



# Wireless Connected Lighting

## DESIGN GUIDE TWO ZONE CLASSROOM WITH 0-10V DIMMING AND DEMAND RESPONSE

### 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

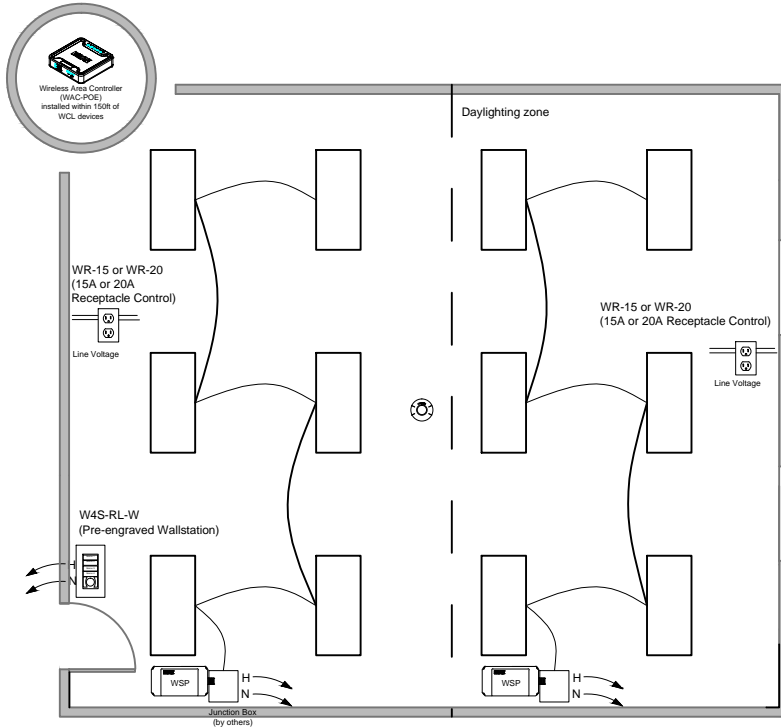
- CONTINUOUS DIMMING TO OFF
- INDIVIDUAL LUMINAIRE DAYLIGHT DIMMING
- DAYLIGHTING NOT REQUIRED FOR INDOOR OFFICES
- NOT REQUIRED IN SPACES WITHOUT WINDOWS THAT ARE LESS THAN 120W.

#### MANUAL CONTROLS

- PROGRAMMABLE SCENES
- SCENE RAISE
- SCENE LOWER
- ALL OFF

#### ADDITIONAL FEATURES

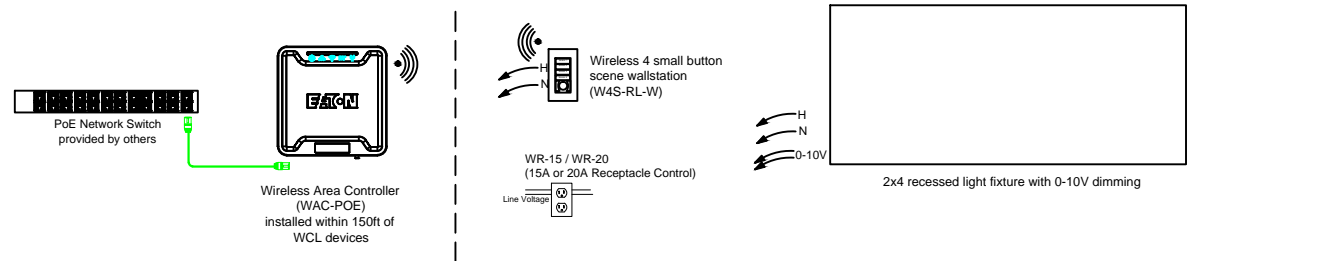
- POWER MEASUREMENT REPORTING THROUGH MOBILE APPLICATION
- AUTOMATIC DEMAND RESPONSE AVAILABLE FROM WIRELESS AREA CONTROLLER
- SCHEDULING OF PARTIAL OFF LIGHT LEVELS AND TIMES FROM WIRELESS AREA CONTROLLER
- UL924 EMERGENCY CONTROL CAPABILITIES AVAILABLE VIA LUMINAIRE BATTERY BACKUP



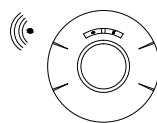
### Bill of Materials

Qty	Catalog #	Description
1	WAC-POE	Wireless Area Controller
1	W4S-RL-W	4 Small button scene wallstation
2	WR-15 or WR-20	Wireless Receptacle
2	WSP-CA-010	20A relay with 0-10V dimming
1	CWPD-1500	Wireless ceiling occupancy sensor

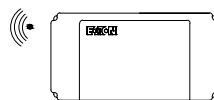
### TYPICAL WIRING DETAIL



Design Consideration:	Best Practice:	Best Practice:
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	150 feet
Number of hops from WAC	4 hops	5 hops
Number of areas per WAC	16	16
Number of zones per area	3	16
Number of scenes per area	6	10



Wireless Ceiling Mount Occupancy Sensor (CWPD-1500)



20A Relay w/ 0-10V Dimming (WSP-MV-010)



Manually Switched ON/OFF



Manual Dimmer



Occupancy Sensor  
130.1(a)  
130.1(b)  
130.1(c)1  
130.5(a)



Daylighting Control  
130.1(c)  
130.5(d)



Receptacle Control  
130.1(d)  
140.6 (d)



Demand Response  
130.5 (d)



UL924 (Energy Back-up Circuit)  
130.1(e)  
130.4  
130.1(c)6c