Highlights

Light is an essential element in modern retail design. Good retail lighting can really highlight displayed products, add a sense of direction to space, enhance the retail experience, and even reflect a brand's visual identity. However, retail spaces have the highest lighting energy consumption (51kWh/sqm per year) among all building types. This is primarily due to the intensity of lighting required for displaying the products.

Casambi offers the perfect solution to meet the lighting control demands of today's retail space. Casambi provides lighting designers and manufacturers with the ability to wirelessly link devices together enabling the creation of highly customizable lighting networks that are easily configured and controlled using the Casambi App. It's based on BLE (Bluetooth Low Energy), the only low-power wireless technology found in all modern smartphones, tablets, and even smartwatches.

The same technology is embedded into hundreds of luminaires and devices from all major lighting manufacturers, enabling you to enjoy the benefits of smart lighting in your facility without the need for special wiring or any long list of hardware required. Casambi's open smart lighting ecosystem of 100% interoperable lighting products consists of luminaires, drivers, sensors, switches, dimmers, and other control gear from all the major manufacturers - all utilizing the simplicity of safe and reliable wireless communication. Casambi is easy and fast to specify, install, commission, and use, thanks to its simplified system architecture and user interfaces.

The free Casambi App works as the user interface, commissioning tool, and remote gateway, so no additional devices or software is required to operate a standard Casambi mesh network. Wireless and self-powered switches from the Casambi Ecosystem can be used as handheld devices or easily attached to any surface. They work both as an on/off switch and a dimming controller.

Facility Management Advantages

- Energy efficiency and sustainability
- Data and connectivity, occupancy control
- No internet connection required for daily operation
- Reduced operational costs
- Wireless emergency lighting with automated testing & reporting
- Non-disruptive installation, easy commissioning

Occupant Advantages

- Flexibility
- Scalability
- Human-centric lighting
- Productivity
- Individually and easily controllable lighting over a workstation
- Task-related predefined lighting scenes
- Intuitive UI

Specifier Advantages

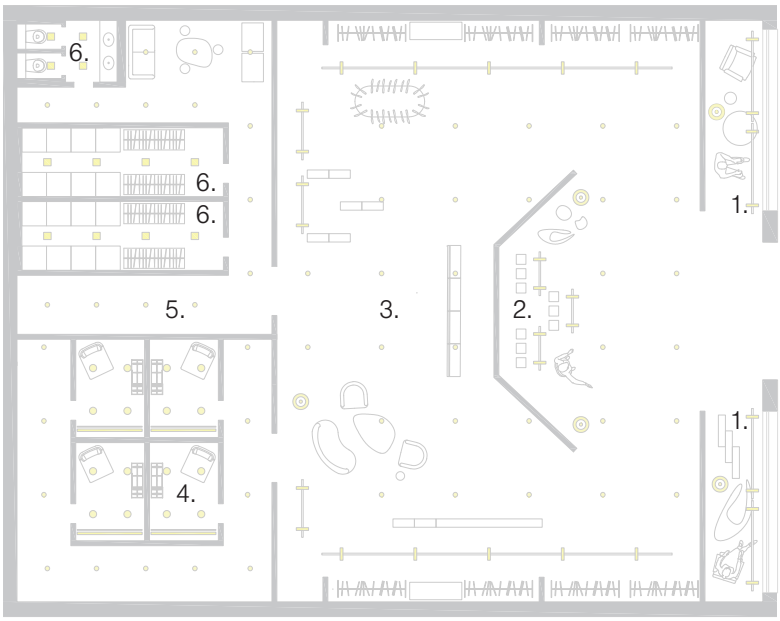
- The range and robustness of the mesh
- Advantages for future-proofing the installation
- Task-related predefined lighting scenes
- Flexibility
- Scalability
- Intuitive UI

Installer / Contractor Advantages

- Non-disruptive installation, easy commissioning
- Scalability
- Future-proof the installation
- Free software updates over the air

Floor Plan

Retail



Possible Functionalities

1. Shop Window

2. Focal Point

3. Main Display Area

4. Changing Rooms

5. Circulation Areas

6. Storage and Restrooms

- **Switch**: ON/OFF switch or dimming controller.
- **Xpress**: Casambi wall-mounted switch to control up to 4 scenes, dimming and color temperature.
- **Casambi App**: Full functionality for commissioning and end- user control.
- **Daylight**: Level of artificial lighting is adjusted in response to available daylight.
- **Occupancy detection**: Lights are activated or dimmed based on presence.
- **Calendar & Timer**: Activate or deactivate light scenes based on the time of day or specific dates.
- **Scenes**: Programmed scenes or animations adjusting the light level, color or color temperature.
- **Circadian Lighting**: Personalized circadian profiles to adjust the color temperature (K) of luminaires based on the time of day.

