

WaveLinx PRO

Electrical Contractor Guide



Get off the job faster with WaveLinx PRO connected lighting system

Traditional hot | neutral | ground wiring solving today's problems



Why use WaveLinx PRO?



Rising conduit and wire costs

Conduit and copper has seen continued cost increase, as much as 100% over the past 12 months.

- Eliminate up to 60% of the wire runs
- Less wire - Less pipe



Training

How do you keep up with the latest technology? WaveLinx PRO provides local and classroom certification programs

- Learn how the system works in as little as 2 hours
- Simply mobile



Shortage of qualified labor

80% of electrical contracting firms are reporting difficulty filling hourly craft worker positions and higher salaries.

- Save up to 45 minutes per control zone
- Less time - Less people



Instructional videos

What if I need a tutorial on site? WaveLinx PRO has fifteen, 5-minute videos that walk you through it.

- Free mobile app
- Free training videos



Installation times

Get off the job at least 40% faster simple install and simple setup.

- More jobs with the same people means more money for you
- Faster install



Utility incentives

Many states provide rebate incentives for LED fixtures with integrated sensors.

- Less material to install, and the rebate pays for it
- Incentives up to \$75 per fixture



Energy savings

How do you make sure you meet local code and provide energy savings to your customer?

- Network Lighting Controls (NLCs) provide 47-70% savings with integrated luminaire lighting controls
- Up to 70% energy savings



Cybersecurity

Are you concerned with cybersecurity? You should be, but rest assured as WaveLinx PRO has the IECC 62443 listing for Network Cybersecurity.

- Help customers stay secure
- Peace of mind that the product is backed by independently certified IECC cybersecurity standards

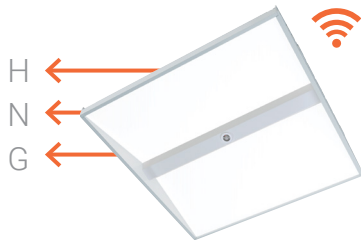
Wireless, code-compliant
and cost-effective for
today's **Electrician**



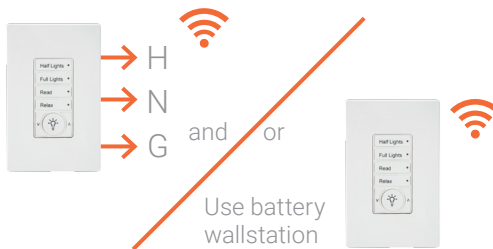
Use what you already know

Complete projects faster while reducing costs with the WaveLinx PRO system for LED lighting and controls.

Wire integrated luminaire or retrofit kit



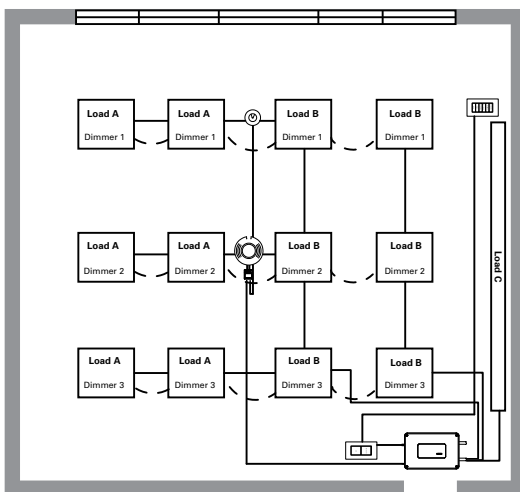
Wire for power not load switching



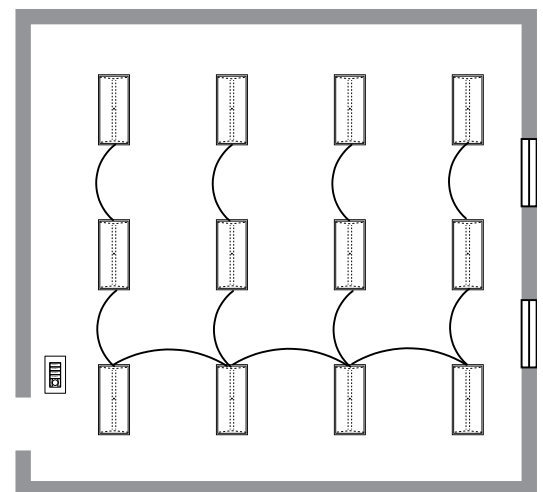
Easy programming with mobile application
(Wireless Area Controller required)



Go from this...



