

Project		Catalog #		Type	
Prepared by		Notes		Date	



Metalux

CooperKit LED Retrofit Kit

Center Basket Retrofit Kit

Typical Applications

Commercial Office • Schools • Medical Facilities • Retail Facilities • Government Buildings

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Product Certifications and Features



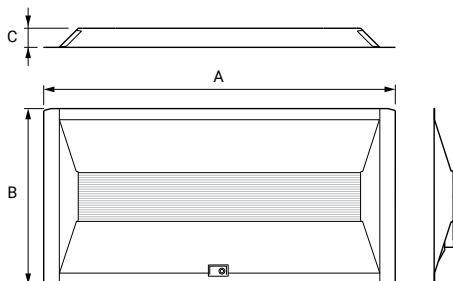
Top Product Features

- Center basket fixture for an upscale look; standard and high efficacy, static and air handling
- WaveLinx Integrated Sensor options to easily meet your local code requirements (coming soon)
- Simple and tool-less installation for labor savings
- Reduced maintenance costs due to the extended lifetime of LEDs
- Custom diffuser yields efficacies > 160 LPW, for enhanced energy savings

Dimensional and Mounting Details

Dimensions 2x4

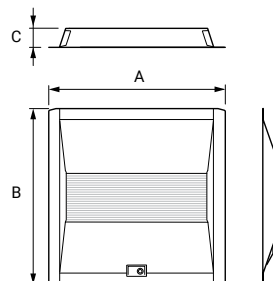
A Length	B Width	C Height
47.83"	23.9"	2.95"



WaveLinx Sensor shown, 2x2, 2x4 details
(Consult factory for availability)

Dimensions 2x2

A Length	B Width	C Height
23.9"	23.9"	2.95"



*CBRK is designed to retrofit most existing 1x4, 2x2, 2x4 recessed parabolic and lensed troffers. Cooper Lighting Solutions recommends ensuring proper fit with a CBRK sample install, prior to ordering project quantities.

