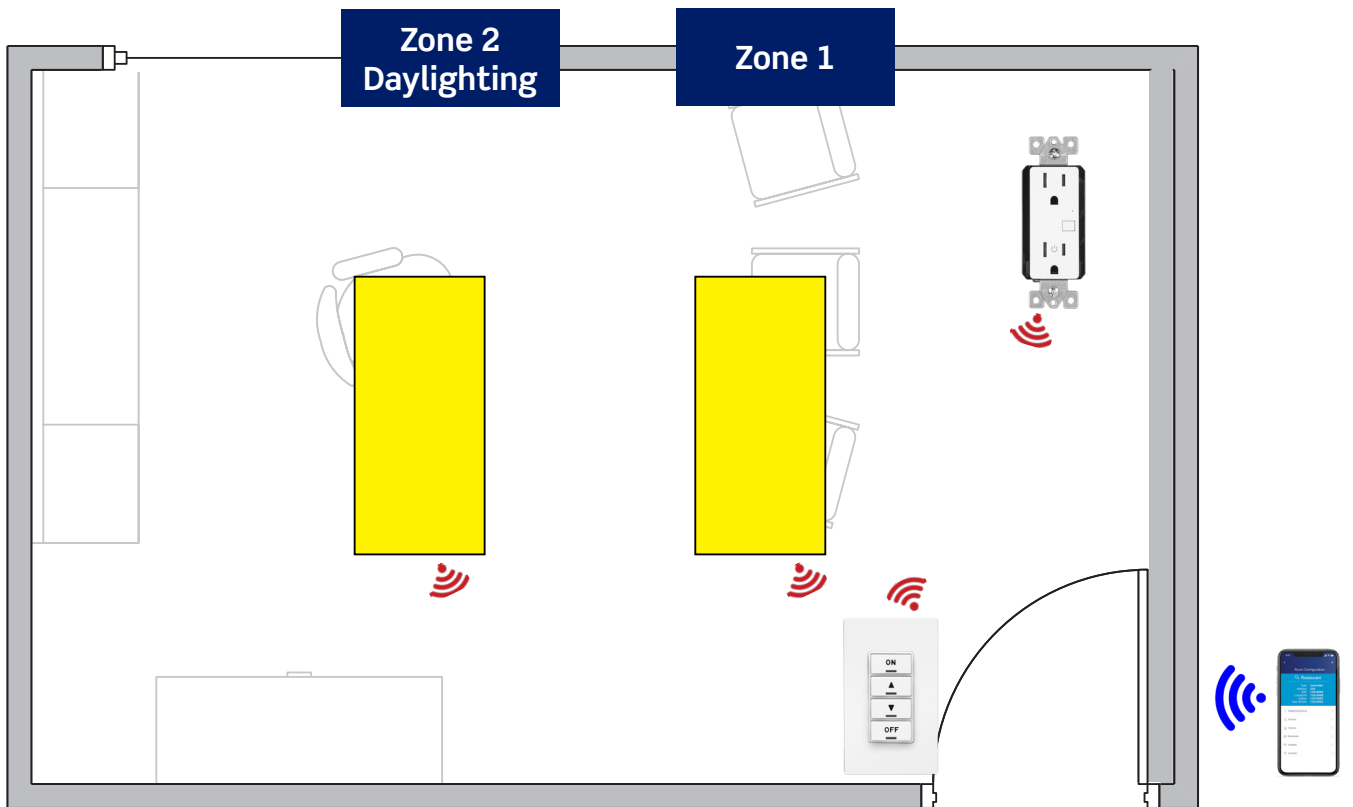
What you will need (sold separately)	Quantity
 GreenMAX DRC Line Voltage Room Controller DRC07-ED0	1
 GreenMAX DRC 0-10V Smart Pack DRD07-ED0	2
 GreenMAX DRC Digital Sensor OSR05-ICW	1
 GreenMAX DRC Analog Interface (AI) DRID0-C02	1
 Analog Occupancy Sensor OSCxx-MWW	1
 GreenMAX DRC 4-Button Digital Keypad DRKDN-C4W	1
 Marked Controlled Receptacle 16352-2PW	1

# Small Office - Dual Zone

## FEATURED LEVITON 2021 IECC SOLUTION

### GreenMAX® DRC Wireless With Intellect-Enabled Fixtures

- Fully distributed room control system
- Room agnostic—each room operates independently of other rooms—not dependent on network processors or centralized controllers for operation
- Easy-to-specify, scalable—add and rearrange products to accommodate the evolving needs of any application, and re-zone/re-group and adjust settings with ease through the GreenMAX DRC App for smart devices



#### Meets the Following Requirements:



- **Section C405.2.1**  
- Occupancy Sensor
- **Section C405.2.4**  
- Daylight Responsive Controls
- **Section C405.2.6**  
- Interior Manual Lighting Control
- **Section C408.3**  
- Functional Testing
- **Section C405.11**  
- Receptacle Control

#### Features:

- Wi-Fi Networking
- 2 Zones
- Occupancy/Vacancy Sensing
- Scheduling
- Scene Control
- Daylighting
- Plug Load Control
- Emergency Lighting

#### What you will need (sold separately)

#### Quantity

	<b>GreenMAX DRC 4-Button Wireless Keypad Room Controller</b> DRKDN-U4W	1
	<b>Intellect-enabled Fixture</b> LRTH2x2-LED835UNV-LV01	2
	<b>Zigbee Controlled Receptacle</b> ZSTLR-1HW	1

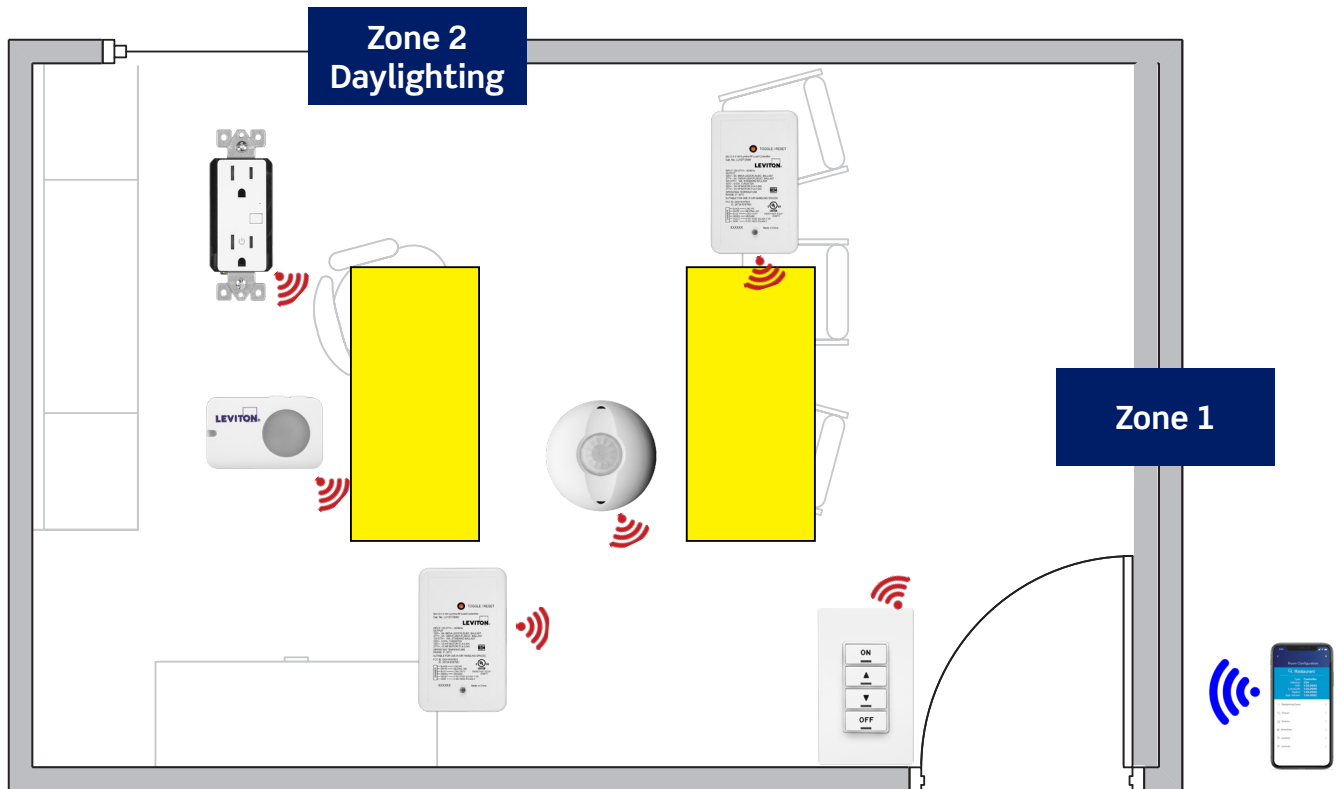


# Small Office - Dual Zone

## FEATURED LEVITON 2021 IECC SOLUTION

### GreenMAX® DRC Wireless with 0-10V Dimming

- Fully distributed room control system
- Room agnostic—each room operates independently of other rooms—not dependent on network processors or centralized controllers for operation
- Easy-to-specify, scalable—add and rearrange products to accommodate the evolving needs of any application, and re-zone/re-group and adjust settings with ease through the GreenMAX DRC App for smart devices



### Meets the Following Requirements:

- **Section C405.2.1**  
- Occupancy Sensor
- **Section C405.2.4**  
- Daylight Responsive Controls
- **Section C405.2.6**  
- Interior Manual Lighting Control
- **Section C408.3**  
- Functional Testing
- **Section C405.11**  
- Receptacle Control

### Features:

- Wi-Fi Networking
- 2 Zones
- Occupancy/Vacancy Sensing
- Scheduling
- Scene Control
- 0-10V Dimming
- Plug Load Control
- Emergency Lighting

