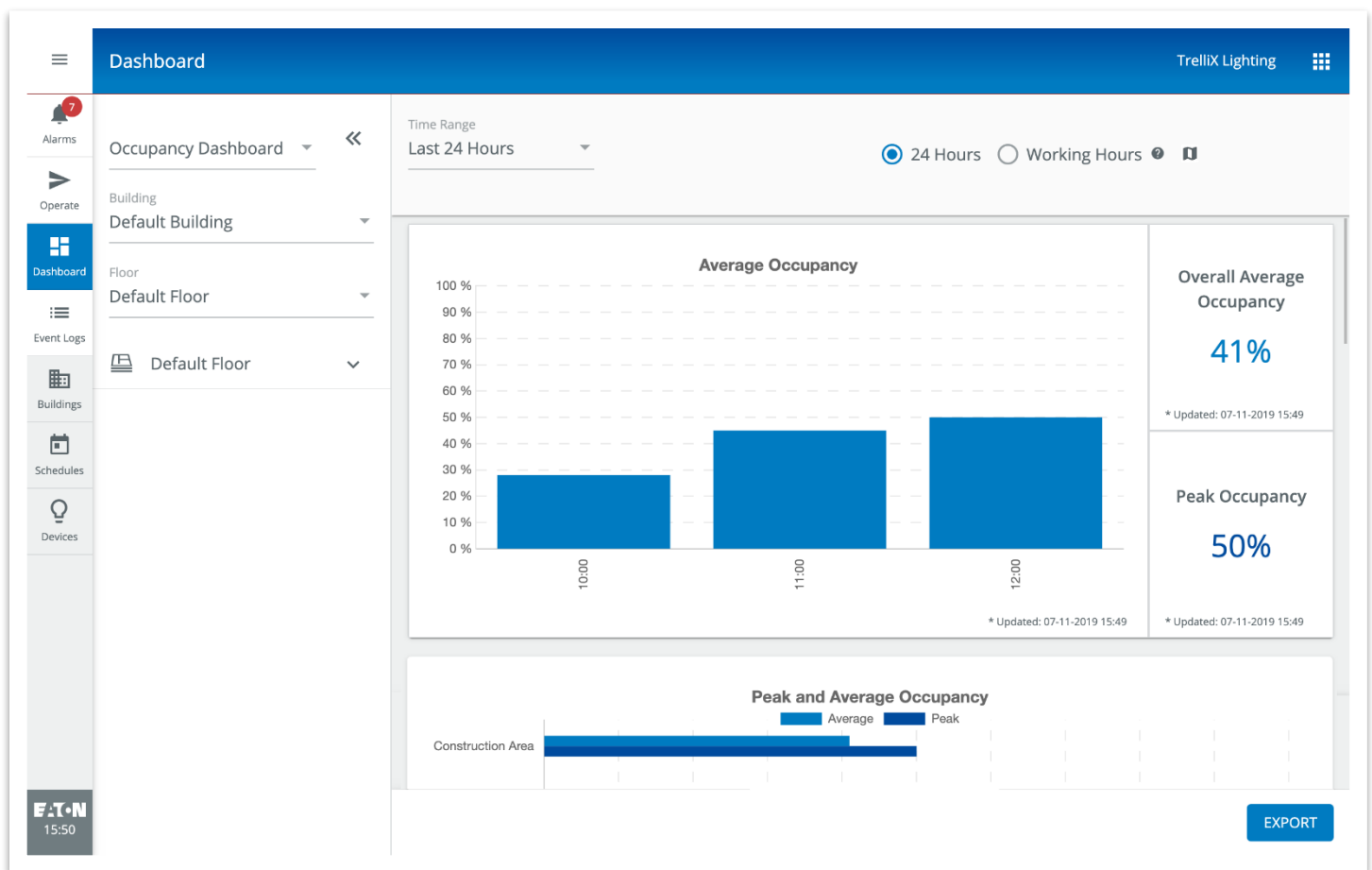


This document is intended for installers, set-up technicians and IT professionals of Trellix products.

Important: Engage appropriate network security professionals to ensure all lighting control system hardware and servers are secure for access. Ensure IT professionals review the WaveLinX network architecture document found at the end of this manual.

Network security is an important issue. Typically, the IT organization must approve configurations that expose networks to the Internet. Be sure to fully read and understand customer IT Compliance documentation.



 **WARNING**

Read all the instructions thoroughly before installing this product.

This manual provided information on the installation and operation of Trellix Lighting. For proper operation it is important to follow the instructions.

The purpose of this document is to provide sufficient instructions for installation and basic troubleshooting.

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1 – About this Document

This document describes how to configure, monitor and control the health of connected devices with the Trellix Smart Lighting IoT platform and associated applications.



Important

This document does not cover the initial Trellix Core installation and setup. Please refer to the Trellix Core Quick Start Guide if you are installing Trellix platform for the first time.

1.1 – Assumptions

The information and procedures in this document assume the following:

- One or more WaveLinX Wireless Area Controllers and/or iLumin Plus Ethernet Gateways have been installed and configured on your site
- You are familiar with the *WaveLinX Mobile Application User Manual* and *WaveLinX System Network/IT Planning Guide*, and/or the *iLumin Plus Installation Guide*
- You know the Trellix Core IP address and have a login account

1.2 – Using This Manual

Use the table below to quickly identify the kinds of the tasks you need to perform.

If you are...	Then...
New to Trellix Lighting	See Overview .
Ready to login to Trellix as a new user	See Trellix Lighting Login and Authentication .
Working with Alarms and Events	See Managing Alarms and Events .
Controlling the Lighting System	See Operating the Lighting System .
Viewing the Energy Dashboard	See Using the Energy Dashboard .
Viewing the Occupancy Dashboard	See Using the Occupancy Dashboard .
Exporting data	See Exporting Alarm, Energy, Occupancy, and Event Data .
Working with Schedules	See Managing Schedules .

1.3 – Key Terms

The terms listed below are used in this document.

- **Alarm** – An error notification that requires an action
- **Application Programming Interface (API)** – A set of clearly defined methods of communication between various software components
- **BACnet** – A communications protocol for Building Automation and Control (BAC) networks
- **EG** – Ethernet Gateway, used to connect iLumin Plus to Trellix
- **Event** – A notification, such as a cleared alarm or system event, that does not require any action
- **iLumin Plus** – Single lighting control solution for all traditional wired control application needs
- **Internet of Things (IoT)** – The extension of Internet connectivity into physical devices, enabling them to communicate and interact with over the Internet for remote monitoring and control
- **Lighting Control System (LCS)** – A computer-based control system installed in a building to control and monitor lighting equipment such as controllers, ballasts, drivers, keypads, and sensors (consists of hardware and software)
- **WaveLinX Low Voltage** – Distributed Low Voltage power (formerly nDLVP)
- **Trellix Core (TC)** – A gateway that aggregates Wireless Area Controller device data
- **Wireless Area Controller (WAC)** – An application that coordinates the WaveLinX Mobile App with various WaveLinX devices to provide lighting zone configuration, monitoring, and control (also referred to as “Controller” or “Area Controller”)

- **Real Time Locating System (RTLS)** – A system that automatically identifies and tracks the location of objects or people in real time, usually within a building or other contained area
- **Wireless Area Controller (WAC)** – An application that coordinates the WaveLinx Mobile App with various WaveLinx devices to provide lighting zone configuration, monitoring, and control (also referred to as “Controller” or “Area Controller”)

1.4 – Related Documentation

Document	Description
<i>Trellix Core Quick Start Guide</i>	This guide covers the initial installation and setup of Trellix platform.
<i>Trellix Lighting System Configuration Guide</i>	This guide covers the configuration and administration of an installed Trellix system.
<i>Trellix Lighting API Reference</i>	This manual describes the Trellix Lighting developer API.
<i>WaveLinx System Network/IT Planning Guide</i>	This guide covers the planning, design, set up, and configuration of a WaveLinx System.
<i>WaveLinx Mobile Application User Manual</i>	This manual covers the use of the WaveLinx Mobile Application to configure the Wireless Area Controllers.
<i>iLumin Plus Installation Guide</i>	This guide covers the installation of iLumin Plus.
<i>Cyber Infrastructure Security Tips</i>	Tips and advice about common security issues for non-technical computer users.

1.5 – What’s New

The key changes in this release are listed and described below.

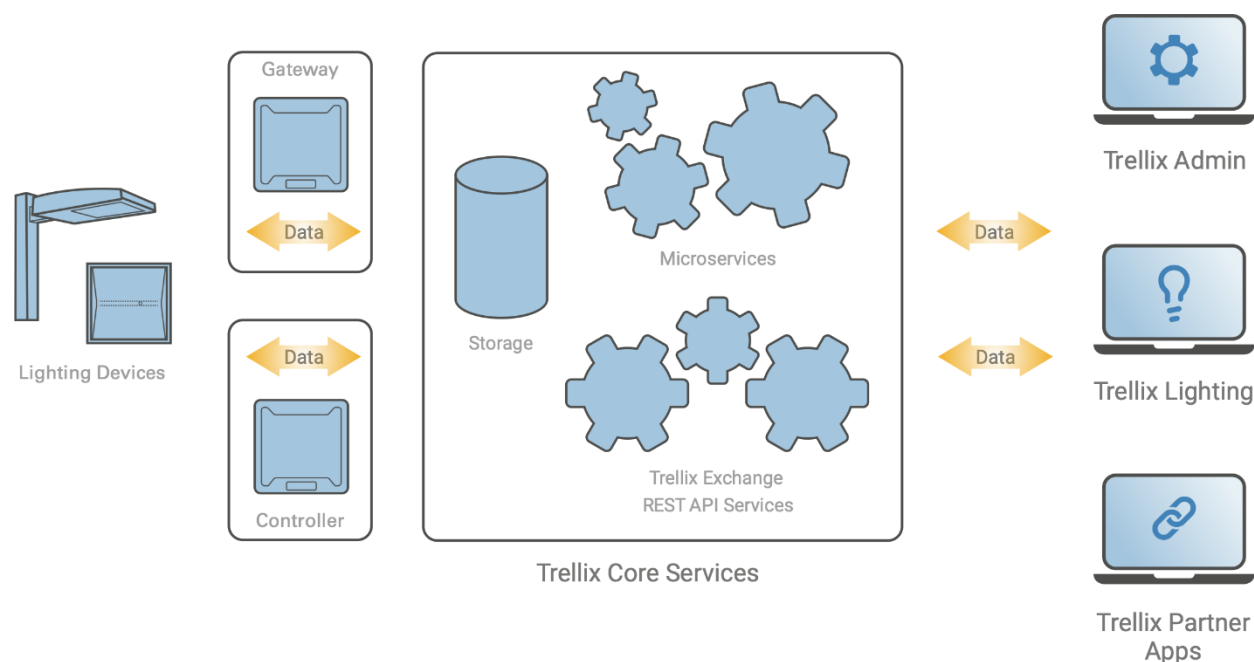
Change	Description
iLumin Plus support	Trellix Lighting now supports iLumin Plus devices as well as with WaveLinx devices.
Occupancy Dashboard	A new Occupancy Dashboard provides insight in space utilization.
Contact Closure	CCoE devices are now supported by Trellix Lighting.

2 – Overview

Trellix is an on-premise smart lighting IoT platform that moves real-time monitoring and processing to the edge of the network. The Trellix platform accelerates insight around your building operations and business processes, unlocking efficiency and enabling more effective decision-making with apps from Trellix and our partners.

The platform manages the trellis of digital sensors embedded in your connected LED lighting, collects the data gathered by the sensors, and analyzes the data to provide meaningful insights to users.

This on-premise platform hosts *Trellix Core Services*, a set of microservices required for fully functional IoT solutions; *Trellix Sense*, a set of interfaces to allow data exchange with third-party apps; and *Trellix Apps*, a set of Cooper-developed Apps designed to serve connected buildings and sport facilities.



2.1 – System Components

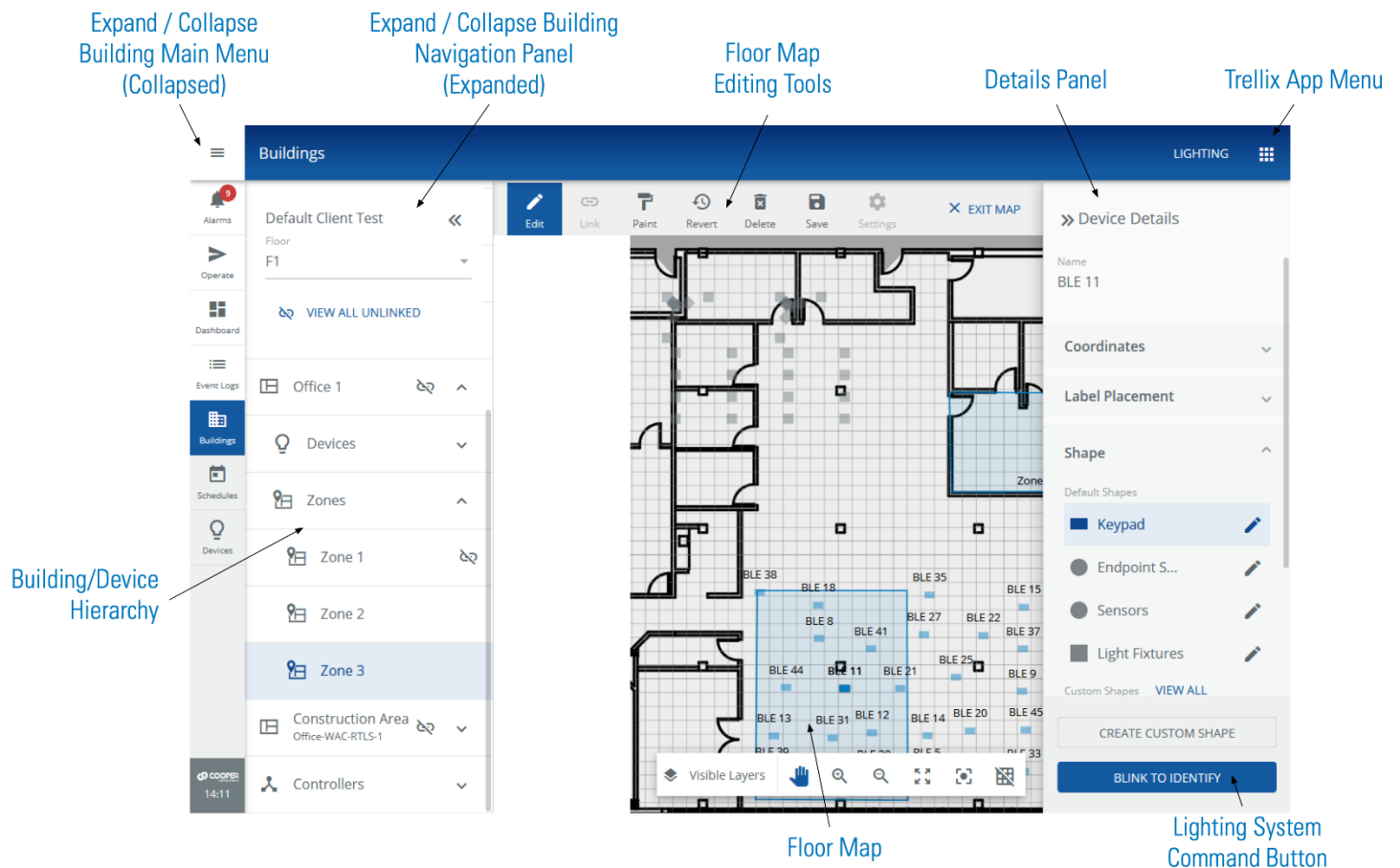
The components of a Trellix system are described below.