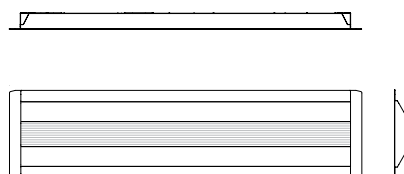
Ordering Information

	Size	Product Catalog Number	Description	STK or MTO	Watts (W)	Nominal Lumens (lm) ³	Color Temp. (K)	Efficacy (lm/W)
Non Sensor	2x2	22CBRK-21-UNV-L835-CD1-U	2x2 Static, 2100 lumens, 15W, 835, UNV, 0-10V	Stock	14.4	2345	3500K	162.8
	2x2	22CBRK-21-UNV-L840-CD1-U	2x2 Static, 2100 lumens, 15W, 840, UNV, 0-10V	Stock	15	2316	4000K	154.4
	2x2	22CBRK-21HE-UNV-L835-CD1-U	2x2 Static, 2100 lumens, 14W, 835, UNV, 0-10V	MTO	14.1	2258	3500K	160
	2x2	22CBRK-21HE-UNV-L840-CD1-U	2x2 Static, 2100 lumens, 14W, 840, UNV, 0-10V	MTO	13.5	2215	4000K	164.1
	2x2	22CBRK-31-UNV-L835-CD1-U	2x2 Static, 3100 lumens, 22W, 835, UNV, 0-10V	Stock	21.3	3039	3500K	142.7
	2x2	22CBRK-31-UNV-L840-CD1-U	2x2 Static, 3100 lumens, 22W, 840, UNV, 0-10V	Stock	21.3	3168	4000K	148.7
	2x2	22CBRK-A-31-UNV-L835-CD1-U	2x2 Air Return, HE, 3100 lumens, 22W, 835, UNV, 0-10V	MTO	21.3	3039	3500K	142.7
	2x2	22CBRK-A-31-UNV-L840-CD1-U	2x2 Air Return, HE, 3100 lumens, 22W, 840, UNV, 0-10V	MTO	21.3	3168	4000K	148.7
	2x2	22CBRK-31HE-UNV-L835-CD1-U	2x2 Static, HE, 3100 lumens, 21W, 835, UNV, 0-10V	MTO	21	3268	3500K	155.6
	2x2	22CBRK-31HE-UNV-L840-CD1-U	2x2 Static, HE, 3100 lumens, 22W, 840, UNV, 0-10V	MTO	20.3	3284	4000K	161.8
	2x2	22CBRK-31HE-UNV-L835-SD1-U	2x2 Static, HE, 3100 lumens, 21W, 835, UNV, StepDim	MTO	21.6	3268	3500K	151.3
	2x2	22CBRK-31HE-UNV-L840-SD1-U	2x2 Static, HE, 3100 lumens, 21W, 840, UNV, StepDim	MTO	21.3	3284	4000K	154.2
	2x4	24CBRK-30HE-UNV-L835-CD1-U	2x4 Static, HE, 3000 lumens, 19W, 835, UNV, 0-10V	MTO	19.4	3175	3500K	163.7
	2x4	24CBRK-30HE-UNV-L840-CD1-U	2x4 Static, HE, 3000 lumens, 19W, 840, UNV, 0-10V	MTO	19.2	3159	4000K	164.5
	2x4	24CBRK-36-UNV-L835-CD1-U	2x4 Static, 3600 lumens, 28W, 835, UNV, 0-10V	Stock	25	3638	3500K	145.5
	2x4	24CBRK-36-UNV-L840-CD1-U	2x4 Static, 3600 lumens, 28W, 840, UNV, 0-10V	Stock	24.3	3805	4000K	156.6
	2x4	24CBRK-36HE-UNV-L835-CD1-U	2x4 Static, HE, 3600 lumens, 23W, 835 UNV, 0-10V	MTO	23.5	3811	4000K	162.2
	2x4	24CBRK-36HE-UNV-L840-CD1-U	2x4 Static, HE, 3600 lumens, 23W, 840, UNV, 0-10V	MTO	22.6	3811	3500K	168.6
	2x4	24CBRK-42-UNV-L835-CD1-U	2x4 Static, 4200 lumens, 28W 835 UNV 0-10V	Stock	28.3	4066	3500K	143.7
	2x4	24CBRK-42-UNV-L840-CD1-U	2x4 Static, 4200 lumens, 28W, 840, UNV, 0-10V	Stock	28.6	4210	4000K	147.2
	2x4	24CBRK-42HE-UNV-L835-CD1-U	2x4 Static, 4200 lumens, 26W, 835, UNV, 0-10V	MTO	27.7	4418	3500K	159.5
	2x4	24CBRK-42HE-UNV-L840-CD1-U	2x4 Static, 4200 lumens, 26W, 840, UNV, 0-10V	MTO	27.4	4398	4000K	160.5
	2x4	24CBRK-42HE-UNV-L835-SD1-U	2x4 Static, 4200 lumens, 26W, 835, UNV, StepDim	MTO	28.7	4418	3500K	153.9
	2x4	24CBRK-42HE-UNV-L840-SD1-U	2x4 Static, 4200 lumens, 26W, 840, UNV, StepDim	MTO	28.6	4398	4000K	153.8
	2x4	24CBRK-A-47HE-UNV-L835-CD1-U	2x4 Air Return, HE, 4700 lumens, 31W, 835, UNV, 0-10V	MTO	31.1	4946	3500K	159
	2x4	24CBRK-A-47HE-UNV-L840-CD1-U	2x4 Air Return, HE, 4700 lumens, 31W, 840, UNV, 0-10V	MTO	30.7	4902	4000K	159.7
	2x4	24CBRK-47HE-UNV-L835-CD1-U	2x4 Static, 4200 lumens, 31W, 835, UNV, 0-10V	MTO	31.1	4946	3500K	159
	2x4	24CBRK-47HE-UNV-L840-CD1-U	2x4 Static, 4200 lumens, 31W, 840, UNV, 0-10V	MTO	30.7	4902	4000K	159.7

In process of offering CBRK with WaveLinx Lite (WAB) and WaveLinx Pro (WAA) integrated sensors. Please consult factory for product details and availability. Also, see page 6 & 7 for detailed information.



In the near future, CBRK will be available in a 1x4 size. Please consult factory for product details and availability.



*CBRK is designed to retrofit most existing 1x4, 2x2, 2x4 recessed parabolic and lensed troffers. Cooper Lighting Solutions recommends ensuring proper fit with a CBRK sample install, prior to ordering project quantities.

Air Return Data

The air return versions of CBRK are suitable for retrofitting listed air return troffers.

