











behavior cannot be predicted without a detailed thermal model.

**ACKNOWLEDGMENTS**

Glazing system research at the University of Waterloo is funded largely by the Energy Efficiency Technology Division, Department of Energy, Mines and Resources Canada. We would like to thank Tremco Ltd. (Toronto) and Edgetech Ltd. (Ottawa) for building the various edge-seal and seal material test sections.

**REFERENCES**

ASHRAE. 1985. *ASHRAE handbook—1985 fundamentals*, fenestration chapter, table 13. Atlanta: American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc.

Baker, J.A.; Wright, J.L.; and Sullivan, H.F. 1988. "Screen graphics software for the VISION glazing system analysis program." Solar Energy Society of Canada, Inc. (SESOCI) conference, Ottawa, Canada, June.

Carpenter, S.C. 1987. "The effect of frame design on window heat loss—phase 1." Report by Enermodal Engineering for Energy,

Mines and Resources Canada.

Rubin, M.; Arasteh, D.; Hartman, J. 1985. "WINDOW: a computer program for calculating U-values and shading coefficients of windows." Lawrence Berkeley Laboratory.

Sullivan, H.F., and Wright, J.L. 1987. "Recent improvements and sensitivity of the VISION glazing system thermal analysis program." *Proc. of the 12th Passive Solar Conference*, ASES/SESOCI, Portland, OR, July, pp 145-149.

Wright, J.L., and Sullivan, H.F. 1987. "VISION: a computer program for the detailed simulation of the thermal performance of innovative glazing systems" International Conference on Building Energy Management, Lausanne, Switzerland, September.

Wright, J.L., and Sullivan, H.F. 1988. "Glazing system U-value measurement using a guarded heater plate apparatus." *ASHRAE Transactions*, Vol. 94, Part 2.

Wright, J.L., and Sullivan, H.F. 1989. "Natural convection in sealed glazing units: a review." Presented at the 1989 ASHRAE Winter Meeting, Chicago, CH-89-5-2, for inclusion in *ASHRAE Transactions*, Vol. 95, Part 1.