### What you will need (sold separately)

### Quantity

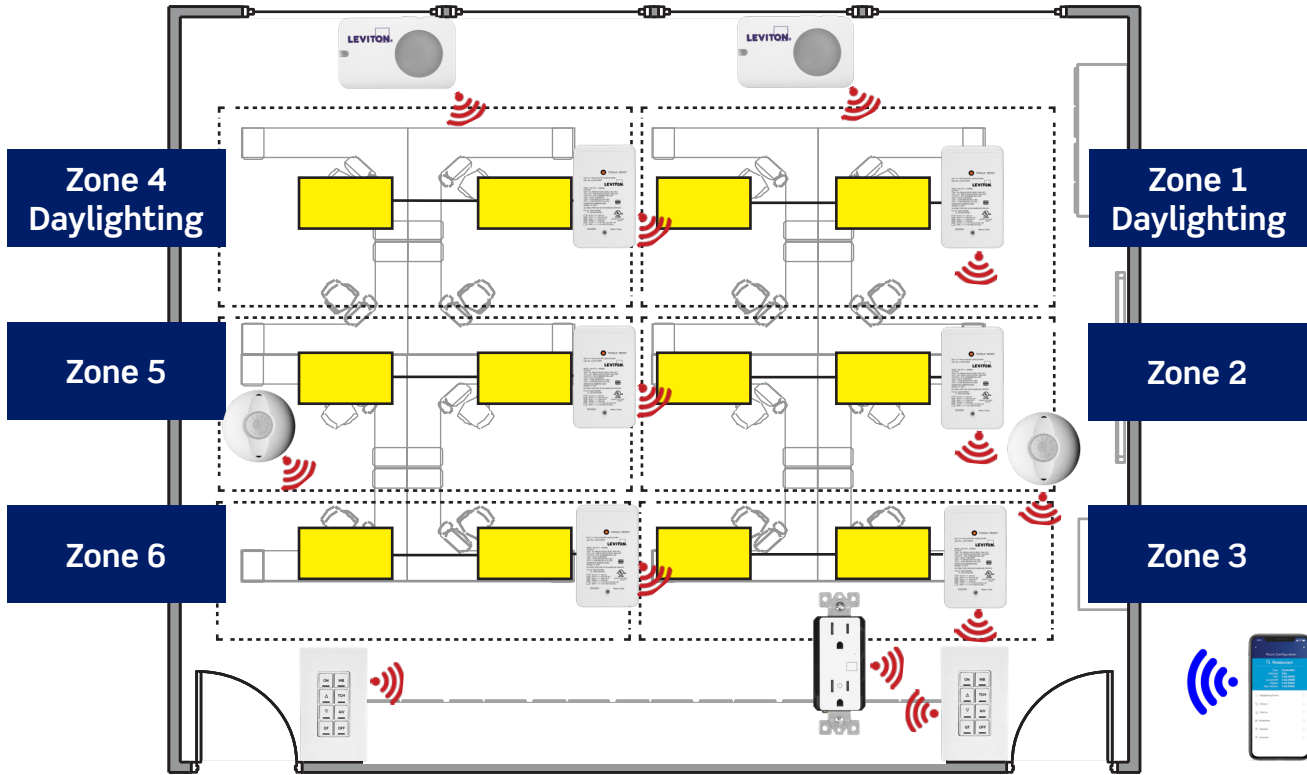
What you will need (sold separately)	Quantity
 <b>GreenMAX DRC 4-Button Wireless Keypad Room Controller</b> DRKDN-U4W	1
 <b>Wireless 10A, 0-10V Dimming Power Pack</b> LU107-DNW	2
 <b>Wireless PIR Occupancy Sensor</b> ZSC04-INW	1
 <b>Wireless Photocell</b> LURPC-01W	1
 <b>Zigbee Controlled Receptacle</b> ZSTLR-1HW	Varies

# Open Office

## FEATURED LEVITON 2021 IECC SOLUTION

### GreenMAX® DRC Wireless Room Control System

- Fully distributed room control system
- Room agnostic—each room operates independently of other rooms—not dependent on network processors or centralized controllers for operation
- Easy-to-specify, scalable—add and rearrange products to accommodate the evolving needs of any application, and re-zone/re-group and adjust settings with ease through the GreenMAX DRC App for smart devices



### Meets the Following Requirements:

- **Section C405.2.1**  
- Occupancy Sensor
- **Section C405.2.1.3**  
- Open Office Plan Area
- **Section C405.2.4**  
- Daylight Responsive Controls
- **Section C405.2.6**  
- Interior Manual Lighting Control
- **Section C408.3**  
- Functional Testing
- **Section C405.11**  
- Receptacle Control

### Features:

- Wi-Fi Networking
- Multiple Zones
- Occupancy/Vacancy Sensing
- Scheduling
- Scene Control
- Daylighting
- Multi-Way Switching
- Plug Load Control
- Emergency Lighting

### What you will need (sold separately)

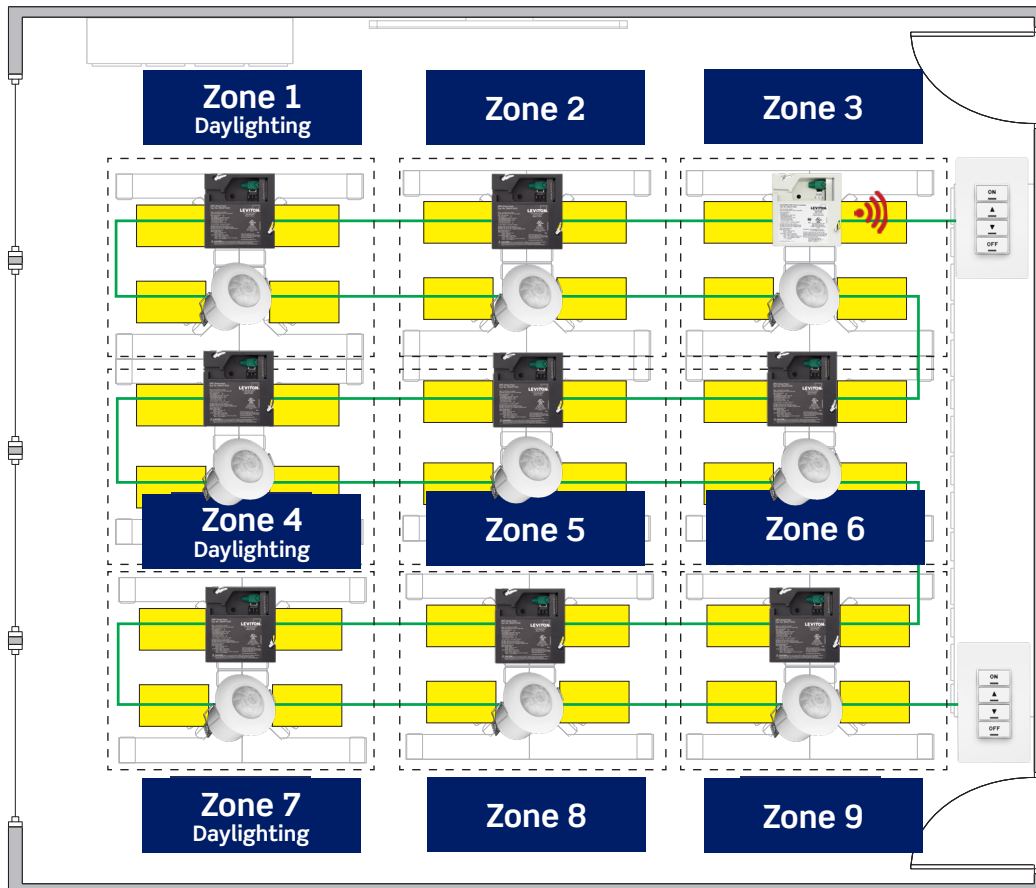
### Quantity

	<b>GreenMAX DRC 8-Button Wireless Keypad Room Controller</b> DRKDN-U8W	1
	<b>8-Button Wireless Remote Keypad</b> ZLDNK-08W	1
	<b>Wireless 10A, 0-10V Dimming Power Pack</b> LU107-DNW	6
	<b>Wireless PIR Occupancy Sensor</b> ZSC04-INW	2
	<b>Wireless Photocell</b> LURPC-01W	2
	<b>Zigbee Controlled Receptacle</b> ZSTLR-1HW	Varies

# Open Office - 9 Zone

## FEATURED LEVITON 2021 IECC SOLUTION GreenMAX® DRC Wired Room Control System

- Fully distributed room control system
- Room agnostic—each room operates independently of other rooms—not dependent on network processors or centralized controllers for operation
- Easy-to-specify, scalable—add and rearrange products to accommodate the evolving needs of any application, and re-zone/re-group and adjust settings with ease through the GreenMAX DRC App for smart devices



### Meets the Following Requirements:

- **Section C405.2.1**  
- Occupancy Sensor
- **Section C405.2.1.3**  
- Open Office Plan Area
- **Section C405.2.4**  
- Daylight Responsive Controls
- **Section C405.2.6**  
- Interior Manual Lighting Control
- **Section C408.3**  
- Functional Testing

### Features:

- Wi-Fi Networking
- Multiple Zones
- Occupancy/Vacancy Sensing
- Scheduling
- Scene Control
- Daylighting
- Multi-Way Switching
- Emergency Lighting

### What you will need (sold separately)

### Quantity

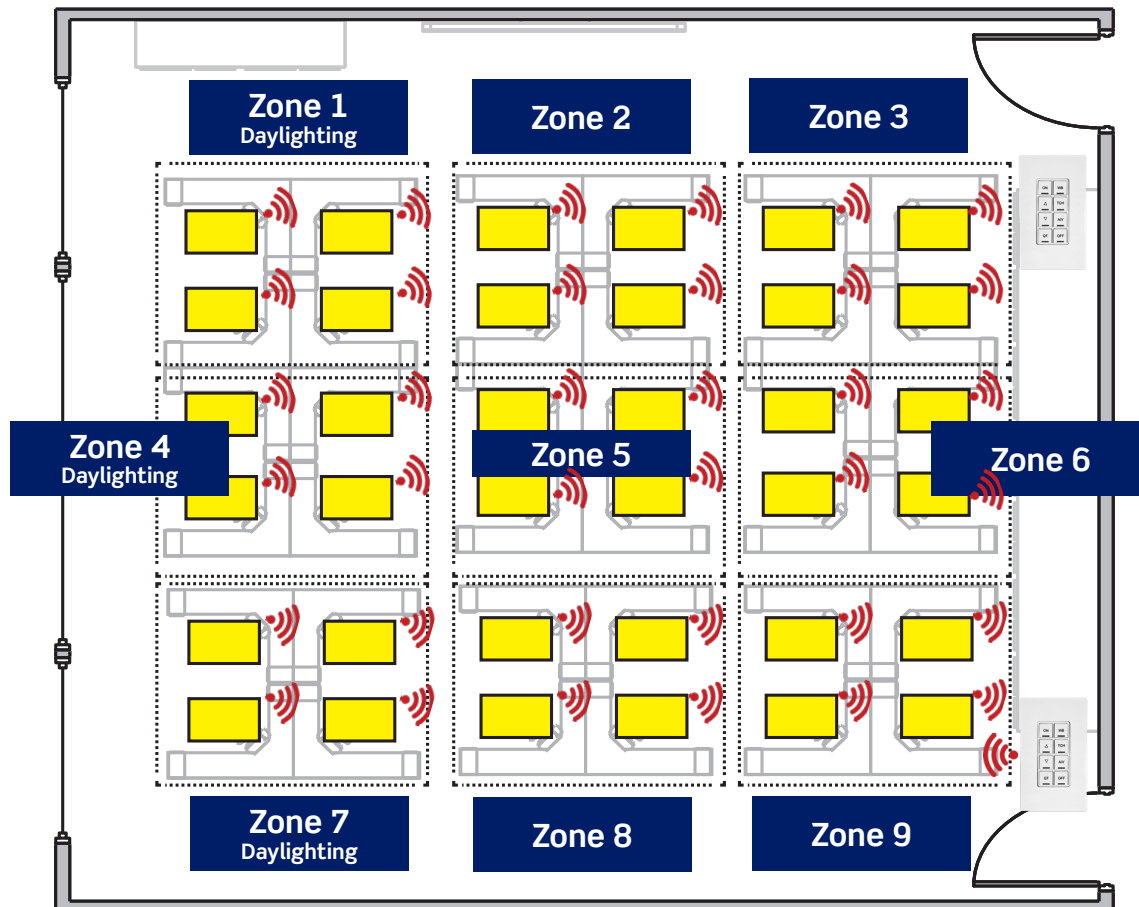
	What you will need (sold separately)	Quantity
	<b>GreenMAX DRC Line Voltage Room Controller</b> DRC07-ED0	1
	<b>GreenMAX DRC 0-10V Smart Pack</b> DRD07-ED0	8
	<b>GreenMAX DRC Digital Sensor</b> OSR05-ICW	9
	<b>Lighting Control Station</b> RLVSW-4LW	2