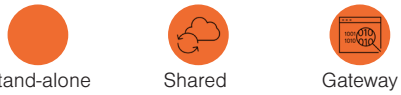
Controllers

Manual Control

Sensors

Calendar & Timer

Network



iBeacon profiles are embedded into each Casambi device, helping retailers track the in-store experience of visitors and extract knowledge from the use of physical space.
With the Casambi Extension Interface, any sensor information can be collected and processed to create heatmaps or other analytics that you can use to increase the efficiency of your stores.

Through its modern API, Casambi networks can be integrated into IoT tools that enable network monitoring and the usage of collected data from the network.

Casambi API consists of Rest API & Websocket services, and all received data is in human-readable JSON format.

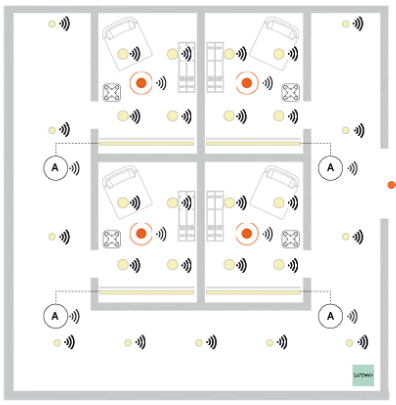
How to read this guide?

Room Type

Solution Type

4. Changing Rooms

Individual Control



- Casambi Ready luminaire
- Standard LED strip
- Casambi Ready occupancy sensor
- Casambi Ready driver
- Casambi wireless Xpress switch
- Casambi to Cloud Gateway

By using a gateway it is possible to access and control Casambi networks remotely. It can also be used for remote diagnostics and network monitoring.

Benefits

X-press Switch:
Each changing room will have it's own Casambi Ready Switch giving each client the opportunity to change the light scenes, and also the chance of dimming and modifying the colour.

Devices

LUMINAIRE	Casambi Ready luminaire	27
	Standard LED strip	+ A 4 →
	Casambi Ready occupancy sensor	4
SWITCH	Casambi wireless Xpress switch	4
OTHER	Casambi to Cloud Gateway	1

Functionality

- Calendar and Timer
- Scenes
- Data and Remote Access
- Occupancy Detection
- Data Analytics

9 Retail - V2.1 EN
For more information www.casambi.com/ecosystem

CASAMBI

Learn about the products used in the space

Understand how the products are laid out in the space

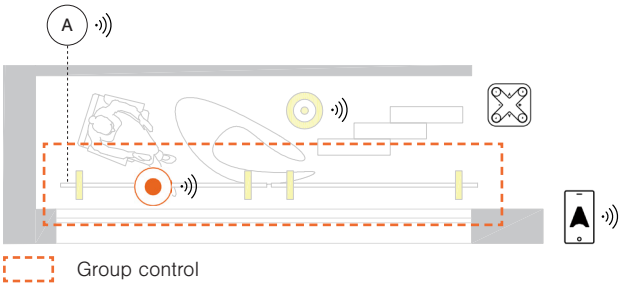
Understand the benefits

Understand what products would be needed to achieve the strategies

Learn what strategies can be implemented in the space

1. Shop Window

Group Control



Standard track luminaire with DALI driver

Casambi Ready luminaire

Casambi Ready occupancy and light sensor

Casambi wireless controller DALI

Casambi wireless Xpress switch

Responsive Shop Window

- Every day - Except Sundays: (09:00-20:00) Daylight sensing - lights are switched on when measured daylight level falls below preset treshold value
- Store closed: (20:00-00:00) Lights on
- Late hours: (00:00-09:00) Occupancy detection - lights are switched on when presence is detected in front of the window. No occupancy for 10 mins, lights switched off

Devices

LUMINAIRE	Standard track luminaire with DALI driver	+ A 1 →
	Casambi Ready luminaire	1
SENSOR	Casambi Ready occupancy and light sensor	1
SWITCH	Casambi wireless Xpress switch	1
APPLICATION	Casambi App on a smart mobile device **Not mandatory for daily use.*	

