



Téléchargé sur [www.TALEV.fr](http://www.TALEV.fr)  
base de donnée "Photovoltaïque et Bâtiment"

MSK Solar Design Line™

**Light Thru™**

Building Integrated Glazing System



 **SUNTECH**



**Light Thru modules dispel the myth that solar technologies are unattractive or difficult to design into a building. With the flexibility to specify the desired size and light levels passing through the glass, Light Thru is both a power generator and an aesthetic sunshade in one architecturally refined package.**

**Suntech's Light Thru modules use crystalline solar cells sandwiched between two sheets of glass with space left between the cells to allow light to shine through. Light Thru modules enable architects to design striking solar canopies, atria, skylights, and vertical facades.**

## 01 Six reasons to choose Light Thru

**Solar and Glass Combine to Create a Striking Appearance:**  
Combination of crystalline solar cells and glass creates aesthetically pleasing solar system that becomes a talking point.

**Inherent Shading Capability:**  
Solar cells give an attractive shading pattern at the same time as generating energy directly from sunlight (avg. 80-110W/m<sup>2</sup>).

**Made to Your Specifications:**  
Size and cell type can be specified by client. Cell spacing can be adjusted to vary light levels.

**Available in Polycrystalline or Monocrystalline:**  
Polycrystalline or monocrystalline cells with highest efficiency can be specified to maximize energy harvest.

**Significant Reduction In Building Costs:**  
Building Integrated design eliminates redundancy of materials, reducing total material costs.

**Hassle-free Installation**  
Manufactured with diodes and plug & play connectors for safe, easy installation.





Téléchargé sur [www.TALEV.fr](http://www.TALEV.fr)  
base de donnée "Photovoltaïque et Bâtiment"

## Light Thru: flexible solutions for any PV glazing application



### Specify the Glass Type

As with standard architectural glass, Light Thru can be specified to meet the needs of practically any glazing installation. While it is recommended that the top sheet be specified as ultraclear low-iron glass to maximize energy conversion efficiency, the bottom sheet can be specified as colored or fritted glass. Modules can also be fabricated into insulated glass units.

Different colored cells are also available, please inquire for details.

### Specify the Glass Thickness

Options for size: Any size up to 3000 x 2000 mm.

Options for construction: Glass thicknesses from 3.2 to 12mm. Cells are laminated in EVA or PVB and sandwiched between 2 sheets of glass or between glass (front) and clear tedlar (back). Tempered glass must be used.

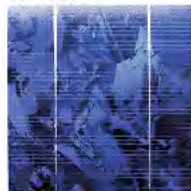
Options for Photovoltaic cells

Monocrystalline  
125mm



Black squares,  
rounded corners  
with highest efficiency

Polycrystalline  
156 mm



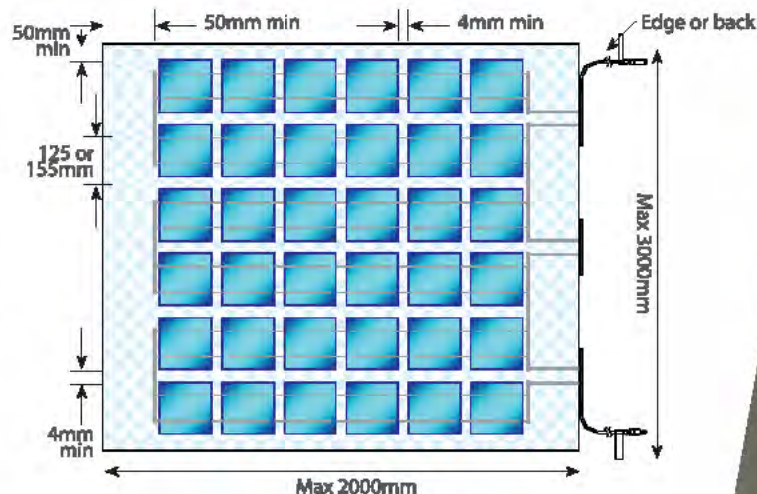
Blue squares, square corners,  
with slightly lower efficiency,  
but comparatively lower cost

### Specify the Cell Spacing

Cell-to-cell spacing can be 4 mm or 10-30mm. (please inquire for larger cell spacing). Spacing of cell rows (strings) can be 4mm or higher.

Options for Connectors

125mm: edge or back surface of glass  
156mm: back surface only





Téléchargé sur [www.TALEV.fr](http://www.TALEV.fr)  
base de donnée "Photovoltaïque et Bâtiment"



Light Thru  
is custom-built to  
your specifications





## CASE STUDY 1: JINGYA HOTEL

This hotel in central Beijing features a complex pattern of Light Thru modules to form an innovative front façade. The modules are laminated in PVB with a frosted finish.