Component	Description
Trellix Core Services	A set of microservices required for fully functional IoT solutions which facilitates device communication, device management, data upload, data aggregation and storage, data interfaces as well as robust user and device authentication and authorization.
Trellix Exchange	A set of REST APIs that enable third-party applications to unlock the value of the data being gathered by Cooper's connected lighting system.
Trellix Admin	The Admin application lets users perform the administrative tasks required to manage the Trellix Core services such as: enabling/disabling interfaces; creating/editing/deleting users and roles; backing up and restoring configuration databases; and upgrading the platform.
Trellix Lighting	The Lighting application lets users configure and monitor a code-compliant connected lighting system designed to create an energy-efficient space. With this application, you can perform high level supervisory tasks such as making changes to the light levels, creating lighting schedules and viewing your lighting system's energy usage. It is also the foundation for the sensing network and other advanced applications that leverage the data gathered by the system.

Component	Description
Trellix Locate	The Locate application lets users monitor the location of objects or people in real time within a building or other contained area.
	NOTE The use of the Locate application covered in the Trellix Locate User Manual and Trellix Locate API Reference . Please refer to those documents for further details.




2.2 – Web Interface






Trellix Lighting is accessed with a Web browser on a desktop that is connected to the LCS network. A desktop view of a Device Details on the Buildings page is shown below.



2.3 – Key Features

The key facility management features available in Trellix, grouped as they appear in the user interface shown above, are described below.

Feature	Description
	The app menu lets you switch between the Admin, Lighting, and (optionally) Locate apps.
 Alarms	Monitor active alarms to see the health of your WaveLinx/iLumin system and quickly address issues. Troubleshooting tips, aggregated from Cooper's insight into its lighting systems, are provided. Alarms can also be emailed.
 Operate	Monitor and control the lighting system with a floorplan or using the building hierarchy. A facility manager can control the light levels of a Floor, Area, Zone, or single light fixture. The floorplan can also indicate the status of a Device or an Area (e.g., light on/off, or faulty).

Feature	Description
 Dashboard	Access important information about how much energy use and savings by the lighting system and how occupants are using the space.
 Event Logs	View all system notifications, including past alarms, and perform sequence of events analysis for a better understanding of system behavior.
 Devices	Discover WACs and iLumin Plus Ethernet Gateways (EGs), associate them with Trellix Core, and view all devices associated with those WACs and EGs.
 Schedules	Automate Zone, Scene, Occupancy, and Wallstation behaviors with flexible custom schedules.
 Buildings	Configure a building hierarchy as well as create and edit floorplans.

2.4 – Trellix Admin: System and User Management

The Admin application lets users perform the administrative tasks required to manage the Trellix Core services, such as: enabling and disabling interfaces; creating, editing and deleting users and roles; backing up and restoring configuration databases; and upgrading the platform:

- **Users** lets the system administrator create, edit, and delete users, create custom roles, and associate roles and areas of responsibility with each user.
- **Published API** lets system integrators integrate networked WaveLinx WACs with other enterprise systems using the Cooper REST API. Please refer to the *Trellix Lighting API Reference* for details.
- **BACnet/IP** lets system integrators easily combine networked WaveLinx WACs with a Building Automation System (BAS). The BAS can read and write to the WaveLinx Areas/Zones via the BACnet interface. Please refer to the *Trellix Lighting BACnet Protocol Implementation Conformance Statement (PICS)* for details.
- **Demand Response** lets facility managers participate in a Demand Response market by enabling Trellix Lighting to receive demand response signals via its OpenADR, BACnet or Public API, and then broadcast it to WaveLinx WACs.

2.5 – Requirements

Trellix Lighting has been tested with **Safari 11+** for iOS devices, **Chrome 53+** for Android devices, and **Chrome 53+** or **Edge** for Windows laptops/tablets.

3 – Trellix Lighting Login and Authentication

Trellix Lighting provides a standard set of user accounts, roles, and permissions. Each role has a specific set of permissions, and each user account is assigned to one role. New user accounts, and new roles with custom permissions, can be created when logged into the Trellix Admin app under the Administrator role. The Facility Manager role allows the creation new user accounts and the assignment of existing roles.

3.1 – Changing Default Account Passwords

Changing the passwords provided by Cooper Lighting Solutions for all default accounts is critical for the security of your system. Refer to the *Trellix Lighting System Configuration Guide* for instructions on how to do this.

NOTE
You will need the Trellix Core IP address, and a login account with System Administrator permissions to follow these procedures.

3.2 – Logging into Trellix Lighting

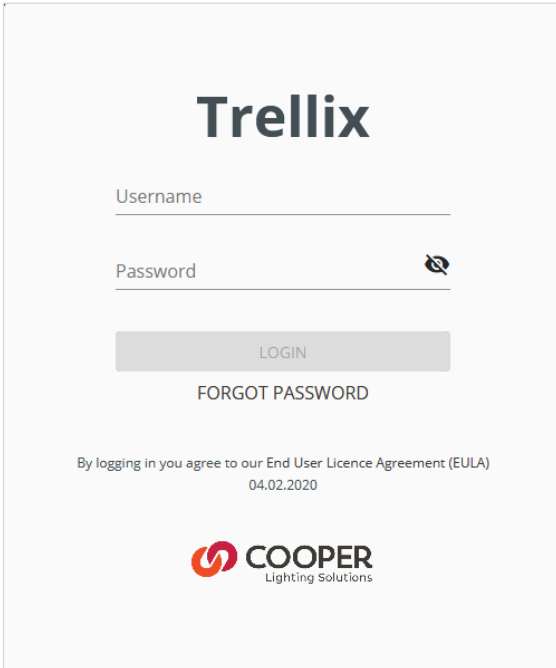
Follow the steps below to login to Trellix Lighting. See [Default Accounts, Roles, and Permissions](#) for more information about the default accounts provided.

NOTE
The first time the Admin account is used to login to Trellix Core, a Setup Wizard guides the user through the initial system configuration. Refer to the *Trellix Core Quick Start Guide* for step-by-step instructions if you are installing Trellix for the first time.

Step	Action
1	Browse to <code>https://<ipaddress></code> , where <code><ipaddress></code> is the IP address of the Trellix Core host (192.168.2.100, by default).
	RESULT
	
2	Enter your Username and Password , and then click Login .
	NOTES
	<ul style="list-style-type: none"> After 10 failed attempts to log in, you will be locked out for 15 minutes. If you cannot locate your username or password, contact your Facility Manager to reset the password.
3	To log out, click ☰ to expand the main menu, and then click Log Out .

- 1 Browse to `https://<ipaddress>`, where `<ipaddress>` is the IP address of the Trellix Core host (192.168.2.100, by default).

RESULT



- 2 Enter your **Username** and **Password**, and then click **Login**.

NOTES

- After 10 failed attempts to log in, you will be locked out for 15 minutes.
- If you cannot locate your username or password, contact your Facility Manager to reset the password.

- 3 To log out, click ☰ to expand the main menu, and then click **Log Out**.

4 – Managing Alarms and Events

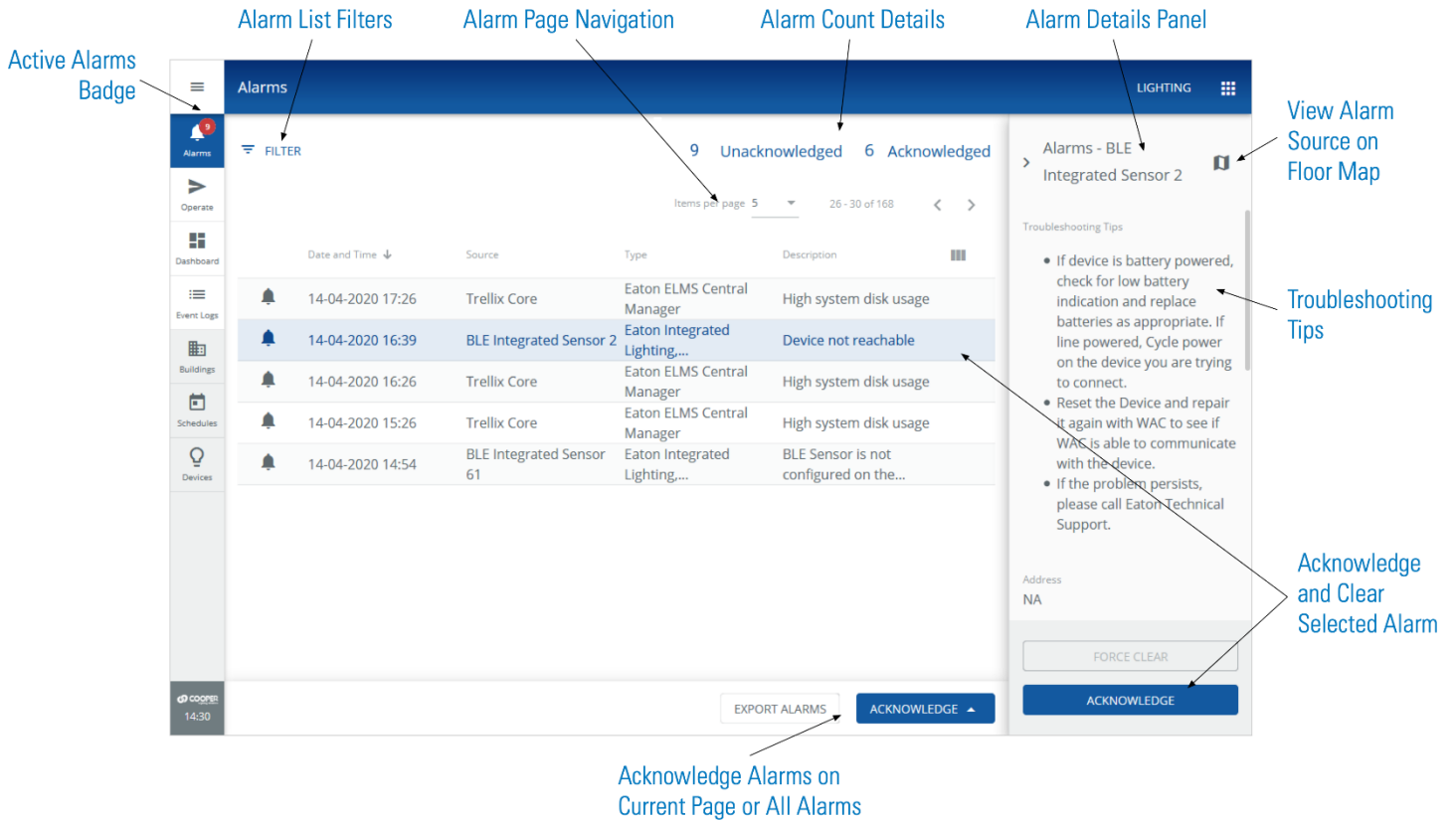
This chapter describes how to view and manage Alarms, Events, and Schedules, and how Alarm and Event data is exported, with Trellix Lighting.

NOTE

See [Logging into Trellix Lighting](#) if you are not familiar with accessing Trellix Lighting.

4.1 – Alarms Page

The layout of the Trellix Lighting Alarms page is shown below. The Events page is similar but does not include a Details panel or provide acknowledgement features.



4.2 – Alarm States

In Trellix Lighting, an alarm can be in one of the following three states:

- **Unacknowledged Alarm** – An error notification that has not been acknowledged by the user
- **Acknowledged Alarm** – An error notification that has been acknowledged, but is still in the error state and has not yet been moved to the Events list
- **Pre-Cleared Alarm** – An error notification that has returned to normal before acknowledged by the user

4.3 – Procedure

The following procedure describes how to view, filter, acknowledge, force clear, comment, and display details for alarms and events.

If you want to...	Then...
Display the Alarms page	Click the Alarms in the main menu.
Display the Events page	Click Operate in the main menu, and then click the Event Log tab.

If you want to...

Then...

Sort alarm or event data

1. Click the column header that you want to sort with.
2. To reverse the order, click the column header again.

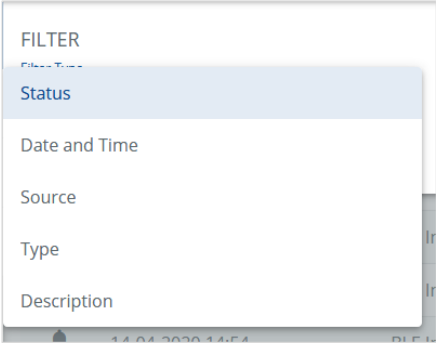
EXAMPLE – DESCENDING SORT BY DATE AND TIME

	Date and Time ↓	Source	Type
🔔	14-04-2020 16:39	BLE Integrated Sensor 2	Eaton Integr Occupancy/I
🔔	14-04-2020 14:54	BLE Integrated Sensor 61	Eaton Integr Occupancy/I
🔔	14-04-2020 14:54	BLE Integrated Sensor 60	Eaton Integr Occupancy/I
🔔	14-04-2020 14:25	Trellix Core	Eaton ELMS
🔔	14-04-2020 13:25	Trellix Core	Eaton ELMS

Filter alarm or event data

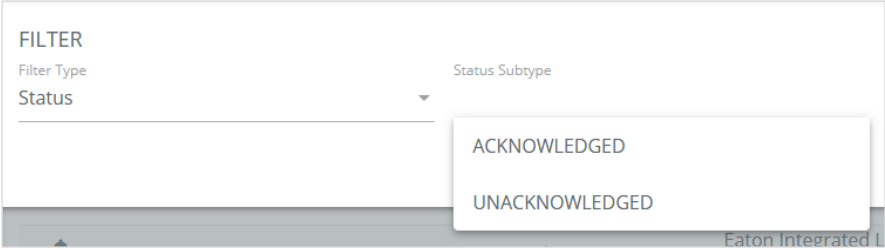
1. Click **Filter** (upper left, not shown), then click **Filter Type**, and then choose a specific filter (e.g., **Status**).

EXAMPLE – PICK FILTER



2. Select a status to limit the list to rows with that value (e.g., **ACKNOWLEDGED**), and then click **Apply**.

EXAMPLE – PICK STATUS ACKNOWLEDGED



If you want to...
(cont'd)

Then...

3. View the list of alarms or events that correspond to the selected filter.

EXAMPLE – EVENTS FILTERED BY ACKNOWLEDGE STATUS

The screenshot shows a filter interface with a 'FILTER' button and a 'Clear all filters' link. A filter pill is present for 'Status: ACKNOWLEDGED'. Below the filter, a table displays the following data:

Date and Time ↓	Source	Type
16-04-2020 14:27	EatonWAC-21-2a	WCL Zigbee Gateway
16-04-2020 07:03	EatonWAC-21-2a	WCL Zigbee Gateway
16-04-2020 07:03	EatonWAC-21-2a	WCL Zigbee Gateway

Add another filter

Repeat Steps 1 to 3 in the preceding procedure.

Remove a filter

Click the X to the right of the filter name.

EXAMPLE

The screenshot shows the filter interface with two filter pills: 'Status: ACKNOWLEDGED' and 'Source: WAC-21-2a'. Each pill has an 'X' icon to its right for removal.

