

Project: _____
 Location: _____
 Cat. #: _____
 Type: _____
 Quantity: _____



ECL N G2 16 | LED Narrow Strip

Features:

- High performance LED technology
- 0-10V dimming drivers standard
- Field replaceable LED boards and drivers
- Frosted diffuser helps minimize glare and improve aesthetics
- Advanced controls available
- Buy American Act compliant *(All base luminaires are BAA compliant. Addition of options may change eligibility. Contact factory for details.)*

Applications:

Suitable for most commercial and institutional applications

- Office
- Retail
- Coves
- Valences

Ambient Operating Temp.:

- -30°C to 40°C

Predicted Lifetime:

- L70: $\geq 129,000$ hrs (calculated)
- L80: $\geq 81,000$ hrs (calculated)
- L90: $\geq 39,000$ hrs (reported)
- 85% lumen maintenance @ 60,000 hrs
(based on LM80 and insitu laboratory testing)

Construction:

- Precision brake formed from cold rolled steel with a highly durable matte white finish. Optional matte black and metallic silver options constructed of brake formed aluminum

Certifications:

- UL 1598 listed for US and Canada, suitable for damp locations



Warranty:

- 5 year limited system warranty - see www.LumenFocus.com for complete warranty terms and conditions
- 10 year warranty option available on specific models
(Not available on all models. Certain conditions apply. Consult factory or sales representative for details.)



Ordering Guide:

example: ECL N G2 16 ML UV FR 840 QC BK

Series	Version	Length	Output	Voltage	Shielding	CRI/CCT	Hanging	Controls ⁽¹⁾	Options	Finish
ECL N	G2	16								
ECL N Narrow Strip	G2 Gen 2	16 182" (192" Optional)	LW Low ML Medium Low	UV 120-277 34 347V	Blank No Lenses FR Frosted Acrylic Diffusers	930 90 CRI/3000K 935 90 CRI/3500K 940 90 CRI/4000K 950 90 CRI/5000K	Blank None QC 10' Quick Hang Cable Kit SH Slide Hanger	Blank - No Controls ZOSMD Leviton Microwave 0-10V Multi-Level Occupancy Sensor with Photocell ZSOL Leviton Programmable 0-10V dimming Occupancy Sensor with Daylight Harvesting, Task Tuning Z211xx ⁽²⁾ Wattstopper Programmable 0-10V Multi-Level Occupancy Sensor with Photocell, Task Tuning Z311xx ⁽²⁾ Wattstopper Bluetooth-enabled Programmable 0-10V Dimming Occupancy Sensor with Daylight Harvesting, Task Tuning ZLD1 Leviton Bluetooth-enabled Programmable 0-10V Dimming Occupancy Sensor with Daylight Harvesting, Task Tuning, Grouping ZLDU Leviton Bluetooth-enabled Programmable 0-10V Dimming Occupancy Sensor with Daylight Harvesting, Task Tuning, Grouping, Scheduling ZSLFC2 Keystone SmartLoop Bluetooth-enabled Programmable 0-10V Dimming Occupancy Sensor with Daylight Harvesting, Task Tuning, Grouping, Scheduling ZESMC Philips EasySense Bluetooth-enabled Programmable DALI Dimming Occupancy Sensor with Daylight Harvesting, Task Tuning, Grouping, Scheduling ZL7S Leviton Intellect Bluetooth-enabled Programmable 0-10V Dimming Occupancy Sensor with Daylight Harvesting, Task Tuning, Grouping, Scheduling, Networking Capabilities ZL7C Leviton Intellect Bluetooth-enabled Programmable 0-10V fixture controller with Task Tuning, Grouping, Scheduling, Networking Capabilities ZLDS Leviton Intellect Bluetooth-enabled Programmable DALI Dimming Occupancy Sensor with Daylight Harvesting, Task Tuning, Grouping, Scheduling, Networking Capabilities ZLDC Leviton Intellect Bluetooth-enabled Programmable DALI fixture controller with Task Tuning, Grouping, Scheduling, Networking Capabilities ZLTS LiteTrace Bluetooth-enabled Programmable 0-10V Dimming Occupancy Sensor with Daylight Harvesting, Task Tuning, Grouping, Scheduling, Advanced Networking & IoT Capabilities ZLTC LiteTrace Bluetooth-enabled Programmable 0-10V fixture controller with Task Tuning, Grouping, Scheduling, Advanced Networking & IoT Capabilities	Blank No Options EXT10 10-Year Extended Warranty ⁽³⁾ C6 6' Single Circuit Cord C65W 6' Single Circuit Cord with Low Voltage Connections C10 10' Single Circuit Cord C105W 10' Single Circuit Cord with Low Voltage Connections D6 6' Dual Circuit Cord D10 10' Dual Circuit Cord P(NEMA) Plug (Specify NEMA configuration) CC Conformal Coating LVL 0-10V Dimming Leads for Easy Field Access 192" 192" Length (Standard Length is 184") EM6 6.5W Emergency Pack ⁽⁴⁾ EM10 10W Emergency Pack ⁽⁴⁾ EM14 14W Emergency Pack ⁽⁴⁾ QWH() Quick Wire Harness ⁽⁵⁾ AC Aligner Clips for Continuous Row Mounting BAA Buy American Act Compliant	Blank White BK Matte Black SL Metallic Silver