Functionality

Casambi App on a Smart Mobile Device

Calendar and Timer

Scenes

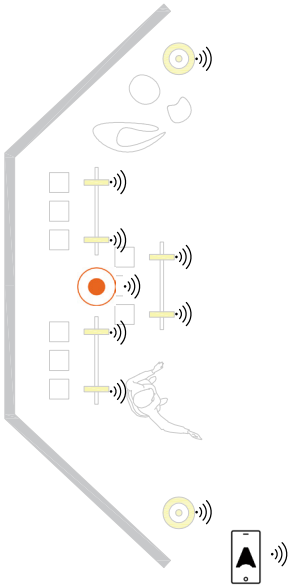
Daylight Harvesting

Occupancy Detection

Data Analytics

2. Focal Point

Individual Control



Casambi Ready track luminaire

Casambi Ready luminaire

Casambi Ready occupancy and light sensor

Devices

LUMINAIRE	Casambi Ready track luminaire	6
	Casambi Ready luminaire	2
SENSOR	Casambi Ready occupancy and light sensor	1
APPLICATION	Casambi App on a smart mobile device **Not mandatory for daily use.*	

Functionality

Casambi App on a Smart Mobile Device

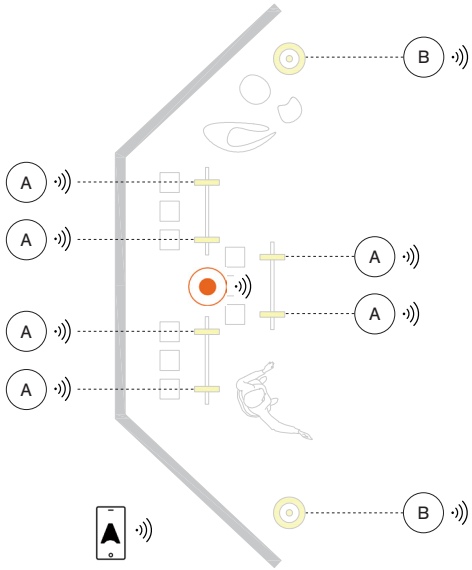
Calendar and Timer

Scenes

Occupancy Detection

Daylight Harvesting

Data Analytics



Standard track luminaire

Decorative luminaire with dimmable LED lamp

Casambi Ready occupancy and light sensor

A Casambi Ready In-track driver

B Casambi wireless phasecut dimmer

Devices

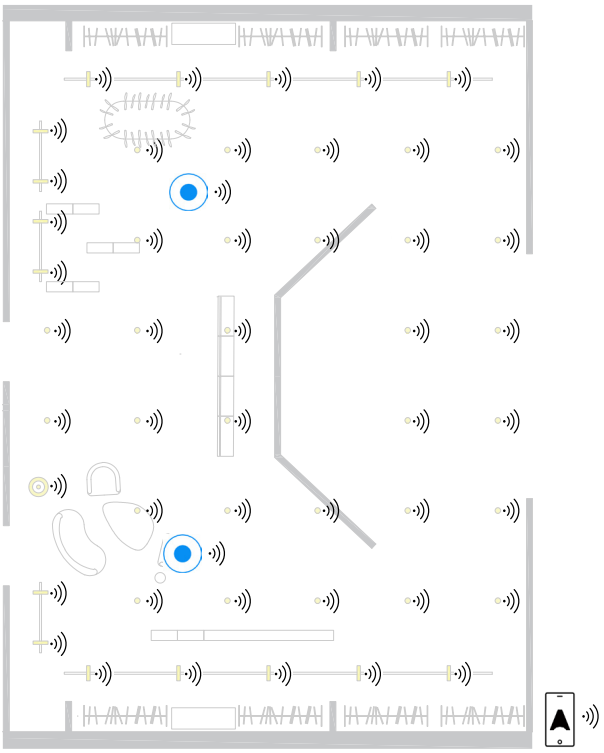
LUMINAIRE	Standard track luminaire	+ A 6 →
	Decorative luminaire with dimmable LED lamp	+ B 2 →
SENSOR	Casambi Ready occupancy and light sensor	1
APPLICATION	Casambi App on a smart mobile device **Not mandatory for daily use.*	

Functionality

Casambi App on a Smart Mobile Device	Occupancy Detection
Calendar and Timer	Daylight Harvesting
Scenes	Data Analytics

3. Main Display Area

Individual Control



Casambi Ready luminaire

Casambi Ready luminaire

Casambi Ready luminaire

Casambi Ready air quality sensor

Benefits

You can create separate control groups or create new control groups anytime via the Casambi App. Using Casambi Ready products would be the easiest and most economic option.

iBeacon profiles are embedded into each Casambi device, helping retailers track the in-store experience of visitors and extract knowledge from the use of physical space.

