SOLATUBE. Innovation in Daylighting.

V&A Museum, Dundee

Museums

Case Study



CLIENT V&A Museum, Dundee Scotland

CHALLENGE

Integrate energy-efficient natural lighting in the V&A Museum's ground-breaking design.

RESULTS

Daylighting incorporated throughout the building to enrich the building design.

PRODUCT

60 Solatube Daylighting Systems and Daylight Dimmers

SOLATUBE INSTALLER Daylight Delivery Systems Ltd

ARCHITECT Kengo Kuma & Associates **BACKGROUND:** The Victoria and Albert (V&A) Museum in Dundee, Scotland, was built in 2015 at Craig Harbour right on the banks of the River Tay, reconnecting the city with its beautiful and historic riverside.

As the first-ever dedicated design museum in Scotland and the only other V&A museum anywhere in the world outside London, V&A Dundee provides a place of inspiration, discovery and learning through its mission to enrich lives through design.

"One of the areas that needed good levels of natural light is the main double height foyer."

- Laura Phillips Associate Director, Lighting ARUP

CHALLENGE: One of the most significant challenges encountered with V&A Dundee's ground-breaking design was how to deliver natural light to the main lobby: a double-height space with uncommon angular wall areas and small, horizontal, slot-like windows partly screened by the precast panels.

In addition, the design required that the Solatube Daylighting Systems create the impression of "floating" between the roof and an open mesh layer below the roof.



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SOLUTION: Senior lighting designers from ARUP and Matthew Rice at Solatube Scotland worked together to design the daylighting in the main area of the museum. 60 330 DS-O Solatube Daylighting Systems were used to enrich the building with natural light, allowing visitors to appreciate the changing weather conditions outside, and to balance natural light with the artificial lighting in the central areas.

To achieve the "floating" look, the 2.5 metre-long reflective extension tubes used to pipe in the daylight were externally laminated in a specified shade of grey to match the underside of the roof structure, thus making the tubing virtually invisible, so the daylight appeared to come from "hovering" diffusers several metres below the roof.

Solatube Daylight Dimmers were also fitted to each Solatube system to allow for complete control of daylighting for different exhibitions and full integration with V&A Dundee's artificial lighting system.

RESULTS: "One of the areas that needed good levels of natural light is the main double height foyer," said Laura Phillips, associate director, Lighting ARUP. "A series of Solatube Daylighting Systems allows everyone to enjoy the benefits of the natural light coming in from above."

"It's one of the spaces that people will really be encouraged to spend time in and to shop and enjoy the cafes while enjoying the quality daylighting from the Solatube systems," added Phillips.

An international center of design, V&A Dundee now offers a welcoming and inspiring naturally lit space for everyone to visit, enjoy and socialize in.