2x2 Air Return Data

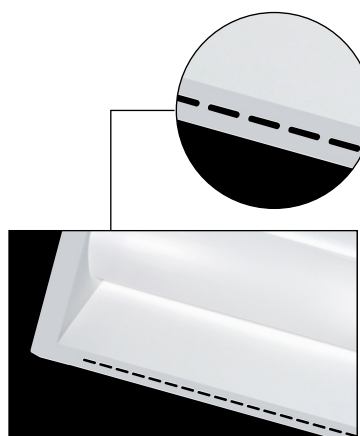
Return Air Volume, SCFM	61	69	80	97	112	131
Negative Static Pressure, in. H ₂ O	0.11	0.15	0.20	0.30	0.40	0.55
Noise Criteria (NC)	17	21	25	31	34	38

Note: 24 total air slots, each 30mm x 6mm

2x4 Air Return Data

Return Air Volume, SCFM	105	119	128	162	259	272
Negative Static Pressure, in. H ₂ O	0.05	0.08	0.10	0.20	0.45	0.55
Noise Criteria (NC)*	<15	32	32	36	38	40

Note: 50 total air slots, each 30mm x 6mm



Product Specifications

Construction / Finish

- Simple design allows for quick installation in existing luminaire without the need to break the ceiling plenum
- Galvanized steel inhibits corrosion and provides a more durable product
- Integrated securement tabs for securement to existing troffer housing
- Minimum depth of 3" necessary to allow proper clearance and installation of the CBRK
- White powder coated after fabrication with durable finish to ensure no unfinished edges and inhibit corrosion
- Components fit together without the need for tools during installation
- LED boards and drivers are field replaceable

Features

- A highly efficient LED retrofit kit designed to replace recessed linear fluorescent troffers.
- Extremely high efficacies up to 162 lumens per watt*
- Excellent color rendering with a CRI above 80 improves occupants' visual experience within the space.
- Available with WaveLinX Lite and WaveLinX Pro integrated sensors to easily meet energy code (IEC, ASHRAE 90.1, Title 24) and eliminate the need to install and wire standalone sensors.
- Designed for use with NEMA Type "G" Inverted T-Grid ceiling systems

Electrical / Controls

- Drivers with 0-10V dimming allow for maximum fixture efficiency and provide 10% dimming
- Five-year limited warranty includes all components of the retrofit kit, including driver, LED board and nonelectrical components. Extended warranty to 10 years available
- CBRK projected lumen maintenance based on TM21 testing standards is L85 @ 60,000 hours
- Includes WaveLinX/WaveLix Lite sensor compatible for stand alone, controlled, connected, and IOT capability *

Control Options

- WaveLinX Lite - Meet your energy local code without having to install any additional devices other than wireless keypads (refer to the WaveLinX Overview section for more information)
- WaveLinX Pro - Go above and beyond energy code compliance by offering value added applications that take advantage of your connected luminaires (energy report, occupancy report, asset location, etc).

Certifications

- cULus listed for 25°C ambient environments, indoor applications
- DesignLights Consortium® Qualified and classified for DLC Premium (refer to www.designlights.org for details)

Lens

- Easily removed from below without tools
- Precision optics for optimal distribution, high efficacy and pleasing aesthetics
- Frosted acrylic lens with interior linear ribs, for easy wipe-down and visual comfort

Accessories

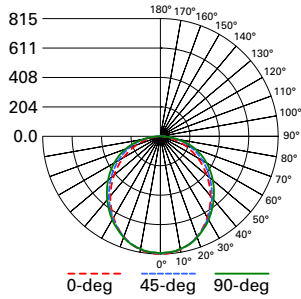
- Suitable for use with emergency backup (Field installed)
- Earthquake cables available for additional securement to the existing troffer

Catalog Number	Description
CBRK-EQCBL	Earthquake cable 12.5" (317mm)
CBRK-EBPLED14W-NS	CBRK field installed emergency battery backup, 14W, with necessary brackets, no sensor

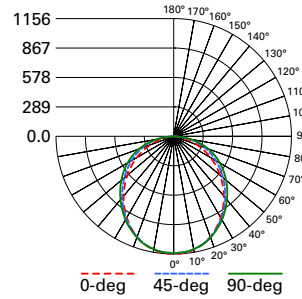
* Based on photometric testing consistent with IES LM-79. Actual wattage may vary by +/- 10%. Actual initial lumen output may vary +/- 10%.