Location: Beijing  
Installation Size: 80kWp, 1972m<sup>2</sup>





Téléchargé sur [www.TALEV.fr](http://www.TALEV.fr)  
base de donnée "Photovoltaïque et Bâtiment"



## CASE STUDY 2: REI PROTOTYPE STORE

Building designed to USGBC LEED Silver standards  
Fabricated into insulating glass (IG) units  
Specified with frosted glass to reduce glare between cells

Location: Boulder, CO  
Design: Gensler  
Installation: Super Sky  
Total output: 4.3kW

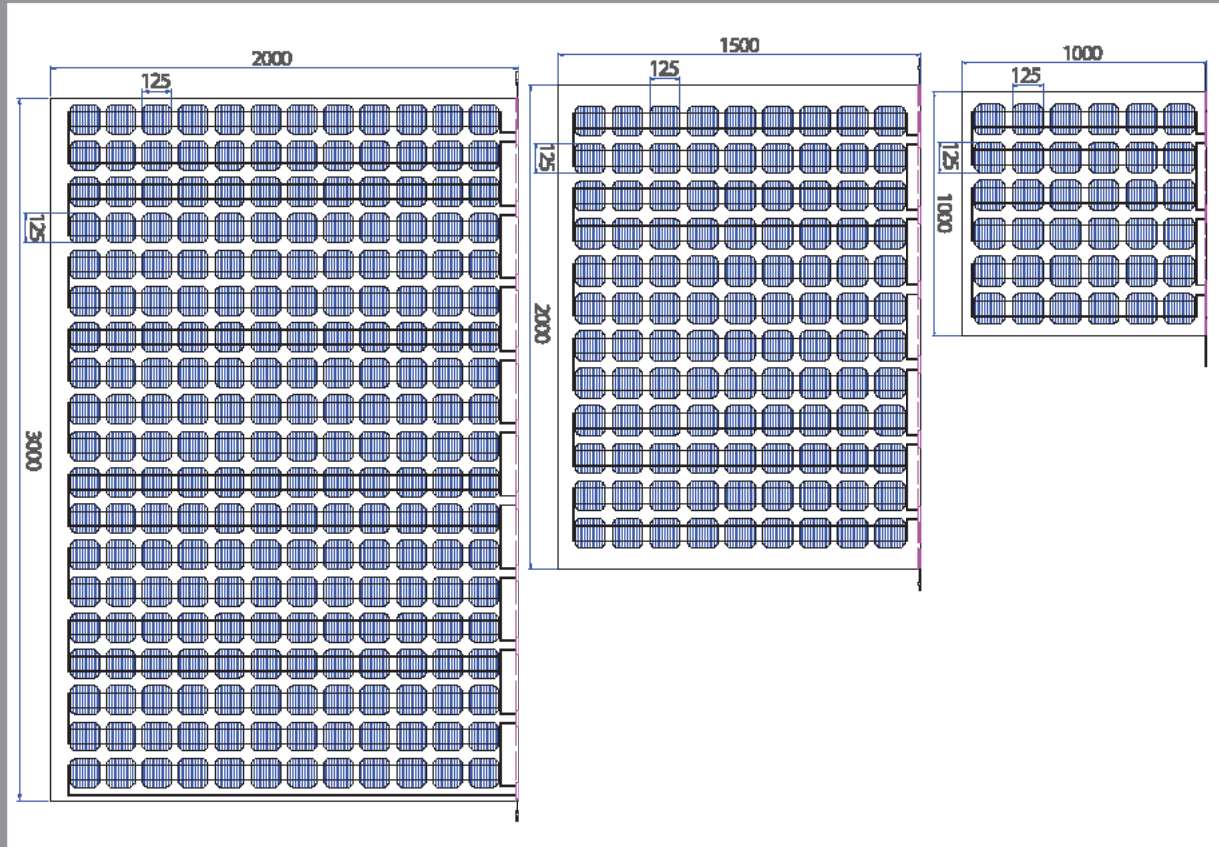




Light Thru modules are made to custom order (refer to page 3 for options).  
Examples of typical characteristics are given as a guide.

Length (m)	1	1	1	2	2	2	3	3	3
Width (m)	1	1	1	1.5	1.5	1.5	2	2	2
Cell spacing (mm)	4	15	30	4	15	30	4	15	30
Transparency (%)	25		45	18	30	45	18	26	43
Cells (No)	7x7	6x6	6x6	11x15	10x14	9x12	15x22	13x21	12x19
	49	36	36	165	140	108	330	273	228
Pmax (W)	109	80	80	368	312	241	736	609	509
Vpm (V)	25.0	18.4	18.4	84.2	71.4	55.1	168.3	139.2	116.3
IpM (A)	4.37	4.37	4.37	4.37	4.37	4.37	4.37	4.37	4.37
Voc (V)	30.1	22.1	22.1	101.5	86.1	66.4	203.0	169.7	140.2
Isc (A)	4.80	4.80	4.80	4.80	4.80	4.80	4.80	4.80	4.80
Wind load (Pa)	27,563	27,563	27,563	9,188	9,188	9,188	4,594	4,594	4,594
Snow load (Pa)	18,375	18,375	18,375	6,125	6,125	6,125	3,063	3,063	3,063

(Loads assume module is fixed on all four sides. Glass thickness 5mm+5mm tempered glass.)



**DISCLAIMER:**

The products provided by Suntech are provided on an "as is" basis. Suntech makes no representation and gives no warranties of any kind, express or implied, in respect of the products provided by it, including, but not limited to, the warranties of merchantability or fitness for a particular purpose. There is no warranty by Suntech that the operation of the products will be uninterrupted or error-free.

IN NO EVENT SHALL SUNTECH, ITS EMPLOYEES OR AFFILIATES BE LIABLE FOR ANY LOST PROFITS, REVENUE, OR COSTS OF PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES, PROPERTY DAMAGE, PERSONAL INJURY, INTERRUPTION OF BUSINESS, OR FOR ANY SPECIAL, DIRECT, INDIRECT, INCIDENTAL, ECONOMIC, COVER, PUNITIVE, SPECIAL, OR CONSEQUENTIAL DAMAGES, HOWEVER CAUSED AND WHETHER ARISING UNDER CONTRACT, TORT, NEGLIGENCE, OR OTHER THEORY OF LIABILITY ARISING OUT OF THE USE OF THE PRODUCTS.