View alarm details

Click an alarm row to display a sidebar containing Device, Troubleshooting, and Event details, along with any Comments that have been saved.

EXAMPLE

The screenshot shows the alarm details view. The filter interface at the top shows 'Status: ACKNOWLEDGED' and 'Source: EatonWAC-21-2a'. The table below shows the following data:

Date and Time ↓	Source	Type	Description
16-04-2020 14:27	EatonWAC-21-2a	WCL Zigbee Gateway	WebSocket connection lost
16-04-2020 07:03	EatonWAC-21-2a	WCL Zigbee Gateway	Data sync to controller failed. Empty respons...
16-04-2020 07:03	EatonWAC-21-2a	WCL Zigbee Gateway	Data sync to controller failed. Transceiver...

The sidebar on the right displays details for the selected event:

- Alarms - EatonWAC-21-2a
- Troubleshooting Tips
 - Contact Cooper Lighting Solutions Help Desk at 1-800-553-3879
- Address: 10.130.160.112
- Device Type: WAC
- Physical Location: Default Client Test>Default Building>Default Floor

If you want to...

Then...

Acknowledge a single alarm

1. Select the row of an unacknowledged alarm.
2. Click the **Acknowledge** button in the alarm details sidebar.

EXAMPLE

The screenshot shows a table of alarms with columns for Date and Time, Source, Type, and Description. The second row is highlighted. The sidebar on the right shows details for 'Alarms - BLE Integrated Sensor 2' and includes a 'FORCE CLEAR' button and an 'ACKNOWLEDGE' button.

Date and Time	Source	Type	Description
14-04-2020 17:26	Trellix Core	Eaton ELMS Central Manager	High system disk usage
14-04-2020 16:39	BLE Integrated Sensor 2	Eaton Integrated Lighting...	Device not reachable
14-04-2020 16:26	Trellix Core	Eaton ELMS Central Manager	High system disk usage
14-04-2020 15:26	Trellix Core	Eaton ELMS Central Manager	High system disk usage
14-04-2020 14:54	BLE Integrated Sensor 61	Eaton Integrated Lighting...	BLE Sensor is not configured on the...

Force clear a single alarm

1. Select the row of an acknowledged alarm.
2. Click the **Force Clear** button in the alarm details sidebar.

NOTE

You must be logged in with System Administrator permissions for this action.

EXAMPLE

The screenshot shows the alarm management interface with filters for 'Status: ACKNOWLEDGED' and 'Source: EatonWAC-21-2a'. The first row is highlighted. The sidebar on the right shows details for 'Alarms - EatonWAC-21-2a' and includes a 'FORCE CLEAR' button and an 'ACKNOWLEDGE' button.

Date and Time	Source	Type	Description
16-04-2020 14:27	EatonWAC-21-2a	WCL Zigbee Gateway	WebSocket connection lost
16-04-2020 07:03	EatonWAC-21-2a	WCL Zigbee Gateway	Data sync to controller failed. Empty respons...
16-04-2020 07:03	EatonWAC-21-2a	WCL Zigbee Gateway	Data sync to controller failed. Transceiver...

If you want to...

Then...

Acknowledge all alarms on the current page

Click the **Acknowledge** button below the alarm data row, and then click **Acknowledge Page**.

EXAMPLE

The screenshot shows a table of alarms with columns for Date and Time, Source, Type, and Description. A filter is applied for 'Source: EatonWAC-21-2a'. The table contains five rows of alarm data. Below the table, there is a context menu with two options: 'Acknowledge Page' and 'Acknowledge All'. At the bottom right, there is an 'ACKNOWLEDGE' button.

Date and Time	Source	Type	Description
16-04-2020 14:27	EatonWAC-21-2a	WCL Zigbee Gateway	WebSocket connection lost
16-04-2020 07:03	EatonWAC-21-2a	WCL Zigbee Gateway	Data sync to controller failed. Empty response received from...
16-04-2020 07:03	EatonWAC-21-2a	WCL Zigbee Gateway	Data sync to controller failed. Transceiver connection to...
11-04-2020 09:45	EatonWAC-21-2a	WCL Zigbee Gateway	WebSocket connection lost
08-04-2020 15:20	EatonWAC-21-2a	WCL Zigbee Gateway	WebSocket connection lost



NOTE

If there is more than one page of alarms, only alarms on the page currently being viewed will be acknowledged.

Acknowledge all alarms

Click the **Acknowledge** button below the alarm data row, and then click **Acknowledge All**.

Add a comment to an alarm

1. Select the row of an unacknowledged alarm.
2. Scroll down in the sidebar to reveal the **Leave a Comment** field.
3. Click .
4. Enter your comment text, and then click  to save it or click **X** to cancel.

EXAMPLE

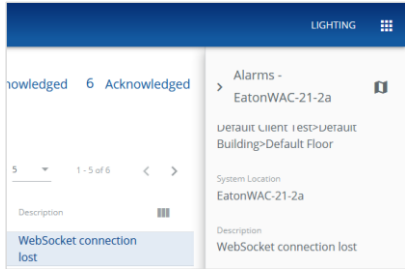
The screenshot shows the same alarm table as the previous example. The first row is selected. A sidebar is open on the right, showing details for the selected alarm: 'WebSocket connection lost'. The sidebar includes fields for 'Recurrence' (set to 5) and 'Acknowledged' (set to Yes). At the bottom of the sidebar, there is a 'Leave a comment' field with the text 'Service request submitted.' and buttons for 'FORCE CLEAR' and 'ACKNOWLEDGE'.

If you want to...

Then...

Hide alarm or event details Click > in the upper left corner of the details panel.

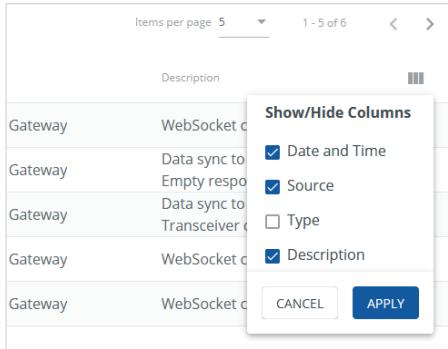
EXAMPLE



Show or hide columns in the alarms or events list

1. Click **☰** at the right end of the column headings.
2. Select the columns you want displayed, and then deselect the columns you want hidden.
3. Click **Apply**.

EXAMPLE



Load new alarms

Click the **Reload** button when it appears at the top of the Alarms tab.

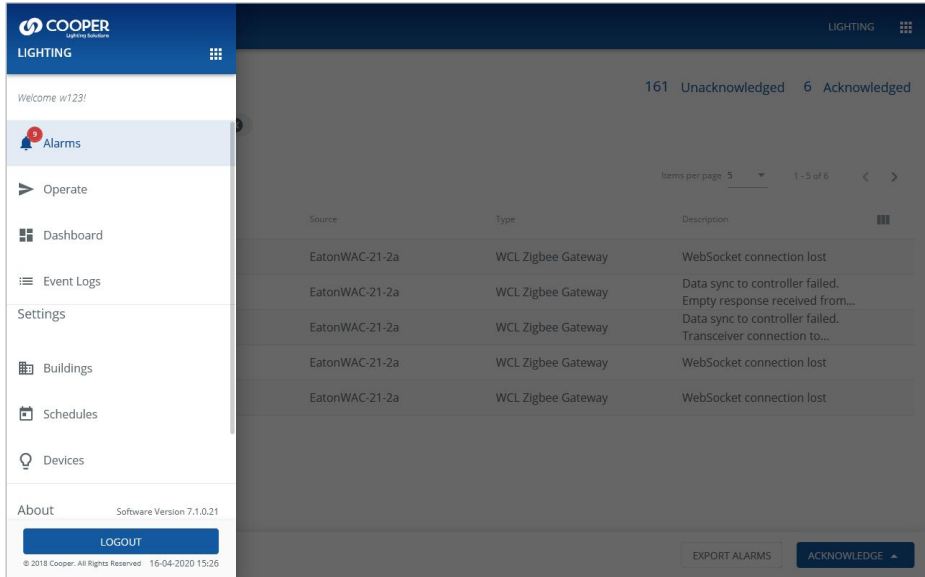
EXAMPLE

Be sure to use the **Reload** button provided in the message area. The Web browser's refresh feature, by design, will send you back to the login screen.

Check the Trellix Lighting software version

Click **☰** to expand the main navigation, and then scroll down to the About section.

RESULT

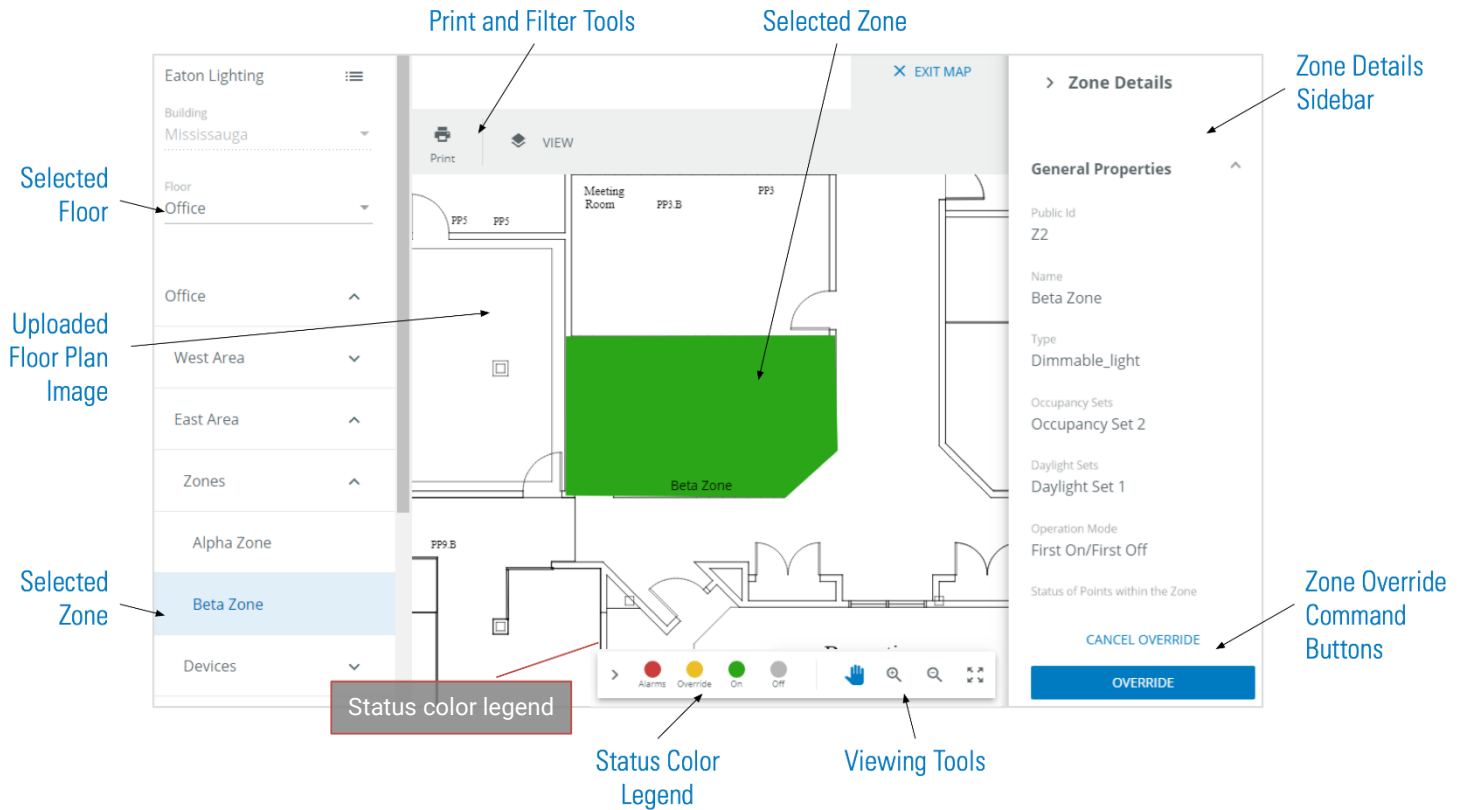


5 – Operating the Lighting System

This section describes the operation of Trellix Lighting components, such as raising and lower Area light levels or overriding Zone Status.

5.1 – Viewing a Floor Map

Trellix Lighting shows relationship between your building floor plan and the configured Areas, Zones, and Devices (Refer to the *Trellix System Configuration Manual* for details on how this is done.) The image below shows a floor map with a Zone selected.



Status Color Legend

The Status Color Legend below shows the colors that indicate Alarm, Override, On, and Off states. These are displayed on the floor map and the building hierarchy that appears on the left. When more than one status applies, the highest priority will be used. For example, if a Device goes into alarm on a Floor that is overridden, the Alarm color (red) will be used.

The example on the right shows a floor map with one Area in alarm (red) and the other with no Alarms or Overrides in effect (grey).



Procedure

Follow the steps below to view a floor map.

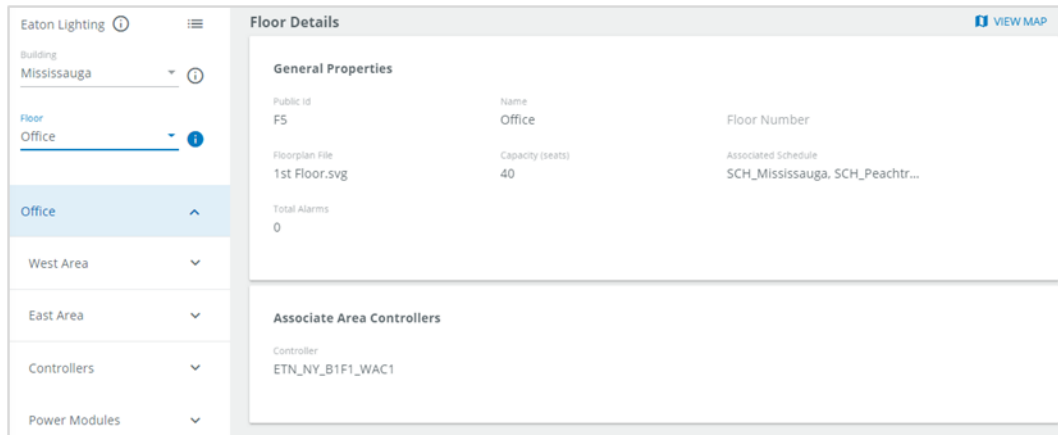
Step Action

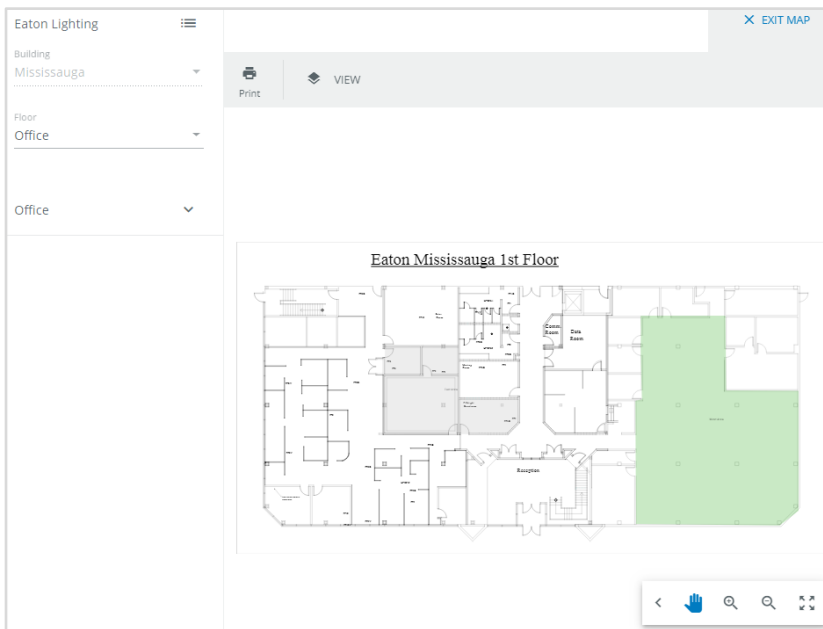

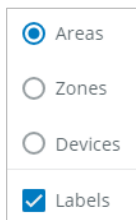


- 1 Click **Operate** in the main menu, and then select a **Building** in the Building navigation panel, and then select a **Floor**.