# Open Office - 9 Zone

## FEATURED LEVITON 2021 IECC SOLUTION

### GreenMAX® DRC Wireless with Intellect-Enabled Fixtures

- Fully distributed room control system
- Room agnostic—each room operates independently of other rooms—not dependent on network processors or centralized controllers for operation
- Easy-to-specify, scalable—add and rearrange products to accommodate the evolving needs of any application, and re-zone/re-group and adjust settings with ease through the GreenMAX DRC App for smart devices





### Meets the Following Requirements:

- **Section C405.2.1**  
- Occupancy Sensor
- **Section C405.2.1.3**  
- Open Office Plan Area
- **Section C405.2.4**  
- Daylight Responsive Controls
- **Section C405.2.6**  
- Interior Manual Lighting Control
- **Section C408.3**  
- Functional Testing

### Features:

- Multiple Zones
- Occupancy/Vacancy Sensing
- Scheduling
- Scene Control
- Daylighting
- Multi-Way Switching
- Emergency Lighting
- Wi-Fi Networking

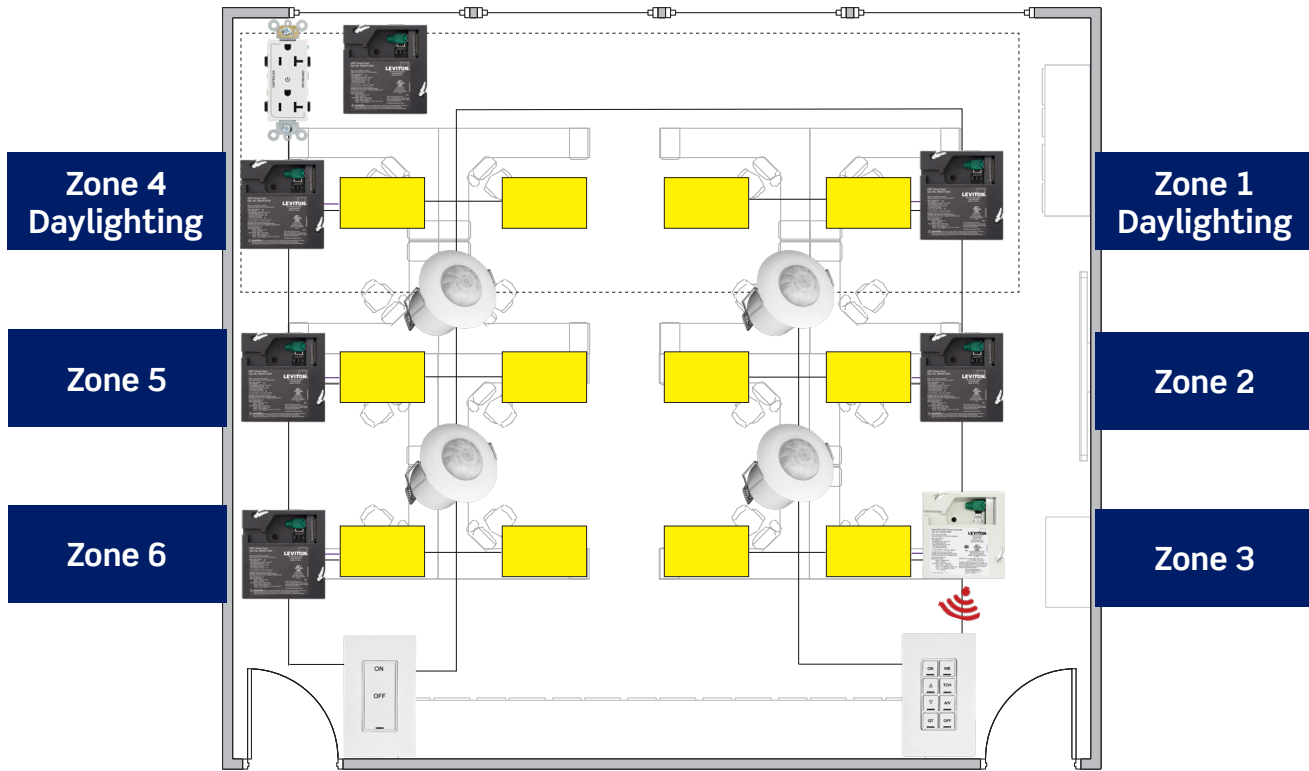
### What you will need (sold separately)

		Quantity
	<b>GreenMAX DRC 8-Button Wireless Keypad Room Controller</b> DRKDN-U8W	2
	<b>Intellect-enabled Fixture</b> LRTH2x2-LED835UNV-LV01	36

# Open Office

## FEATURED LEVITON 2021 IECC SOLUTION GreenMAX® DRC Wired Room Control System

- Fully distributed room control system
- Room agnostic—each room operates independently of other rooms—not dependent on network processors or centralized controllers for operation
- Easy-to-specify, scalable—add and rearrange products to accommodate the evolving needs of any application, and re-zone/re-group and adjust settings with ease through the GreenMAX DRC App for smart devices



### Meets the Following Requirements:

- **Section C405.2.1**  
- Occupancy Sensor
- **Section C405.2.1.3**  
- Open Office Plan Area
- **Section C405.2.4**  
- Daylight Responsive Controls
- **Section C405.2.6**  
- Interior Manual Lighting Control
- **Section C408.3**  
- Functional Testing
- **Section C405.11**  
- Receptacle Control

### Features:

- Multiple Zones
- Occupancy/Vacancy Sensing
- Scheduling
- Scene Control
- Daylighting
- Multi-Way Switching
- Plug Load Control
- Emergency Lighting

### What you will need (sold separately)

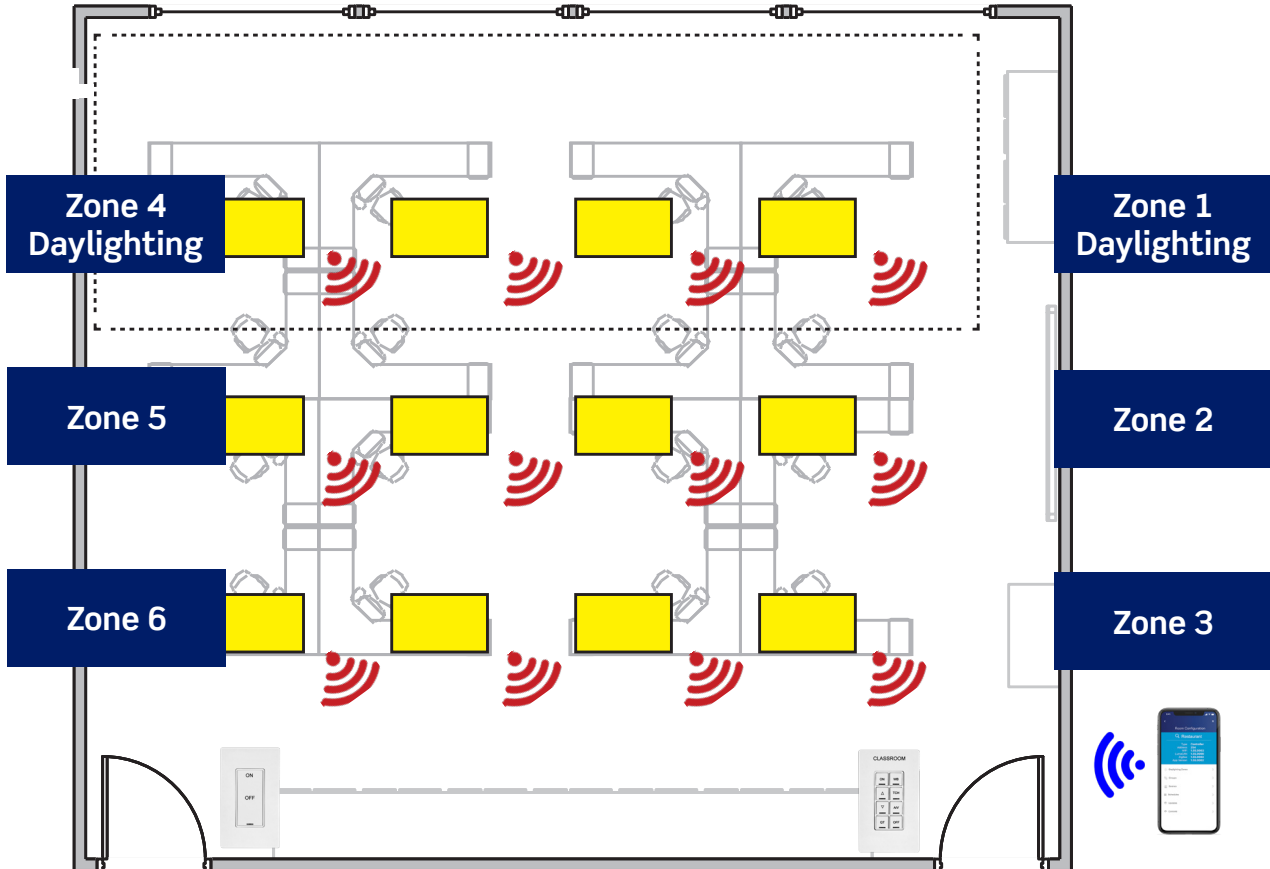
		Quantity
	<b>GreenMAX DRC Line Voltage Room Controller</b> DRC07-ED0	1
	<b>GreenMAX DRC 0-10V Smart Pack</b> DRD07-ED0	6
	<b>GreenMAX DRC Digital Sensor</b> OSR05-ICW	4
	<b>GreenMAX DRC 8-Button Digital Keypad</b> DRKDN-C8W	1
	<b>GreenMAX DRC 1-Button Digital Keypad</b> DRKDN-C1W	1
	<b>Marked Controlled Receptacles</b> 16352-2PW	1