Photometric Data

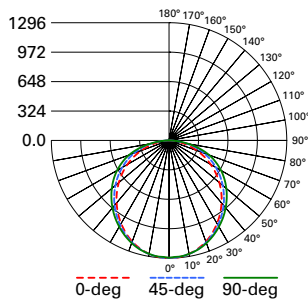
[View IES files](#)



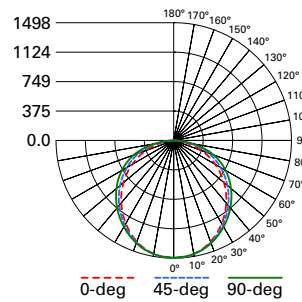
22CBRK-21-UNV-L840-CD1-U
 Electronic Driver
 Linear LED 4000K
 Spacing criterion: (II) 1.2 x mounting height, (⊥) 1.26 x mounting height
 Lumens: 2316
 Input Watts: 15W
 Efficacy: 154.4 lm/W
 Test Report: 22CBRK-21-UNV-L840-CD1-U.IES



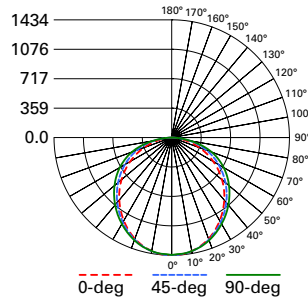
22CBRK-31HE-UNV-L840-CD1-U
 Electronic Driver
 Linear LED 4000K
 Spacing criterion: (II) 1.2 x mounting height, (⊥) 1.26 x mounting height
 Lumens: 3284
 Input Watts: 20.3W
 Efficacy: 161.8 lm/W
 Test Report: 22CBRK-31HE-UNV-L840-CD1-U.IES



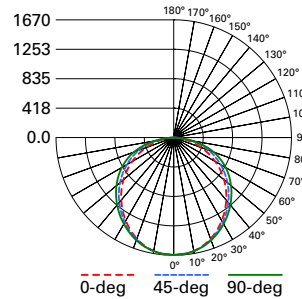
24CBRK-36-UNV-L840-CD1-U
 Electronic Driver
 Linear LED 4000K
 Spacing criterion: (II) 1.21 x mounting height, (⊥) 1.27 x mounting height
 Lumens: 3805
 Input Watts: 24.3W
 Efficacy: 156.6 lm/W
 Test Report: 24CBRK-36-UNV-L840-CD1-U.IES



24CBRK-42HE-UNV-L840-CD1-U
 Electronic Driver
 Linear LED 4000K
 Spacing criterion: (II) 1.21 x mounting height, (⊥) 1.27 x mounting height
 Lumens: 4398
 Input Watts: 27.4W
 Efficacy: 160.5 lm/W
 Test Report: 24CBRK-42HE-UNV-L840-CD1-U.IES



24CBRK-42-UNV-L840-CD1-U
 Electronic Driver
 Linear LED 4000K
 Spacing criterion: (II) 1.21 x mounting height, (⊥) 1.27 x mounting height
 Lumens: 4210
 Input Watts: 28.6W
 Efficacy: 147.2 lm/W
 Test Report: 24CBRK-42-UNV-L840-CD1-U.IES



24CBRK-47HE-UNV-L840-CD1-U
 Electronic Driver
 Linear LED 4000K
 Spacing criterion: (II) 1.21 x mounting height, (⊥) 1.27 x mounting height
 Lumens: 4902
 Input Watts: 30.7W
 Efficacy: 159.7 lm/W
 Test Report: 24CBRK-47HE-UNV-L840-CD1-U.IES

Control Systems

- WaveLinx Wireless
- WaveLinx Lite



Connected Systems
[CLICK HERE](#)

The CBRK with Integrated Sensor technology provides automatic energy savings without sacrificing performance. The CBRK delivers superior lighting with integrated occupancy and daylighting controls.

For standalone and controlled applications, the WaveLinx Lite integral sensor provides out-of-the-box functionality with no gateways required and factory startup is not needed.

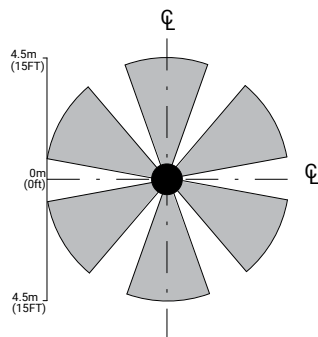
When more connectivity is required, the WaveLinx Wireless sensor meets modern code and utility requirements, delivers energy and cost savings, while enabling buildings to become smart buildings.



