

ASU Student Pavilion

Education

Case Study



CLIENT

Arizona State University (ASU) in Tempe, Ariz.

CHALLENGE

Providing daylight that would penetrate deep within each floor of a multi-floor building.

RESULTS

Ability to direct daylight into the central areas of the building's second and third floors. LEED Platinum achieved.

PRODUCT

SolaMaster Series 330 and 750 DS-C

SOLATUBE INSTALLER

Norcon Industries Inc.

ARCHITECT

Weddle Gilmore Black Rock Studio

BACKGROUND: The 74,843-square-foot Student Pavilion is situated at the nexus of student activity on the Tempe campus of Arizona State University (ASU). The building, which was designed to be a Net Zero Energy building, delivers green qualities including renewable energy, energy-efficiency and zero waste to showcase of the university's goals for Climate Net Neutrality and sustainable building systems.

“The Solatube Tubular Daylighting Systems provide a level of ambiance to everyone working in the building and the natural light provided by the system makes working, studying and doing homework feel better.”

*-Tucker Brown
Arizona State University student*

CHALLENGE: One of the most significant challenges encountered with this project was how to deliver natural daylight to the collaboration corridors on both the second and third floors of the building. With the



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third level corridor positioned directly above the second level, traditional skylights were not a viable option. The design team needed a flexible approach that could travel approximately 35 feet in distance and include three 90-degree bends.

SOLUTION: In order to properly daylight the 21,000-square-foot space on each level and meet design goals, Weddle Gilmore Black Rock Studio utilized the Solatube SolaMaster Series 330 and 750 DS-C units.

To ensure a consistent amount of daylight, the design team used Solatube's proprietary Design Calculator to determine the number of units needed on each level and the amount of light that the Solatube Daylighting Systems would bring into the spaces.

Thermal insulation panels were also added to limit the amount of heat transfer into the building from the roof, and extension turrets were used to raise the outer domes and limit the amount of shade cast upon the devices.

RESULTS: The building has achieved LEED Platinum certification and natural daylight fills the area over communal work and gathering tables within the space, improving the health and wellbeing of students, faculty and staff.

"With Solatube, we were afforded the opportunity to deliver natural daylighting into deep zones of the building, allowing spaces to have an enhanced quality of light which has directly impacted occupant comfort," said Philip Weddle, FAIA.

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