**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>1</td>
<td>W4S-RL-W</td>
<td>4 Small button scene wallstation</td>
</tr>
<tr>
<td>2</td>
<td>WR-15</td>
<td>WaveLinx Receptacle</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>

**Typical Wiring Detail**

- **Sequence of Operations:**
  - 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

**Design Consideration:**

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

- **Best Practice:**
  - 300 feet LOS
  - 3 walls
  - 200 feet
  - 150 feet
  - 5 hops
  - 15 + construction area
  - 16
  - 16

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**CA TITLE 24 2016 DESIGN GUIDE**

**TWO ZONE CLASSROOM WITH 0-10V DIMMING AND DEMAND RESPONSE**

**Wireless Area Controller**

(WAC-POE) installed within 150ft of WCL devices

**Design Consideration:**

- Gateway/WAC range
- Number of interior walls
- Distance from WAC to 1st WCL device
- Distance between WCL devices
- Number of hops from WAC
- Number of areas per WAC
- Number of zones per area
- Number of scenes per area

**Best Practice:**

- 150 feet to 250 feet LOS
- 2 walls
- 150 feet
- 75 feet
- 4 hops
- 15 + construction area

**Best Practice:**

- 300 feet LOS
- 3 walls
- 200 feet
- 150 feet
- 5 hops
- 15 + construction area