

## Vision Control® puts money back in owners' pocket

Vision Control® has long held the title of undisputed champion of hassle-free louvered glazing. Now recent research shows that it is also capable of tremendous performance with respect to energy savings. No matter where it is installed (cold or warm climates), it helps to reduce the peak cooling and heating loads. This results in an important decrease in energy consumption, according to a recent study from Concordia University, one of Canada's most innovative research institutions.

In terms of capital cost and annual operational energy savings, Vision Control® beats the double glazing performance in both warm and cold climates and it surpasses triple glazing in reducing cooling power consumption. Vision Control® helps architectural projects qualify for LEED credits thanks to these energy-saving features.

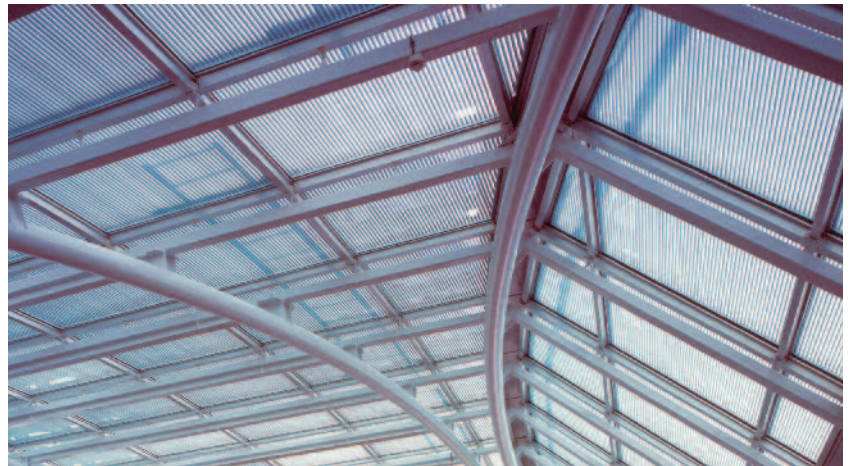
Vision Control® is a great energy saver because of its operational capabilities and its remarkable thermal performance. For example, if installed on all 4 facades of a 14-storey building, Vision Control® will reduce capital costs by \$175,000 and will annually save \$145,000 in operational energy cost more than if the building were to use double-glazed windows. This saving corresponds to four times even more money than what triple glazing windows would save.

According to the study, a skylight with a Vision Control® glazed area of 5,000 square ft. will reduce capital cost by \$25,000 and will annually save \$18,000 in operational energy cost compared to a similar double-glazed structure. The same comparison was made in the case of a wide atrium with skylights of 23,200 square ft.: Vision Control® reduces capital costs by \$80,000 and it annually saves \$65,000 in operational energy cost.

The study analyzed Vision Control® under a constant blind tilt angle, employing no control commands. Therefore, these energy savings are expected to increase when sophisticated controls are used, since this optimizes Vision Control®'s performance during daytime and night time.

The credit for Vision Control®'s good thermal performance can be attributed to the fact that

the blinds are sandwiched between insulating glass. The light propagates through the exterior glass layer, but the louvers reflect the solar heat back outside and diminish its effects thanks to the air space and the second glass layer.



The study concludes that the energy and money savings can increase with every square foot of Vision Control® added to a building, compared to double-glazing units. Although window orientation and climate influence the energy performance of the glass, Vision Control® offers considerable savings in any situation, especially in new buildings, where it reduces the need for larger cooling systems. The thermal performance of Vision Control® helps to maintain a comfortable temperature level inside.

The greatest energy savings are recorded in warm climates, when peak cooling loads are reduced, hence decreasing the electricity consumption for cooling. This makes Vision Control® strongly recommended for buildings in warm climates, where the cooling energy consumption is critical and costly. In cold climates, Vision Control® performs much better than any double-glazing unit, reducing both heating and cooling requirements.

When specifying Vision Control®, comfort and aesthetics are definitely on any architect's agenda. But with its proven record of energy effectiveness, more specifiers and facility managers are expected to plug into Vision Control®.

The simulation study used a state-of-the-art modeling tool which accounts for the continuously changing thermal environment. This allowed Vision Control® to be tested in real-life conditions. The blind tilt angle was constant at 40 degrees for cold climates and 30 degrees for warm climates. For more information on the research, please contact Unicel.