To this!



Now simple standard wiring provides so much more.
Here's what you get:

Lighting

- Continuous dimming
- Individual control

Occupancy

- Auto On to 50% or Vacancy
- Auto Off of lighting and plug loads

Daylighting

- Continuous dimming to OFF
- Open or closed loop

Scheduling

Security

- IEC 62443-4-1 and IEC 62443-4-2 certified
- UL924
- DLC NLC V5 qualified

WaveLinx PRO
How to Videos

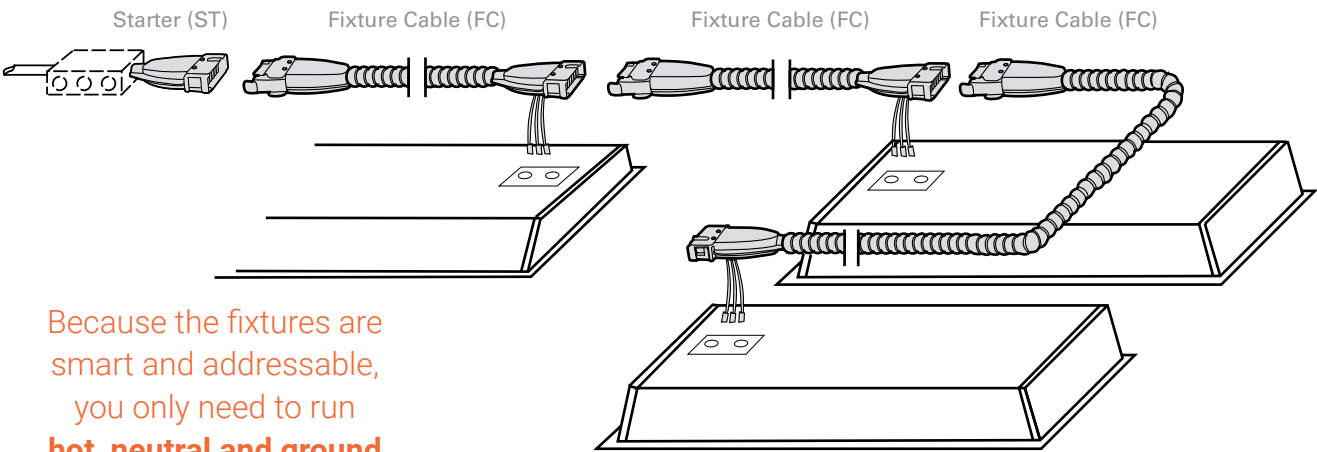


WaveLinx PRO devices are IEC 62443-4-1 and IEC 62443-4-2 certified.
Independent certifications have been performed by certified labs.

MWS wiring

With construction costs rising and the labor force shrinking. You need every advantage to get more done with less people.

Modular Wiring System from Cooper Lighting Solutions provides a fast, reliable and cost-effective way to wire lighting fixtures. MWS uses simple plug in connections that provides basic power over wire that works better than traditional methods.



Because the fixtures are smart and addressable, you only need to run **hot, neutral and ground** to each using MWS to get a flexible space

Simple plug in connections make installation fast and easy

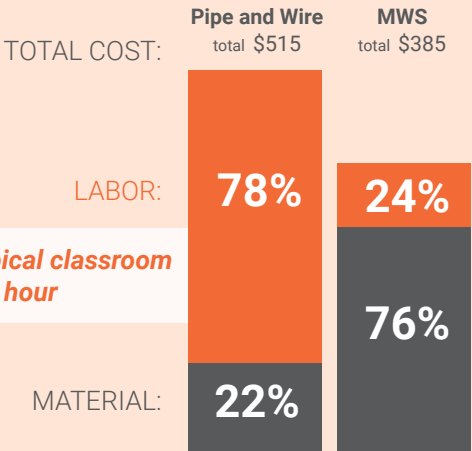
Assuming 12 fixtures in a typical classroom, MWS will save more than 1 day per electrician per room.