NOTE

A **i** button indicates the selected component with details displayed. Clicking **i** beside the floor will make it active (selected).

EXAMPLE

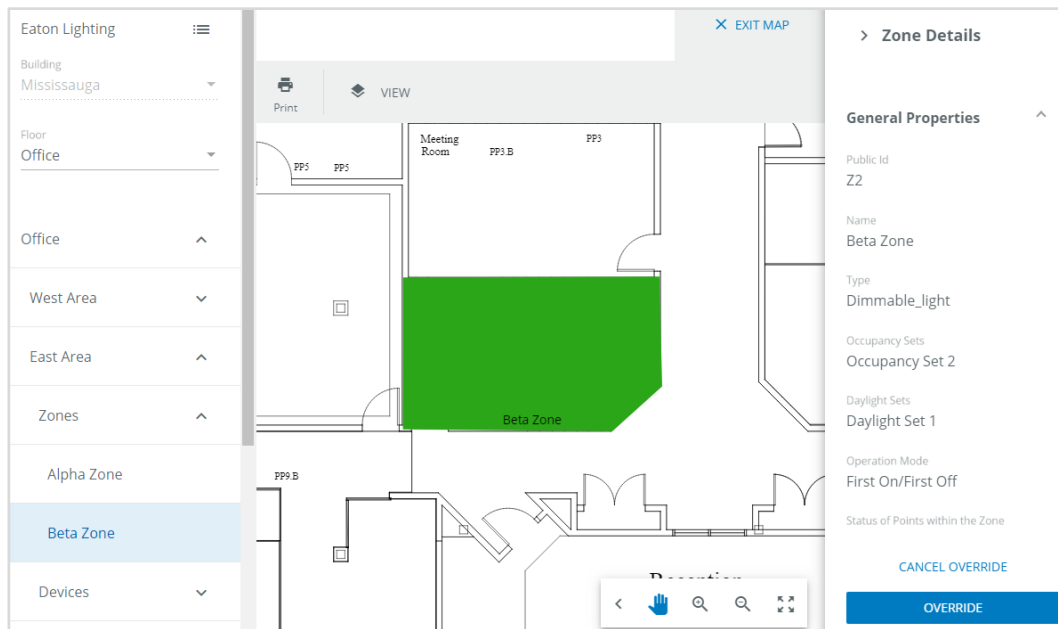


Step Action**2 Click View Map.****EXAMPLE****3 To filter what is shown, click  in the Viewing Tools, then enable or disable **Labels**, and then select **Areas**, **Zones**, or **Devices**.****RESULT****4 To reveal the color legend, click  in the Viewing Tools (Click  to hide the legend.)****RESULT****5 The view of the floor plan can be adjusted as follows:**

- To **zoom in**, click , or double-click the background image, or use your computers scroll-to-zoom feature with the cursor over the map
- To **zoom out**, click , or hold down the Shift key while double-clicking the image, or use your computers scroll-to-zoom feature with the cursor over the map
- To fit the image to the window, click 
- To **center the floor map** in a new location, click  and then click and drag the background image

Step Action

- 6 To highlight an Area, Zone, or Device, click it in the Building navigation panel or on the map.

EXAMPLE**5.2 – About Manual Override Commands**

A manual override is a command issued from Trellix Lighting to a Floor, Area, Zone, or Device. An override can be *normal* and *high priority*. The difference between these priorities is as follows:

- A *normal priority* command will only override a command that came before it if that command was also normal priority
- A *high priority* command will override any normal or high priority command that came before it
- A *high priority* command can be cancelled

Permission

Trellix Lighting limits the use of manual overrides with the *normal priority override* and *high priority override* permissions. The default Admin and Facman accounts have both, while the Tenant account has only *normal priority override*.

Commands

The override commands and priority levels that are available, assuming the appropriate permissions, are listed below:

- **Floor (Light Level)** – Normal Priority
- **Area (Scene)** - Normal Priority
- **Area (Light Level)** – Normal or High Priority
- **Zone (Dimmable)** – Normal or High Priority
- **Zone (On/Off)** - Normal or High Priority
- **Device (all except standalone Sensor)** – High Priority

Occupancy Sets, Controllers, and standalone Sensors do not support overrides.

Area Light Level Controls

Trellix Lighting provides quick access to controls for raising and lowering the light level of an Area. These are normal priority commands and behave like a physical dimmer control. These controls do not require the Normal Priority Override or High Priority Override permission.

5.3 – Raising and Lowering Area Light Levels

Follow the steps below to raise or lower Area light levels.

Step	Action
------	--------

- | | |
|---|---|
| 1 | Click Operate in the main menu, then select a Building in the Building navigation panel, and then select a Floor . |
|---|---|

EXAMPLE

The screenshot shows the 'Operate' interface. On the left is a navigation sidebar with icons for Alarms, Operate (selected), Schedules, Event Logs, System, Devices, Buildings, and Users. The main content area is titled 'Operate' and shows a dropdown menu for 'Building' set to 'Mississauga' and a dropdown for 'Floor' set to 'Office'. Below this is a 'Floor Details' panel with 'General Properties' and 'Associate Area Controllers' sections.

General Properties		
Public Id	Name	Floor Number
F5	Office	
Floorplan File	Capacity (seats)	Associated Schedule
1st Floor.svg	40	SCH_Mississauga, SCH_Peachtr...
Total Alarms	0	

Associate Area Controllers	
Controller	ETN_NY_B1F1_WAC1

- | | |
|---|---|
| 2 | Select an Area on the chosen Floor to display the Area Details. |
|---|---|

EXAMPLE

The screenshot shows the 'Operate' interface with the 'Area Details' panel open. The navigation sidebar is the same as in the previous example. The 'Building' dropdown is 'Mississauga' and the 'Floor' dropdown is 'Office'. The 'Area Details' panel has a 'LOWER/RAISE' button in the top right corner and displays 'General Properties' for the 'East Area'.

General Properties		
Public Id	Name	Category
A1	East Area	Open Office Space
Type	Capacity (seats)	Occupancy Sets
Normal	20	Occupancy Set 3, Occupancy Se...
Daylight Sets	Selected Scene	Status of Devices in the Area
Daylight Set 1, Daylight Set 2, D...	Scene 2	Good
Physical Occupancy	Hold Occupancy	Occupancy Hold Duration
True	False	3600s
Scene to Scene Fade Time	Off to Scene Fade Time	Area Reachability Status
1.5s	1.5s	True
Associated Schedule	Total Alarms	
SCH_Mississauga	0	

Step Action

- 3 Click **Lower/Raise**, and then click the raise or lower button to send that command to the selected **Area**.

NOTES

- Light level is changed by 1%, with a 6 second fade rate, each time the button is clicked
- Light level is changed by 4% every 250 milliseconds, with a 6 second fade rate, if the button is clicked and held
- You can access the light level controls below on the Area Details panel of a floor map (if configured)

EXAMPLE

- 4 Click **Close** to exit.

5.4 – Overriding Floors

Follow the steps below to override a Floor.

Step Action

- 1 Click **Operate** in the main menu, then select a **Building** in the Building navigation panel, and then select a **Floor**.

EXAMPLE

- | Step | Action |
|------|---|
| 2 | Click Override , then drag the Light Level slider or enter a percentage value, and then enter the Until Next Event Fade Rate Seconds . |

NOTE

You can access the override controls below on the Floor Details panel of a floor map (if configured).

EXAMPLE

Manual Override

Selected Floor
Default Floor

Light Level

50 %

Until Next Event
Fade Rate Seconds

CLOSE SEND

- | | |
|---|--|
| 3 | Click Send to apply the override, and Close when you are finished. |
|---|--|

5.5 – Overriding Area Scenes and Light Levels

Follow the steps below to override the Scenes and Light Levels.

Step	Action
------	--------

- | | |
|---|---|
| 1 | Click Operate in the main menu, then select a Building in the Building navigation panel, and then select a Floor . |
|---|---|

EXAMPLE

The screenshot shows the 'Operate' interface. On the left is a navigation sidebar with icons for Alarms, Operate (selected), Schedules, Event Logs, System, Devices, Buildings, and Users. The main content area is split into two panels. The top panel, 'Operate', shows a dropdown for 'Building' set to 'Mississauga' and a dropdown for 'Floor' set to 'Office'. The bottom panel, 'Floor Details', displays the following information:

General Properties		
Public Id	Name	Floor Number
F5	Office	
Floorplan File	Capacity (seats)	Associated Schedule
1st Floor.svg	40	SCH_Mississauga, SCH_Peachtr...
Total Alarms	0	

Below the Floor Details panel is the 'Associate Area Controllers' section, which shows a 'Controller' dropdown set to 'ETN_NY_B1F1_WAC1'.

Step Action

- 2 Select an Area on the chosen Floor to display the **Area Details**.

EXAMPLE

The screenshot shows the 'Area Details' panel for the 'East Area'. The left sidebar contains a navigation menu with the following items: Eaton Lighting, Building (Mississauga), Floor (Office), Office, West Area, East Area (selected), Zones, Devices, Daylight Sets, Occupancy Sets, Controllers, and Power Modules. The main panel displays the following properties:

General Properties		
Public Id	Name	Category
A1	East Area	Open Office Space
Type	Capacity (seats)	Occupancy Sets
Normal	20	Occupancy Set 3, Occupancy Se...
Daylight Sets	Selected Scene	Status of Devices in the Area
Daylight Set 1, Daylight Set 2, D...	Scene 2	Good
Physical Occupancy	Hold Occupancy	Occupancy Hold Duration
True	False	3600s
Scene to Scene Fade Time	Off to Scene Fade Time	Area Reachability Status
1.5s	1.5s	True
Associated Schedule	Total Alarms	
SCH_Mississauga	0	

At the bottom right of the panel, there are two buttons: 'CANCEL OVERRIDE' and 'OVERRIDE'.

- 3 Click **Override**.

NOTE

You can access the override controls below on the Area Details panel of a floor map (if configured).

EXAMPLE

The screenshot shows the 'Manual Override' dialog box. It contains the following fields and controls:

- Manual Override** (Title)
- Selected Area**: East Area
- Override Using**:
 - Scene
 - Light Level
- CLOSE** button
- SEND** button

- | Step | Action |
|------|--|
| 4 | To override with a Scene, click Scene , then Select a Scene from the list, and then enter a Fade Rate Seconds value. Click Send to apply the override command. |

NOTE

You can access the scene controls below on the Area Details panel of a floor map (if configured).

EXAMPLE

Manual Override

Selected Area
East Area

Override Using
 Scene Light Level
 Select a Scene
 Scene 1

Alpha Zone: 20%
Beta Zone: 30%

Until Next Event
 Fade Rate Seconds
 5

CLOSE SEND

- | | |
|---|--|
| 5 | <p>To override with a Target Level, click Target Level, then</p> <ul style="list-style-type: none"> • To dim the light, select the Dimming Light check box, and then drag the dimming slider or enter a % value • To tune the light color, select the White Tuning Light check box, and drag the tuning slider or enter a K value • Select High Priority with a Duration value, <u>or</u> • Select Until Next Event with a Fade Rate value |
|---|--|

NOTE

You can access the light level controls below on the Area Details panel of a floor map (if configured).

EXAMPLE

Manual Actions

Selected Area
CCT East Area

Manual Action Using
 Scene Target Level
 Dimming Light
 50 %
 White Tuning Light
 Min 2000 K Max 7000 K
 4500 K
 High Priority
 Until Next Event

CLOSE SEND

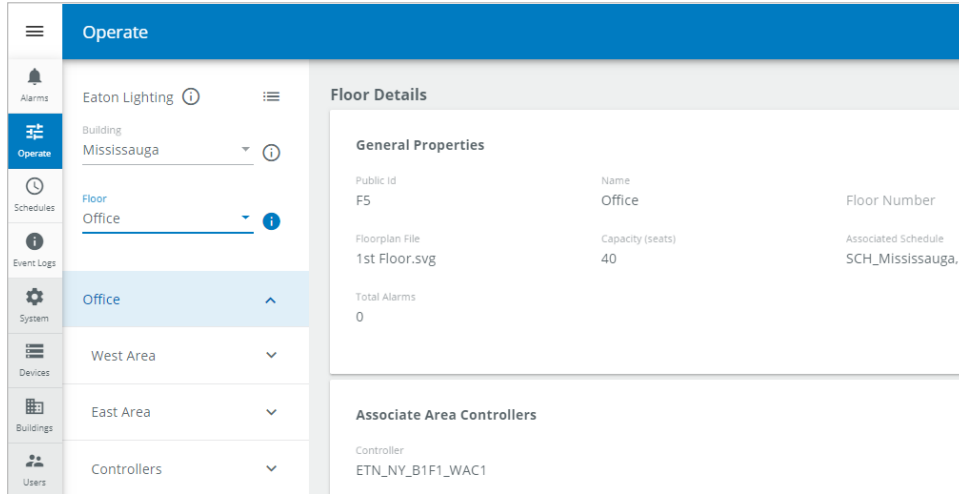
Step	Action
6	Click Send to apply the override, and Close when you are finished.
7	To cancel an override, select the overridden Area, and then click Cancel Override .

5.6 – Overriding Zones

Follow the steps below to override a Zone.

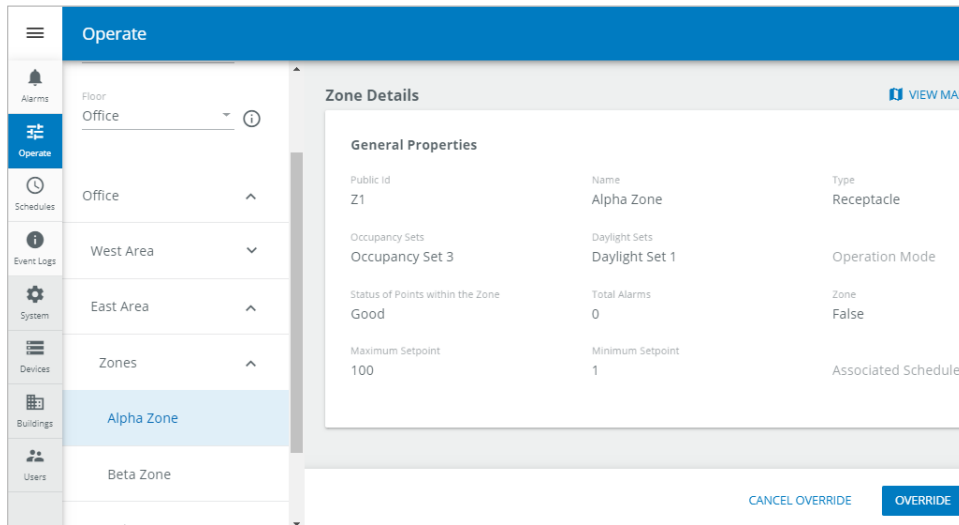
Step	Action
1	Click Operate in the main menu, then select a Building in the Building navigation panel, and then select a Floor .

