

PHOTOVOLTAIC SKYLIGHT NEW CONSTRUCTION

The PV integration made in the NESR's Oilfield Research and Innovation Center in Dhahran Techno Valley in Saudi Arabia marks a significant step towards sustainable energy integration in buildings.

Featuring **an argon chamber**, the PV glass units offer **thermal insulation and energy efficiency**, ideal for Saudi Arabia's hot climate. This technology not only generates clean energy but also ensures **comfortable indoor temperatures**, enhancing the complex's sustainability.

The photovoltaic skylight produces about **135,000 kWh per year** and also contributes significantly to user's comfort as our glass **filters out ultraviolet and infrared radiation** while allowing natural light to pass through.

The skylight, with its unique **curved shape**, involved the fabrication of over **200 different glass shapes to meet the architect's requirements**. Additionally, the project includes a carport that provides shade to vehicles and generates 70,000 kWh per year, further contributing to the facility's sustainable energy goals.



TECHNICAL DATA

Nominal Power (Wp/m ²)	138 Wp/m ²
Visible Light Transmittance (VLT)	31%
Solar Factor (g-value)	25%
U value (W/m ² K)	1.60
U value (Btu/h ft ² °F)	0,21
Light Reflection (external)	8%



TECHNICAL DATA SHEET



OILFIELD RESEARCH CENTER DHAHRAN TECHNO VALLEY, SAUDI ARABIA SKYLIGHT

CRYSTALLINE SILICON TECHNOLOGY



MORE INFO IN VIDEO



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