WaveLinx Connected Lighting

**Bill of Materials**

<table>
<thead>
<tr>
<th>Qty</th>
<th>Catalog #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>WAC-POE</td>
<td>Wireless Area Controller</td>
</tr>
<tr>
<td>2</td>
<td>WSP-MV-010</td>
<td>20A relay with 0-10V dimming</td>
</tr>
<tr>
<td>1</td>
<td>CWPD-1500</td>
<td>WaveLinx ceiling occupancy sensor</td>
</tr>
</tbody>
</table>

**Design Consideration:**

- **Gateway/WAC range:**
  - 150 feet to 250 feet LOS
  - 300 feet LOS
- **Number of interior walls:**
  - 2 walls
  - 3 walls
- **Distance from WAC to 1st WCL device:**
  - 150 feet
  - 200 feet
- **Distance between WCL devices:**
  - 75 feet
  - 100 feet
- **Number of hops from WAC:**
  - 4 hops
  - 5 hops
- **Number of areas per WAC:**
  - 15 + construction area
  - 15 + construction area
- **Number of zones per area:**
  - 3
  - 16
- **Number of scenes per area:**
  - 16
  - 16

**Best Practice:**

- **Gateway/WAC range:**
  - 300 feet LOS
- **Number of interior walls:**
  - 3 walls
- **Distance from WAC to 1st WCL device:**
  - 200 feet
- **Distance between WCL devices:**
  - 150 feet
- **Number of hops from WAC:**
  - 5 hops
- **Number of areas per WAC:**
  - 15 + construction area
- **Number of zones per area:**
  - 16
- **Number of scenes per area:**
  - 16

**SEQUENCE OF OPERATIONS:**

**LIGHTING**

- 0-10V lighting loads
- Up to 3 dimming zones
- Out of the box 75% high end trim

**OCCUPANCY**

- Out of the box auto on to 50%
- Optional vacancy mode
- Optional auto on to scene
- Plug load turns on with occupancy
- Automatic off of lighting and plug load on vacancy

**DAYLIGHTING**

- Continuous dimming to off
- Individual luminaire daylight dimming
- Daylighting not required for indoor offices
- Not required in spaces without windows that are less than 120W.

**MANUAL CONTROLS**

- Programmable scenes
- Scene raise
- Scene lower
- All off

**ADDITIONAL FEATURES**

- Energy calculations available through Trellix
- Automatic demand response available from wireless area controller
- Scheduling of partial off light levels and times from wireless area controller
- UL924 emergency control capabilities available via luminaire battery backup

**TYPICAL WIRING DETAIL**

- Wireless 4 small button scene wallstation (W4S-RL-W)
- Wireless Area Controller (WAC-POE) installed within 150ft of WCL devices
- 2x4 recessed light fixture with 0-10V dimming
- 20A relay w/ 0-10V Dimming (WSP-MV-010)

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**Enhanced Digital Demand Response**: Functional Testing
- Local Control
- Manual ON
- Partial ON
- Bilevel Lighting
- Daylight Top
- Partial OFF
- Automatic Scheduled Off
- Receptacle Monitoring
- Functional Testing
- Demand Response
- Enhanced Lighting

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**IECC 2015**

- Daylighting Control
- Manual ON
- Auto OFF
- Testing Control
- Manually Switched ON/OFF
- Manual Discover
- Receptacle Control
- Lumen Maintenance Control
- Demand Response