Devices

LUMINAIRE	Casambi Ready luminaire	16
	Casambi Ready luminaire	30
	Casambi Ready luminaire	1
SENSOR	Casambi Ready air quality sensor	2
APPLICATION	Casambi App on a smart mobile device **Not mandatory for daily use.*	

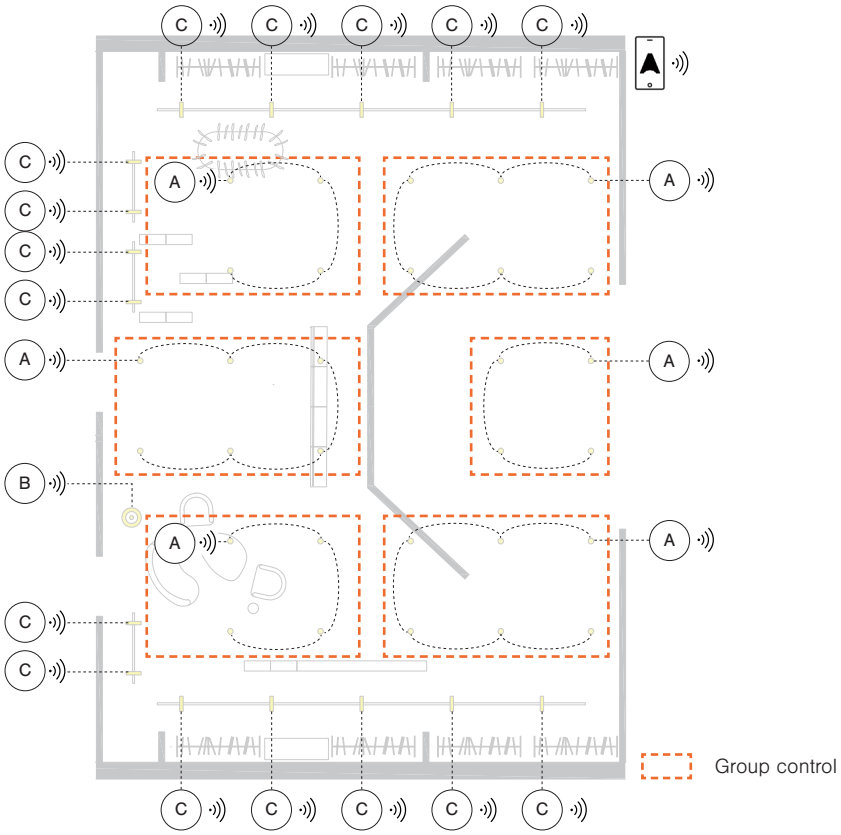
Functionality

Casambi App on a Smart Mobile Device

Calendar and Timer

Scenes

Data Analytics



Standard luminaire DALI

Decorative luminaire with dimmable LED lamp

Standard track luminaire with DALI driver

A Casambi wireless controller DALI

B Casambi wireless phasecut dimmer

C Casambi Ready In-track driver

DALI bus

Devices

LUMINAIRE	Standard luminaire DALI	+ A 6 →
	Decorative luminaire with dimmable LED lamp	+ B 1 →
	Standard track luminaire with DALI driver	+ C 16 →
APPLICATION	Casambi App on a smart mobile device **Not mandatory for daily use.*	

Functionality

Casambi App on a Smart Mobile Device

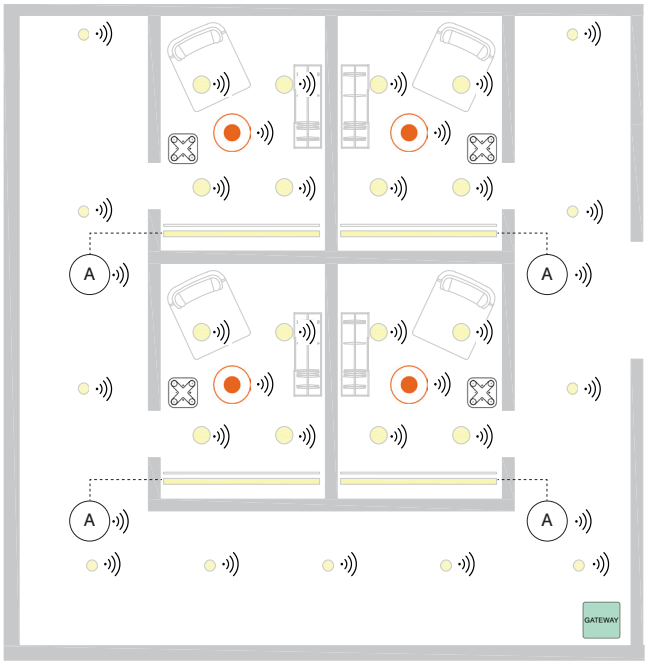
Calendar and Timer

Scenes

Data Analytics

4. Changing Rooms

Individual Control



Casambi Ready luminaire

Standard LED strip

Casambi Ready occupancy sensor

Casambi Ready driver

Casambi wireless Xpress switch

Casambi to Cloud Gateway

*By using a **gateway** it is possible to access and control Casambi networks remotely. It can also be used for remote diagnostics and network monitoring.*

Benefits

X-press Switch:
Each changing room will have it's own Casambi Ready Switch giving each client the opportunity to change the light scenes, and also the chance of dimming and modifying the colour.

