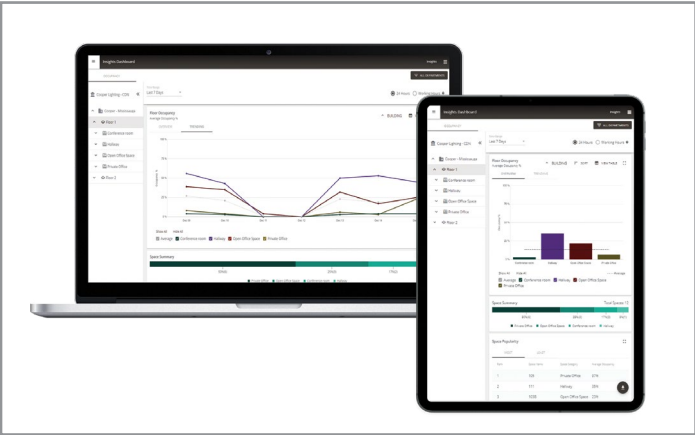| Project		Catalog #		Type	
Prepared by		Notes		Date	

WaveLinx

CORE - Insights
Occupancy Dashboard

Increase workplace effectiveness by leveraging the data generated by WaveLinx sensors to understand how spaces are used

Typical Applications
Office • Education

Interactive Menu

Product Certification

Supported HTML 5/Javascript compatible browser:
- **Microsoft Edge 80+**
- **Google® Chrome 75+**
- **Safari 11+**

Product Features

Web Based | CORE Insights | CORE version 12

Compatibility

WaveLinx CORE | WaveLinx PRO

Overview

The CORE Insights is a Space Analytics software application that allows users to monitor, compare and analyze their space usage to increase workplace effectiveness. It gives you dashboards to visualize space occupancy information in real-time and historical time ranges.

No additional infrastructure is needed to get access to these insights. The application is hosted on the same WaveLinx CORE appliance used to manage your lighting system and WaveLinx Cloud. The data is generated by the same occupancy sensors used to control your lighting control system, i.e. sensors that are required as per most energy codes.

Product Features & Benefits

- **Ready-to-use dashboards and reports** – Provides an enterprise-wide view of the building spaces occupancy patterns and trends
- **Floorplan visualization** – Along with enterprise hierarchy, charts, and other representation to quickly view average area occupancy, compare occupancy trends and real-time occupancy at site, building and floor level
- **Real-time occupancy status** – A color-coded floor plan that provides an intuitive understanding of what spaces are occupied or vacant in real-time
- **Responsive Design** – Supports all device sizes, i.e. desktop, mobile phone, tablets
- **Identify your most and least used spaces** – View area occupancy across your real-estate portfolio from most used (>70%) to least used (< 30%) by Department, Space Type, Building and Floor
- **WaveLinx PRO compatible** – Eliminates the need to install any additional sensors as the dashboard leverages the data generated by WaveLinx PRO sensors
- **Available on WaveLinx CORE (on-premises) and WaveLinx Cloud** - Scale seamlessly from on-premises to cloud

Order Information

Catalog Number

Catalog Number	Description
TRX-INSOCC	Occupancy Dashboard license for WaveLinx CORE (Pro/Enterprise/Virtual) - unlimited nodes per site
TRX-INSOCC-CLD	Occupancy Dashboard license for WaveLinx Cloud - unlimited nodes per site

Notes
1. The WaveLinx CORE (Pro, Enterprise, Virtual) platforms are shipped with a Base software license which enables all lighting features and applications with the exception of BACnet, API, OpenADR and Insights
2. The CORE Insights – Occupancy Dashboard license includes all the features offered as part of the Occupancy dashboard
3. For a system with more than 250 nodes, the customer should purchase CORE Lighting license adders
4. The configuration required for CORE Insights Application is done by the CORE Lighting application that allows users to easily create their floorplans. If users want Cooper Lighting Solutions specialists to create the floorplans, they will need to purchase the associated floorplan creation services (CAT#: TRX-CONFIG).
5. WaveLinx CORE (Pro, Enterprise, Virtual) is required for WaveLinx Cloud.

