### Wireless Connected Lighting

#### THREE ZONE CLASSROOM WITH 0-10V DIMMING AND DEMAND RESPONSE

**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 or WR-20</td>
<td>Wireless Receptacle</td>
</tr>
<tr>
<td>3</td>
<td>WSP-MV-010</td>
<td>20A relay with 0-10V dimming</td>
</tr>
<tr>
<td>1</td>
<td>CWPD-1500</td>
<td>Wireless ceiling occupancy sensor</td>
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</tbody>
</table>

**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**
- POWER MEASUREMENT REPORTING THROUGH MOBILE APPLICATION
- 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 250 feet LOS
- Number of interior walls: 2 walls
- Distance from WAC to 1st WCL device: 150 feet
- Distance between WCL devices: 75 feet
- Number of hops from WAC: 4 hops
- Number of areas per WAC: 16
- Number of zones per area: 3
- Number of scenes per area: 6

**Best Practice:**
- Gateway/WAC range: 150 feet to 250 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: 16
- Number of zones per area: 3
- Number of scenes per area: 10

**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: 16
- Number of zones per area: 16
- Number of scenes per area: 10

**Manual Dimmer**
- 130 V

**Occupancy Sensor**
- 130 V

**Daylighting Control**
- 130 V

**Receptacle Control**
- 130 V

**Demand Response**
- 130 V

**Additional Features**
- Power measurement reporting through mobile application
- 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