# Open Office

## FEATURED LEVITON 2021 IECC SOLUTION

### GreenMAX® DRC Wireless with Intellect-Enabled Fixtures

- Fully distributed room control system
- Room agnostic—each room operates independently of other rooms—not dependent on network processors or centralized controllers for operation
- Easy-to-specify, scalable—add and rearrange products to accommodate the evolving needs of any application, and re-zone/re-group and adjust settings with ease through the GreenMAX DRC App for smart devices



#### Meets the Following Requirements:

- **Section C405.2.1**  
- Occupancy Sensor
- **Section C405.2.1.3**  
- Open Office Plan Area
- **Section C405.2.4**  
- Daylight Responsive Controls
- **Section C405.2.6**  
- Interior Manual Lighting Control
- **Section C408.3**  
- Functional Testing

#### Features:

- Multiple Zones
- Occupancy/Vacancy Sensing
- Scheduling
- Scene Control
- Daylighting
- Multi-Way Switching
- Emergency Lighting
- Wi-Fi Networking

#### What you will need (sold separately)

#### Quantity

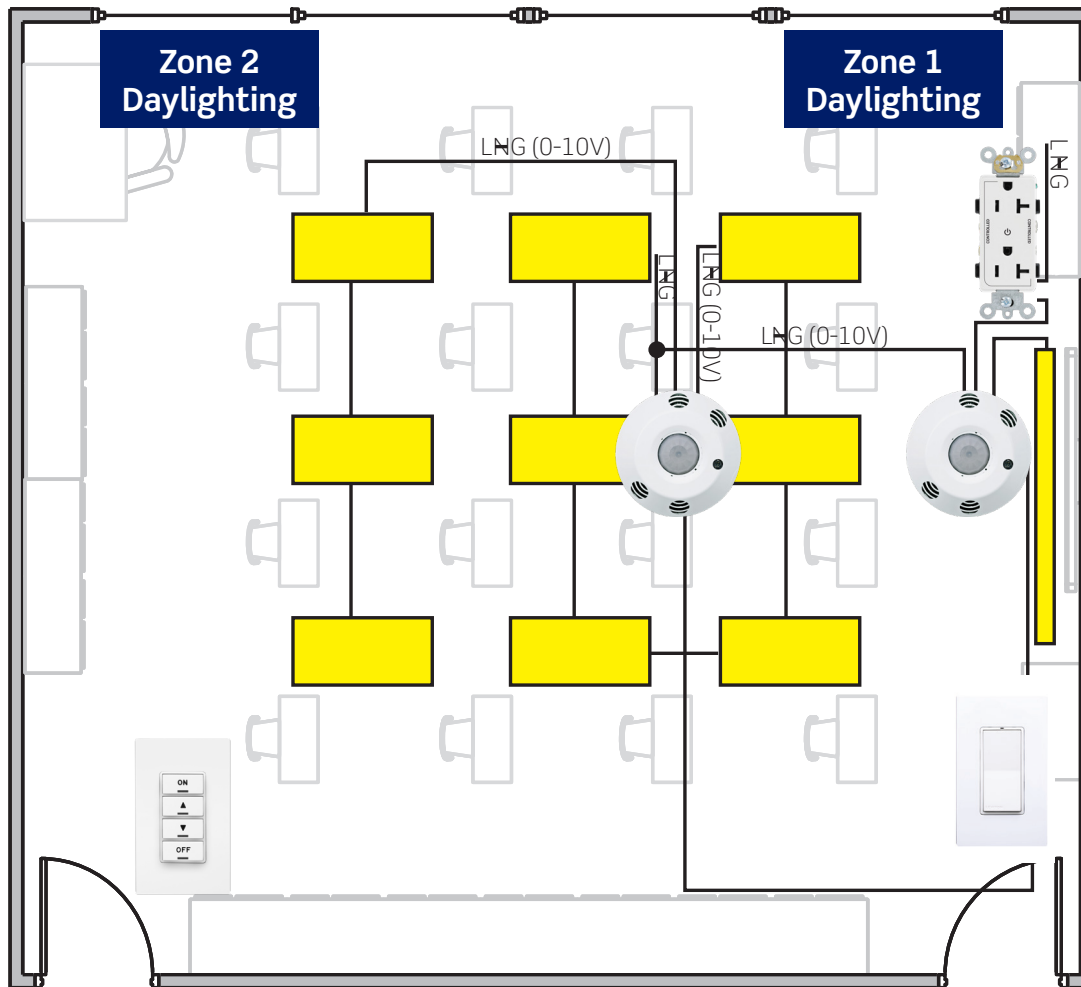
	<b>GreenMAX DRC 8-Button Wireless Keypad Room Controller</b> DRKDN-U8W	1
	<b>GreenMAX DRC 1-Button Wireless Keypad Room Controller</b> DRKDN-U1W	1
	<b>Intellect-enabled Fixture</b> LRTH2x2-LED835UNV-LV01	12

# Classroom

## FEATURED LEVITON 2021 IECC SOLUTION

### Provolt™ Room Controller (PRC)

- Comprehensive solution integrates multiple lighting control strategies—occupancy sensing, 0-10V dimming, daylight harvesting, partial-ON, partial-OFF and demand response
- Combined line voltage multi-technology or PIR sensor, power pack and photocell in a self-contained, easy-to-install compact device
- Configure and test controls from an Android or Apple smart device via the Provolt Bluetooth Mobile App—reduces callbacks



### Meets the Following Requirements:

- **Section C405.2.1**  
- Occupancy Sensor
- **Section C405.2.4**  
- Daylight Responsive Controls
- **Section C405.2.6**  
- Interior Manual Lighting Control
- **Section C408.3**  
- Functional Testing
- **Section C405.11**  
- Receptacle Control

### Features:

- 0-10V Dimming Control
- Self-Contained Occupancy Sensor, Photocell and Power Pack
- Occupancy or Vacancy Sensing with Auto-OFF
- Auto Calibration
- Daylighting Set Point Adjustment through Entry Station

### What you will need (sold separately)

### Quantity

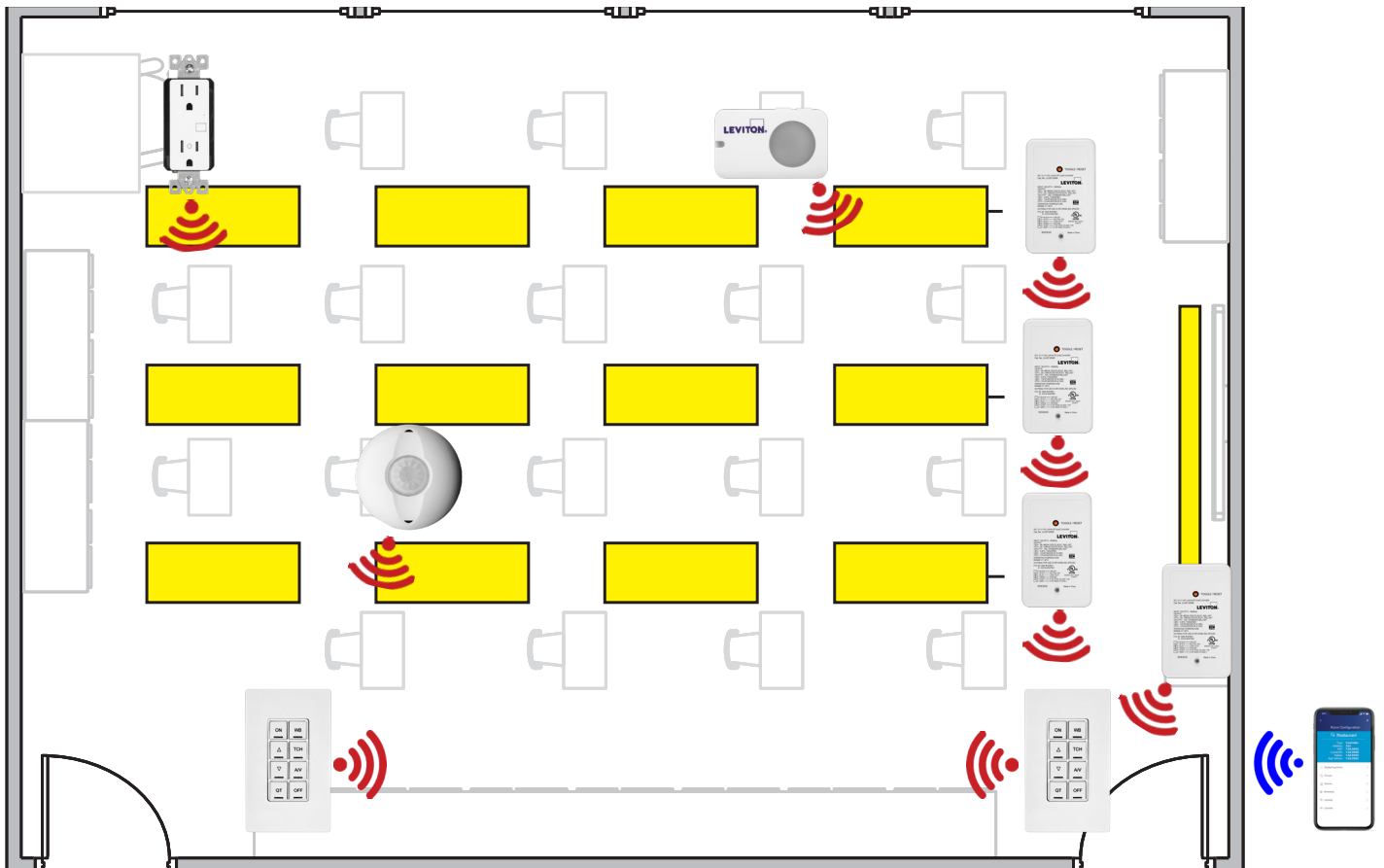
	Provolt Room Controller (PRC) O5C04-IDW	2
	Provolt Low-Voltage Keypad, 4-Button PLVSW-4LW	1
	Provolt Low-Voltage Keypad, 1-Button PLVSW-1LW	1
	Marked "Controlled" Receptacles 16352-2PW	5

