# Casambi Design Guide

### Highlights



Industrial spaces are one of the more complex building types to illuminate. Industrial facilities, particularly industrial warehouses and storage areas have one of the highest energy consumption for lighting (46kWh/sqm per year), therefore reducing operational and maintenance costs while increasing energy savings is very important. Workshops or production halls are areas that, in many cases, may operate 24/7, so energy efficient luminaires and more efficient use of daylight are beneficial not only for energy savings, but also for improved visual conditions, and the general wellbeing of employees.

Casambi offers a wireless communication solution that caters well to today's industrial facilities – by directly answering their need for powerful lighting control while tapping into further energy savings with sensors, switches, and other devices from the Casambi ecosystem. With the Casambi app, adjustable lighting such as daylighting can be implemented independently, conforming to localized needs and enabling energy saving through optimized use of light throughout the space. Based on Bluetooth Low Energy – the most popular and reliable low-power radio technology found in all modern smartphones, tablets, and smartwatches today – changes can be made at the touch of a button.

Casambi provides the best solution for renovation and extensions. As no control wires are needed, the installation is quick and non-disruptive. The versatility of the Casambi system makes it possible to extend the lifetime of existing installations by adding the layer of smart controls in a seamless way.

This guide outlines the transformative power of Casambi's wireless lighting control solution when applied within industrial spaces. It has been written with a view to demonstrating just how easy and joyful it can be to specify lighting solutions for industrial environments.

#### **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**

- Non-disruptive installation, easy commissioning
- Scalability

#### **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

- Future-proof the installation
- Free software updates over the air



# Floor Plan



### **Possible Functionalities**

1. Offices and Meeting Room



2. Lounge Area & 3. Bathrooms



4. Aisles/ Storage



5. Loading Hall & 6. Assembly



7. Exterior/ Parking



- **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.

#### Controllers



Planning a project with Casambi is as simple as deciding on the functionality of the required control and then combining it with devices from the Casambi ecosystem.

Each device from the Casambi ecosystem is 100% interoperable with all Casambi enabled devices from other manufacturers.

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 a handheld device or easily attached to any surface. They work both as an on/off switch and a dimming controller.

- **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.







## **1. Offices and Meeting Room**

## **Group Control**



•)) Casambi Ready luminaire
•)) Casambi Ready occupancy and light sensor
•)) Casambi Ready air quality sensor
•)) Casambi Ready switch

#### Benefits

Casambi Application: You can create separate control groups or create new control groups anytime via the Casambi App.

#### Devices

LUMINAIRE	Casambi Ready Iuminaire	•))	20	
SENSOR	Casambi Ready occupancy and light sensor	•••))	3	
	Casambi Ready air quality sensor	•••))	2	
SWITCH	Casambi Ready switch	<b>(</b> , .))	3	
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



Human Centric Lighting

Daylight Harvesting







#### Devices

LUMINAIRE	Casambi Ready Iuminaire	-)))	6	
SENSOR	Casambi Ready occupancy sensor with inbuilt relay	••••))	1	
APPLICATION	Casambi App on a smart mobile device *Not mandatory for daily use.	▲ ->))		

### Functionality

Casambi App on a Smart Mobile Device

**Occupancy Detection** 

Daylight Harvesting



Calendar and Timer



Data Analytics

#### 5 Industry - V2.1 EN For more information www.casambi.com/ecosystem



### **Group Control with DALI Dimming**



#### **Functionality**

Occupancy Detection

Calendar and Timer





## 4. Aisles/ Storage

## Retrofit



#### **Devices**

LUMINAIRE	Standard luminaire
SENSOR	Casambi Ready occupancy sensor
APPLICATION	Casambi App on a smart mobile device *Not mandatory for daily use.



### Functionality

Casambi App on a Smart Mobile Device





Calendar and Timer







•)) Casambi Ready luminaire

(●)·)) Casambi Ready occupancy and light sensor

)) Casambi Ready air quality sensor

🍼 🔊 Casambi Ready switch

#### Benefits

Casambi Application: You can control the luminaires individually or create control groups anytime via the Casambi App.

Using Casambi Ready products would be the easiest and most economic option.

#### **Devices**

LUMINAIRE	Casambi Ready Iuminaire	-)))	24	
SENSOR	Casambi Ready occupancy and light sensor	••••	3	
	Casambi Ready air quality sensor	•••))	1	
SWITCH	Casambi Ready switch	<b>(</b> ))	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** 





# 6. Assembly



### **Devices**

LUMINAIRE	Standard luminaire	□ + (À) 6 → ( <b>○</b> )
SWITCH	Conventional wired switch	$\checkmark$ + $(\textcircled{B})$ 1 $\longrightarrow$ $(\textcircled{A})$
SENSOR	Standard occupancy and light sensor	$\bullet + \bullet + \bullet \bullet$
	Casambi Ready air quality sensor	<ul><li>● ·)) 1</li></ul>
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** 





# 7. Exterior



Conventional wired switch



(B)·)) Casambi Ready Input controller

#### **Devices**

LUMINAIRE	Standard luminaire DALI	⊢ + (▲) 10 → (▲)
SENSOR	Standard occupancy and light sensor DALI	• + (A) 3 (A)
SWITCH	Conventional wired switch	$\checkmark$ + $\textcircled{B}$ 1 $\longrightarrow$ $\textcircled{O}$
APPLICATION	Casambi App on a smart mobile device *Not mandatory for daily use.	

#### **Functionality**

Casambi App on a Smart Mobile Device

**Occupancy Detection** 



Daylight Harvesting





### Linking multiple networks with Casambi Cloud Gateway



### Linking multiple networks locally