Pre-Requisite
- CORE Insights Application option is ONLY available for WaveLinx PRO Wireless System and WaveLinx CORE platforms
- WaveLinx CORE platform requires appropriate software licenses for the lighting application and commissioning
- CORE Insights is available on the WaveLinx Cloud on a subscription basis and will need access to data from on-premises sensors

Product Specifications

Key Features
- **Key Performance Indicator –** View key occupancy metrics by site, building, floor, room level, and departments. Key performance indicators are:
  - Average occupancy % over the selected time range vs previous occupancy % over the same time range
  - Number of empty spaces vs total spaces
  - Number of buildings, floors, and total sqft
  - Number of sensors
  - Most occupied building space
- **Occupancy trends and comparison –** View historical occupancy patterns and compare by building, floors, and space type
- **Average occupancy –** Average occupancy % is calculated and shown in graphs, trends and tabular view for each space for the selected enterprise, site, building, floor, area category and room level
- **Occupancy on floor plan –** Quickly view color-coded occupancy information on the floor plan view in real-time and historical time period
- **Time Range –** A default set of time ranges, such as last 24 hours or last 7 days or last 30 days or last 3/6/13 months or you can choose a custom time range
- **Full day or working hours –** The graph and tabular view can display data for the full 24-hours of each day or only the configured working hours (e.g., 8:30 – 4:30). This is configured in CORE Admin application (under orgs)
- **Generate and Export Reports to pdf –** The occupancy data reports can be generated and exported to a pdf file
- **Hierarchical Navigation –** Quickly navigate from enterprise level to site, building, area and room level to monitor key occupancy metrics. The hierarchy is configured by WaveLinx PRO system and CORE Lighting application

- **Quick search –** Quick Search capability to navigate quickly to a specific area
- **Department filter –** Quickly filter key occupancy metrics by department as configured in CORE Lighting Application
- **Historical view –** Historical view of occupancy metrics up to 13 months on-premises and up to 5 years in cloud
- **Popular spaces –** View most and least popular space by occupancy at enterprise, building, floor, and space type
- **Space summary –** View space summary by space type by site, building, floor, and area level

Software Specifications
Software Version: 12
Supported HTML 5/Javascript compatible browser:
- Microsoft Edge 80+
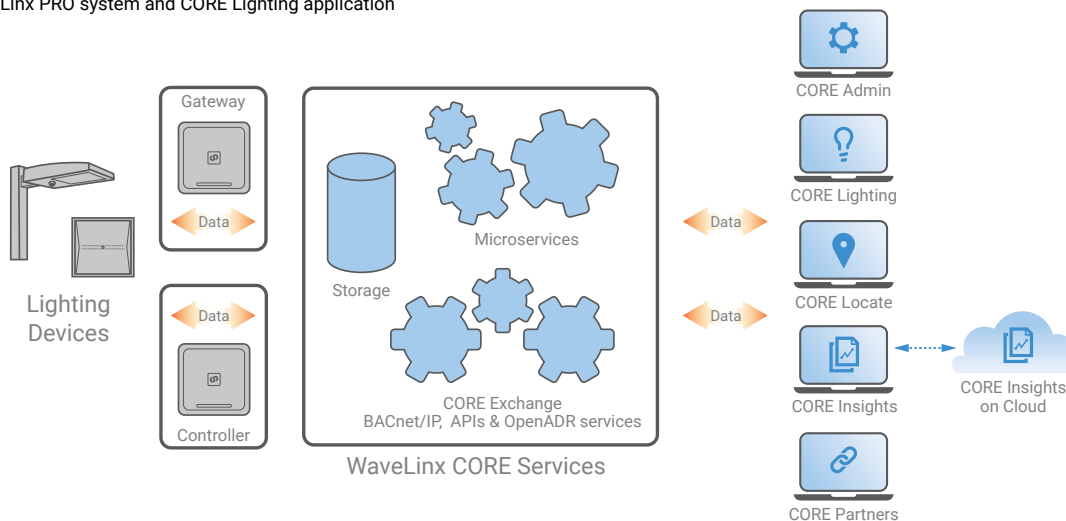- Google® Chrome 75+
- Safari 11+

Supported Screen Resolution: 1024 x 768 or higher

Compatibility
- Please refer to the WaveLinx PRO System Release Notes for firmware compatibility matrix

Warranty
- Consult website for warranty information

CORE Insights Application Overview

CORE Insights is a Space Analytics software application that allows users to monitor, compare and analyze their space usage to increase workplace effectiveness. The CORE Insights Application can lead to as much as a 30% improvement in space usage and a 15% increase in employee productivity.