Devices

LUMINAIRE	Casambi Ready luminaire	27
	Standard LED strip	+ A 4 →
	Casambi Ready occupancy sensor	4
SWITCH	Casambi wireless Xpress switch	4
OTHER	Casambi to Cloud Gateway	1

Functionality

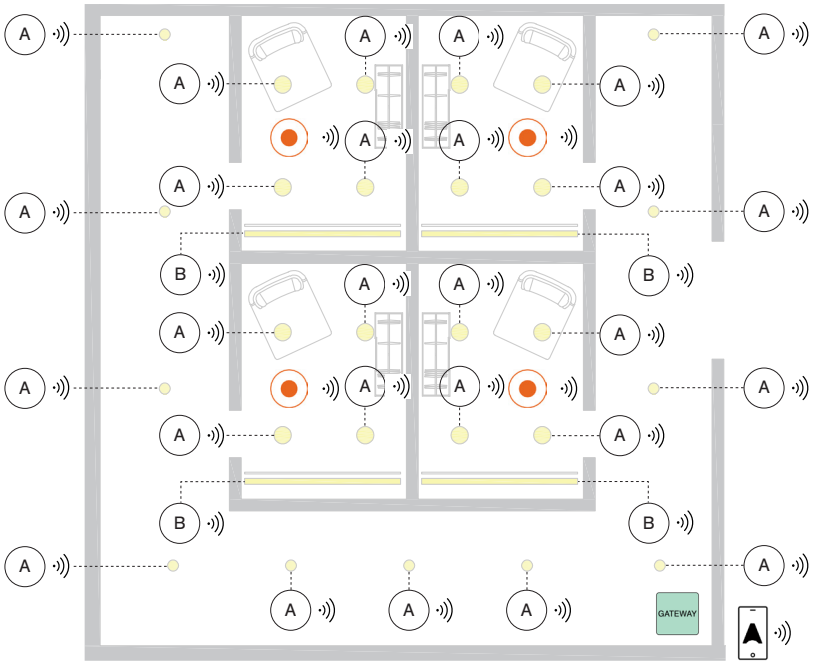
Calendar and Timer

Scenes

Data and Remote Access GW

Occupancy Detection

Data Analytics



Standard luminaire DALI

Standard LED strip

Casambi Ready occupancy sensor

Casambi wireless controller DALI

Casambi wireless 4-channel PWM dimmer

Casambi to Cloud Gateway

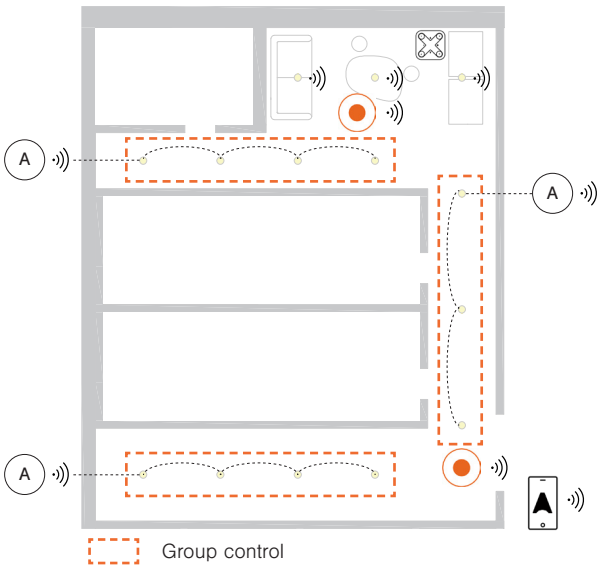
*By using a **gateway** it is possible to access and control Casambi networks remotely. It can also be used for remote diagnostics and network monitoring. Some gateways from the Casambi ecosystem allow the use of a QR code for personalized light settings in changing rooms or offices.*

Devices

LUMINAIRE	Standard luminaire DALI	+ A 27
	Standard LED strip	+ B 4
SENSOR	Casambi Ready occupancy sensor	4
OTHER	Casambi to Cloud Gateway	1
APPLICATION	Casambi App on a smart mobile device **Not mandatory for daily use.*	

Functionality

- Casambi App on a Smart mobile device
- Calendar and Timer
- Scenes
- Occupancy Detection
- Data Analytics
- Data and Remote Access