Notes

- ⁽¹⁾ See 'Control Summary' on Page 4 for more details.
⁽²⁾ 'xx' = select lens type based on mounting height and coverage area. See 'Control Summary' on Page 4 for more details.
⁽³⁾ Not available on all models. Certain conditions apply. Consult factory or sales representative for details.
⁽⁴⁾ 120-277V / 0°C-55°C ambient. To estimate lumen output in emergency mode, multiply EM wattage by the Lumens per Watt of the luminaire it is installed in.
ex. ECL N G2 16 ML UV FR 940 EM10 → 150.5 LPW x 10W = 1,505 lm
⁽⁵⁾ " _ " for 2-circuit wiring, specify circuit A or B here.

LUMENFOCUS Re-boardABILITY

The ECL N G2 features field replaceable boards and drivers. This allows you to upgrade to more efficient technology in the future. Or, in the rare event of a failure, you can rapidly replace defective components. Re-boardABILITY helps to ensure you won't get stuck with an obsolete light fixture. [Learn more about Re-boardABILITY here.](#)



Controls Accessories *(order separately)*

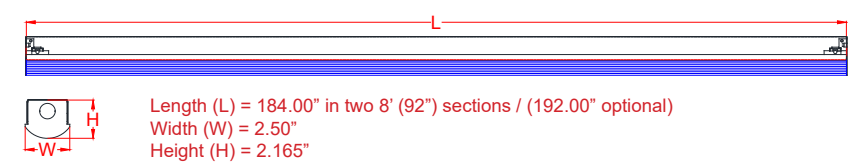
Accessory Code	Description	Control Compatibility	Additional Info
ZLSOR-RA1	Wireless IR Configuration Tool	ZSOL	pg. 5
FSIR-100	Wireless IR Configuration Tool	Z211xx	pg. 5
KTSL-WS1-B-SG/G2	5-Button Bluetooth Wireless Wall Switch (battery powered)	ZSLFC2	pg. 5
KTSL-TK1-USB	USB Time Keeper	ZSLFC2	pg. 5
ZBT-S1AWH	Single Rocker ZigBee Wireless Wall Switch (self powered)	ZESMC	pg. 6
ZBT-S2AWH	Dual Rocker ZigBee Wireless Wall Switch (self powered)	ZESMC	pg. 6
SWS200	Philips Zigbee Green Power 4-Button Wall Switch (battery powered)	ZESMC	pg. 6
DRKDN-U1W	1-Button Wireless Wall Controller (line voltage powered)	ZL7S, ZL7C, ZLDS, ZLDC	pg. 6
DRKDN-U2W	2-Button Wireless Wall Controller (line voltage powered)	ZL7S, ZL7C, ZLDS, ZLDC	pg. 6
DRKDN-U4W	4-Button Wireless Wall Controller (line voltage powered)	ZL7S, ZL7C, ZLDS, ZLDC	pg. 6
DRKDN-U8W	8-Button Wireless Wall Controller (line voltage powered)	ZL7S, ZL7C, ZLDS, ZLDC	pg. 6
WP1013	3-Button Bluetooth Wireless Wall Switch (battery powered)	ZLTS, ZLTC	pg. 7
WP1025	5-Button Bluetooth Wireless Wall Switch (battery powered)	ZLTS, ZLTC	pg. 7
WP1018	8-Button Bluetooth Wireless Wall Switch (battery powered)	ZLTS, ZLTC	pg. 7
WP1018A	8-Button Bluetooth Wireless Wall Switch (battery powered)	ZLTS, ZLTC	pg. 7
WP1013SS	3-Button Bluetooth Wireless Wall Switch (line voltage)	ZLTS, ZLTC	pg. 7
WP1017S	7-Button Bluetooth Wireless Wall Switch (line voltage)	ZLTS, ZLTC	pg. 7
IWS102	Bluetooth Wireless Wall Switch w/ PIR Sensor (line voltage)	ZLTC	pg. 7

