Stratosphere Tower gets a lighting retrofit

Bluetooth mesh standard reaches new heights

The Bluetooth mesh lighting control ecosystem continues to grow at an exponential rate. In November, the number of Bluetooth SIG-qualified mesh products available on the market increased to more than 400. That same month, a Bluetooth mesh lighting network was installed inside one of North America’s most spectacular structures. Components with the Silvair firmware were used to retrofit the lighting system in the iconic Stratosphere Tower, the tallest freestanding observation tower in the U.S.

Rising majestically over the Las Vegas skyline, the 1,149 ft Stratosphere Tower is the city’s signature attraction. On its 108th floor, there is an indoor observation deck that offers stunning wraparound views of the Las Vegas Valley. It includes food and beverage outlets, and provides plenty of space for visitors. The observation deck itself was remodeled in July 2019. This was followed by a lighting retrofit carried out in November. The owner wanted an easy way to functionally create independent lighting scenes without having to wire in a control system. Bluetooth mesh lighting controls were a perfect match for these requirements.

As part of the retrofit, precisely 100 LED downlights were installed across the space. They were divided into 11 groups, with each group controlled by a Bluetooth SIG-qualified Fulham EliteControl fixture controller. The component provides downlights with robust Bluetooth mesh connectivity and full lighting control capabilities. The system was set up using eliteBlue, Fulham’s smartphone app for commissioning, customizing, and monitoring mesh-connected luminaires. High- and low-light scenes were then created for each zone to allow for different mood lighting.
With visitors from all over the world storming the observation deck on a daily basis, it was particularly important to minimize the duration of the retrofit project, and to prevent any serious disruption in the already-remodeled space. Wireless controls powered by Silvair and the Bluetooth mesh standard met these requirements exceptionally well, enabling a quick and clean retrofit with no cables or central control boxes. As a result, the Stratosphere Tower seamlessly upgraded the lighting system to provide its visitors with an even more welcoming and exhilarating experience.

**Fulham EliteControl fixture controller**

A simple, easy-to-install component that connects to an existing 0-10V dimmable luminaire to add the globally standardized Bluetooth mesh connectivity. Fulham’s fixture controller is an ideal solution for luminaire makers looking to develop their Bluetooth mesh product lines, or contractors seeking to provide wireless lighting options in the field. Robust wireless control capabilities are provided by the Silvair firmware.

**BENEFITS**

- Non-disruptive installation
- Easy commissioning
- Lighting scene flexibility
- Cost-efficient implementation

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