

A Guide to Smart Lighting Controls for
Lighting Designers



CASAMBI
Lighting Control For The Modern World

A guide for lighting designers

Smart lighting is a game changer for lighting designers. No longer are lighting controls an extra or an afterthought – now designers can build flexibility into how spaces are lit from the very outset and provide an immersive, interactive experience.

Casambi makes it easier than ever to use smart lighting to take your designs to the next level.

What is smart lighting?

Smart lighting isn't just about dimming or turning on and off in response to sensors and timers. Smart lighting is connected and intelligent, so that it can change in brightness or colour in response to all kinds of stimuli. This can be used to save energy, to enable dynamic light displays, and deliver 'human-centric lighting' that promotes wellbeing. A growing body of scientific evidence shows that this can make workplaces more productive, by improving alertness.

By harnessing the Internet of Things, smart lights can be controlled from mobile devices or programmed to respond to data from other devices and online services – such as the weather, the location of your car as it pulls up outside the front door, or the TV being switched on. With smart lighting the possibilities are endless.

There are numerous so-called 'smart' lighting systems available – and some are smarter than others. In the past they have mostly been based on Wi-Fi, ZigBee or both: ZigBee to talk to the luminaires, and Wi-Fi to talk to the mobile device. Neither system is ideally suited to controlling lighting. They're prone to interference, require a strong network signal at all times throughout the whole area where lights are in operation, and rely on a gateway (such as a router or bridge) to communicate with luminaires, which introduces a single point of failure, making the whole system more vulnerable.

Casambi does things differently. Its revolutionary smart lighting system is based on **Bluetooth Low Energy (BLE)**, a communication technology that's far better suited to controlling lights.

BLE allows a mobile device to communicate directly with a luminaire (no gateway required), and luminaires to communicate with each other.


BLE also has the considerable advantage of being the only low-power radio communication technology that's built into every modern smartphone, laptop and tablet.

Thanks to **BLE**, *Casambi* provides robust, professional-level smart lighting control from almost any mobile device – and installation couldn't be simpler.

How do users control *Casambi*?

The advent of smartphones, tablets and now smart watches has given lighting control a shot in the arm. The clunky dedicated handsets used to control many lighting systems are being replaced by the high-tech devices we all carry around in our pockets.

Today's smartphones, tablets and wearables are ideal tools for controlling lighting. Touchscreens, advanced computing power and high-speed connectivity make them ideal for tasks like commissioning lighting when it's installed, setting up preset scenes and animations, or controlling colour.



At the centre of it all is the *Casambi App*. Designed by *Casambi's* user interface team (some of whom were previously with mobile phone giant Nokia), *Casambi's App* is designed to make it easy for anyone to commission and control lighting.

The App employs intuitive gesture control: tap a luminaire to turn it on or off, swipe side to side to adjust brightness, up and down for colour temperature, or hold to change the colour. The unique gallery feature even lets users upload their own photos of a space, mark the positions of the luminaires, and use this to select and control them.

The App also lets users recall preset scenes, animations and dim levels, and set the lighting scene to change at a particular time.

What does smart lighting allow designers to do?

For designers, smart lighting opens up a huge new range of possibilities. It can enhance comfort, add drama and introduce flexibility, giving users the power to create the lighting conditions they need for every occasion.

Designers can introduce 'human-centric' lighting, tuning the tone and brightness of light at different times of day to keep people happy, focused and alert. Lighting installations can change for morning, afternoon and evening, or even follow the sunrise and sunset on each day.



Le Asiatique restaurant, Rome. *Casambi* technology is installed in all the LED strips and downlights by ZR Light creating the different atmospheres for lunch and dinner. Preset timer functions provides seamless transitions between lighting scenes, and a wireless switch Xpress provides manual overrides.

Casambi helps to bring flexibility and personalisation to designs, allowing users to tweak lighting to suit them. At hospitality venues, the colour of lighting can be changed to suit the branding of a company at corporate events.

In an office environment, managers can choose how much the automated control should take over the lighting and how

much control staff are given to make changes to suit their own needs and preferences.

And because no new wiring is needed, *Casambi* can bring cutting-edge control even to protected historic buildings and hard-to-access areas. Then there's the opportunity to go beyond light by using sensors built into light fittings to respond

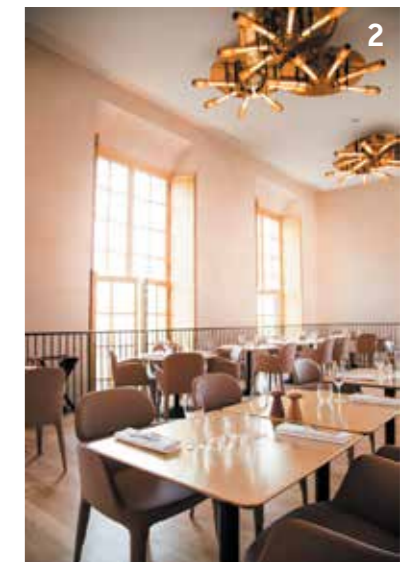
to different circumstances and share the data in the cloud for all kinds of features.

Casambi-ready luminaires are compatible with *iBeacon*, so by choosing *Casambi* as a system to manage their lights, retail and hospitality venues can also reap the extra benefits of beacons.

What kinds of projects is *Casambi* appropriate for?

Casambi provides professional-level control and can deal with an unlimited number of luminaires. People are using it in everything from private residences to large-scale office and retail projects.

Because *Casambi* requires no new wiring, it's a particularly attractive choice for retrofit projects, historic buildings and temporary installations such as museum exhibitions, retail displays and even pop-up shops.



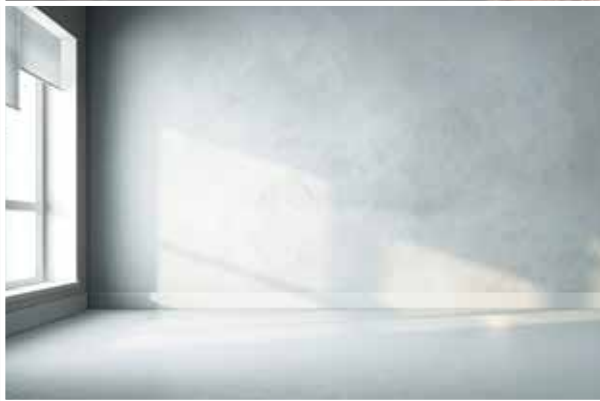
Notable *Casambi* installations include:

- 1 Royal Academy of Arts, London
- 2 The Palace of Versailles
- 3 The Rialto Bridge in Venice
- 4 Germany's Hetzenhof Golf Club
- 5 Le Asiatique restaurant in Rome

- 6 The Lululemon fashion store in London
- 7 Halluscinations by Enzo Catellani
- 8 The headquarters of private equity firm Ratos in Stockholm
- 9 Registers of Scotland HQ in Edinburgh
- 10 Social and Healthcare Center JUST, Finland



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