Performance Chart:

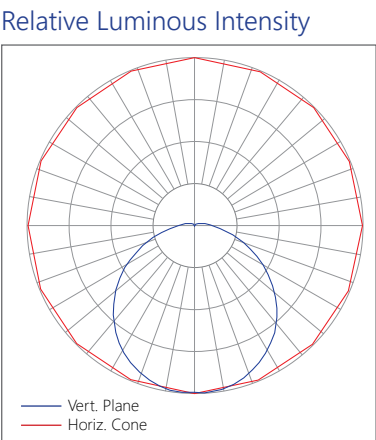
Catalog #	Watts	Lumens (930)	LPW (930)	Lumens (935)	LPW (935)	Lumens (940)	LPW (940)	Lumens (950)	LPW (950)
ECL N G2 16 LW UV FR 9xx	56.1	8368.0	149.3	8403.3	149.9	8602.8	153.4	8602.8	153.4
ECL N G2 16 ML UV FR 9xx	84.9	12437.3	146.4	12489.8	147.1	12786.4	150.5	12786.4	150.5

Scaling Factor:
No lens: 1.05

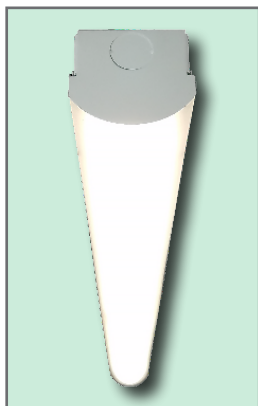
Schematic:



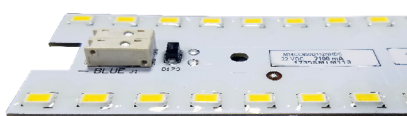
Photometric Data:



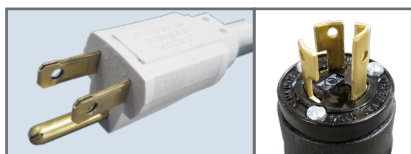
Options:



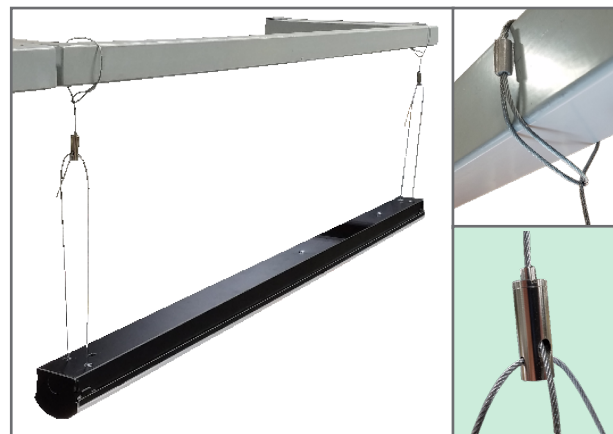
Shielding Frosted acrylic diffuser lenses minimize glare and improve aesthetics.



Conformal coating Grants LED boards added protection from moisture and corrosion in more hazardous environments.



Cords are available in single circuit or dual circuit, 6' or 10'. Standard plug is optional, as are other NEMA configurations if specified.



Hanging The QC hanging kit from ALP comes in 10' or 20'. Cables are pre-looped for easy installation and designed for easy fixture height adjustment. When ordered, QCs come boxed with each fixture.