Pipe and Wire	
QTY.	MATERIAL
60 ft	1/2" EMT
252 ft	#12 THHN
2	1/2" Couplings
10	1/2" Couplings
5	J-box covers
12	Fixture whips



Simplified BOM

MWS	
QTY.	MATERIAL
12	12FC12 / 2G09
2	12ST12 / 2G
3	12EC12 / 2G11



up to **30% LOWER TOTAL COST**
75% LESS LABOR



Satisfy your customer & your bottom line

Get off the job faster and at a lower installation cost with WaveLinx PRO components.

WaveLinx PRO products

CATALOG NUMBER	DESCRIPTION	VOLTAGE
WAC2-POE	Wireless Area Controller 1 required per 49 rooms or 200 zones	WPOE-120
WPOE2-120	PoE power supply for WAC	120V
WSP-UV-010	Wireless Dimming Switchpack 0-10V output supports up to 60 typical LED drivers	120-347VAC 16A LED
W4S-RL-S4-*	4 small button field programmable wallstation with Raise/Lower (W, V, G, B)	120/277VAC Not load switching, for radio power only
WB5-S3-W	White 3 small 1 large button with Raise/Lower field programmable wallstation (Scene 1, Scene 2, Scene 3, Off, v, ^)	Qty 4 AAA batteries
WB6-S3D-W	White 6 small button field programmable wallstation (Scene 1, Scene 2, Scene 3, Raise, Lower, Off)	
WB6-S5-W	White 6 small button field programmable wallstation (Scene 1, Scene 2, Scene 3, Scene 4, Scene 5, Off)	
WOLC-7P-010	Outdoor Lighting Control Module	120/347VAC 10A LED
WR-20	Wireless 20A Receptacle	120V 20A
WR-15	Wireless 15A Receptacle	120V 15A
CWPD-1500	Wireless Occupancy & Open Loop Daylight Sensor	Qty 2 AA batteries

Reduce installation time by 60% with MWS products

CATALOG NUMBER	DESCRIPTION
12EC12/2G11	120V 12AWG Extender Cable 11' long
12EC12/2G15	120V 12AWG Extender Cable 15' long
12FC12/2G11	120V 12AWG Fixture Cable 11' long
12ST12/2G	120V 12AWG Circuit Starter Cable
27EC12/2G11	277V 12AWG Extender Cable 11' long
27EC12/2G15	277V 12AWG Extender Cable 15' long
27FC12/2G11	277V 12AWG Fixture Cable 11' long
27ST12/2G	277V 12AWG Circuit Starter Cable
27ST12/2G	277V 12AWG Circuit Starter Cable

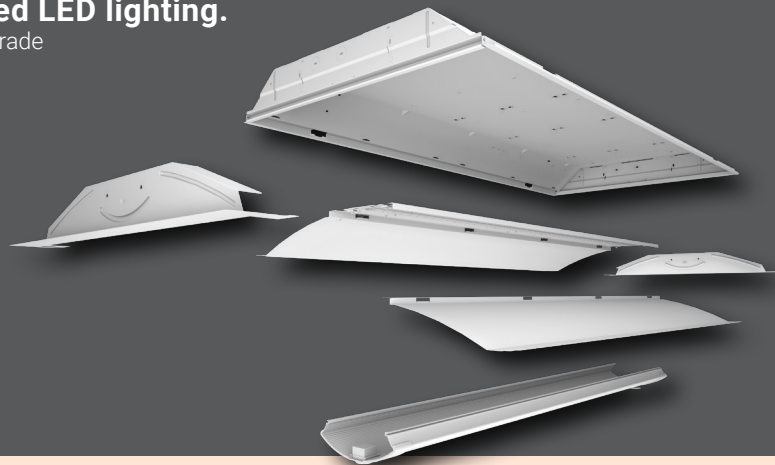
Save time and money with stock fixtures with integrated sensors

CATALOG NUMBER	DESCRIPTION	LUMEN PACKAGE & CCT
22CZRK-LD4-34-UNV-L840-CD1-SWPD1-U	2x2 Cruze retrofit kit w/integrated sensor	3400 Lumen, 4000K CCT
24CZ-LD5-40-UNV-L840-CD1-SWPD1-U	2x4 Cruze luminaire w/integrated sensor	4000 Lumen, 4000K CCT
22CZ2-34HE-UNV-L840-CD1-SWPD1-U	2x2 Cruze ST High Efficiency luminaire w/integrated sensor	3400 Lumen, 4000K CCT
24CZ2-40HE-UNV-L840-CD1-SWPD1-U	2x4 Cruze ST High Efficiency luminaire w/integrated sensor	4000 Lumen, 4000K CCT

It's time to make the switch to LED

Upgrade your fluorescent luminaires to controlled LED lighting.