These dashboards are available on-premises and provide real-time monitoring and processing capability to gain faster insights of your building's operations and business processes to drive efficiencies and effective decision making.
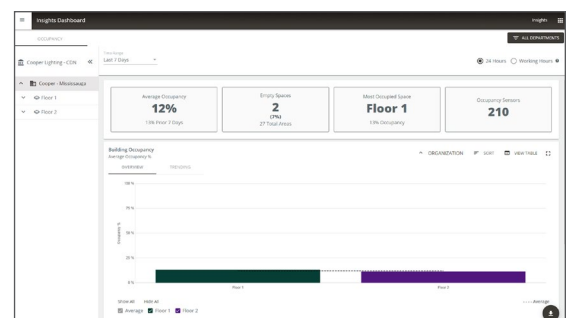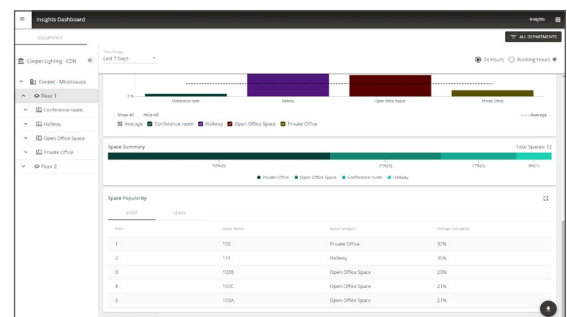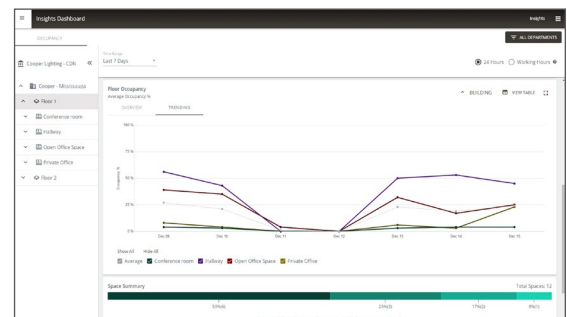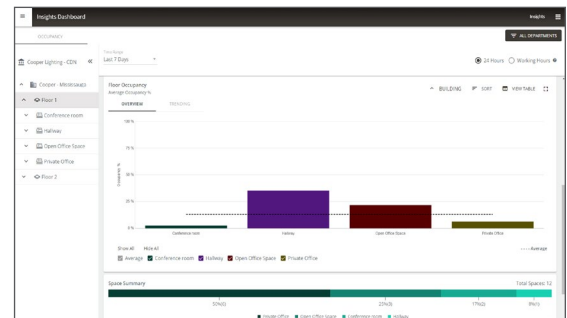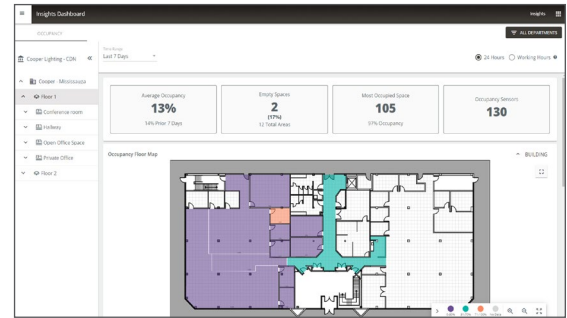
CORE Insights application leverages the WaveLinx CORE on-premises platform capability to collect and analyze data from WaveLinx PRO digital sensors, standalone ceiling sensors or sensors embedded in connected LED lighting to provide meaningful insights to users.

WaveLinx CORE enterprise platform simplifies day-to-day operations as well as integrations with the other sub-systems operating in a building. Once the WaveLinx CORE is connected to the WaveLinx Area Controller (WAC), WaveLinx CORE platform assumes the roles of the system's supervisory manager, historian, gateway and security.

Key Benefits

CORE Insights leverages WaveLinx advanced sensory network to provide occupancy utilization metrics for real-estate. Real-estate managers, corporate employers, facility managers, Cooper Lighting partners, and others can benefit in the following ways:

- Monitor key performance indicators about their real-time space utilization and occupancy trends that helps to identify space that can be repurposed to reduce cost
- View site, building and floor level occupancy information that helps to implement operating strategies that focus on safety, health, and wellness of building occupants.
- View aggregated occupancy metrics for the floors in the buildings
- Analyze ranking of workspace by popularity, from most popular to least popular space
- Use occupancy data, graphs and charts to improve occupant comfort and well-being
- Monitor and use space utilization insights to help manage lighting schedule as well as issuing control commands such as room's lighting level
- Optimize energy and air quality by cooling, heating, and increasing air circulation based on the occupancy of the space.
- Optimize facility services and maintenance based on space utilization
- REST APIs available to provide integrated end-end solutions with Building Control System, Energy Management System, Integrated Workplace Management System, A/V System and Shade Control System
- Real-time and historical tracking of occupancy data across single and/or multi-site

Sample System Topology:

This diagram shows the main components of the WaveLinx wired and PRO wireless connected lighting system.