Controls Summary:

Control Code	Occupancy	Daylight	Tech	Voltage	Dim	Max Mounting Ht.	Networking	Scheduling	BMS Integration	User Interface	Add. Info
ZOSMD	On/Low/Off	Hold Off	Microwave	120-277V	0-10V	40'	N/A	X	X	On Device	pg. 5
ZSOL	High/Low/Off	Daylight Harvesting	PIR	12-24VDC	0-10V	10'	N/A	X	X	On Device, IR Remote*	pg. 5
Z211xx	High/Low/Off	High/Low/Off	PIR	120-347V, 480V	0-10V	L2 L3 L7 8' 20' 40' (select one)	N/A	X	X	IR Remote*	pg. 5
Z311xx	High/Low/Off	Daylight Harvesting	PIR	120-347V, 480V	0-10V	L2 L3 L7 8' 20' 40' (select one)	N/A	X	X	iOS / Android App	pg. 5
ZLD1	High/Low/Off	Daylight Harvesting	PIR	120-277V	0-10V	20', 40' (both included)	Bluetooth Mesh	X	X	iOS / Android App	pg. 5
ZLDU	High/Low/Off	Daylight Harvesting	PIR	120-277V, 347V, 480V	0-10V	20', 40' (both included)	Bluetooth Mesh	✓	X	iOS / Android App	pg. 5
ZSLFC2	High/Low/Off	Daylight Harvesting	PIR	10-15VDC	0-10V	16'	Bluetooth Mesh	✓	X	iOS / Android App, Wireless Wall Switch*	pg. 5
ZESMC	High/Low/Off	Daylight Harvesting	PIR	DALI-2 (120-277V)	DALI	10'	ZigBee 2.4GHz Mesh	✓	X	iOS / Android App, Wireless Wall Switch*	pg. 6
ZL7S	High/Low/Off	Daylight Harvesting	PIR	12-24VDC	0-10V	20'	ZigBee 2.4GHz Mesh	✓	✓	iOS / Android App, Wireless Wall Switch (required)*	pg. 6
ZL7C	N/A	N/A	N/A	12-24VDC	0-10V	N/A	ZigBee 2.4GHz Mesh	✓	✓	iOS / Android App, Wireless Wall Switch (required)*	pg. 6
ZLDS	High/Low/Off	Daylight Harvesting	PIR	DALI-2 (120-277V)	DALI	20'	ZigBee 2.4GHz Mesh	✓	✓	iOS / Android App, Wireless Wall Switch (required)*	pg. 6
ZLDC	N/A	N/A	N/A	DALI-2 (120-277V)	DALI	N/A	ZigBee 2.4GHz Mesh	✓	✓	iOS / Android App, Wireless Wall Switch (required)*	pg. 6
ZLTS	High/Low/Off	Daylight Harvesting	PIR	120-277V	0-10V	18'	Bluetooth LE Mesh	✓	✓	iOS / Android App, Wireless Wall Switch*, Autani Web Interface*	pg. 7
ZLTC	N/A	N/A	N/A	12VDC	0-10V	N/A	Bluetooth LE Mesh	✓	✓	iOS / Android App, Wireless Wall Switch*, Autani Web Interface*	pg. 7

* Sold Separately



Microwave Occupancy Sensor (ZOSMD)

The Leviton OSM3D-DDW (or equivalent) detects motion through low density materials using high frequency electromagnetic waves. This means it can sit discretely behind the ECLN G2's frosted lens. The ZOSMD features automatic switching based on motion and ambient light level. ZOSMD option adds step-dimming functionality - standby dimming level 10% / 20% / 30% / 50%. **Max mounting height for ZOSMD 40 feet.**



Leviton Intellect Solo Dimming Sensor (ZSOL)

The ECLN G2 can be equipped with an integrated Leviton Intellect Solo Sensor ("ZSOL" option). This is a 0-10V dimming Passive Infrared (PIR) occupancy and daylight harvesting sensor.

Other features:

- Partial-on
- Partial-off
- **8' to 10' mounting height**
- IP20 rated
- Detection angle: 120 degrees
- IR remote available for programming sensor from the floor (sold separately)
- Can be used to comply with IECC, ASHRAE 90.1 and 2019 Title 24, Part 6 dimming, occupancy/vacancy sensing and daylight harvesting requirements.



Smart Sensors (ZLD1/ZLDU)



The ZLDx option includes high bay and low bay lenses along with aisleway masks that can easily be installed

or swapped out in the field. **The high bay lens is good for 20'-40' mounting heights, while the low bay lens is good for 8'-20' mounting heights.**

- Leviton Smart IP66 passive infrared (PIR) sensors
- Features mesh grouping (16 devices per group), occupancy sensing, daylight harvesting, scheduling (for ZLDU only), single-level switching
- Comes pre-installed on the center face of the fixture
- Rated for cold locations
- Configurable through the Leviton Smart Sensor App using a smartphone or other Bluetooth-enabled iOS or Android device

Dimming Sensors (Z211/Z311)