EXAMPLE



2 Select a Zone on the chosen Floor to display the **Zone Details**.

EXAMPLE



- | Step | Action |
|------|---|
| 3 | Click Override , then set the Zone Status to On or Off , and then <ul style="list-style-type: none"> • Select High Priority with a Duration value (shown below), <u>or</u> • Select Until Next Event with a Fade Rate value |

NOTE

You can access the override controls below on the Zone Details panel of a floor map (if configured).

EXAMPLE

Manual Override

Selected Zone
Alpha Zone

Zone Status
 On
 High Priority

Duration HH:MM
02:00

Until Next Event

- | | |
|---|--|
| 4 | Click Send to apply the override, and Close when you are finished. |
|---|--|

5.7 – Overriding Devices

Follow the steps below to override a Device.

- | Step | Action |
|------|---|
| 1 | Click Operate in the main menu, then select a Building in the Building navigation panel, and then select a Floor . |
| 2 | Select a Device on the chosen Floor to display the Device Details . |

EXAMPLE

Devices ^

- Wireless 7-Pin Outdoor D...
- Wireless Wallstations 3
- Wireless Wallstations 5
- Wireless Battery Powered
- Wireless Wallstations 9
- Wireless 20A Receptacle 1
- Wireless Integrated Sencs
- Wireless Relay Switchpack
- Wireless 15A Receptacle 1
- Wireless 347VAC Relay Sw
- WaveLinx Tilemount Dayli

Device Details VIEW MAP

General Properties

Device Type	Public ID	Name
WL Switchpack	D31	Wireless Relay Switchpack 1
Model	Physical Location	System Location
WSP-MV-010	Office	ETN_NY_B1F1_WAC1->Wireless ...
Status	Blink to Identify	Firmware Version
Good	Off	65554
Area	East Area	

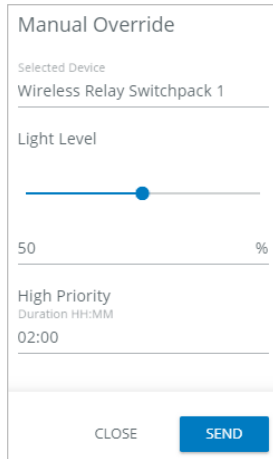
MAC Address	Node ID	Neighboring nodes
3781220723122819	31273	WaveLinx Tilemount Daylight S...
Association Mode	Uptime	Date
Disabled	0:0:0:0	01/01/2018
Time	Attached to Network	
00:00:00	ZigbeeNetworkManager1	

Step Action

-
- 3** Click **Override**, then drag the **Light Level** slider or enter a percentage value, then enter a **Duration** value.

NOTE

You can access the override controls below on the Device Details panel of a floor map (if configured).

EXAMPLE

Manual Override

Selected Device
Wireless Relay Switchpack 1

Light Level

50 %

High Priority
Duration HH:MM
02:00

CLOSE SEND

-
- 4** Click **Send** to apply the override, and **Close** when you are finished.
-

6 – Using the Energy Dashboard

This chapter describes the Trellix Lighting energy monitoring features available in the Dashboard.

NOTE

See [Logging into Trellix Lighting](#) if you are not familiar with accessing Trellix Lighting.

6.1 – The Energy Dashboard Page

The Energy Dashboard provides insight into building lighting and receptacle energy use (measured and calculated). The layout of the Energy Dashboard page is shown below.




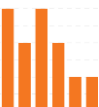
6.2 – Key Features

The key features of the Energy Dashboard are described in the table that follows.

About Baseline Energy

Note the following when viewing the Energy Savings Cards:

- The Baseline Energy for a floor is configured in the Floor properties, as described in the *Trellix System Configuration Guide*
- If the Baseline Energy is not defined for any of the selected floors, the Savings Card values will not be calculated, and N/A will be displayed
- An asterisk (*) value indicates the displayed data may contain missing or unreliable data

Feature	Description
	The displayed data can be filtered by Building, Area, Zone and source (e.g., Lighting, Receptacle). It can also be limited to a Time Range (e.g., Last 24 Hours).
	A bar graph of energy consumption for the Time Range being viewed.

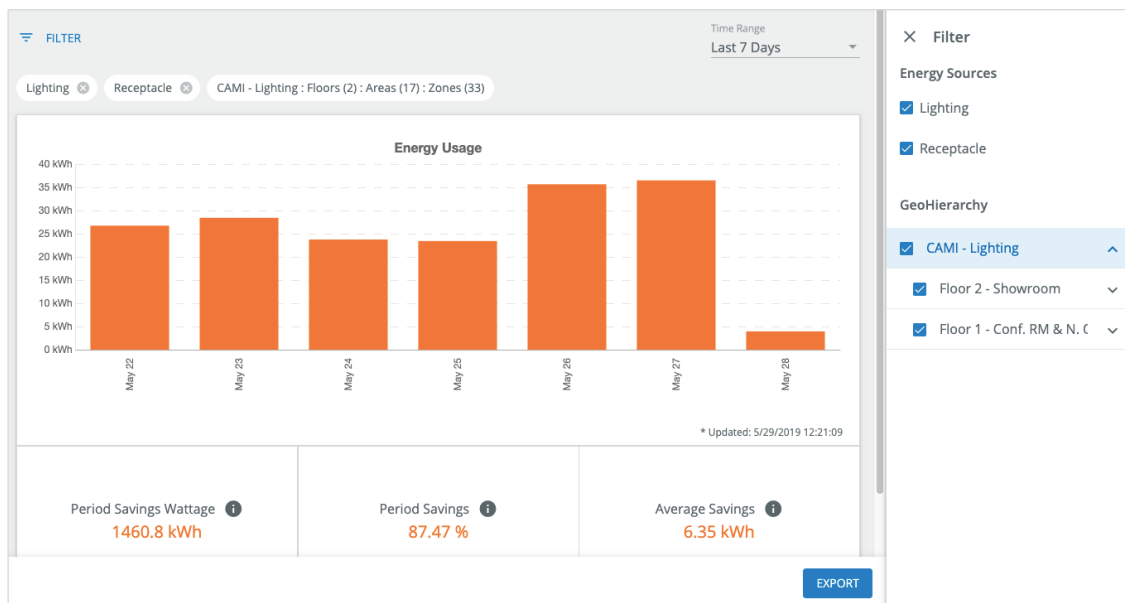
Feature	Description
Period Savings Wattage Card	<p>The difference between the Baseline Energy and Actual Energy on the selected floors over the displayed Time Range, in kWh.</p> <p>EXAMPLE 4200 kWh – 3100 kWh = 1100 kWh</p>
Period Savings Card	<p>The Period Savings on the selected Floors over the displayed Time Range, as a percentage of the Baseline Energy. It is calculated as follows: (Period Savings kWh / Baseline Energy kWh) X 100</p> <p>EXAMPLE (1100 kWh / 4200 kWh) X 100 = 26.2%</p>
Average Period Savings Card	<p>The Average Period Savings on the selected floors for the displayed Time Range, in kWh. This average is derived from the period being viewed (e.g., 7 days). It uses the total savings since data collection began and the total number of periods collected. It is calculated as follows:</p> <p>Total Period Savings / Number of Periods</p> <p>EXAMPLE Assuming a total savings of 43,800 kWh has accrued over 48 weeks, and a 7-day period is being displayed: 43,800 kWh / 48 7-day periods = 912.5 kWh/7-day period</p>

6.3 – Viewing Energy Data

Follow the steps below to view the data available in the Energy Dashboard.

If you want to...	Then...
Limit the Device and Building data in the report	<ol style="list-style-type: none"> 1. Click Filter. 2. Select the Lighting check box, Receptacle check box, or both, depending on the Energy Sources you want included in the report. 3. Click X to collapse the Filter sidebar (Your selections are indicated above the Energy Usage Chart.)

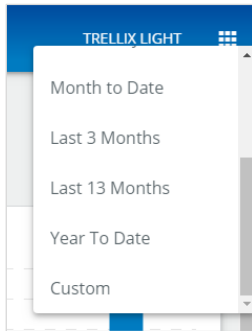
EXAMPLE



If you want to... Then...

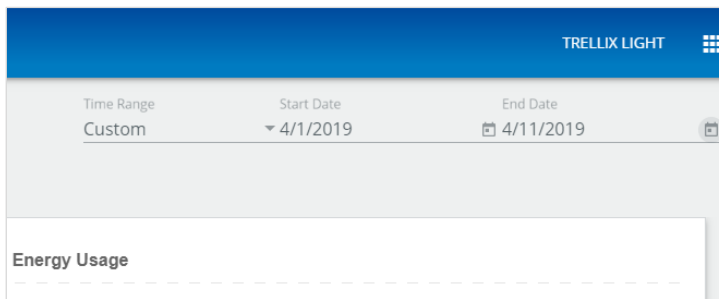
Choose a preselected Time Range for the report

Select a value in the Time Range menu.

EXAMPLE

Choose a custom Time Range for the report

1. Select **Custom** in the **Time Range** menu.
2. Select a **Start Date** and **End Date**.

EXAMPLE

7 – Using the Occupancy Dashboard

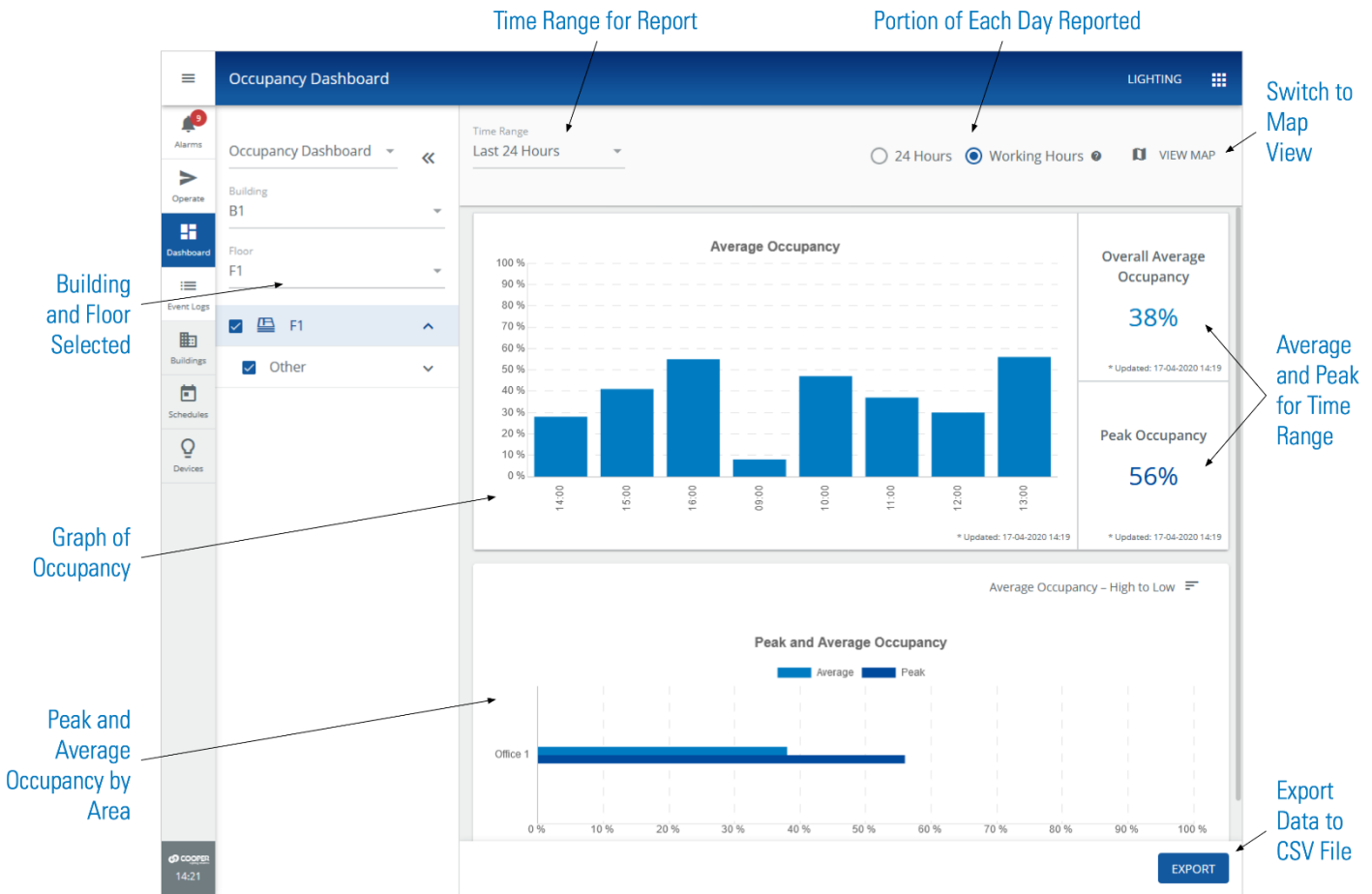
This chapter describes the Trellix Lighting occupancy monitoring features available in the Dashboard.

NOTE

See [Logging into Trellix Lighting](#) if you are not familiar with accessing Trellix Lighting.

7.1 – The Occupancy Dashboard Page

The Occupancy Dashboard provides insight into the use of building spaces. The diagram below illustrates some of the available features.

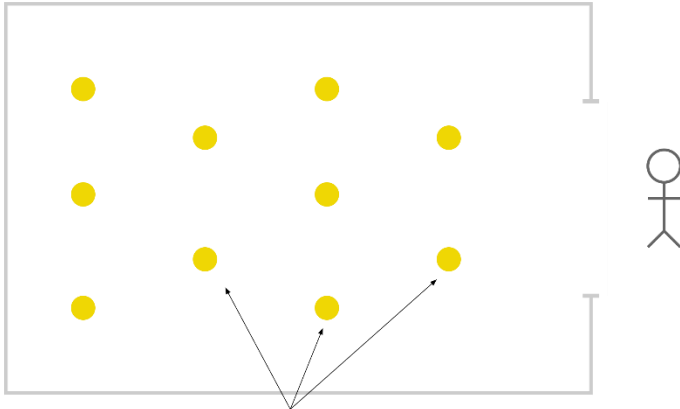


7.2 – How Occupancy Percentage is Calculated

The Occupancy percentage is determined by the proportion of the sensors in a space that detect motion and for how long. The sensors have a configurable delay period to provide more meaningful results, so that is also a factor. If the delay is 10 minutes, for example, once a sensor detects motion it will continue to report occupancy for 10 minutes *after* it stops detecting motion. The following example describes how the occupancy percentage is calculated.