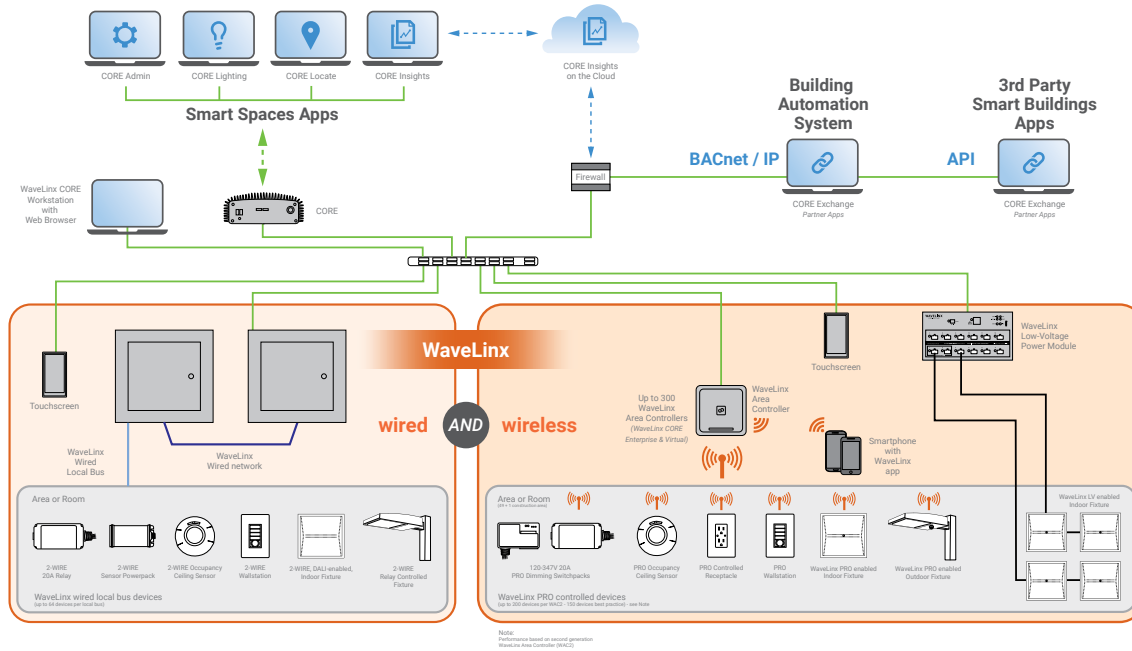The **WaveLinx PRO wireless system** communicates using wireless mesh technology based on the IEEE 802.15.4 standard. A PoE LAN connection for each WaveLinx Area Controller (WAC) is required for power and data access to the building lighting network.

The **WaveLinx wired system** controls the devices using relay, 0-10V, DMX and the WaveLinx wired digital local bus. The WaveLinx wired system connects to the building LAN using the EG2 module. Each WaveLinx wired area controller communicates on the WaveLinx wired network.

WaveLinx Area Controllers (WAC) and WaveLinx Ethernet Gateways (EG2) communicate with WaveLinx CORE over the Ethernet network.

Please refer to the WaveLinx PRO Wireless Network and IT Guidance Technical Guide and WaveLinx Wired Network and IT Guidance Technical Guide for more information.

		WaveLinx wired	WaveLinx PRO wireless
WaveLinx CORE	Connects to WaveLinx CORE (Pro, Enterprise, Virtual)	●	●
	# of WAC or EG2-S-NA / # of devices per WaveLinx CORE Pro	2 / 3000	20 / 3000
	# of WAC or EG2-S-NA / # of devices per WaveLinx CORE Enterprise	10 / 32,500*	300 / 32,500*
	# of WAC or EG2-S-NA / # of devices per WaveLinx CORE Virtual Enterprise	10 / 32,500*	300 / 32,500*
	Connecting device	EG2-S-NA	WAC2-POE
CORE Lighting	Alarms	○	●
	Events	●	●
	Operate (floorplan control)	●	●
	Operate - area control	●	●
	Operate - zone control	●	●
	Operate - device control		●
	Scheduling	○	●
	Energy Dashboard		●
	Occupancy Dashboard		●
CORE Exchange	BACnet/IP	○	10,000 objects with WaveLinx CORE Pro up to 30,000 with Enterprise/Virtual
	Public (REST) API	○	●
	OpenADR		●
	Demand Response		●
CORE Admin	Manage Users	●	●
	Manage roles	●	●
	Manage clients	●	●
	Manage licenses	●	●
	System settings (backup/restore, network etc)	●	●
CORE Insights	Occupancy Trends and Comparison		●
	Average Occupancy		●
	Occupancy on Floor Plan		●
	Generate and Export Reports to pdf		●
	Hierarchical Navigation		●
	Quick Search		●
	Department Filter		●
	Historical View		●
	Popular Spaces		●

* For larger number of gateways and devices, please contact Cooper Lighting Solutions Sales representatives.
Recommend designing the system at 70-80% of maximum capacity. Specifications based on WAC2-POE.
The number of gateways and devices mentioned above are the total for a single system or the combination
(Wired + Wireless) that can be used with a server.
● = All features   ○ = Subset of features

Control Systems
- WaveLinx
- Greengate