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Enhancement of SkyVision Software Used for Predicting Skylight Performance

Objectives

To enhance the capabilities and usefulness of an existing software program designed to better evaluate the performance of realistic skylights for lighting efficiency and energy savings.

Background

SkyVision is an easy-to-use, downloadable Windows™-based computer program developed by the National Research Council in a previous partnership with Natural Resources Canada and Public Works and Government Services Canada. The software calculates, for a given design day, the overall optical characteristics of various types of skylights and windows, performance indicators of skylight/room interfaces, indoor daylight availability, and lighting energy savings. The current project seeks to enhance the software in various ways.

Statement of Work

This project includes the following tasks:

- Improve the optical calculation models to include different glazing systems such as shading devices, fritted glass and scattering or diffuse glazing
- Incorporate thermal performance of windows and skylights (U-factor, Solar heat gain coefficient)
- Improve the user friendliness of the graphical user interface to accommodate the new additions
- Develop a user manual

Expected Outcomes

- Enhanced software as described for Internet downloading
- Updated user manual

Partners

Natural Resources Canada, Public Works and Government Services Canada

Start/Completion Dates

The project began in 2004 and will be completed in 2008.

Project Manager

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For more information see http://irc.nrc-cnrc.gc.ca/ie/lighting/daylight/skyvision_e.html

Factsheet 34, October 2007



Skylights can enhance a building if properly designed and installed



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