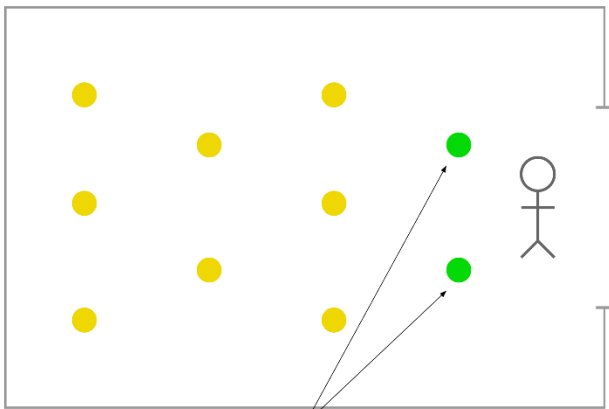
Example

Let's take a conference room with 10 sensors, as illustrated below. All sensors are configured with a 20-minute time delay. At 9 AM the room is empty and none of the sensors have detected any motion. The occupancy percentage at that moment is 0/10 or 0%.



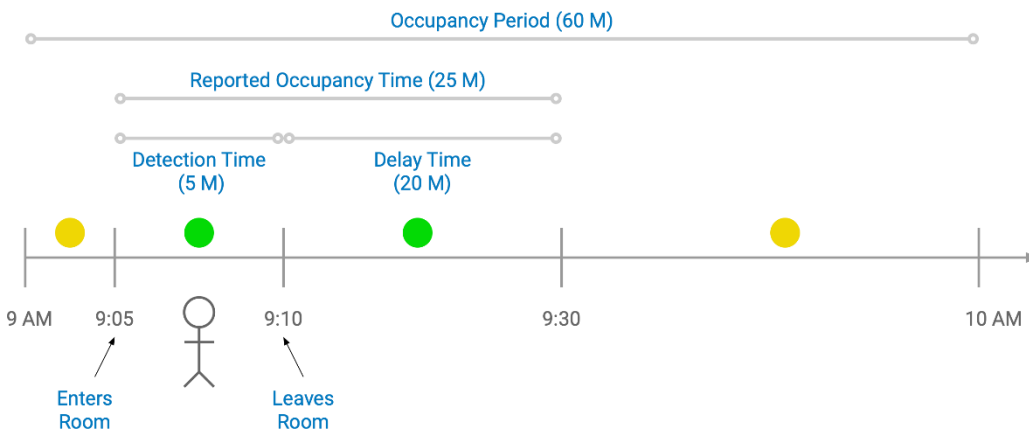
Empty Room – 0 out of 10 Sensors Reporting Occupancy

Next, let's say someone enters the room at 9:05 AM and 2 of the 10 sensors detect their presence, as shown below. The occupancy rate at that moment (9:05 AM) is now 2/10 or 20%.




Occupied Room – 2 out of 10 Reporting Occupancy

Finally, let's say the person stays in the room for 5 minutes, that only the two sensors ever detect their presence, and that no one else enters the room before 10 AM. As illustrated below, when we include the 20-minute configured sensor delay, the occupancy for that hour would be determined as 25 minutes out of 60, as reported by 2 out of 10 sensors. The percentage calculation would be $\frac{25}{60} \times \frac{2}{10} = 8.33\%$.



7.3 – Key Features

The key features of the Occupancy Dashboard are described in the table below.

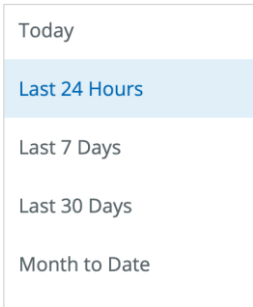
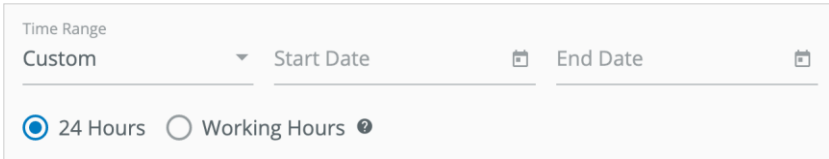

Feature	Description
Report by Floor	Occupancy data is presented for a selected Floor in a Building.
	The main bar graph shows the average occupancy as a percentage, with Overall Average and Peak Occupancy cards displayed along the right side.
Time Range	A default set of time ranges, such as Last 24 Hours or Last 30 Days, are provided. There is also a custom time range option.
Peak and Average Occupancy by Area	There are individual Peak and Average Occupancy bar graphs for each Area on the selected Floor.
Export to CSV	The occupancy data can be export to a CSV file for use with Excel and other tools.

7.4 – Viewing Occupancy Data

Follow the steps below to view the data available in the Occupancy Dashboard.

NOTE

An asterisk (*) value indicates the displayed data may contain missing or unreliable data.

If you want to...	Then...
Choose a preselected Time Range for the report	<p>Select a value in the Time Range menu.</p> <p>EXAMPLE</p> 
Choose a custom Time Range for the report	<p>3. Select Custom in the Time Range menu.</p> <p>4. Select a Start Date and End Date.</p> <p>EXAMPLE</p> 
Enable and disable Area bar graphs	<p>Click either the Average or Peak bar icons to show hide that data in the Area reporting.</p> <p>EXAMPLE</p> 

8 – Exporting Alarm, Energy, Occupancy, and Event Data

The following procedure describes how to export alarm, energy, occupancy, and event data.

NOTES

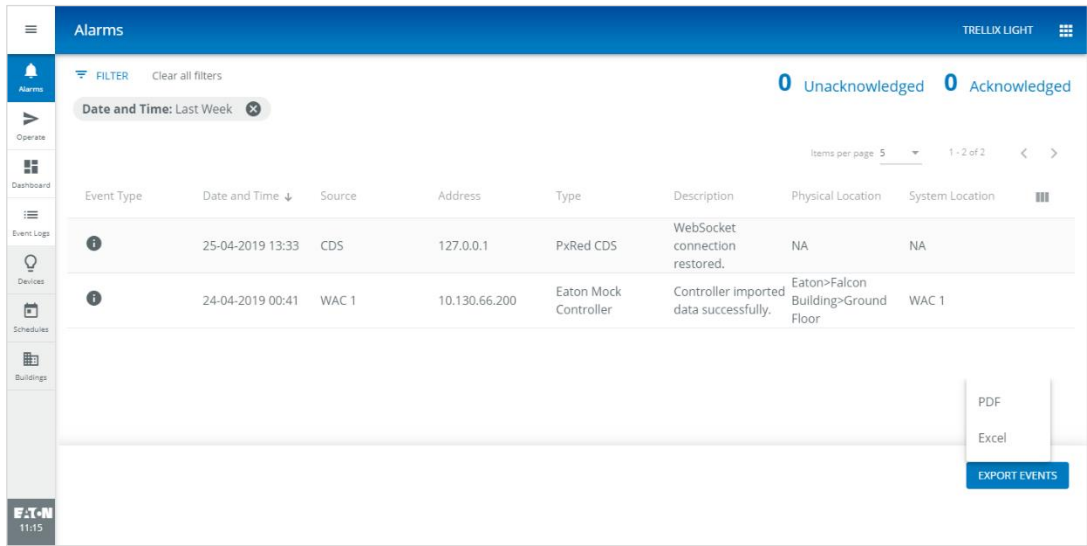
- Energy and Occupancy data are not available in PDF format
- Comments are not included in the exported data
- The display or download of a file will depend on the Web browser you are using and how it is configured

8.1 – Exporting

If you want to export... Then...

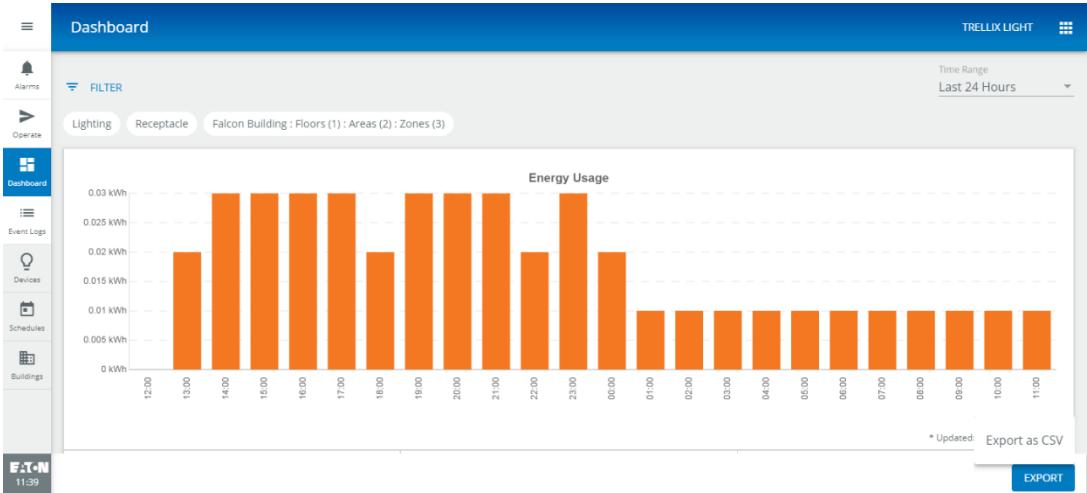
- Alarm data
1. Click **Alarms** in the main menu.
 2. Check that only **Filters** you want are currently applied (as described in [Managing Alarms and Events](#)).
 3. Click the **Export Alarms** button (behind **PDF/Export** list in example below), and then select the format (**PDF** or **Excel**).

EXAMPLE



- Energy data
1. Click **Dashboard** in the main menu.
 2. Check that only **Filters** you want are currently applied (as described in [Using the Energy Dashboard](#)).
 3. Click **Export**.

EXAMPLE

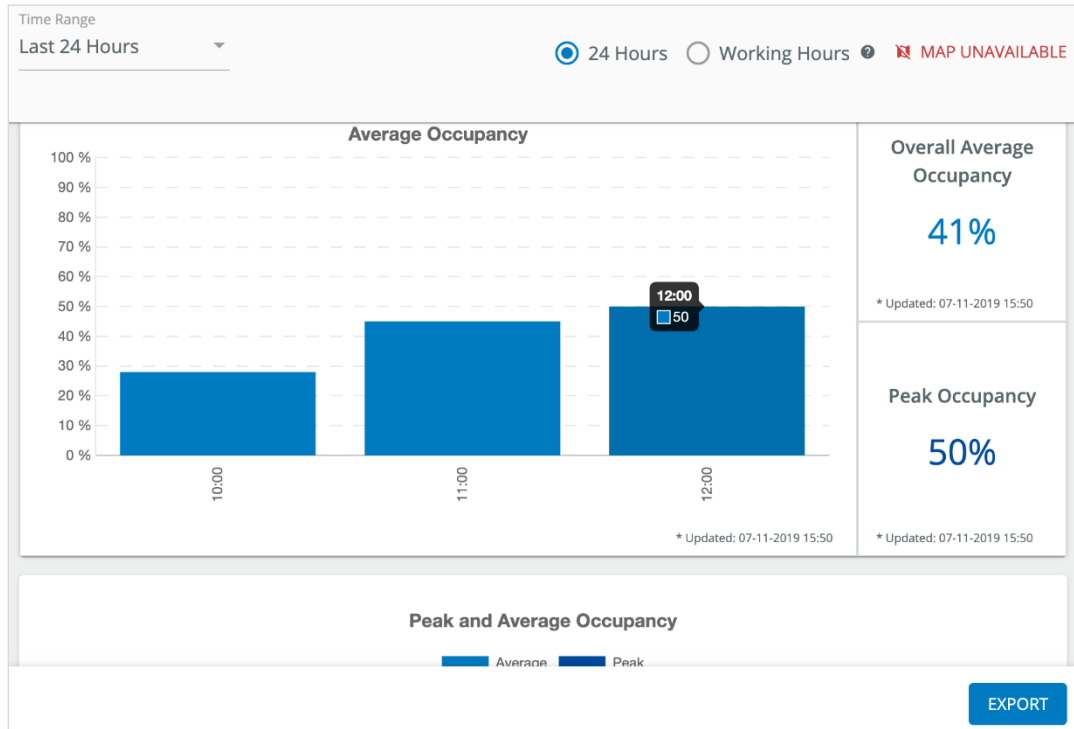


If you want to export... Then...

Occupancy data

1. Click **Dashboard** in the main menu, and then click **Occupancy**.
2. Check that the **Time Range** and portion you want are currently applied (as described in [Viewing Occupancy Data](#)).
3. Click **Export**, and then confirm the operation.

EXAMPLE



Event data

1. Click **Events** in the main menu.
2. Check that only **Filters** you want are currently applied (as described in [Managing Alarms and Events](#)).
3. Click the **Export Events** button (behind **PDF/Export** list in example below), and then select the format (**PDF** or **Excel**).

EXAMPLE

The screenshot shows the 'Events' dashboard. At the top, there is a 'FILTER' button and 'Clear all filters'. Below that, the 'Date and Time' filter is set to 'Last Week'. The main area is a table with the following columns: Event Type, Date and Time, Source, Address, Type, Description, Physical Location, and System Location. There are two event entries:

Event Type	Date and Time	Source	Address	Type	Description	Physical Location	System Location
WebSocket connection restored.	25-04-2019 13:33	CDS	127.0.0.1	PxRed CDS	WebSocket connection restored.	NA	NA
Controller imported data successfully.	24-04-2019 00:41	WAC 1	10.130.66.200	Eaton Mock Controller	Controller imported data successfully.	Eaton>Falcon Building>Ground Floor	WAC 1

At the bottom right, there are buttons for 'PDF', 'Excel', and 'EXPORT EVENTS'. The dashboard also includes a sidebar with navigation options like Alarms, Operate, Dashboard, Event Logs, Devices, Schedules, and Buildings. The top right corner shows 'TRELLIX LIGHT' and a user icon. The bottom left corner shows the Eaton logo and the time '10:55'.

PDF and Excel Examples

The images below show examples of exported Trellix Energy and Occupancy data in CSV/Excel format.