The Cruze LED Retrofit Kit makes it easy for customers looking to upgrade from fluorescent luminaires to high performing wirelessly controlled LED system without the need to install a complete luminaire.



Simple and quick installation

- Installs in less than five minutes = **significant labor cost savings**
- Utilize the existing fluorescent luminaire's housing = **lower disposal costs**
- No tools required

Reduced energy consumption

- Energy savings > 50% vs. fluorescent
- High-performance efficacy up to 138 lm/W
- DesignLights Consortium™ Qualified

Architectural style aesthetics

- Superior lens uniformity with full illumination
- Designed for offices, schools, hospitals, and retail applications
- Available in 2' x 2' and 2' x 4' sizes

Integrated controls

- Integrated sensors with IoT Connectivity
- Integrated sensor system for occupancy, daylighting and wireless control
- 10-100% dimming



Energy savings

Operating and maintenance costs of a lighting system are dramatically impacted by the specified lamp source and electrical system. Total system input watts and fixture operating life should be the driving considerations when addressing energy consumption and total cost of ownership. Energy savings increase when energy consumption is reduced and maintenance intervals are extended.

Fluorescent Product Comparison

Select 2' x 4' Cruze Retrofit Kit SKUs			Popular Fluorescent Fixtures			LED ENERGY SAVINGS
CATALOG NUMBER	LUMENS*	WATTAGE	FIXTURE TYPE	LUMENS*	WATTAGE	
24CZRK-LD4-40-UNV-L840-CD1-SWPD1-U	4423	36.82	Indirect Basket 232	3873	72.0	48.9%

Select 2' x 2' Cruze Retrofit Kit SKUs			Popular Fluorescent Fixtures			LED ENERGY SAVINGS
CATALOG NUMBER	LUMENS*	WATTAGE	FIXTURE TYPE	LUMENS*	WATTAGE	
22CZRK-LD4-34-UNV-L840-CD1-SWPD1-U	3768	31.45	Troffer 2U6T8	3862	52.1	40%

*Lumens listed are delivered lumens.
Refer to specification sheets for detailed catalog ordering information.



Cruze ST is a specification LED troffer series that delivers architectural features with unmatched value. This high quality luminaire is constructed with the latest solid state lighting technology matched with architectural grade elements to deliver superior aesthetics, optical distribution, and energy efficiency. The Cruze ST is compatible with all of today's popular ceiling systems and is available with options and accessories to deliver the features needed for use in premier office spaces, primary and secondary schools, healthcare facilities and retail merchandising.

Integrated sensors with IoT Connectivity

- Latchless design - architectural appeal
- 2'x2' and 2'x4' recessed versions available
- Standard and high efficacy (HE) versions up to 138 lm/W
- 80 and 90CRI @ 3000K, 35000K, 4000K, 5000K CCT
- Multiple lens options for customizable looks
- VividTune™ CCT tuning, 3000K - 5000K and 2700K - 6500K



CATALOG NUMBER	DESCRIPTION	LUMEN PACKAGE & CCT
22CZ2-34HE-UNV-L840-CD1-SWPD1-U	2x2 Cruze ST High Efficiency luminaire w/integrated sensor	3400 Lumen, 4000K CCT
24CZ2-40HE-UNV-L840-CD1-SWPD1-U	2x4 Cruze ST High Efficiency luminaire w/integrated sensor	4000 Lumen, 4000K CCT