CBRK Series with Integrated Sensor

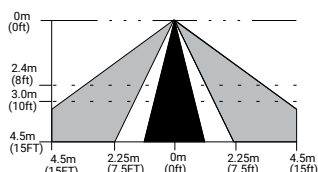
Field of View

TOP VIEW:



Note: The "beam" pattern obtained depends strongly on the detector used with this array. The pattern shown is intended solely as a general guide and is not to scale.

SIDE VIEW:



Note: Installation of integrated sensors within 3-ft (1m) of HVAC air vents is not recommended. The pattern shown is intended solely as a general guide and is not to scale.

Systems comparison chart

Cooper Lighting Solutions provides many lighting system solutions designed to satisfy code requirements and meet the unique needs of any project.



Controlled
WaveLinx Lite



Connected
WaveLinx Pro

Occupancy	Yes	Yes
Daylighting	Yes	Yes
Gateways	–	1 WAC
Devices	50 per Area (1400 per site)	150 per WAC
Software	WaveLinx Lite Mobile App	WaveLinx Pro Mobile App
Areas	28 per Site	16 per WAC
Zones	16 per Area	16 per Area
Scheduling	–	Local
VividTune™	–	Yes
Plug-Load Control	–	Yes
Low-Voltage Power	–	Yes
Integration	–	–
Dashboards	–	–
Configuration	Installer	Technician

WaveLinX Overview WAB

WaveLinX Lite integrated sensor (WAB)

The WaveLinX Lite integrated sensor allows the retrofitted luminaire to become part of the WaveLinX Lite system. The WaveLinX Lite is a code compliant lighting control system. It is an IEEE 802.15.4 based sensor communicating using Bluetooth® Low Energy (BLE) standard. The WaveLinX Lite enabled devices are able to communicate with each other without the requirement of a gateway, i.e. sensors can communicate with each other directly as well with a mobile phone with the WaveLinX Lite app.

WaveLinX Lite enabled luminaires can operate independently or within a group.

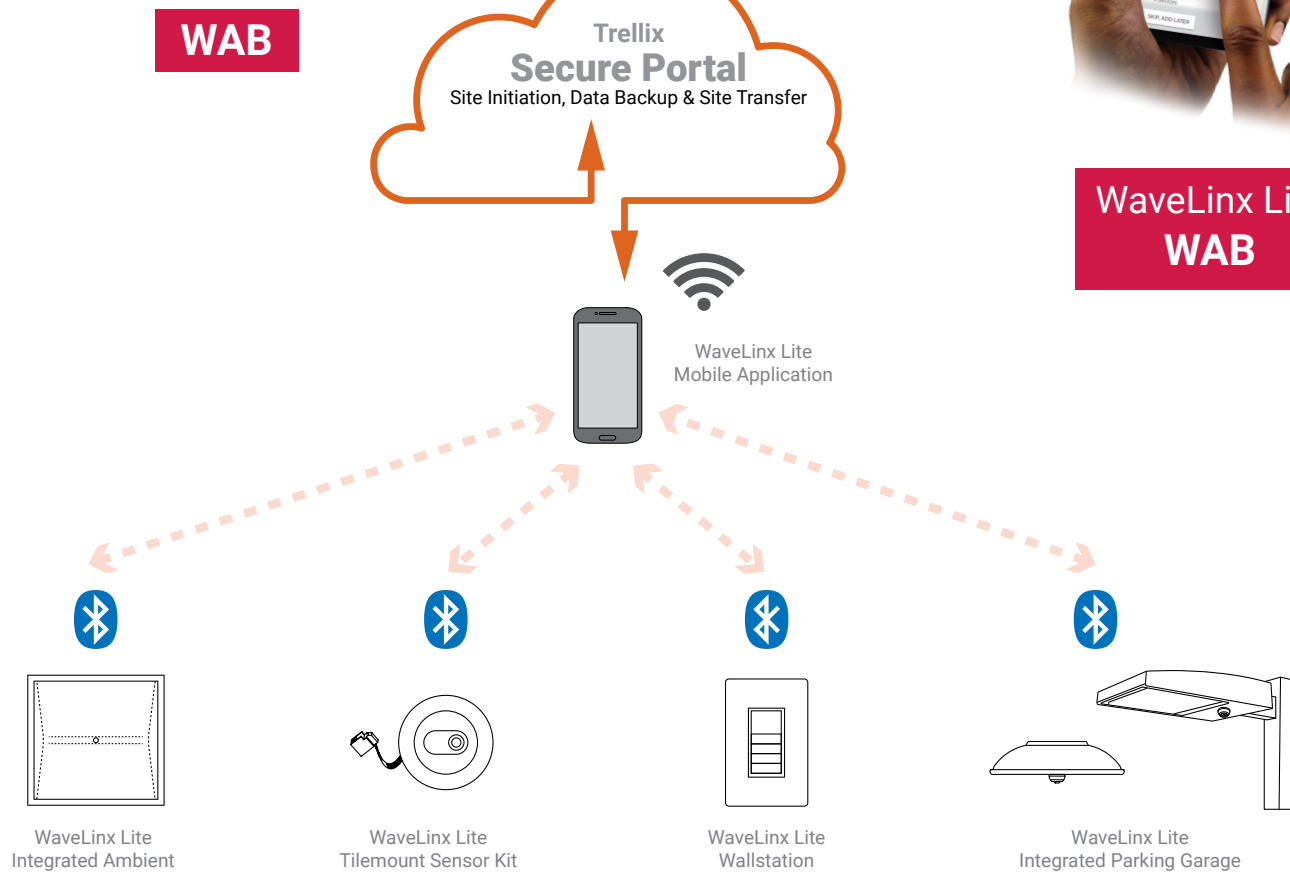
The luminaire would operate in standalone mode out of the box. In standalone mode, the installer can use the WaveLinX Lite mobile app to adjust the luminaires settings, i.e. occupancy time-out, sensitivity, high level trim, etc...