Excel (Energy Data)

	A	B	C	D	E
1	Time	Energy	Energy Carry Forward		
2	2019-04-23T12:00:00.000-0400	0.00	0.00		
3	2019-04-23T13:00:00.000-0400	0.02	0.02		
4	2019-04-23T14:00:00.000-0400	0.03	0.03		
5	2019-04-23T15:00:00.000-0400	0.03	0.03		
6	2019-04-23T16:00:00.000-0400	0.03	0.03		
7	2019-04-23T17:00:00.000-0400	0.03	0.03		
8	2019-04-23T18:00:00.000-0400	0.02	0.02		
9	2019-04-23T19:00:00.000-0400	0.03	0.03		
10	2019-04-23T20:00:00.000-0400	0.03	0.03		
11	2019-04-23T21:00:00.000-0400	0.03	0.03		
12	2019-04-23T22:00:00.000-0400	0.02	0.02		
13	2019-04-23T23:00:00.000-0400	0.03	0.03		
14	2019-04-24T00:00:00.000-0400	0.02	0.02		
15	2019-04-24T01:00:00.000-0400	0.01	0.01		
16	2019-04-24T02:00:00.000-0400		0.01		
17	2019-04-24T03:00:00.000-0400		0.01		
18	2019-04-24T04:00:00.000-0400		0.01		
19	2019-04-24T05:00:00.000-0400		0.01		
20	2019-04-24T06:00:00.000-0400		0.01		
21	2019-04-24T07:00:00.000-0400		0.01		
22	2019-04-24T08:00:00.000-0400		0.01		
23	2019-04-24T09:00:00.000-0400		0.01		
24	2019-04-24T10:00:00.000-0400		0.01		
25	2019-04-24T11:00:00.000-0400		0.01		
26					
27					
28					
29					

Excel (Occupancy Data)

	A	B	C	D
1	Default Floor	Last 24 hours	24 Hours	
2				
3	Date/Time Range	% Occupancy		
4	2019-11-07 10:00:00.0	28		
5	2019-11-07 11:00:00.0	45		
6	2019-11-07 12:00:00.0	50		
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
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27				
28				
29				
30				
31				
32				
33				
34				
35				

PDF (Event Data)

Software: Lighting Xpert Insight
 Selected Filter:
 Export Date: 04/17/2020 02:32 PM
 Number of Events Exported: 7463

Status	Date and Time	Source	Address	Type	Description	Physical Location	System Location
ⓘ	04/17/2020 02:31 PM	Office-WAC-RTLS-1	NA	WCL Zigbee Gateway	WebSocket connection restored.	NA	NA
ⓘ	04/17/2020 02:30 PM	Office-WAC-RTLS-1	NA	WCL Zigbee Gateway	WebSocket connection restored.	NA	NA
ⓘ	04/17/2020 02:29 PM	Office-WAC-RTLS-1	NA	WCL Zigbee Gateway	WebSocket connection restored.	NA	NA

Excel (Event Data)

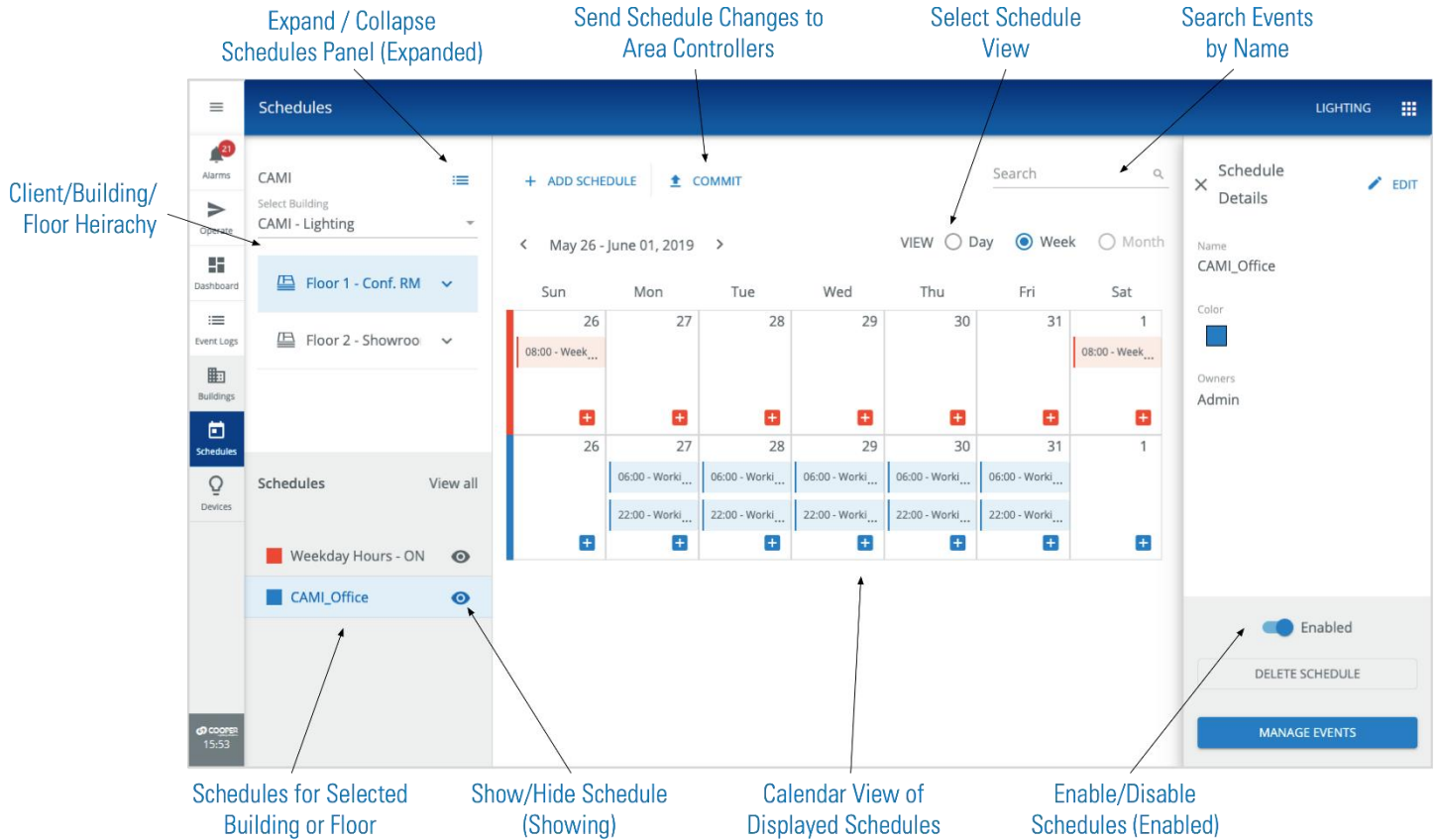
Status	Date and Time	Source	Address	Type	Description	Physical Location	System Location
Information	04/17/2020 02:43 PM	Office-WAC-RTLS-1	NA	WCL Zigbee Gateway	WebSocket connection restored.	NA	NA
Information	04/17/2020 02:42 PM	Office-WAC-RTLS-1	NA	WCL Zigbee Gateway	WebSocket connection restored.	NA	NA
Information	04/17/2020 02:42 PM	Office-WAC-RTLS-1	NA	WCL Zigbee Gateway	WebSocket connection restored.	NA	NA
Information	04/17/2020 02:41 PM	Office-WAC-RTLS-1	NA	WCL Zigbee Gateway	WebSocket connection restored.	NA	NA
Information	04/17/2020 02:40 PM	Office-WAC-RTLS-1	NA	WCL Zigbee Gateway	WebSocket connection restored.	NA	NA
Information	04/17/2020 02:39 PM	Office-WAC-RTLS-1	NA	WCL Zigbee Gateway	WebSocket connection restored.	NA	NA
Information	04/17/2020 02:38 PM	Office-WAC-RTLS-1	NA	WCL Zigbee Gateway	WebSocket connection restored.	NA	NA
Information	04/17/2020 02:37 PM	Office-WAC-RTLS-1	NA	WCL Zigbee Gateway	WebSocket connection restored.	NA	NA
Information	04/17/2020 02:36 PM	Office-WAC-RTLS-1	NA	WCL Zigbee Gateway	WebSocket connection restored.	NA	NA

9 – Managing Schedules

The following procedure describes how to view, filter, search, and commit schedule data. The image below shows the Schedules page.

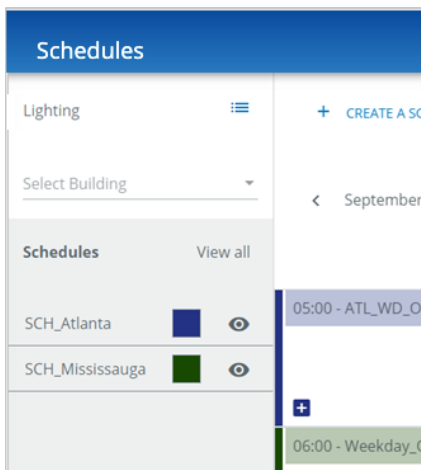
9.1 – Filtering the Displayed Schedules

Follow the steps below to filter the schedules that appear in the Calendar view.



Step	Action
1	If the Schedules sidebar is not visible, click ☰ By default, the Schedules list will show all schedules that apply to this Trellix Core.

EXAMPLE



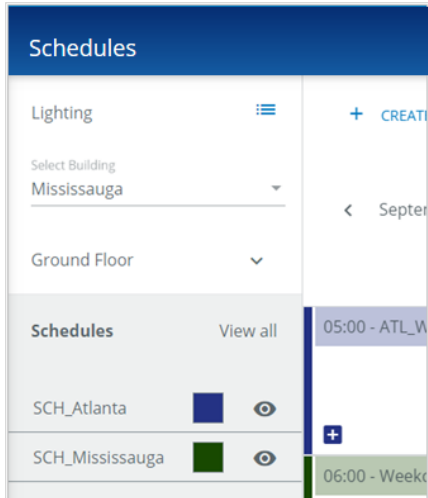
Step Action

- To limit the displayed schedules to a specific building, click **Select Building**, and then choose a building from the list.

NOTE

All floors for the selected building will be shown.

EXAMPLE

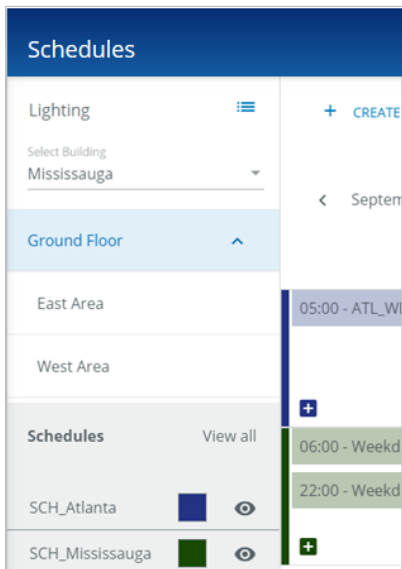


- To limit the displayed schedules to a specific floor, click the floor name.

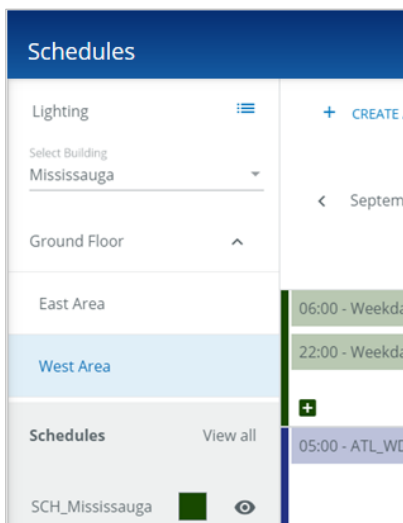
NOTE


All Areas for the selected floor will be shown.

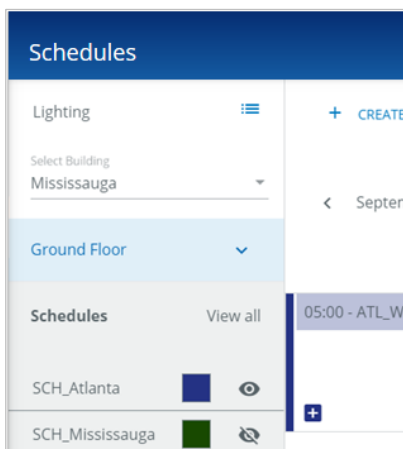
EXAMPLE



- | Step | Action |
|------|---|
| 4 | To limit the displayed schedules to a specific Area, click the Area name. |

EXAMPLE

- | | |
|---|---|
| 5 | To hide or show a specific Schedule, click  beside it. |
|---|---|

EXAMPLE

9.2 – Browsing the Calendar View

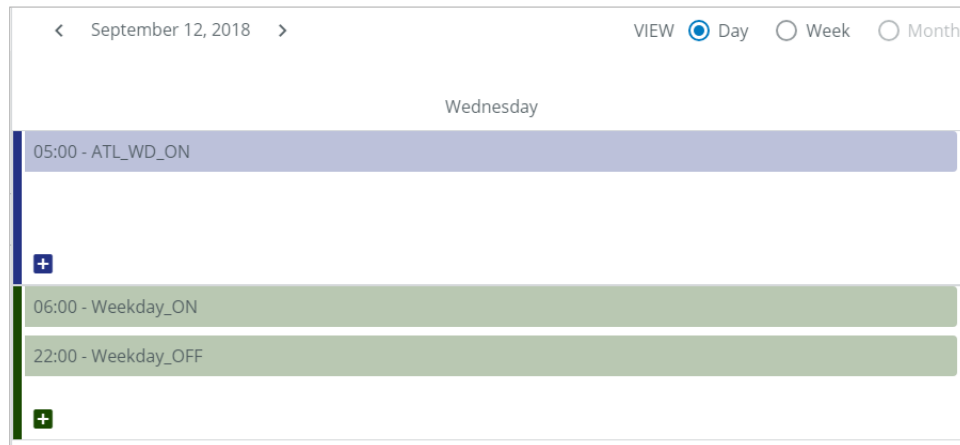
Follow the steps below to search the browse Events in the Calendar view.

Step	Action
1	When the Schedules page is first displayed, the Calendar View is set to Day , and shows all Events for all visible Schedules on the current date.

NOTE

The Month view is disabled when more than one Schedule is being displayed.

EXAMPLE

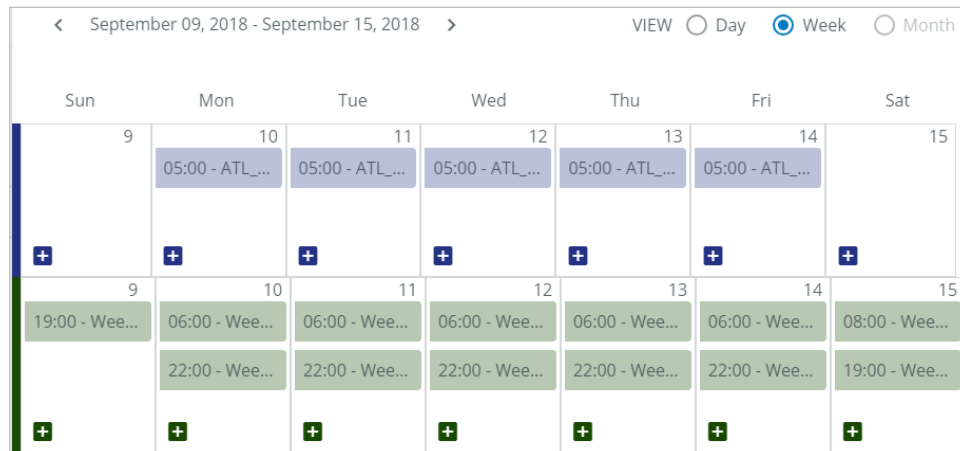


Other Tasks

- Click the < and > beside the date to move back and ahead one day at a time
- Click ☰ to show or hide the Schedules navigation panel

2	To see a week of Events in the view, click Week .
---	--

EXAMPLE

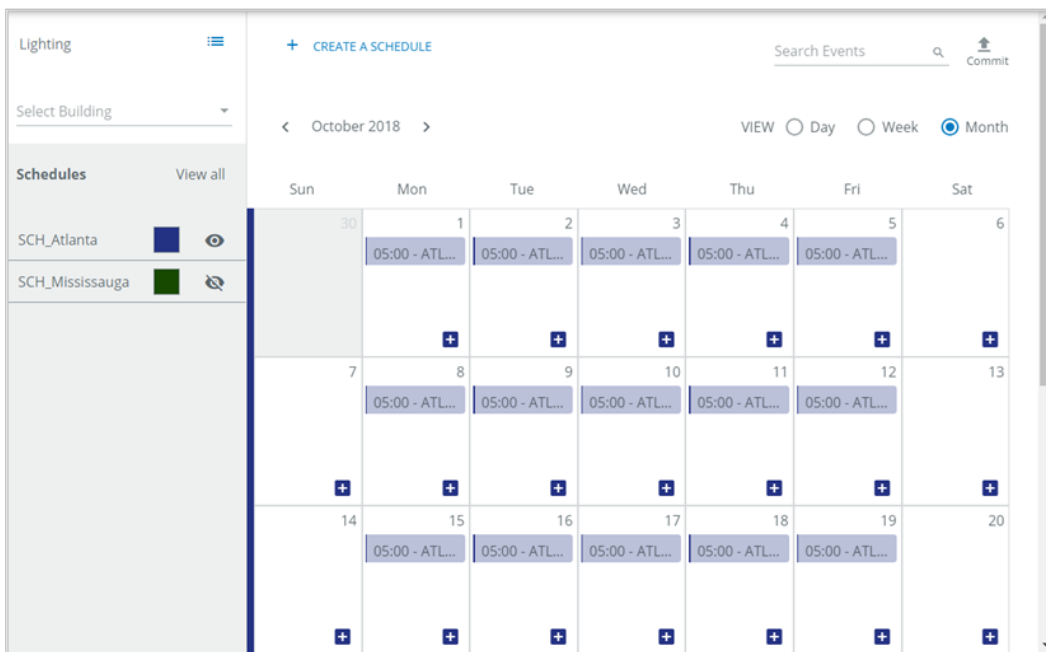


OTHER TASKS

- Click the < and > beside the date range to move back and ahead one week at a time
- Click ☰ to show or hide the Schedules navigation panel

Step Action

- To see a month of events in the view, hide all Schedules except one, and then click **Month**.