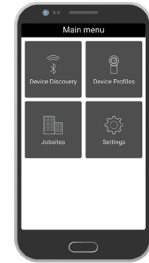
- The Wattstopper FSP sensor provides multi-level control based on motion and/or daylight contribution
- Comes pre-installed on the fixture
- Rated for cold locations
- Parameters for Bluetooth-enabled Z311 adjustable via phone app - iOS or Android
- Parameters for Z211 adjustable via wireless configuration tool (FSIR-100 - sold separately)
- Available with black lens for black finishes (pictured below)
- Two lenses available, tailored for the ideal detection area and mounting height:
 - **L2: 360° lens, maximum coverage 48', diameter from 8' height**
 - **L3: 360° lens, maximum coverage 40', diameter from 20' height**



Z211 sensor with lens in black



FSIR-100



Phone app interface for Z311 sensor

Keystone SmartLoop Wireless Control System

The SmartLoop wireless lighting control system by Keystone is a Bluetooth mesh lighting control system that allows you to set up and manage your lighting ecosystem quickly and easily. It's powerful enough to run a space with multiple lighting zones, but simple enough to program in minutes with your smartphone - perfect for warehouses, offices, schools, and auditoriums, whether new construction or retrofit.

- Wireless Bluetooth 2.4 GHz mesh network
- Supports up to 100 devices on a single region, with unlimited regions
- Independent per-fixture control: Occupancy, Daylight Harvesting, Task Tuning, Grouping, Scene Setting, Scheduling
- Commissioned via SmartLoop mobile app for iPhone and Android



ZSLFC2



- Low voltage individual fixture controller for SmartLoop system
- Integrated daylight and PIR motion sensors
- **Up to 16' mounting height.** 16' radius at 16' height.
- Works with 0-10V dim-to-off drivers with 12V aux. power

SmartLoop Accessories

- Bluetooth Wireless Wall Switch: **KTSL-WS1-B-SG/G2**
 - Battery Powered: 2x CR2032
 - 5 Button: Power Toggle, Dimming, Automatic Sensor/Preset Level Operation, Scene Activation
- USB Time Keeper: **KTSL-TK1-USB**
 - Relays time to system components after a power loss
 - Powered by standard USB charging port
 - Internal CR1220 battery backup



Philips EasySense Wireless Control System

EasySense MC Sensors are the ideal solution for per-luminaire control of new LED luminaires. It combines occupancy and daylight sensing in one package. The result is a cost-effective and easy-to-install solution ideal for energy savings. Commissioning and configuration during and after installation is quick and easy using the Philips MasterConnect app. This app works via Bluetooth Low Energy (BLE) technology and is available for free in the App Store and the Google Play Store.

ZESMC

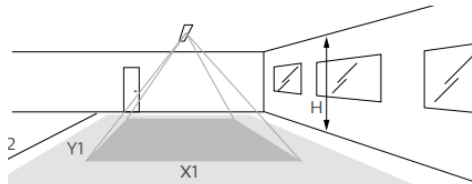


- Occupancy sensing, daylight harvesting, and task tuning in one device
- **8' to 10' mounting height**
- Groups/networks up to 120 lights
- Enables auto-off/manual-on and auto-off/partial-on application
- Independent per-fixture control: Occupancy, Daylight Harvesting, Task Tuning
- Occupancy Sharing
- Scene Setting
- Advanced grouping to select Zigbee wireless wall switches
- Simple room level energy reporting with CSV file saved on the phone
- ZigBee 2.4 GHz Wireless Mesh Network
- Works with Advance Xitanium SR 120-277V drivers or other D4i certified LED drivers

Detection Area:

Longer dimension of detection area (Y1, Y2) is parallel to longer dimension of EasySense

- Minor movement (movement of a person sitting at an office desk reaching for a telephone, turning the pages in a book, opening a file folder, picking up a coffee cup, etc.)
- Major movement (movement of a person walking into or through an area.)