WaveLinx PRO best practices



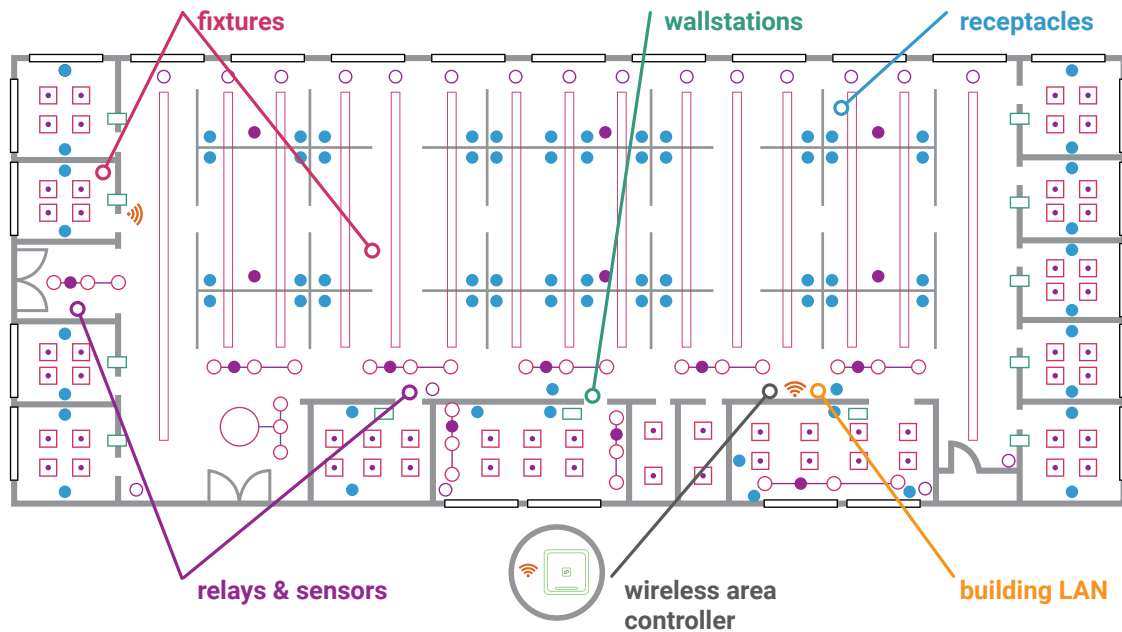
DESIGN CONSIDERATION	BEST PRACTICE	MAXIMUM
WCL devices per WAC2	150	200
User-defined areas per WAC2	49	49
Construction areas per WAC2	1	1
Zones per Area	3	16
Total Zones per WAC2	200	200
Scenes per Area	16	16
WAC range (indoor WCL devices)	150ft (45m) LOS ¹	300ft (91m) LOS ²
WAC range (outdoor WCL devices)	See sensor spec sheets	
Device hops beyond WAC (indoor / outdoor)	4 / 10	5 / 10

Notes

¹ Considering two (2) interior walls of standard construction

² Considering no LOS obstructions (walls, columns, etc.)

WaveLinux PRO basic install & set-up



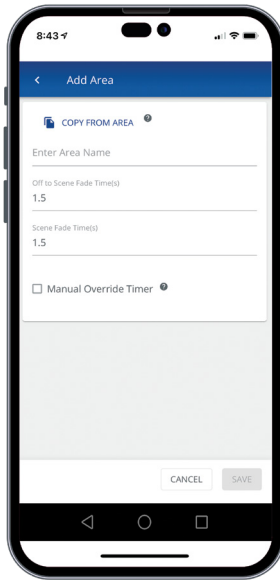
1. Connect all wireless devices to line voltage power (fixtures, receptacles, relays, switches)
2. Confirm device readiness (Video 1)
3. Connect with WaveLinux PRO mobile application (Video 3)
4. Create an Area (Video 4)
5. Identify devices in area with reverse identification (Video 4)
6. Drag devices into created (Video 5)
7. Repeat for each area you create
8. System complete

How to Videos



**Get off the
job faster**
with WaveLinux PRO
Wireless Connected
Lighting System

WaveLinX PRO programming

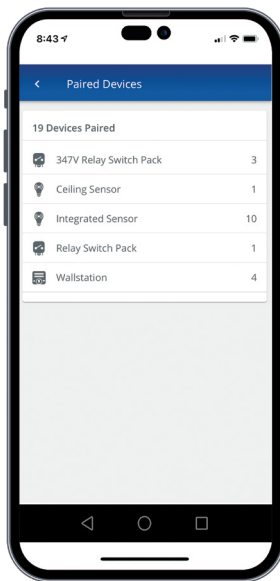
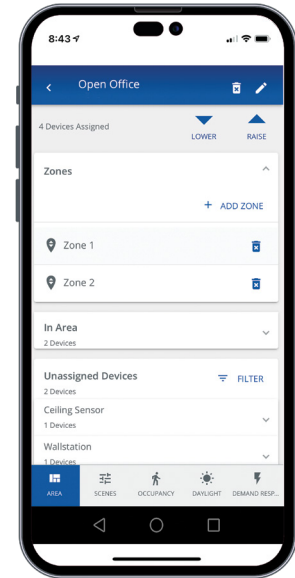