Using the same mobile app, the installer can group these independent luminaires so that they can be controlled as a group. The installer creates areas, zones and occupancy sets and assigns luminaires to them. No gateway is required. The mobile app communicates with the luminaires by leveraging the mobile phone Bluetooth interface.



WaveLinX Lite WAB

WaveLinX System Architecture



WaveLinX Overview - continued **WAA**

The WaveLinX Pro integrated sensor (WAA)

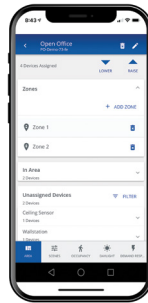
The WaveLinX Pro integrated sensor allows the retrofitted luminaire to become part of the WaveLinX Pro system. WaveLinX Pro goes beyond energy code compliance. It unlocks the value of connected lighting system by sharing the data gathered by the sensors with Cooper Lighting's Smart Spaces platform, Trellix, as well as other smart building platforms.

WaveLinX Pro is also an IEEE 802.15.4 based sensor. However, unlike the WaveLinX Lite sensor, the Pro sensor communicates using a Zigbee-based standard. The WaveLinX Pro system requires a gateway, WaveLinX Area Controller, to coordinate the data exchange between the devices.

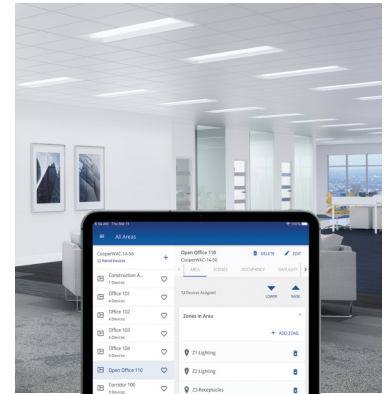
WaveLinX Pro enabled luminaires can operate independently or within a group when paired to the WaveLinX Area Controller.

The luminaire would operate in standalone mode out of the box. The installer can use the WaveLinX IR remote to set sensor hold times and sensitivity.

When the sensor is paired to a WaveLinX Area Controller the installer can use the WaveLinX Wireless mobile app to group these independent luminaires so they can be controlled as a group. The WaveLinX Mobile app allows you to map the sensor to any area or control zone, select occupancy or vacancy, occupied and unoccupied light levels and set the hold time.



WAA



**WaveLinX Pro
WAA**

The mobile app communicates with the gateway via the mobile device's WiFi interface. The gateway communicates with the luminaires via Zigbee-base standard.

All the data generated by the sensors are sent to Trellix via the WaveLinX Area Controller. The same data can be shared by Trellix to 3rd party system via BACnet/IP and REST APIs.

