

Glass Analytics

ONLINE SUITE OF ENGINEERING AND ANALYTIC TOOLS FOR GLASS

Guardian Industries has developed easy-to-use, advanced software for glass and glazing system analysis. These online tools offer a comprehensive suite of engineering and analytical reports that demonstrate the advantages of high performance glass in building facades.

Guardian Glass Analytic Tools

- *Customize* product options using the *Performance Calculator*
- *Visualize* under varied lighting conditions using Guardian's *Glass Visualizer*
- *Analyze* building performance using the *Building Energy Calculator*
- *Design* using Guardian's *BIM Generator*

Customize

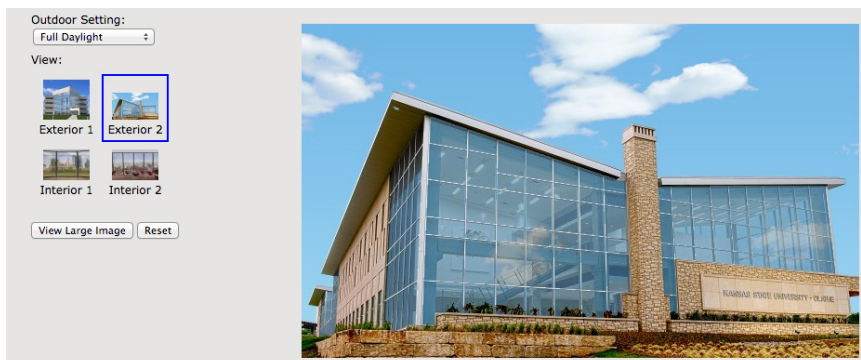
SunGuard's **Performance Calculator** simplifies creation of glass make-ups through a simple point-and-click, web-based interface. You can use the calculator to model the thermal and optical properties for glass make-ups ranging from monolithic uncoated glass to highly complex combinations of float glass substrates, coatings and interlayers. Then easily create client-ready reports comparing glass options.



		outdoor side		
LITE	Clear (North America) 1/4" = 6mm	1 -		●
		2 - SunGuard® SNX 51/23		
GAP	100% Air, 1/2" = 12.7 mm			
LITE	Clear (North America) 1/4" = 6mm	3 -		●
		4 -		
PVB	0.060" (1.52mm) Saflex® R series Clear PVB			
LITE	Clear (North America) 1/4" = 6mm	5 -		●
		6 -		
		indoor side		

Visualize

The Guardian **Glass Visualizer** dynamically generates photo-realistic images of both exterior and interior glazing views. It allows the user to evaluate the aesthetic properties of virtually any glass make-up. Just choose the glass you want to visualize, select the building and perspective that suits you, and watch how various sky conditions affect the appearance of the glass.



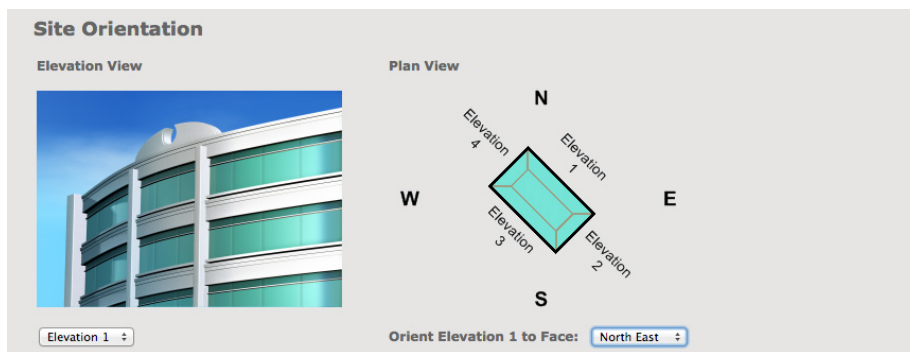
BUILD WITH LIGHT®

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Analyze

The **Building Energy Calculator** uses the make-ups created in the Performance Calculator to compare energy cost, consumption and financial payback information based on hourly simulations of glazing options, building parameters and project location. The Building Energy Calculator can be used as a schematic design tool to compare annual energy costs for a variety of exterior envelope scenarios for 63 different cities across North America to simulate a variety of climate zones.

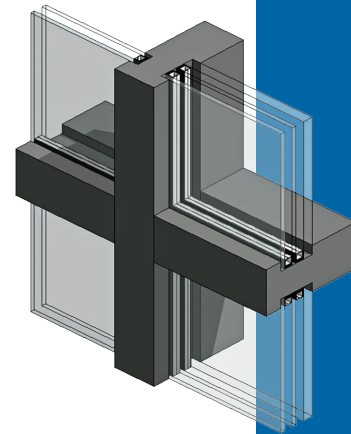


Design

The Guardian **BIM Generator** provides thermal and optical performances of the project specific custom IG makeups. It is highly detailed content with visibility settings to control the level of detailing depending on the scale of the view. Parameters give the ability to control the dimensions of the spacer systems as well as control the glass bite of the unit. Any fabrication needs for heat treatment or lamination can be specified which allows for a much more detailed glazing schedule and material takeoffs.

BIM Generator at a glance:

- Models project specific glass make-ups from simple to highly complex with unprecedented detail and control.
- Toggle between outdoor reflected and transmission color with accurate reflections for amazing renderings.
- Populates content with both thermal and optical data based on installation slope for a complete picture of glass performance.
- Standard or custom BIM content for the entire SunGuard product line.
- Models inboard and outboard lites for accurate material takeoffs.
- Content available as Revit curtainwall panels or window-based generic models.



To learn more, email us at BIMhelp@guardian.com, call us at **1-866-GuardSG (482-7374)** or visit us online www.SunGuardGlass.com

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