Standard luminaire DALI

Casambi Ready luminaire

Casambi Ready occupancy sensor

Casambi wireless controller DALI

Casambi wireless Xpress switch

DALI bus

Devices

LUMINAIRE	Standard luminaire DALI	+ A 3 →
	Casambi Ready luminaire	3
SENSOR	Casambi Ready occupancy sensor	2
SWITCH	Casambi wireless Xpress switch	1
APPLICATION	Casambi App on a smart mobile device **Not mandatory for daily use.*	

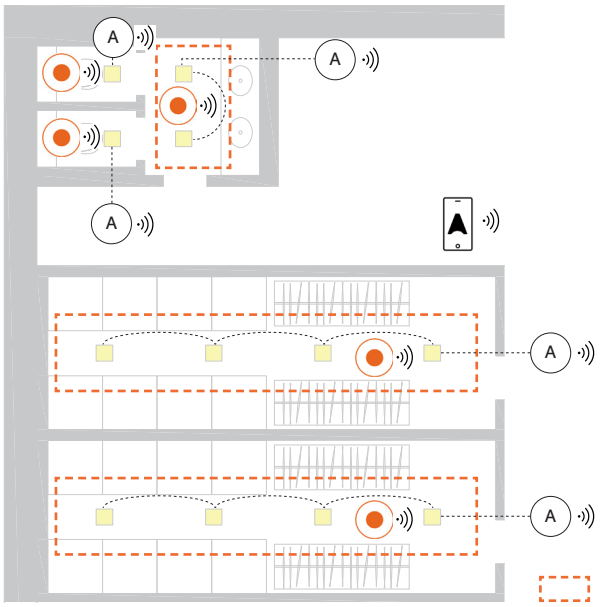
Functionality

Casambi App on a Smart mobile device

Calendar and Timer

Occupancy Detection

Group Control with DALI Dimming



Standard luminaire DALI

Casambi Ready occupancy sensor

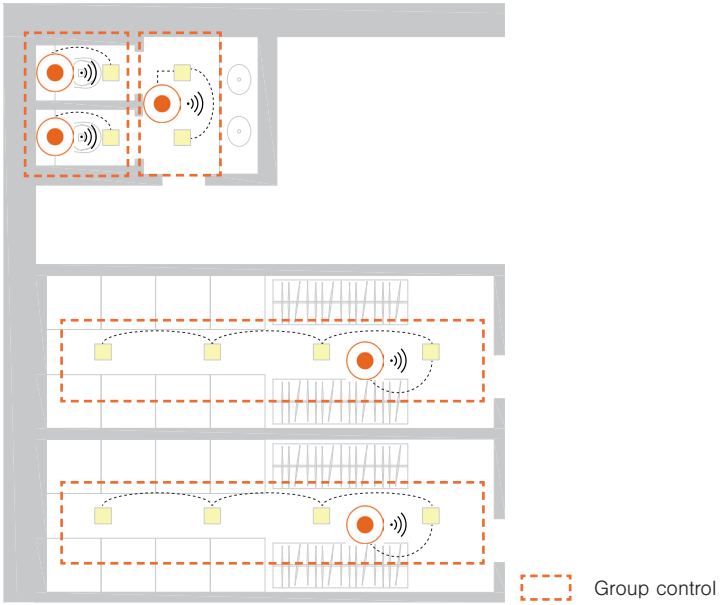
Casambi wireless controller DALI

DALI bus

Devices

LUMINAIRE	Standard luminaire DALI	+ A 5 →
SENSOR	Casambi Ready occupancy sensor	5

Group Control with Relay Switching



Standard ON-OFF luminaire

Casambi Ready occupancy sensor with inbuilt relay

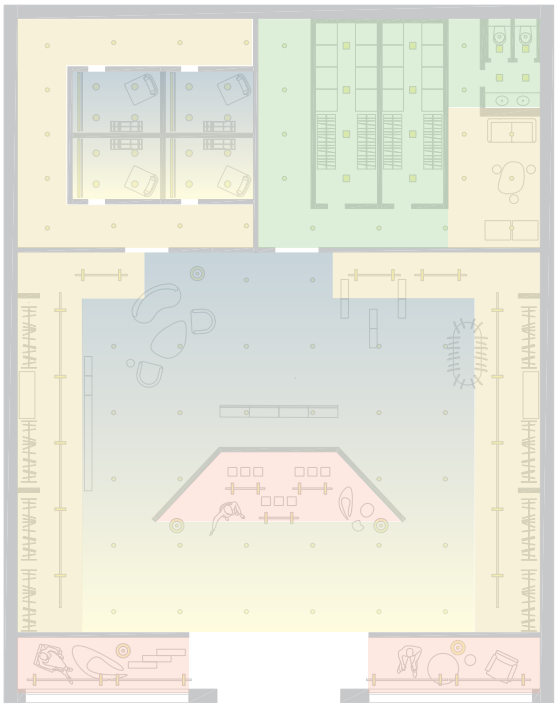
Mains wiring

Devices

LUMINAIRE	Standard ON-OFF luminaire	12
SENSOR	Casambi Ready occupancy sensor with inbuilt relay	5