# Classroom

## FEATURED LEVITON 2021 IECC SOLUTION

### Lumina™ RF Standalone Wireless Room Control System

- Add wireless control to virtually any ON/OFF or dimming device with Lumina RF devices
- Compatible with virtually all lamp fixtures and load control devices
- Scalable, flexible wireless mesh solution to meet the unique control needs of virtually any space all without having to pull new wires
- Configure, monitor, and control the system with the Lumina RF Standalone App using an Android or iOS smart device for Ladderless Commissioning



### Meets the Following Requirements:




- **Section C405.2.1**  
- Occupancy Sensor
- **Section C405.2.4**  
- Daylight Responsive Controls
- **Section C405.2.6**  
- Interior Manual Lighting Control
- **Section C408.3**  
- Functional Testing
- **Section C405.11**  
- Receptacle Control

### Features:

- 0-10V Dimming Control
- Occupancy or Vacancy Sensing
- Auto Calibration
- Multi-Zone Daylight Harvesting
- Plug Load Control
- Wireless Communication via Mesh Network

### What you will need (sold separately)

### Quantity

What you will need (sold separately)	Quantity
 <b>GreenMAX DRC 8-Button Wireless Keypad Room Controller</b> DRKDN-U8W	2
 <b>Wireless 10A, 0-10V Dimming Power Pack</b> LU107-DNW	4
 <b>Wireless PIR Occupancy Sensor</b> ZSC04-INW	1
 <b>Wireless Photocell</b> LURPC-01W	1
 <b>Zigbee Controlled Receptacle</b> ZSTLR-1HW	Varies

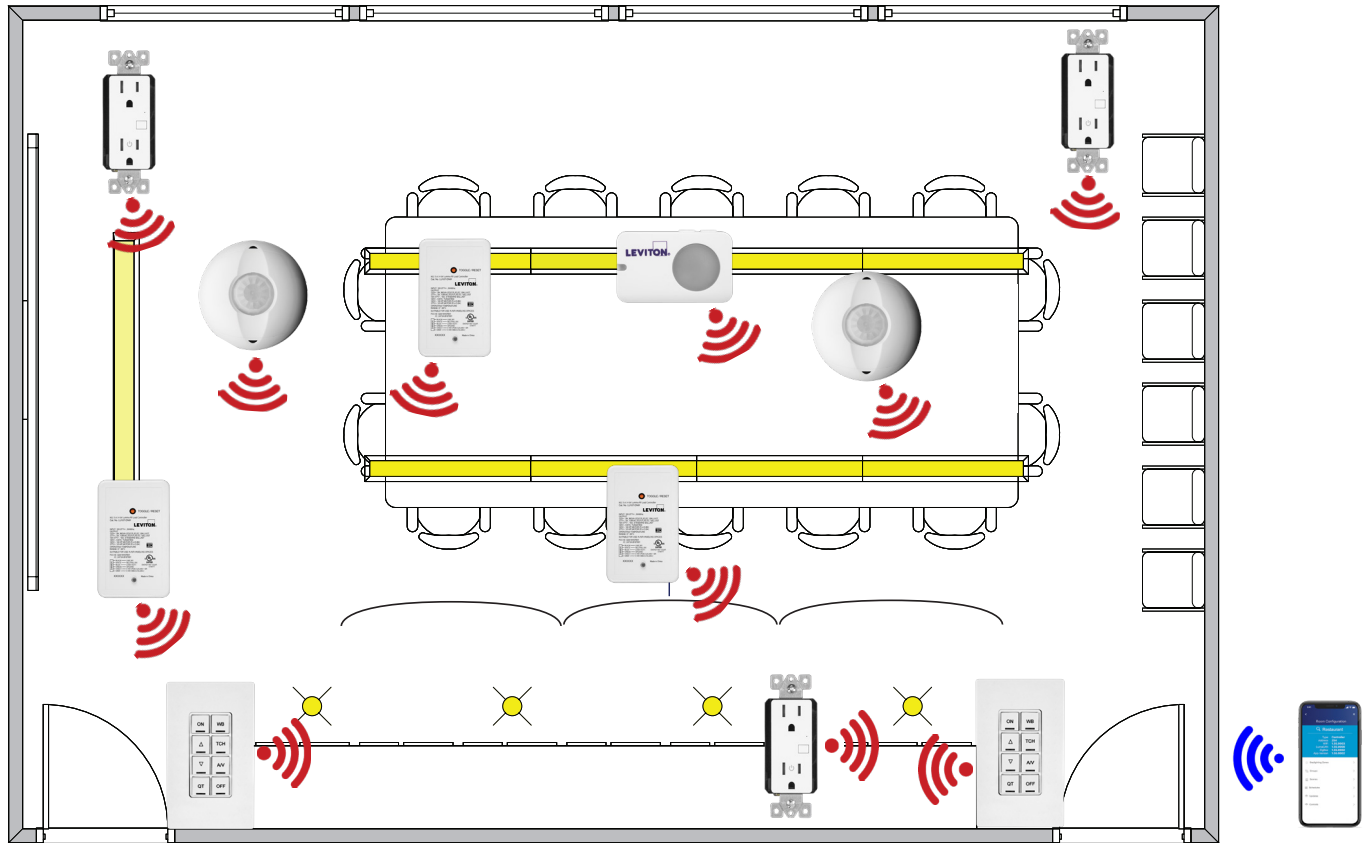


# Conference Room

## FEATURED LEVITON 2021 IECC SOLUTION

### Lumina™ RF Standalone Wireless Room Control System

- Add wireless control to virtually any ON/OFF or dimming device with Lumina RF devices
- Compatible with virtually all lamp fixtures and load control devices
- Scalable, flexible wireless mesh solution to meet the unique control needs of virtually any space all without having to pull new wires
- Configure, monitor, and control the system with the Lumina RF Standalone App using an Android or iOS smart device for Ladderless Commissioning



### Meets the Following Requirements:

- **Section C405.2.1**  
- Occupancy Sensor
- **Section C405.2.4**  
- Daylight Responsive Controls
- **Section C405.2.6**  
- Interior Manual Lighting Control
- **Section C408.3**  
- Functional Testing
- **Section C405.11**  
- Receptacle Control

### Features:

- 0-10V Dimming Control
- Occupancy or Vacancy Sensing
- Auto Calibration
- Multi-Zone Daylight Harvesting
- Receptacle Control
- Wireless Communication via Mesh Network

### What you will need (sold separately)

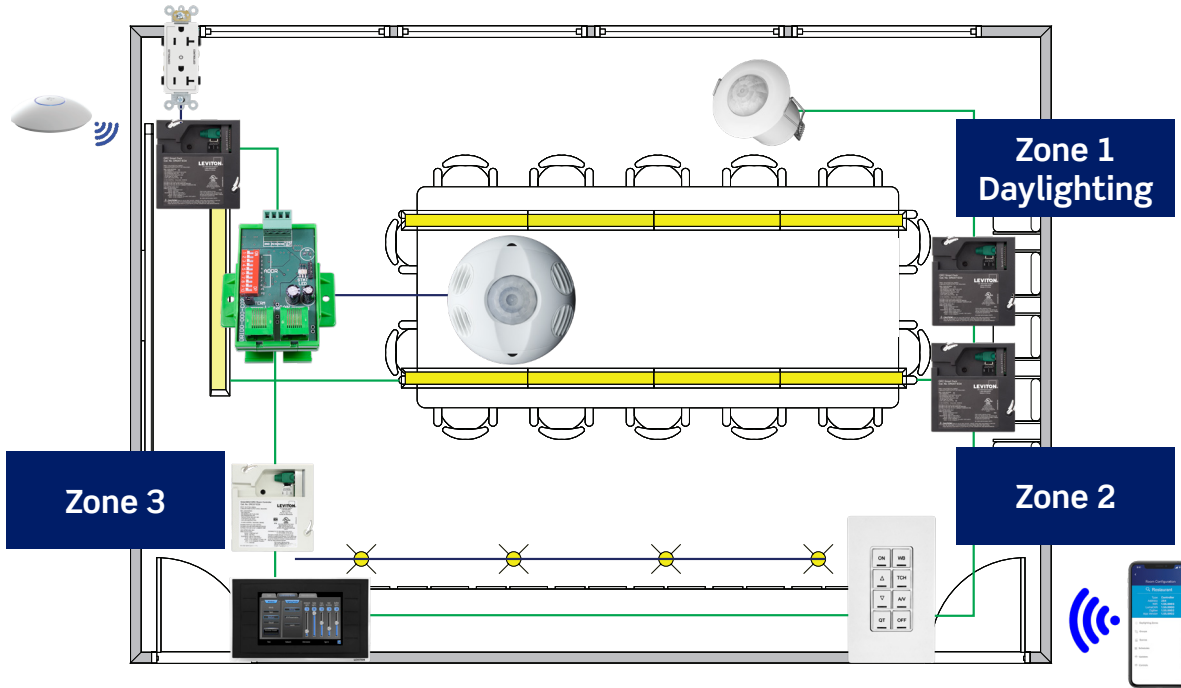
### Quantity

What you will need (sold separately)	Quantity
 <b>Lumina RF Keypad Room Controller</b> DLDNK-08W	2
 <b>Wireless 0-10V Dimming Power Pack</b> LU107-DNW	3
 <b>Wireless PIR Occupancy Sensor</b> ZSC15-INW	2
 <b>Wireless Photocell</b> LURPC-01W	1
 <b>Zigbee Controlled Receptacle</b> ZSTLR-1HW	Varies

# Conference Room

## FEATURED LEVITON 2021 IECC SOLUTION GreenMAX® DRC Wired with 0-10V Dimming

- Fully distributed room control system
- Room agnostic—each room operates independently of other rooms—not dependent on network processors or centralized controllers for operation
- Easy-to-specify, scalable—add and rearrange products to accommodate the evolving needs of any application, and re-zone/re-group and adjust settings with ease through the GreenMAX DRC App for smart devices



