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‘World-first six-sided immersive LED cube’ opens to public

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Built with 243 sqm of custom-designed Alfalite 1.95mm LED panels, the cube can be seen at an Antoni Gaudi exhibition at the Casa Battlo museum in Barcelona.

The world’s first fully immersive six-sided LED cube has opened to the public at the Casa Batlló, a modernist museum in Barcelona dedicated to the architect Antoni Gaudí.

The cube, which is 10 metres long by 9.5 metres wide and 2.75 metres high, has six internal faces built with 243 sqm of custom designed Alfalite 1.95mm LED panels. Alfalite also designed and manufactured an automatic door mechanism that has been integrated into one of the LED walls with such precision that it cannot be distinguished when it is closed.

The cube forms part of the 10D Experience, a new exhibition which offers a journey into the mind of Gaudí using the most advanced technology. Content for the cube was provided by the Turkish-American artist Refik Anadol with systems integration by Vitelsa.

The Alfalite ModularPix Pro ORIM Cube panels used in the Gaudí Cube feature have the following specs: 1.95mm, 1,900 nits, 3,840Hz, 175º viewing angle, average energy consumption of 30W, HDR, 16 bits and low latency. The almost 70 million pixels generated by the installation are managed by 24 Novastar MCTRL4K control systems.

The project also makes use of the fourth generation of Alfalite’s patented ORIM (Optical Resin Injection Module) technology. Optical injection of resin in the LED modules allows for: greater precision between

modules (<0.5mm), an improved horizontal and vertical viewing angle of 175°, superior antistatic electricity protection (ESD > 10kV), better fire resistance (with UL94-compliance), greater protection against damage from bumps and water, easier cleaning and less deterioration, and the shortest repair time on the market.

A double antistatic system has also been developed to protect the LED, both for discharge through the chassis of the floor panels and for the environment. The system uses a high-speed detection ioniser system and protection system for the floor of the walkable LED screens.