

COMMERCIAL BUILDING furnished with SKY TILE SKYLIGHT. The Emission-radiation control system

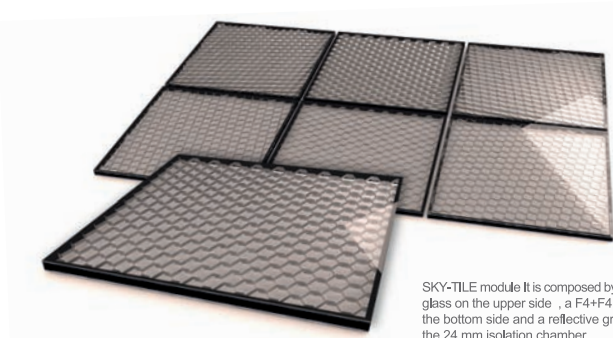
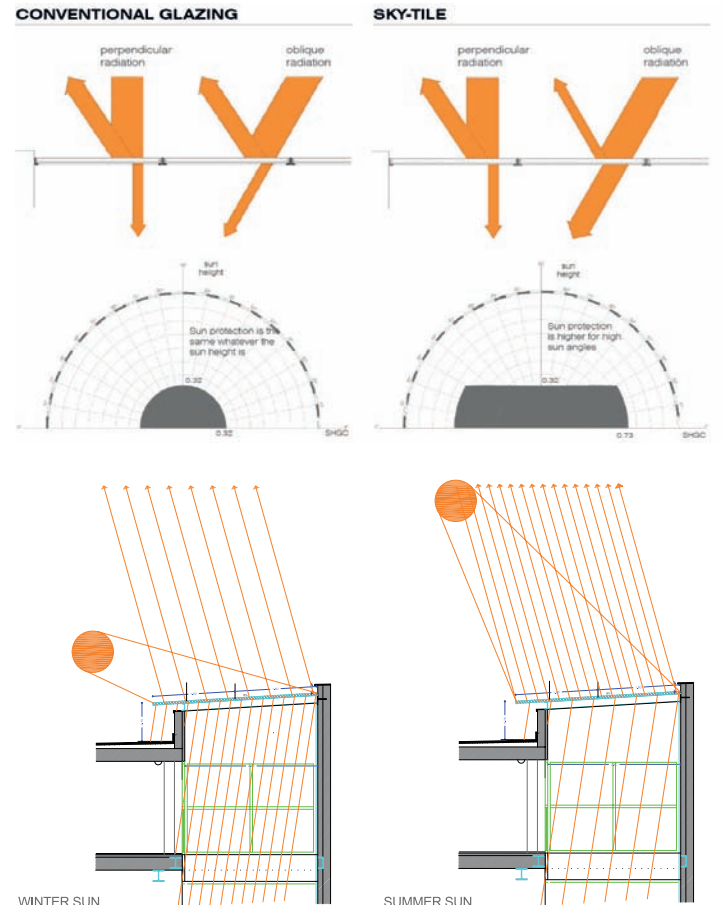
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This building is for commercial purposes, it is located near Barcelona city centre at Portaferrissa street. It was projected and executed according to the Leed certification. Espacio Solar has developed a new skylight system SKY-TILE in order to achieve control in the patio's lighting.

The result is a skylight that gives more solar protection when the weather is hotter like spring and summer noon hours, while it gives maximum transparency along autumn and winter months when sun and daylight are more needed. The SKY-TILE modules are easily adaptable to the skylight, and consist of an external tempered glazing, air chamber and internal safety laminar glazing which offers a standard coefficient of $U = 2m7 \text{ w/m}^2K$. This coefficient can be improved by introducing argon into the air chamber.

The special geometry of the grid offers a selective transmittance to light and solar radiation related to sun position. The different geometries of the reflecting grid that can be placed inside the air chamber reflect radiation according to solar position. In general those grids are designed in order to be more opaque when sun rays are more vertical and more permeable when sun rays are more oblique. Anyway the grid can be designed in order to achieve different goals.

As you can see in the pictures, all the elements are fixed, they do not have any movement and do not need maintenance. The materials of the SKY-TILE module, such as glass and the high reflectance stainless steel which forms the grid are noble materials and totally recyclable.



SKY-TILE module It is composed by a tempered T6mm glass on the upper side, a F4+F4 laminated glass on the bottom side and a reflective grid located inside the 24 mm isolation chamber.