### Meets the Following Requirements:

- **Section C405.2.1**  
- Occupancy Sensor
- **Section C405.2.4**  
- Daylight Responsive Controls
- **Section C405.2.6**  
- Interior Manual Lighting Control
- **Section C408.3**  
- Functional Testing
- **Section C405.11**  
- Receptacle Control

### Features:

- Multiple zones
- Occupancy/Vacancy Sensing
- Scheduling
- Scene Control
- Daylighting
- Multi-Way Switching
- Plug Load Control
- Emergency Lighting

### What you will need (sold separately)

### Quantity

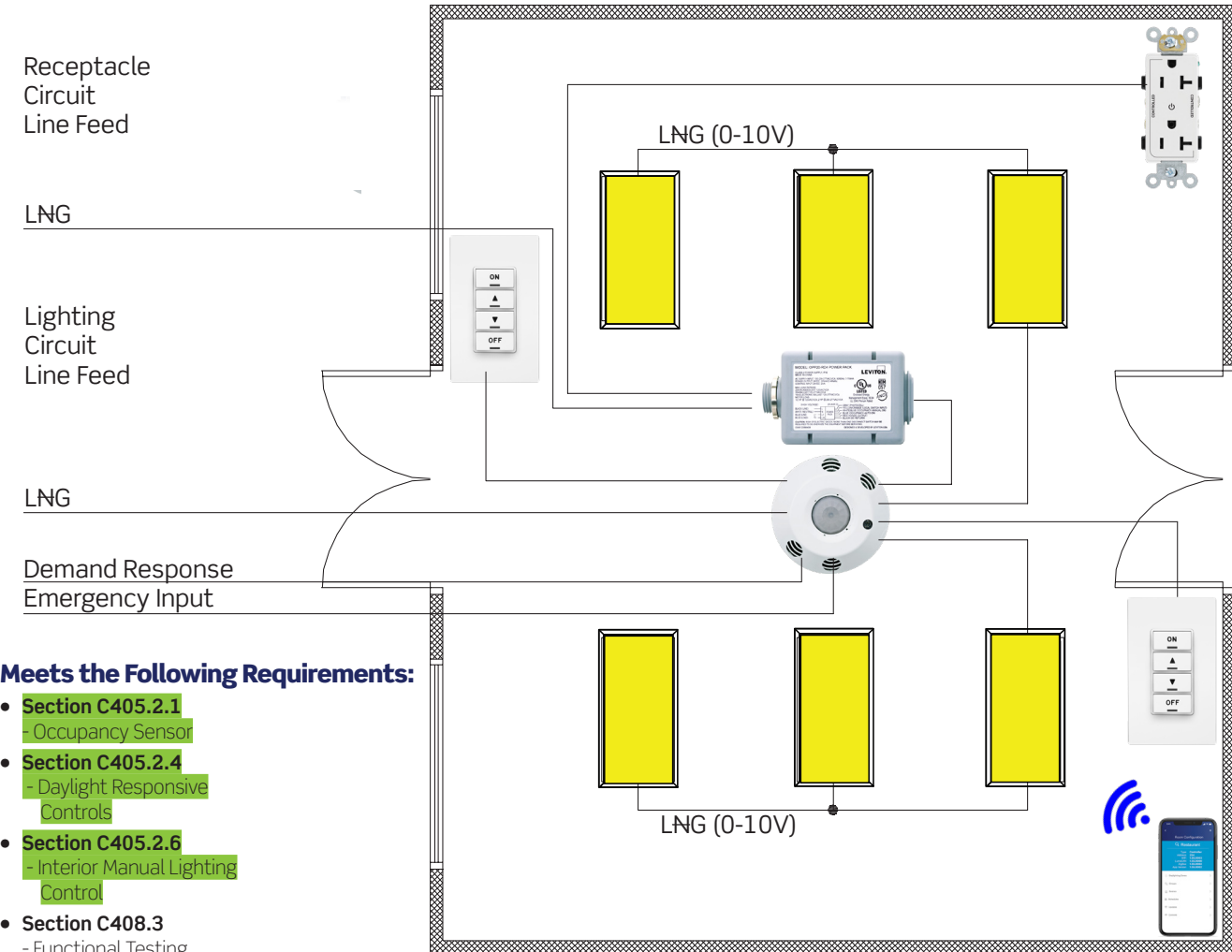
Image	Product Name	Quantity
	GreenMAX DRC Line Voltage Room Controller DRC07-ED0	1
	GreenMAX DRC 0-10V Smart Pack DRD07-ED0	3
	GreenMAX DRC Digital Sensor OSR05-ICW	1
	GreenMAX DRC Analog Interface (AI) DRID0-C02	1
	Analog Occupancy Sensor OSCxx-MWW	1
	GreenMAX DRC 8-Button Digital Keypad DRKDN-C8W	1
	Sapphire™ Touch Screen TS007-000	1
	Marked Controlled Receptacles 16352-2PW	1
	PoE ACCESS POINT EMA00-000	1

# Common Area

## FEATURED LEVITON 2021 IECC SOLUTION

### Provolt™ Room Controller (PRC)

- Comprehensive solution integrates multiple lighting control strategies—occupancy sensing, 0-10V dimming, daylight harvesting, partial-ON, partial-OFF and demand response
- Combined line voltage multi-technology or PIR sensor, power pack and photocell in a self-contained, easy-to-install compact device
- Configure and test controls from an Android or Apple smart device via the Provolt Bluetooth Mobile App—reduces callbacks



### Meets the Following Requirements:

- **Section C405.2.1**  
- Occupancy Sensor
- **Section C405.2.4**  
- Daylight Responsive Controls
- **Section C405.2.6**  
- Interior Manual Lighting Control
- **Section C408.3**  
- Functional Testing
- **Section C405.11**  
- Receptacle Control

### Features:

- 0-10V Dimming Control
- Self-Contained Occupancy Sensor, Photocell and Power Pack
- Vacancy or Occupancy Sensing with Auto-OFF
- Auto Calibration
- Daylighting Set Point
- Adjustment through Entry Station
- Emergency Input
- Decora 4-Button Entry Station
- Plug Load Control
- Time Clock Input
- Demand Response

### What you will need (sold separately)

### Quantity

	<b>Provolt Room Controller (PRC)</b> 05C04-IDW	1
	<b>Provolt Low-Voltage Keypad, 4-Button</b> PLVSW-4LW	2
	<b>OPP20 Super Duty Power Pack</b> OPP20-0D1	1
	<b>Marked "Controlled" Receptacles</b> 16352-2PW	5

# Warehouse

## FEATURED LEVITON 2021 IECC SOLUTION

### 0-10V PIR High Bay/Low Bay Fixture Mount Occupancy Sensor

- Built-in photocell for convenient automatic daylight harvesting
- Set time delay—up to 30 minutes
- Includes high and low bay lenses to cover a variety of high ceiling applications
- Patented AutoCal™ for set-it and forget-it photocell calibration
- Suitable for use in standard and cold storage applications

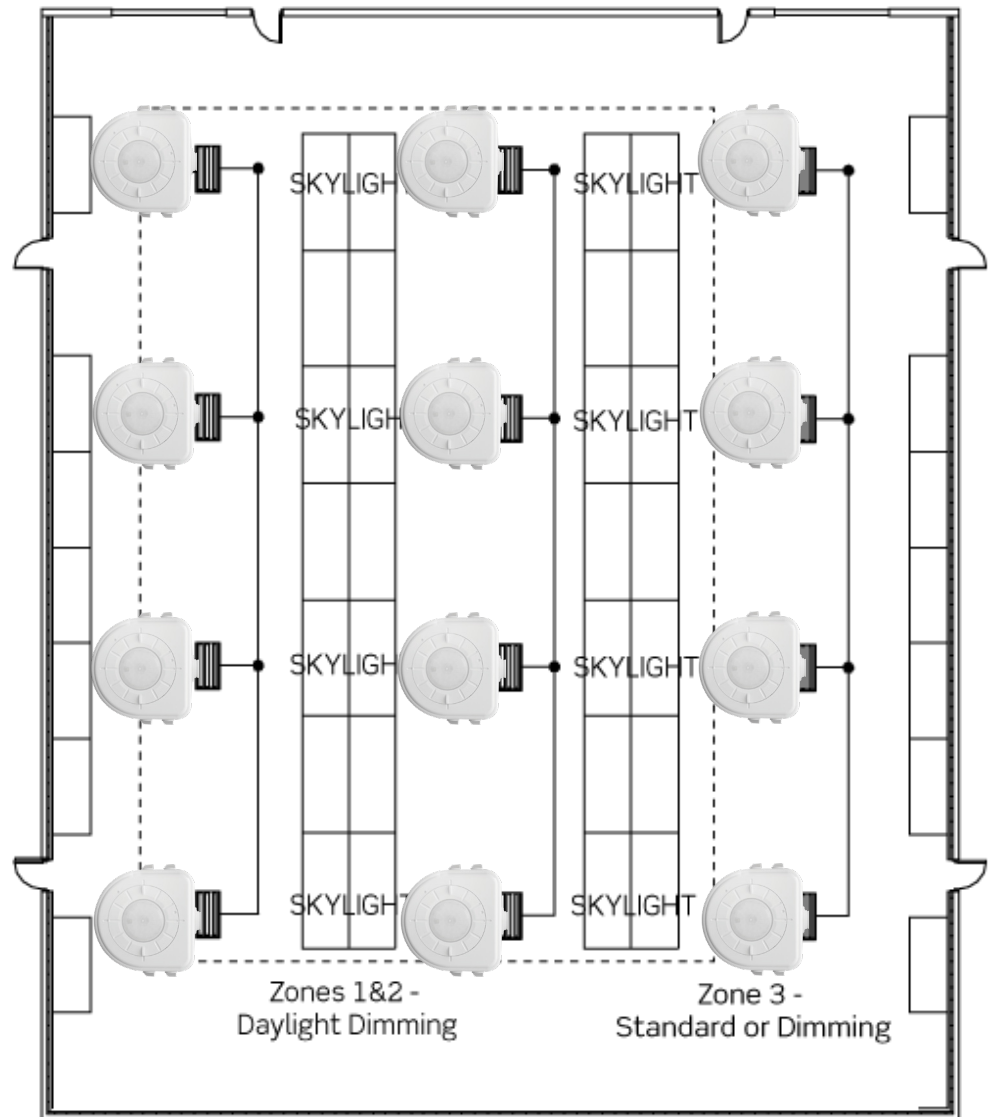


#### Meets the Following Requirements:

- **Section C405.2.1**  
- Occupancy Sensor
- **Section C405.2.3**  
- Daylight Zone Control
- **Section C405.2.6**  
- Interior Manual Lighting Control
- **Section C408.3**  
- Functional Testing