Seasonal Scenes - Four Seasons

Winter



Light Scenes

Warm scene - Shop window and focal point

Neutral scene - Display area

Circadian scene - Store general areas

Static colour temperature - Back of house areas

Lighting Functionality

Shop window and focal point:

- **Every day** - Except Sundays: (09:00-20:00) Daylight sensing - lights are switched on when measured daylight level falls bellow preset treshold value.
- **Store closed**: (20:00-00:00) Occupancy, Lights 100% on
- **Late hours**: (00:00-09:00) Occupancy detection - lights are switched on when presence is detected in front of the window. No occupancy for 10 mins, lights switched off.

Main display area:

- **Every day - Except Sundays: (09:00-20:00)** All lights on - Focal Point: Warm Scene (2700K), General Areas: Circadian Scene (2700-4000K), Display Areas: Neutral Scene (3000K)
- **Store Closed: (20:00-00:00)** Cleaning scene with presence detection. If no presence detected for 30 minutes all lights are switched off.
- **Late hours: (00:00-09:00)** All lights are switched off.

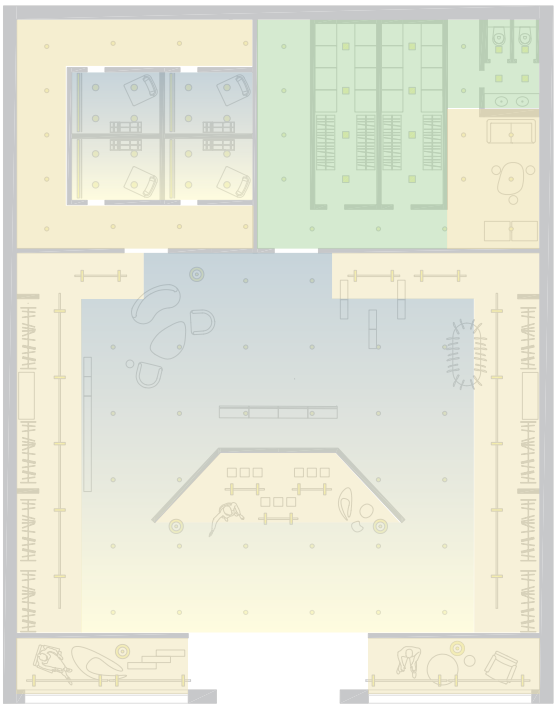
Changing rooms, circulation areas, storage and restrooms:

- **Working hours: (9am-8pm)** Occupancy, Lights 100% ON
  No occupancy for 20mins, Lights dimmed to 10%
- **After work hours: (8pm-9am)** Lights OFF

Festive season:

- **Shop Windows and Focal Point**: RGBW lights, green, red and white

Spring



Light Scenes

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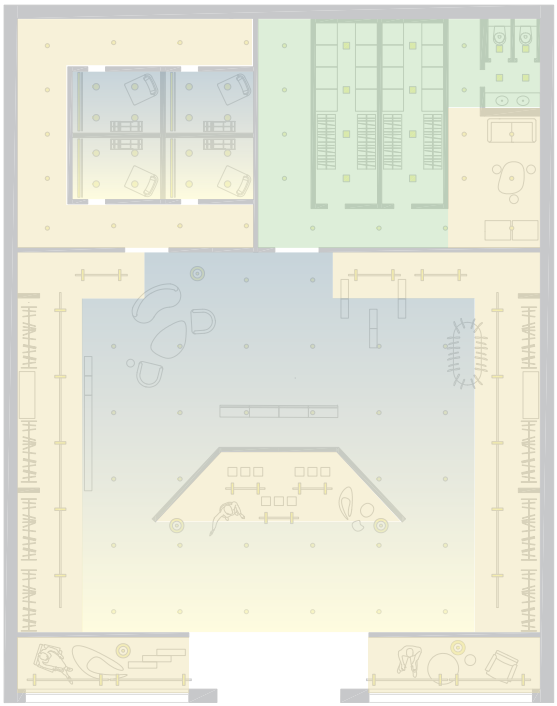
Seasonal Scenes - Four Seasons

Summer



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Static colour temperature - Back of house areas

