Casambi Design Guide

Highlights



The office is evolving - especially with the rise of hybrid work. And this shifting of boundaries between work, living, and hospitality warrants a radical review of traditional office lighting installations. Wireless lighting controls are proven to play a truly huge role in the provision of flexible, highly attractive office spaces that offer outstanding user experiences, less energy waste, and improved occupant well-being and productivity.

In combination with daylighting and occupancy detection, smart lighting controls can save a significant amount of energy in offices by ensuring that the right light is used only when it is needed. These systems are easily controlled by switches, sensors, or by mobile applications.

Casambi's Bluetooth Low Energy based technology provides lighting designers and manufacturers with the ability to wirelessly link devices together enabling the creation of personalized smart lighting networks that are easily configured and controlled using the Casambi App.

Predesigned scenes and luminaire groupings provide various lighting scenarios for different functions – circadian lighting for working areas, reduced level of illuminance for whiteboard lighting, daylight harvesting systems next to windows. Your bespoke office needs can be easily programmed in the Casambi App.

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



Controllers Manual Control Switch X-Press Casambi App Sensors Daylight Occupancy Calendar & Timer Calendar&Timer Scenes Circadian Animation Network Stand-alone Shared Gateway private &Cloud &Data

Possible Functionalities



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.

In offices, occupancy detection can lead up to 44% energy • savings compared to a lighting system without any controls.

- **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.



How to read this guide?





1. Meeting Room





Devices

| LUMINAIRE | Casambi Ready luminaire | 🔜 »)) 1 🔕 |
|-------------|---|---------------------------|
| | Standard luminaire DALI | → + (A) 3 → (A) |
| | Standard luminaire with dimmable LED lamp | |
| SENSOR | Casambi Ready occupancy and light sensor | ● •)) 1 |
| | Casambi Ready air quality sensor | ● ·)) 1 |
| SWITCH | Casambi Ready switch | 🍼 »)) 1 🔕 |
| APPLICATION | Casambi App on a smart mobile device *Not mandatory for daily use. | |

Functionality

Casambi Ready Wireless Switch

Casambi App on a Smart Mobile Device

Occupancy Detection



Human Centric Lighting Data Analytics Calendar and Timer





2. Small Office





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

Devices

| LUMINAIRE | Casambi Ready luminaire | ·))) | 1 | |
|-------------|--|---------------|---|--|
| | Casambi Ready Iuminaire | •))) | 6 | |
| | Casambi Ready Iuminaire | ○ •))) | 1 | |
| SENSOR | Casambi Ready occupancy and light sensor | •••• | 1 | |
| SWITCH | Casambi Ready wireless switch | ()) | 1 | |
| APPLICATION | Casambi App on a smart mobile device *Not mandatory for daily use. | _ ۰))) | | |

Functionality

Casambi App on a Smart Mobile Device

Occupancy Detection

Calendar and Timer



Human Centric Lighting Daylight Harvesting

Data Analytics





2. Small Office



Standard Iuminaire DALI
Standard Iuminaire with dimmable LED Iamp
Conventional wired switch
O) Casambi Ready occupancy and light sensor
O) Casambi wireless controller DALI
O) Casambi wireless phasecut dimmer
O) Casambi Ready Input controller
DALI bus

Devices

| LUMINAIRE | Standard luminaire DALI | ⊢ + (▲) 3 → (▲) |
|-------------|--|--|
| | Standard luminaire with dimmable LED lamp | \circ + (B) 1 \longrightarrow (O) |
| SENSOR | Casambi Ready occupancy and light sensor | ● ·») 1 ● |
| SWITCH | Conventional wired switch | \checkmark + \bigcirc 1 \longrightarrow \bigcirc |
| APPLICATION | Casambi App on a smart mobile device *Not mandatory for daily use. | •))) |

Functionality

| Wall-mounted Conventional Switch | | Human Centric Lighting | |
|--------------------------------------|--|------------------------|---------|
| Casambi App on a Smart Mobile Device | | Daylight Harvesting | |
| Occupancy Detection | and the second s | Data Analytics | ALD ALC |
| Calendar and Timer | | | |



3. Open Office

Individual Control



)) Casambi Ready luminaire)) Casambi Ready luminaire ●)))) Casambi Ready occupancy and light sensor Casambi Ready switch ·))) Ø

Benefits

Casambi Application: 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.

Devices

| LUMINAIRE | Casambi Ready Iuminaire | -))) | 9 | |
|-------------|--|-----------------|----|--|
| | Casambi Ready Iuminaire | ─ ·))) | 13 | |
| SENSOR | Casambi Ready occupancy and light sensor | •••)) | 3 | |
| SWITCH | Casambi Ready switch | ((, `)) | 2 | |
| APPLICATION | Casambi App on a smart mobile device *Not mandatory for daily use. | ,))) • | | |



Functionality

| Wireless Switch | | Human Centric Lighting |
|--------------------------------------|--|------------------------|
| Casambi App on a Smart Mobile Device | | Daylight Harvesting |
| Occupancy Detection | and the second s | Data Analytics |
| Calendar and Timer | | |



3. Open Office



Devices

| LUMINAIRE | Standard Iuminaire DALI | | |
|-------------|---|--|--|
| | Standard broadcast group control DALI | | |
| SWITCH | Conventional switch | | |
| SENSOR | Casambi Ready occupancy sensor | | |
| APPLICATION | Casambi App on a smart mobile device *Not mandatory for daily use. | | |



With the Casambi wireless DALI Gateway, existing DALI networks can be extended with wireless Casambi networks. DALI functions and controls can still be used, while benefiting from the flexibility of wireless Casambi BLE mesh network.



Functionality

| Wireless Switch | 23 | Human Centric Lighting | |
|--------------------------------------|--------|------------------------|--|
| Casambi App on a Smart Mobile Device | | Daylight Harvesting | |
| Occupancy Detection | She we | Data Analytics | |
| Calendar and Timer | 5 | | |





)) Casambi Ready Iuminaire

()) Casambi Ready occupancy sensor

Devices

| LUMINAIRE | Casambi Ready luminaire | •)) | 11 | |
|-------------|--|-------|----|--|
| SENSOR | Casambi Ready occupancy sensor | •••)) | 6 | |
| 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

Data Analytics

| Store Store | |
|-------------|--|
| | |
| ALD STORE | |



Group Control with DALI Dimming

| Group control Devices | | (••)) (A) •))) | Standard Iuminaire DALI Casambi Ready occupancy sensor Casambi wireless controller DALI DALI bus *Internal walls don't reach up to the ceiling. |
|--------------------------|---|-------------------|---|
| LUMINAIRE | Standard Iuminaire DALI | | $+$ (Å) 2 \longrightarrow (Å) |
| SENSOR | Casambi Ready occupancy sensor | •••)) | 2 |
| Group Contr | <image/> | •••)) | Standard ON-OFF luminaire Casambi Ready occupancy sensor with inbuilt relay Mains wiring *Internal walls don't reach up to the ceiling. |
| LUMINAIRE | Standard ON-OFF luminaire | | 11 |
| SENSOR | Casambi Ready occupancy sensor with inbuilt relay | •••)) | 2 |
| | | | |



Linking multiple networks with Casambi Cloud Gateway



Linking multiple networks locally