#### Features:

- Occupancy Sensing
- Daylight Harvesting
- 0-10V LED Control
- Variable Time Delay
- False Detection Protection



#### What you will need (sold separately)

What you will need (sold separately)		Quantity
	Fixture Mount 0-10V PIR High/Low Bay Occupancy Sensor HB011-PDX	1 per fixture

# Warehouse

## FEATURED LEVITON 2021 IECC SOLUTION

### Smart IP66 PIR Integrated Fixture Mount Sensor

- Designed for use with switching or 0-10V dimming ballasts/drivers
- Mounting heights from 8-40 ft.
- Multiple daylight modes as well as partial-OFF operation
- High and low bay lenses
- Auto and manual calibration
- Out-of-the-box configuration default modes

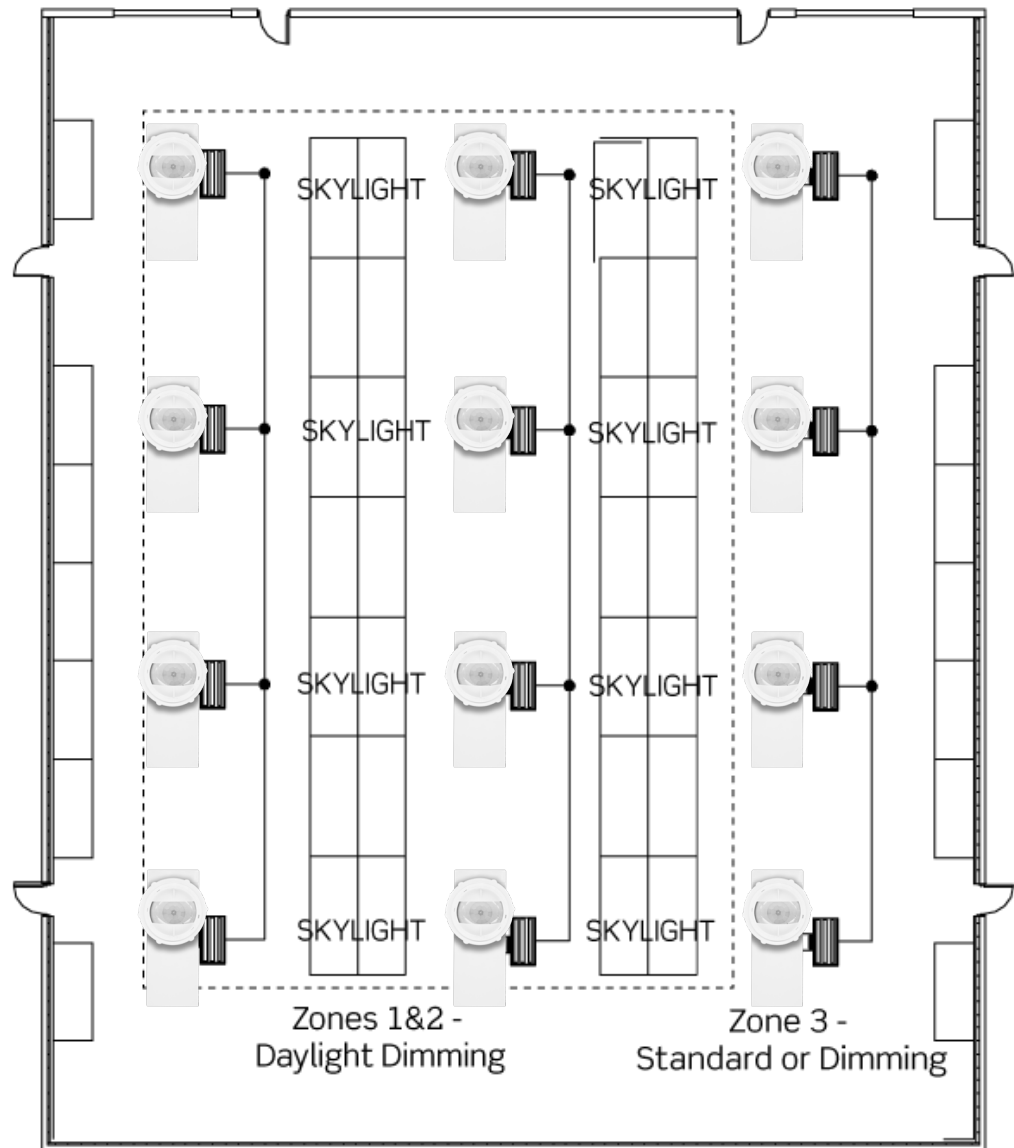


### Meets the Following Requirements:

- **Section C405.2.1**  
- Occupancy Sensor
- **Section C405.2.3**  
- Daylight Zone Control
- **Section C405.2.6**  
- Interior Manual Lighting Control
- **Section C408.3**  
- Functional Testing

### Features:

- Occupancy Sensing
- Daylight Harvesting
- 0-10V LED Control
- Variable Time Delay
- False Detection Protection



### What you will need (sold separately)

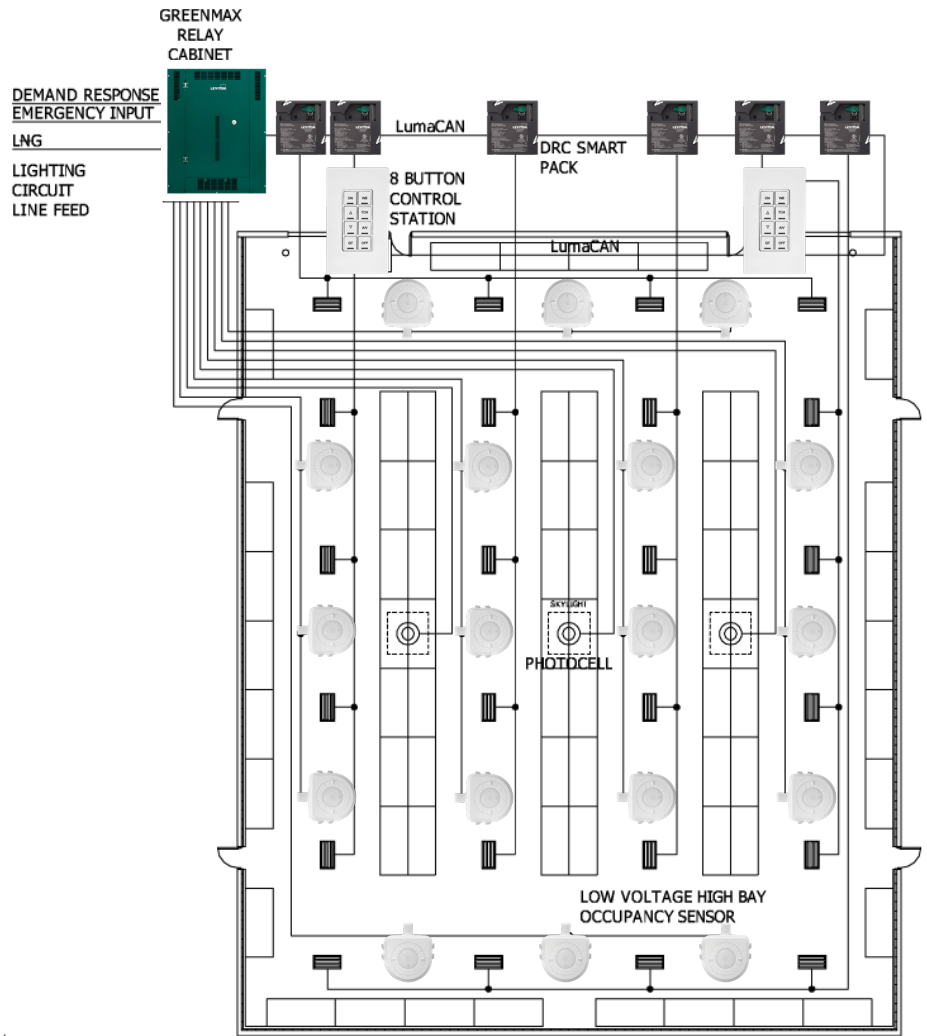
	Quantity
 Smart IP66 PIR Integrated Fixture Mount Sensor ZLD1Z-10W	1 per fixture

# Warehouse

## FEATURED LEVITON 2021 IECC SOLUTION

### GreenMAX® DRC Smart Packs

- Integrates common sensing, dimming, switching, and advanced daylight harvesting applications from the same cabinet
- BACnet IP native in each cabinet for seamless BMS integration
- Industry leading 25,000A Short Circuit Current Rating (SCCR) at 277V
- Integrated 0-10V dimming/switching relay
- Built-in override switch allows manual control of each load individually



### Meets the Following Requirements:

- **Section C405.2.1**  
- Occupancy Sensor
- **Section C405.2.3**  
- Daylight Zone Control
- **Section C405.2.6**  
- Interior Manual Lighting Control
- Section C408.3  
- Functional Testing

### Features:

- Relay Control
- Occupancy Sensing
- Daylight Harvesting
- Decora 4 Button Entry Stations
- Software and Handheld Remote Programming
- Astronomical Time Clock
- Scheduling (Behavior Control)
- Demand Response
- HVAC and Emergency Interface
- Building Automation (BACnet)
- Fail-Safe Circuitry (NFPA Compliant)
- Partial-OFF

### What you will need (sold separately)

		Quantity
	<b>GreenMAX Relay Control System</b> RxxTC-100   RPMxx-xxx   Rxxx-xxx   RHU1-xxx   RELAY-xxx	1
	<b>GreenMAX DRC Smart Pack (DRC)</b> DRD07-ED0	6
	<b>Fixture Mount PIR High/Low Bay Dimming Occupancy Sensor</b> HB011-PDX	18
	<b>GreenMAX Digital Lighting Control Station, 8-Button</b> RDGSW-8CW	2

# Warehouse

## FEATURED LEVITON 2021 IECC SOLUTION

### GreenMAX® Relay Control System

- Integrates common sensing, dimming, switching, and advanced daylight harvesting applications from the same cabinet
- BACnet IP native in each cabinet for seamless BMS integration
- Industry leading 25,000A Short Circuit Current Rating (SCCR) at 277V
- Integrated 0-10V dimming/switching relay
- Built-in override switch allows manual control of each load individually

