The Royal Academy of Arts

Case Study
There can be few more demanding applications for lighting than at the Royal Academy of Arts (RA) in London.

The Main Galleries in the Royal Academy’s Burlington House building host world-class exhibitions, with recent highlights including Ai Weiwei, Anish Kapoor and The Real Van Gogh: The Artist and His Letters.

With exhibitions changing every few months, the lighting schemes within the galleries have needed to be adapted quickly. And now, thanks to a smart wireless lighting control system from Casambi, the RA Estates team can adjust and control the lighting at the touch of a button.

Until recently, the RA's galleries were lit by in excess of 3,000 halogen fittings with only basic mains dimming. But, working with engineering consultants Arup, the RA wanted to upgrade to a more efficient and longer-lasting solution, with more flexible and sophisticated controls.

Arup and the RA provided a performance specification and three companies were invited to present solutions. After several rounds of mock up installations, iGuzzini
was finally selected as the best overall fit with its Palco LED spotlights, with drivers from eldoLED. To enable smart wireless control, iGuzzini ensured all the luminaires were integrated with Casambi modules, making them compatible with the Casambi control system.

Casambi’s unique system, based on Bluetooth Low Energy (BLE), enables users to communicate directly with luminaires – individually or in groups – from a tablet or smartphone. It’s completely wireless and doesn’t rely on a Wi-Fi router, gateway or any other hardware. All you need is an iOS or Android mobile device and the free Casambi app.

Casambi is now up and running in Burlington House, which houses the RA’s main exhibition space. It is also being installed in the Sackler Wing of Galleries, and in their Burlington Gardens building that has been refurbished for the RA’s 250th anniversary this year. The first exhibition to benefit from the new lighting control system was of work by American artist Jasper Johns.

the Casambi control system means there’s no longer a need to climb up onto a platform just to simply dim individual lights up or down. Lighting can now be controlled at the touch of a button, and last-minute tweaks can be easily accommodated. The LED luminaires can be dimmed all the way to 0.1%, so that exactly the right light level can be achieved for every artwork. The team can also automate the lighting with pre-set scenes and timers, opening up new possibilities.
The Casambi Bluetooth module is integrated inside the body of the luminaires, so it doesn’t detract from the appearance of these sleek, minimal fittings. The Bluetooth module, LED light source and driver are all separate components that can be individually replaced, making any maintenance much easier.

The Casambi system has also been installed in workshop spaces for community and teaching groups. Previously the controls for these spaces were limited to on/off, and workshop facilitators needed help from the RA’s technical staff to make changes. Now they can easily switch between pre-set scenes for different activities, such as presentations and individual work. Thanks to Casambi’s visitor permissions settings, external facilitators can control the lights just as easily as in-house staff.

“The RA is run by 80 elected Royal Academicians, artists and architects. Working under such leadership, it’s essential that we get this right,” said the RA’s estates operations supervisor, Claire Sadler. The RA’s curators and exhibition stakeholders just couldn’t believe how quickly requests can now be dealt with. “Normally they’d take notes and then someone would come in late at night or early the next morning to get up on a mobile platform and make the changes. Now they can just stand next to our technician and say, ‘brighter, brighter, brighter, stop’, or ‘let's bring these two works together’. That’s a huge improvement for us.”
“The breadth of what we can achieve now is much greater. We’re able to use each luminaire in a unique way, and use the grouping function to link several luminaires and assign them to a specific artwork.

“We’re working now with the Curatorial team to try out lighting for the next exhibition in the Main Galleries, using models and paint colours and so on. We didn’t have that flexibility before, it would have been very time consuming, whereas now one of us can easily do that on the fly.”

The Casambi app is designed to be simple and intuitive, so anyone can use it without specialist expertise. The unique gallery feature lets users upload their own photos or plans of a space, mark the positions of the luminaires, and then use this to select and control them. This makes it easy to find the fitting you want to control, and for new users to understand the lighting setup.

The app is also futureproof – updating itself automatically, and delivering firmware updates wirelessly to the luminaires when required.

At the RA, Casambi has shown itself to be an ideal solution for introducing smart, sophisticated wireless control in a setting where the lighting has to be perfect – and all without introducing any new wiring.
Casambi units used

- 3800 x CBU-ASD
- 200 x CBU-PWM4

Functionality used

- Scenes
- Gallery
- Sites
- Gateway
- Timers

Special notes

The audiovisual technicians of The Royal Academy of Arts do their own commissioning of the Casambi lighting control solution for every exhibition they have.

After an exhibition, all luminaires are unpaired from the Casambi lighting control solution and all luminaires are taken away. When a new exhibition is created and all new art pieces have been brought into the space, the luminaires are again being setup in new places and paired again to the Casambi lighting control system.

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