**WaveLinx Connected Lighting**

**IECC 2015 DESIGN GUIDE**
**PRIVATE OFFICE WITH 0-10V DIMMING**

**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>22EN-LD2-34-UNV-L835-CD1-SWPD1-U</td>
<td>Encounter 2x2 with INstinct Sensor</td>
</tr>
</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**
- 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**

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

**ADPHRC 90.1-2016**

- Light Control: On/Off
- Manual On/Off
- Lighting Control
- Daylight Top
- Daylight Side
- Partial Off
- Automatic Control
- Scheduling
- Receptacle Control
- Energy Monitoring
- Functional Testing
- Demand Response
  - Occupancy
  - Daylighting Control
  - Manual On/Off
  - Receptacle Control
  - Luminaire Maintenance Control
  - Demand Response