Lighting Functionality

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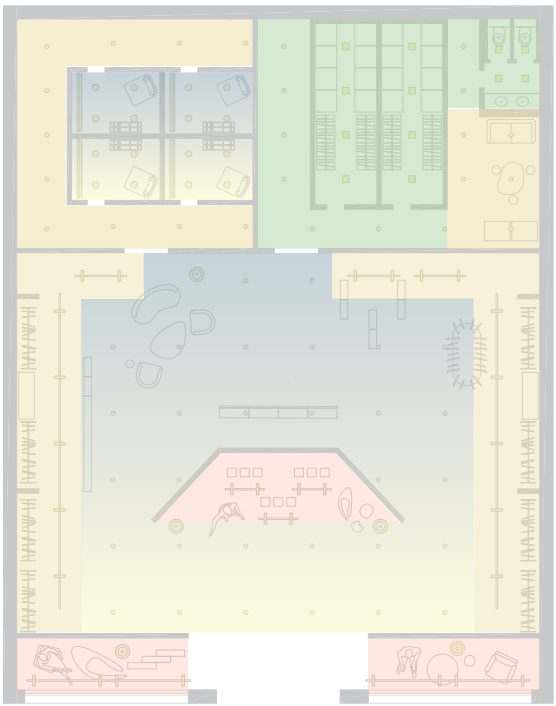
Festive season:

- **Shop Windows and Focal Point**: RGBW lights, green, red and white

Autumn



Light Scenes

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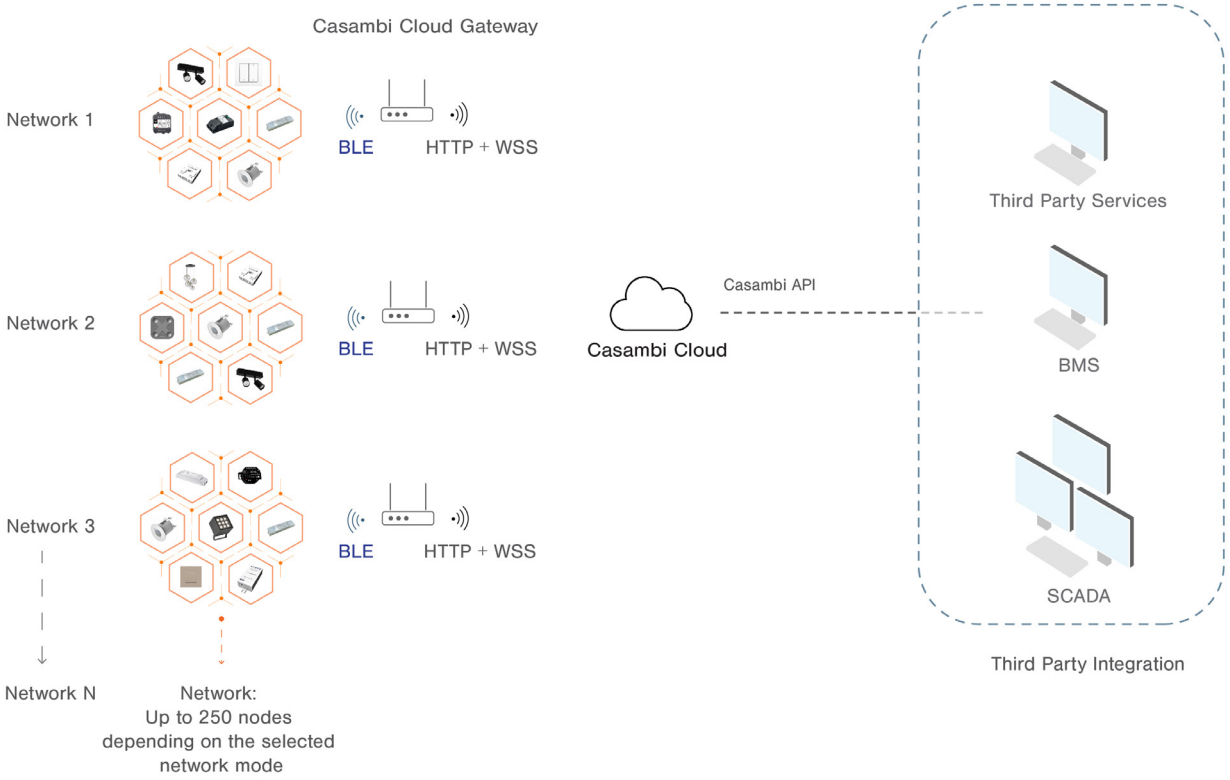
Linking multiple networks with Casambi Cloud Gateway



Linking multiple networks locally