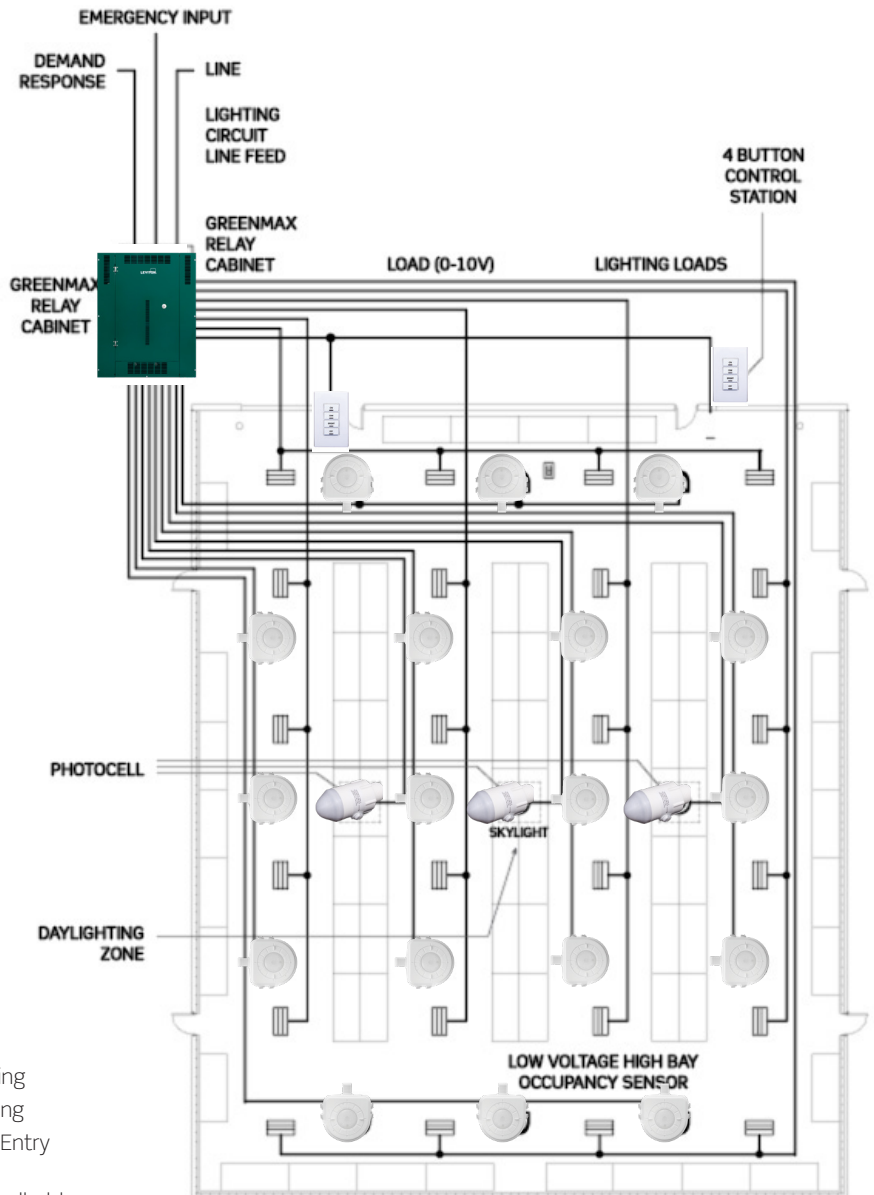


### Meets the Following Requirements:

- **Section C405.2.1**  
- Occupancy Sensor
- **Section C405.2.3**  
- Daylight Zone Control
- **Section C405.2.6**  
- Interior Manual Lighting Control
- **Section C408.3**  
- Functional Testing

### Features:

- Relay Control
- Occupancy Sensing
- Daylight Harvesting
- Decora 4 Button Entry Stations
- Software and Handheld Remote Programming
- Astronomical Time Clock
- Scheduling (Behavior Control)
- Demand Response
- HVAC and Emergency Interface
- Building Automation (BACnet)
- Fail-Safe Circuitry (NFPA Compliant)
- Partial-OFF



### What you will need (sold separately)

### Quantity

What you will need (sold separately)	Quantity
 <b>GreenMAX Relay Control System</b> RxxTC-100   RPMxx-xxx   Rxxxx-xxx   RHDU1-xxx   RELAY-xxx	1
 <b>Lighting Control Station</b> RLVSW-4LW	1
 <b>Low Voltage High Bay Occupancy Sensor</b> OSFHD-xxW	18
 <b>Indoor Photocell</b> PCSKY-000	3

# Non-Residential Solutions for 2021 IECC Compliance

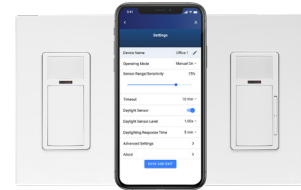
## Sensing Controls

- Broadest range of occupancy and vacancy sensors for any application
- Plug load control with OPP20 Super Duty Power Pack
- 24 AC/DC input for integration with HVAC/BAS systems
- Industry-leading layout and applications



## Smart Wallbox Sensors

- Combines occupancy/vacancy sensing with ON/OFF switching, 0-10V or phase dimming
- Easy programming and configuration with default mode, pushbutton configuration, or the Smart Sensor App
- Add a Power Pack and Controlled Receptacles for plug load control
- Create multi-way control with up to 5 devices
- Non-neutral and antimicrobial models available



## Provolt™ Room Controller (PRC)

- Requires only two devices to be installed for high performance lighting controls—0-10V dimming, occupancy and vacancy sensing, partial-ON, partial-OFF, daylight harvesting and demand response
- Perform all testing, configuration and control using the Provolt App
- Features customizable room templates for fast multi-room replication



## Integrated Room Control (IRC)

- Combines 0-10V dimming, occupancy/vacancy sensing, partial-ON, partial-OFF, daylight harvesting and demand response capabilities in a stand-alone package
- Kitted with sensor, photocell, and 4-button switch
- Autocal™ automatic photocell calibration and Ladderless Commissioning™
- Easy automatic closed or open loop multi-zone daylight harvesting control
- Auto 100 hour burn-in



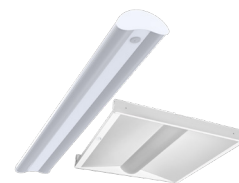
## Lumina™ RF Standalone Wireless Room Control System

- Ideal retrofit solution for multi-zone control with wireless controls
- Compatible with virtually all lamps
- Wireless control for any ON/OFF, 0-10V and phase cut dimming applications
- Add additional components for multi-location control, occupancy/vacancy sensing, daylight harvesting and more
- Program using the Lumina RF Standalone App



## Intellect™ -enabled Fixtures

- Virtually any fixture can be Intellect-enabled for in fixture control
- Integrates wireless dimming, occupancy/vacancy sensing and multi-zone daylight harvesting
- Configure, monitor and control a space using the GreenMAX DRC App





## GreenMAX® DRC Room Control System

- Scalable wired and wireless distributed room control system with each room operating independently of others
- Plug-and-play, Category 6, RJ45 hardwired digital network or wireless mesh system
- Fully configurable using the GreenMAX DRC App



## GreenMAX® Relay Control System

- Integrates common sensing, dimming, switching, and advanced daylight harvesting applications from the same cabinet
- BACnet IP native in each cabinet for seamless BMS integration
- Industry leading 25,000A Short Circuit Current Rating (SCCR) at 277V
- Integrated 0-10V dimming/switching relay
- Built-in override switch allows manual control of each load individually
- Program with preset “Behaviors” using the handheld display Unit (HDU)



## Track Light Limiting Panel (TLLP)

- Prevents overloaded circuits
- Provides tamper-proof current limiting protection for track lighting
- Sets a fixed power consumption limit for designer lighting installations by using the volt amperage rating of the breaker instead of watts per linear feet
- Factory configured to customer specifications—arrives ready to install
- Reduces installation costs—no programming required



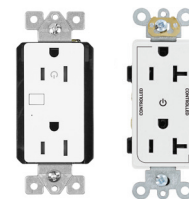
## Sapphire™ Touch Screen Room Controller

- Room Controller function—connects all energy management devices together in a space without requiring a gateway or hub
- Color turning—for circadian rhythms
- Scheduler—provides 7-day rotating schedule, holiday exception calendar, special events calendar and astronomical time clock
- AV controls—delivers single control interface for lighting and AV; ideal for classroom and restaurant application



## Marked “Controlled” Receptacles

- Meets requirements for identifying receptacles that will automatically be de-energized as part of an overall plug load control program
- 2014 and 2017 NEC requires all 15A and 20A, 125V receptacles that are automatically controlled to be marked with a specific symbol ( )



## VerifEye™ Submetering Solutions

- Complete utility submetering solution
- Comprehensive line of submeters, communication products, and software solutions
- Simple installation in new or existing facilities
- Measurement & Verification (M&V) capabilities with data collection and storage
- Ideal for real-time energy monitoring and tenant billing



# Service and Support

## During Every Step of the Process

There is much more to making lighting more energy efficient than just installing a simple device or two. System design, product selection, installation and service: it all has to come together. That's where Leviton service and support options come in. We'll help you design your system and make the right product selections so you can create a lighting control system that does exactly what you want it to do while saving electricity, meeting codes and standards, and even garnering rebates.

It all starts with the Leviton sales representative. Our lighting control specialists are here to support you every step of the way. They can perform on-site facility audits and suggest specific products and strategies for improving lighting energy efficiency.

### Exclusive Wealth of Resources

- **Exclusive Training** - contact your local Leviton representative to have an IECC expert provide training in person or online exclusively for your team
- **IECC App** - simplifies IECC lighting control requirements and provides examples for common applications - available for Android and Apple devices - download at [www.leviton.com/apps](http://www.leviton.com/apps)
- **IECC Web Portal** - access application diagrams and product solutions - visit [www.leviton.com/iecc](http://www.leviton.com/iecc)
- **Occupancy sensor layout services** - have a team of experts create occupancy sensor layouts directly on your CAD drawings, complete with a List of Equipment at no cost - go to [portal.leviton.com](http://portal.leviton.com)
- **ez-Learn™** - get Leviton smart from the comfort of your home or office with this exclusive 24/7 online training - go to [www.leviton.com/ezlearn](http://www.leviton.com/ezlearn)
- Lighting control specialists at your disposal
- Field service engineers for top-level support
- Factory commissioning service
- Dedicated technical support via phone at **800-959-6004**



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**Visit our website at: [www.leviton.com/iecc](http://www.leviton.com/iecc)**

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