Wireless Connected Lighting

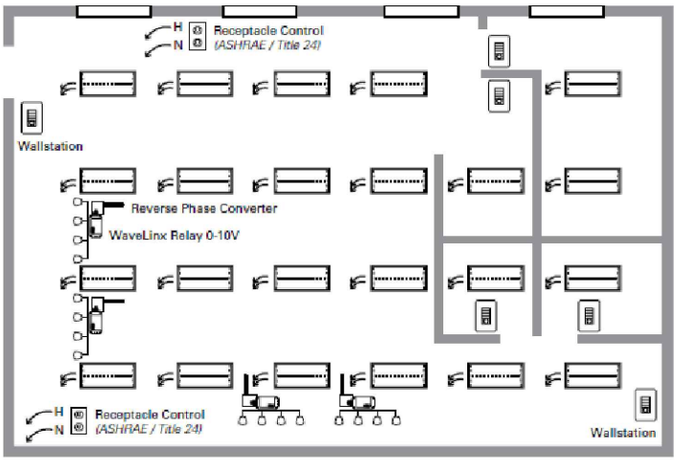
DESIGN GUIDE
INTEGRATED RETAIL

WaveLinx Connected Lighting

Retail

example

	Manually Switched ON / OFF	Manual Dimmer	Manual ON / Auto OFF	Occupancy Sensor	Daylighting Control	Lumen Maintenance Control	Tuning Control	Receptacle Control	Demand Response
IECC 2018	•	•	•	•	•	•	•		
ASHRAE 90.1 - 2019	•	•	•	•	•	•	•	•	•
T24 2019	•	•	•	•	•	•	•	•	•
NECB 2017	•	•	•	•	•	•	•		



Sequence of Operations

Lighting
- 0-10V lighting loads
- Up to 3 dimmable 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 *(optional IECC)*
- Automatic off of lighting and plug load on vacancy

Daylighting
- Continuous dimming to off
- Individual luminaire daylight dimming to approximately 500 lux
- Daylighting not required for indoor spaces without windows
- Not required in spaces without windows or that are less than 150W *(120W for ASHRAE / Title 24)*

Manual Controls
- Top or dominant button half lights (sets lights to 50% or less)
- Remaining buttons trigger scenes
- Scene raise / Scene lower
- All off

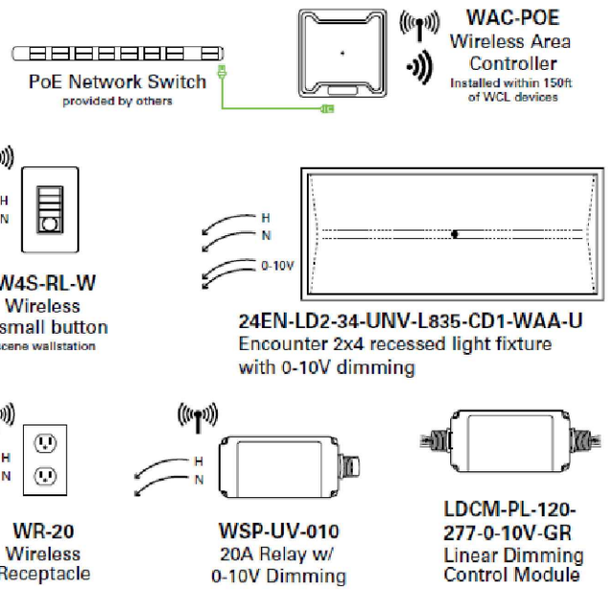
Additional Features
- Energy calculations (available through Trellix)
- Automatic demand response through wireless area controller
- Scheduling of partial off light levels from wireless area controller
- UL924 emergency control capabilities via luminaire battery backup or fixture integrated transfer device (consult fixture spec sheet)
- Complies with Enhanced Digital Lighting Control section C406 *(IECC)*

Bill of Material

Quantity	Catalog #	Description
1	WAC-POE	Wireless Area Controller
6	W4S-RL-W	WaveLinx Wallstation
4	WSP-UV-010	WaveLinx Relay Switchpack with 0-10V dimming
2	WR-20	WaveLinx Receptacles *(ASHRAE / Title 24)*
4	LDCM-PL-120-277-010V-GR	Linear Dimming Control Modules
12	24EN-LD2-34-UNV-L835-CD1-WAA-U	Encounter 2x4 with WaveLinx Sensor

Design Consideration	Best Practice	Maximum
Gateway / Wireless Area Controller range	150 ft LOS	300 ft LOS
Number of interior walls	2 walls	3 walls
Distance from Wireless Area Controller to 1st WaveLinx device	150 ft	200 ft
Distance between WaveLinx devices	75 ft	150 ft
Number of hops from Wireless Area Controller	4 hops	5 hops
Number of areas per Wireless Area Controller	15 + 1 construction area	
Number of zones per area	3	16
Number of scenes per area	16	16

Typical Wiring Detail



	Local Control	Manual ON	Partial ON	Bilevel Lighting	Daylight Side	Daylight Top	Partial OFF	Automatic OFF	Scheduled OFF	Receptacle Control	Energy Monitoring	Parking Garage	Functional Testing	Demand Response	Enhanced Digital
IECC 2018	C405.2.5	C405.2.5	C405.2.2.1.2		C405.2.3.2	C405.2.3.3	C405.2.1.3	C405.2.1.1.1	C405.2.2	C405.2.4		C405.2.6	C408.3		C406. 4
ASHRAE 90.1-2019	9.4.1 (a)	9.4.1.1 (b)	9.4.1.1 (c)	9.4.1.1 (d)	9.4.1.1 (e)	9.4.1.1 (f)	9.4.1.1 (g)	9.4.1.1 (h)	9.4.1.1 (i)	8.4.2	8.4.3.2	9.4.1.2	9.4.3		C406. 4
T24 2019	130.1 (a)(b)	130.1 (a)(b)	130.1 (b)		130.1 (d)	130.1 (d)	130.1 (c).6	130.1 (c).5	130.1 (c)	130.5 (d)	130.5 (b)	130.1 (d)	130.4	130.1 (e) 130.1 (e)	
NECB 2017	4.2.2.1.(3)	4.2.2.1.(3), 4.2.2.1.(6)	4.2.2.1 (8)	4.2.2.1.(9)	4.2.2.1.(10)	4.2.2.1.(13)	4.2.4.1. (16-17)	4.2.2.1. (18-19)	4.2.2.1. (20-23)			4.2.2.2 4.2.2.4			