Use the mobile app to
create areas of control

Automatic code
commissioning does
the programming
for you

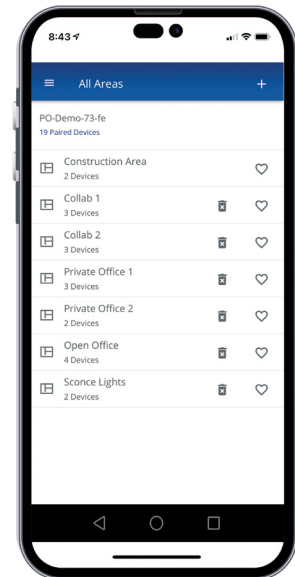


Identify devices and drag
into the correct zone



Copy areas to make
programming even easier

Easily see the types and
number of devices in
each zone or area



WaveLinX PRO
mobile app
settings



Download the latest version of the WaveLinX mobile application from Google Play™ or the App Store® and install it on a smartphone or tablet.

The WaveLinX mobile application is compatible with devices running iOS 11+ or Android™ 7+ operating systems.

WaveLinx PRO energy codes

IECC (2018) - ASHRAE 90.1 (2019) - Title 24 (2019)

Quick reference guide - commercial requirements

	IECC (2018)	ASHRAE 90.1 (2019)	Title 24 (2019)	WaveLinx PRO
Automatic off controls				
Occupancy Sensors	C405.2.1	9.4.1.1(h)	130.1(c)	●
Partial Off	C405.2.1.2 (warehouse) C405.2.1.3 (open office)	9.4.1.1(g)	130.1(c)	●
Full Off	C405.2.1.1.1 (20min)	9.4.1.1(h)	130.1(c) (warehouse, corridor, stairwell, library stacks)	●
Scheduled Off	C405.2.2	9.4.1.1(i)		●
Plug Load Off	N/A	8.4.2	130.5(d)	●
Manual On / Partial On	C405.2.1.1.2	9.4.1.1(b) – (manual ON) 9.4.1.1(c) – (partial ON)	130.1(c) (office<250ft², classrooms, conference room)	●
Manual controls				
Manual On / Partial On	C405.2.1.1.2	9.4.1.1(b) – (manual ON) 9.4.1.1(c) – (partial ON)	130.1(c) (office<250ft², classrooms, conference room)	●
Manual Light Reduction	C405.2.2.2			●
Area / local Controls	C405.2.5	9.4.1.1(a)	130.1(b) - (multi-level controls)	●
Daylighting				
Daylight Responsive Control	C405.2.3	9.4.1.1(e) (>150W sidelighting) 9.4.1.1(f) (>150W toplighting)	130.1(d) (>120W with <.5W/ft² dimming optional) 130.1(d) (>120W with >.5W/ft² dimming required)	●
Exterior Controls				
Parking Garage Lighting		9.4.1.2		●
Exterior Lighting	C405.2.5	9.4.1.4		●
Special Items				
Specific Application Controls	C405.2.4			●
Additional Efficiency Packages	C406.1			●
Guest Room or Sleeping Units	C405.2.4.3	9.4.1.3(b)		●
Functional Testing	C408.3	9.4.3	130.4	●
Metering			130.5(a)	●
Demand Responsive Controls			130.1(e) - (>10K ft² reduce by 15%)	●

Lighting Brands

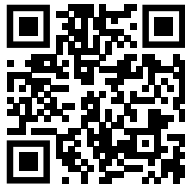
Ametrix
AtLite
Corelite
Ephesus
Fail-Safe
HALO
HALO Commercial
Invue
iO
Iris
Lumark
LumarkAP
Lumière
McGraw-Edison
Metalux
MWS
NeoRay
Portfolio
PrentaLux - 3D Printed Lighting
RSA
Shaper
Streetworks
Sure-Lites

Controls Brands

Greengate
Fifth Light
Intelligent Lighting Controls

**Connected Lighting Systems
and Smart Spaces Platform**

WaveLinx
Trellix Infrastructure



SCAN
for more
WaveLinx PRO
information

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