Height	Minor Movement		Major Movement	
H	X1	Y1	X2	Y2
8'	6'	10'	9'	14'
10'	8'	12'	12'	18'

Room Controllers

- Illumra **ZBT-S1AWH** (Single Rocker) or **ZBT-S2AWH** (Dual Rocker) wireless Zigbee wall switch
 - Self-Powered
 - Up to 120 sensors can be grouped to a single switch
 - Functions: On/Off, Dim-Up/Dim-Down, Scene 1, Scene 2 (Scenes: Dual Rocker Only)
 - Range: 30-100' (typical)
- Philips **SWS200** Zigbee Green Power 4-button Wall Switch
 - Battery Powered
 - Up to 120 sensors can be grouped to a single switch
 - Functions: On/Off, Dim-Up/Dim-Down, Scene 1, Scene 2
 - Range: 33' (typical)



ZBT-S1AWH



ZBT-S2AWH



SWS200

GreenMAX DRC Wireless Networked Control System with Leviton Intellect Sensors & Controllers

The GreenMAX DRC Wireless Keypad Room Controllers are used as the brain of the system, managing the fixture integrated Leviton Intellect sensors & controllers. Wirelessly commission, configure, control, monitor and provision the GreenMAX DRC system using the GreenMAX DRC App and an Android or iOS smart device.

- Occupancy/Vacancy Sensing
- Multi-Level Lighting, Partial-On, Partial-Off
- Daylight Harvesting
- Task Tuning
- Scheduling
- Grouping
- Demand Response
- BMS Integration
- ZigBee 2.4 GHz Wireless Mesh Network
- Up to 75' between devices

** DRKDN-UxW room controller required for full functionality and programming of Intellect sensors & controllers*



ZLxS



- PIR Occupancy Sensor
- Daylight Sensor
- 0-10V or DALI
- **Up to 20' mounting height**

ZLxC



- Wireless fixture controller, no sensor
- 0-10V or DALI

DRKDN-UxW Room Controllers



- 1-, 2-, 4-, and 8-button configurations
- Line voltage powered: 120-277V
- Max capacity: 60 devices
- Programmable: On/Off/Raise/Lower/ Toggle/Scene
- Use any Android or iOS device for configuration using the GreenMAX DRC App



LiteTrace | Keilton+autani: Wireless networked controls, upgradeable systems

LiteTrace makes your existing building smarter by integrating the Keilton lighting controls platform with Autani's proven energy management, reporting, and control platform. Keilton+autani systems are flexible, adaptable, and resilient, providing solutions designed to scale up without having to change hardware.

Scalable product tiers allow implementing a solution aligned to your current needs, with robust upgrade pathways to expand capabilities as requirements evolve.

Capabilities	Keilton+autani (ZLTSx)	Energy Center by Autani *	Autani Insights *
Motion and Switch Groups	✓	✓	✓
Daylight Harvesting	✓	✓	✓
Schedule Lighting	✓	✓	✓
Energy Reporting & Optimization	✓	✓	✓
Overrides & Automated Demand Response	✓	✓	✓
Environment Data & Lighting Controls API		✓	✓
Building Management & System Integration		✓	✓
Building Optimization Application			✓
Location & Occupancy APIs & Beacons			✓
Future App & API Ready			✓

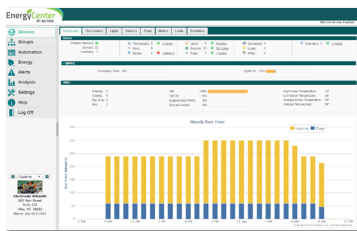
* additional hardware and software required.

Keilton+autani An easy and affordable stand-alone (gateway-free) room-based Bluetooth lighting control solution controllable via mobile app (iOS & Android).



EnergyCenter
BY AUTANI

A networked control solution which offers additional functionality such as advanced scheduling, reporting, metering, and building management integration.



INSIGHTS
Autani

The most advanced offering, providing valuable data insights into a single building or a portfolio of buildings. This allows for asset tracking, campus-wide wayfinding, 3D facility monitoring and more.



ZLTS



- Requires a dim-to-off LED driver with 12V Aux output
- PIR + Daylight Harvesting
- IP20 Rated
- 0-10V DC dimmable
- Bluetooth-enabled
- **Up to 18' mounting height.** 16' radius at 15' height.

ZLTC



- Wireless 0-10V fixture controller
- Integral Bluetooth module
- 12VDC Input

Room Controllers



WP1013 WP1025 WP1018 WP1018A

Battery Powered

- 3-, 5-, and 8-button configurations
- Bluetooth Enabled
- 1 x CR2032 battery (WP1013, WP1025, WP1018)
- 2 x AAA batteries (WP1018A)
- Approx. 3 year battery life (batteries not included)



WP1013S WP1017S IWS102

Line Voltage

- 3-, 7-button configurations, and Occ/Vac Sensor Switch
- Line voltage powered: 120-277V
- Bluetooth Enabled

