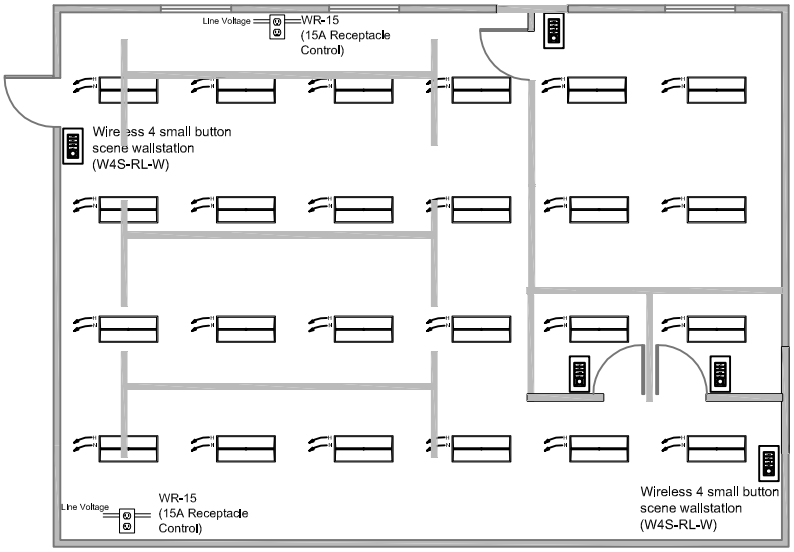
WaveLinx Wireless Connected Lighting

ASHRAE 90.1 2016 DESIGN GUIDE
RESTAURANT WITH 0-10V DIMMING AND DEMAND RESPONSE



Bill of Materials

Qty	Catalog #	Description
1	WAC-POE	Wireless Area Controller
5	W4S-RL-W	1 Large button scene wallstation
24	24EN-LD2-34-UNV-L835-CD1-SWPD1-U	Encounter 2x4 with INstinct Sensor

SEQUENCE OF OPERATIONS:

LIGHTING
- 0-10V LIGHTING LOADS
- UP TO 3 DIMMING ZONES
- OUT OF THE BOX 75% HIGH END TRIM

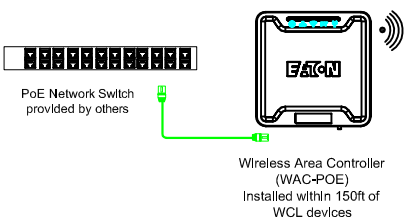
OCCUPANCY
- AUTOMATIC ON TO 50%
- OPTIONAL VACANCY MODE
- OPTIONAL AUTO ON TO SCENE
- PLUG LOAD TURNS ON WITH OCCUPANCY
- AUTOMATIC OFF OF LIGHTING AND PLUG LOAD ON VACANCY

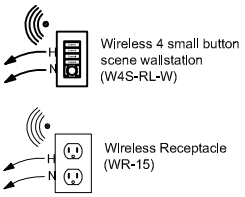
DAYLIGHTING
- CONTINUOUS DIMMING TO OFF
- INDIVIDUAL LUMINAIRE DAYLIGHT DIMMING
- DAYLIGHTING NOT REQUIRED FOR INDOOR OFFICES
- NOT REQUIRED IN SPACES WITHOUT WINDOWS THAT ARE LESS THAN 120W.

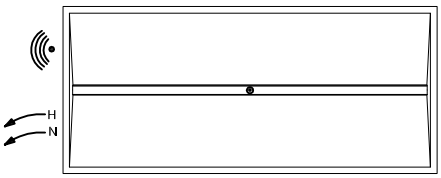
MANUAL CONTROLS
-TOP OR DOMINENT BUTTON HALF LIGHTS (SETS LIGHTS TO 50% OR LESS)
-REMAINING BUTTONS TRIGGER SCENES
- RAISE
- LOWER
- ALL OFF

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

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

	Local Control	Manual ON	Partial Automatic ON	Bilevel Lighting	Daylighting Side lighting	Daylighting Top lighting	Automatic Partial OFF	Automatic Full OFF	Scheduled Shutoff	Receptacle Control	Energy Monitoring	Parking Garage Lighting control	Functional Testing	Deman Respor
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Occupancy Sensor | Daylighting Control | Manual On/ Auto Off | Tuning Control | Manually Switched ON/OFF | Manual Dimmer | Receptacle Control | Lumen Maintenance Control | Demand Response