EXAMPLE**OTHER TASKS**

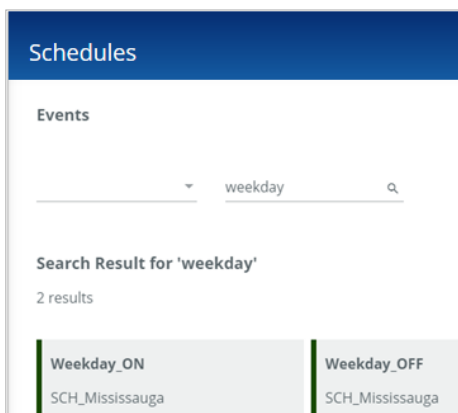
- Click the < and > beside the month to move back and ahead one month at a time
- If a scroll bar appears on the right, use that to view the entire month
- Click ☰ to show or hide the Schedules navigation panel

9.3 – Searching Events

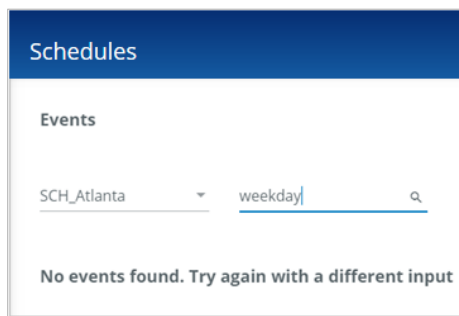
Follow the steps below to search the scheduled Events.

Step Action

- Enter the text you are searching for in the **Search Events** box, and then press Enter or click 🔍.

EXAMPLE

- | Step | Action |
|------|--|
| 2 | To limit the search to a specific schedule, select it from the list on the left. |

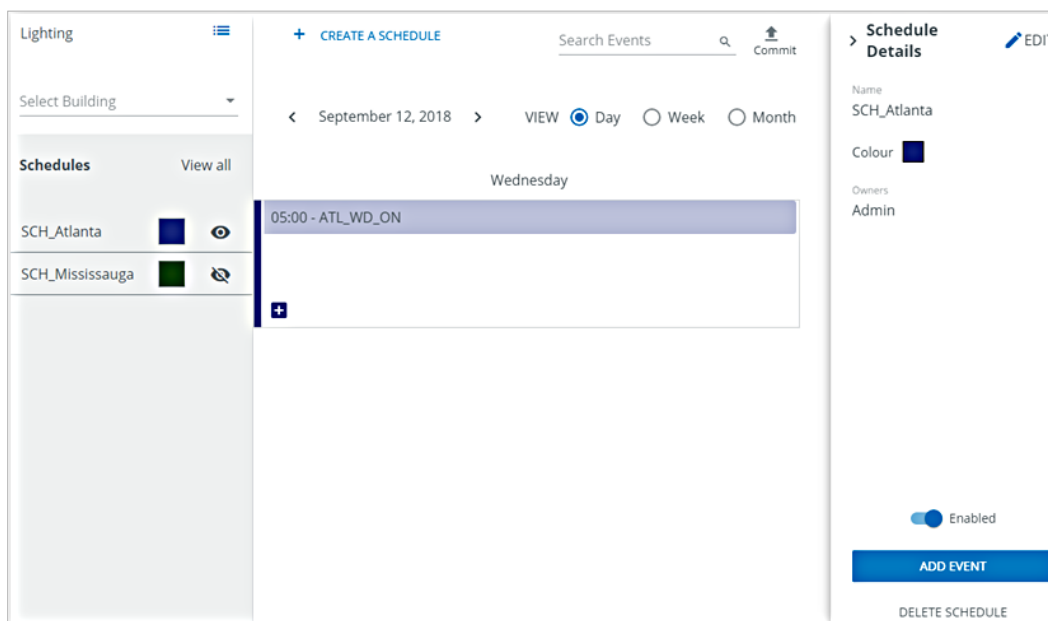
EXAMPLE

- | | |
|---|---|
| 3 | Click Clear Results to return to the Schedules page. |
|---|---|

9.4 – Enabling and Disabling Schedules

Follow the steps below to enable and disable a Schedule.

- | Step | Action |
|------|--|
| 1 | Click the Schedule in the navigation sidebar on the left to display the Schedule Details panel. The status of the Schedule is indicated by the Enabled (or Disabled) toggle. |

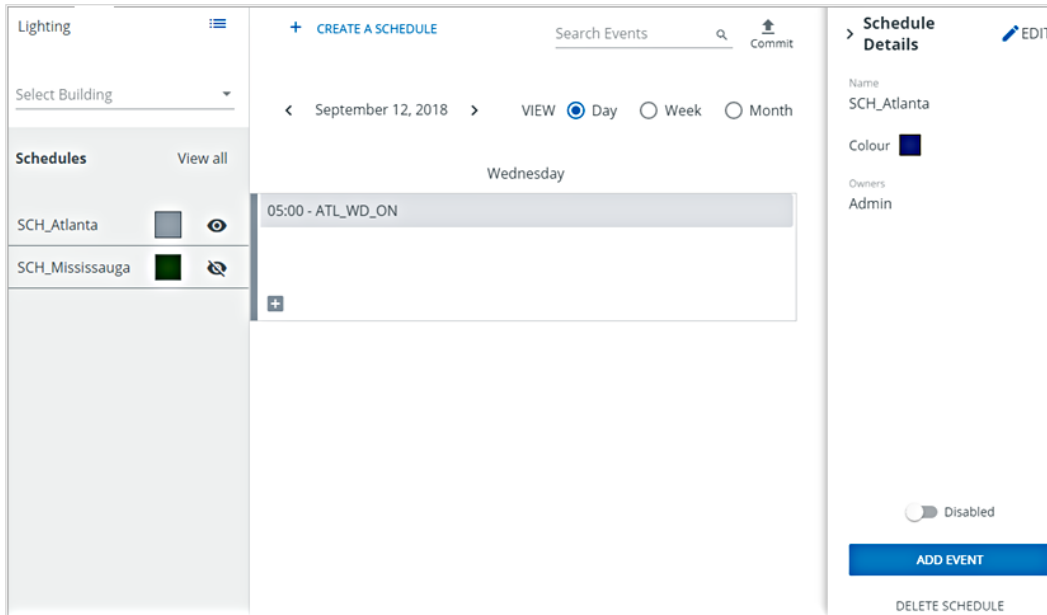
EXAMPLE

Step Action

- 2 Click the **Enabled** toggle to disable the schedule or click the **Disabled** toggle to enable it.

NOTE

When a schedule is disabled, it appears pale grey in the Schedule navigation and Calendar view.

EXAMPLE

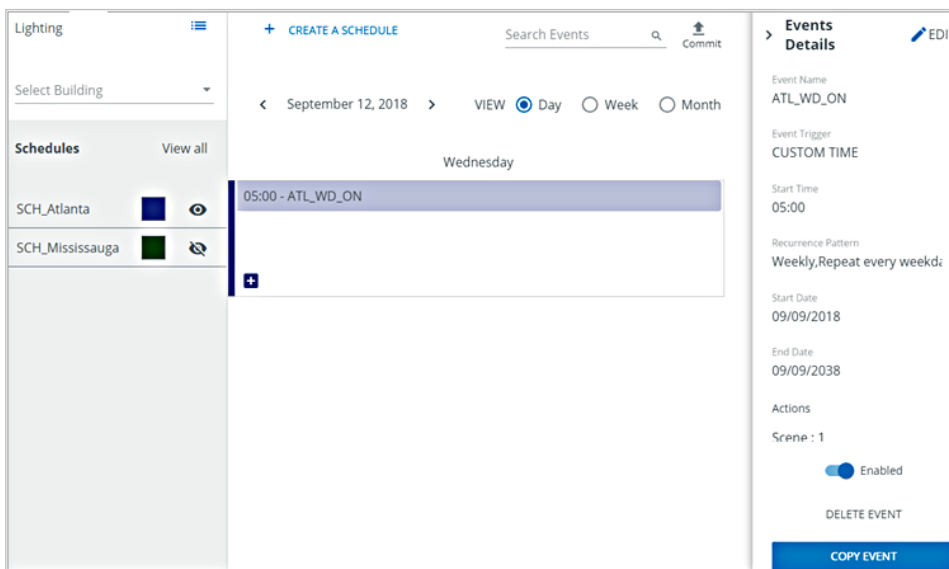
- 3 Click > to collapse the **Schedule Details** panel.

9.5 – Viewing, Enabling, and Disabling Events

Follow the steps below to view Event details, and to enable and disable an Event.

Step Action

- 1 Click the Event in the Calendar view to display the **Event Details** panel. The status of the Event is indicated by the **Enabled** (or **Disabled**) button.

EXAMPLE

Step Action

- 2 Click the **Enabled** button to disable the Event or click the **Disabled** button to enable it.

NOTE

When an Event is disabled, it appears pale grey in the Calendar view.

EXAMPLE

The screenshot displays the Cooper Lighting management interface. On the left, there is a sidebar with 'Lighting' and 'Schedules' sections. The 'Schedules' section lists 'SCH_Atlanta' and 'SCH_Mississauga'. The main area shows a calendar view for 'Wednesday, September 12, 2018'. A single event is visible at '05:00 - ATL_WD_ON', which is highlighted in a pale grey color, indicating it is disabled. On the right, the 'Events Details' panel is open, showing the event name 'ATL_WD_ON', event trigger 'CUSTOM TIME', start time '05:00', recurrence pattern 'Weekly, Repeat every weekd:', start date '09/09/2018', and end date '09/09/2038'. The 'Actions' section shows a 'Scene: 1' with a 'Disabled' toggle switch that is currently turned off. Below the toggle are buttons for 'DELETE EVENT' and 'COPY EVENT'.

- 3 Click > to collapse the **Event Details** panel.

10 – Appendix

This chapter contains supporting information for Trellix.

10.1 – Default Accounts, Roles, and Permissions

The default user accounts, roles, and permissions provided with Trellix Lighting are described below.

Username	Password	Role Assigned	Permissions
Viewer	BXLinx!1	Viewer	The Viewer user has view-only access to the following: <ul style="list-style-type: none"> • Lighting app: Alarms, Operate, Event Log, and Dashboard features. • Admin app: Alarms, Event Logs.
Tenant	BXLinx!2	Tenant	The Tenant user has view and operate access to the Alarms, Operate, Event Log and Dashboard features.
Facman	BXLinx!3	Facility Manager	The Facility Manager user has view, operate and administer access to all features except the following: Manage Roles; Backup/Restore, Factory Reset; Firewall; GSA Warning; Language Plugin; and Software Upgrade.
ITAdmin	BXLinx!4	IT Administrator	The IT/Network Administrator has view, operate and administer access to the following: <ul style="list-style-type: none"> • Lighting app: Alarm, Operate, Event Log • Admin app: System - Backup/Restore; BACnet, Email Server; Factory Reset; Firewall; GSA Warning; Language Plugin; Published API; and Software Upgrade.
Admin	BXLinx!5	System Administrator	The Trellix Lighting Administrator has full access to all features.
DRUser	BXLinx!6	Demand Response	The Demand Response User has access to the Demand Response and OpenADR interfaces. NOTE <i>It is not possible to login to the Web user interface with this account.</i>
Public	BXLinx!7	Third Party Integration	The Third-Party Integration User has access to the Public API. NOTE <i>It is not possible to login to the Web user interface with this account.</i>

10.2 – Account Permissions

The access provided by each Trellix permission is listed below.

Permission	Description
View Only	View-only access to assigned Areas.
User Management	Create, view, modify, and delete user accounts.
User Role Management	Management of user roles and permissions.
System Settings	<ul style="list-style-type: none"> • Modify the system and subsystem networking settings • Backup and restore system configuration • Backup and restore the database • Update and manage system and subsystem software versions • View diagnostic logs components and features
System Configuration	Manage system configuration such as Buildings, Devices, and Floorplans.
Schedule	View and manage schedules in assigned Areas.

Permission	Description
Acknowledge Alarms	Acknowledge alarms.
Normal Priority Override	Send a Normal Priority override.
High Priority Override	Send a High Priority override.
Demand Response	Access demand response components and features (can only be assigned Demand Response role).
Interface Settings	Access integrated interface settings components and features (can only be assigned Third Party Integration role).
Alarms and Events View	View-only access to Alarms, Events, and Dashboard.

10.3 – WaveLinx Alarms

The WaveLinx alarms reported by Trellix Lighting are listed and described below.

Alarm	Description
Device not reachable	Unable to communicate with device
Battery low	Device is battery-powered, and the battery will soon need replacement
Battery very low	Device is battery-powered, and will go offline very soon unless the battery is replaced
Device failed to update	The WAC failed to update its firmware or that of a paired device
Voltage out of range	DC power bus voltage is out of its specified range
Lamp error	Occupancy sensor has signaled that the lamp voltage or current is out of the specified range

10.4 – iLumin Alarms

The iLumin alarms reported by Trellix Lighting are listed and described below.

Alarm	Description
E0270	No connection to EG2 during import. Import of controller data failed. Transceiver connection to controller failed.
E0277	No response from iLight API during import. Import of controller data failed. Error response received from controller/Transceiver.
E0014	No response from EG2. Unable to communicate with device.
E0001	The elms_transceiver lost connection to elms_adapter. WebSocket connection lost.

FCC Statement

• This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference.
- (2) This device must accept any interference received, including interference that may cause undesired operation.

Note: The grantee is not responsible for any changes or modifications not expressly approved by the party responsible for compliance. Such modifications could void the user's authority to operate the equipment.

Note: The equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons.

Warranties and Limitation of Liability

Please refer to www.cooperlighting.com/WarrantyTerms for our terms and conditions.

Garanties et limitation de responsabilité

Veillez consulter le site www.cooperlighting.com/WarrantyTerms pour obtenir les conditions générales.

Garantías y Limitación de Responsabilidad

Visite www.cooperlighting.com/WarrantyTerms para conocer nuestros términos y condiciones.

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