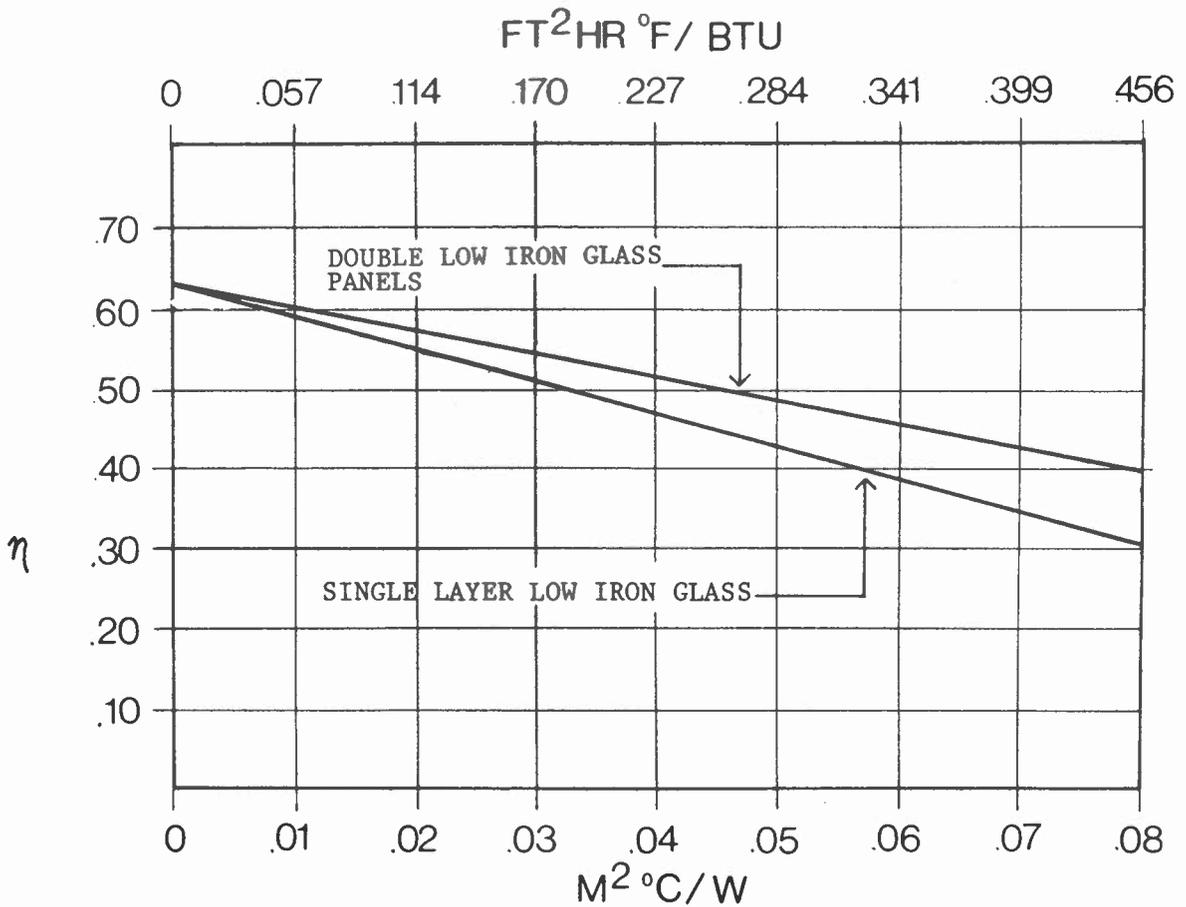


APPENDIX B.1 COLLECTOR TECHNICAL INFORMATION

This information is for a 16 x 20 ft. MODEL-TEA collector with a volumetric air flow rate of 3 CFM per square foot.

	$F_R$	$U_L$ (Btu/hr ft <sup>2</sup> F)	( $\tau\alpha$ )
SINGLE GLASS	0.72	1.10	0.86
DOUBLE GLASS	0.80	0.65	0.78



Efficiency of full-size collector

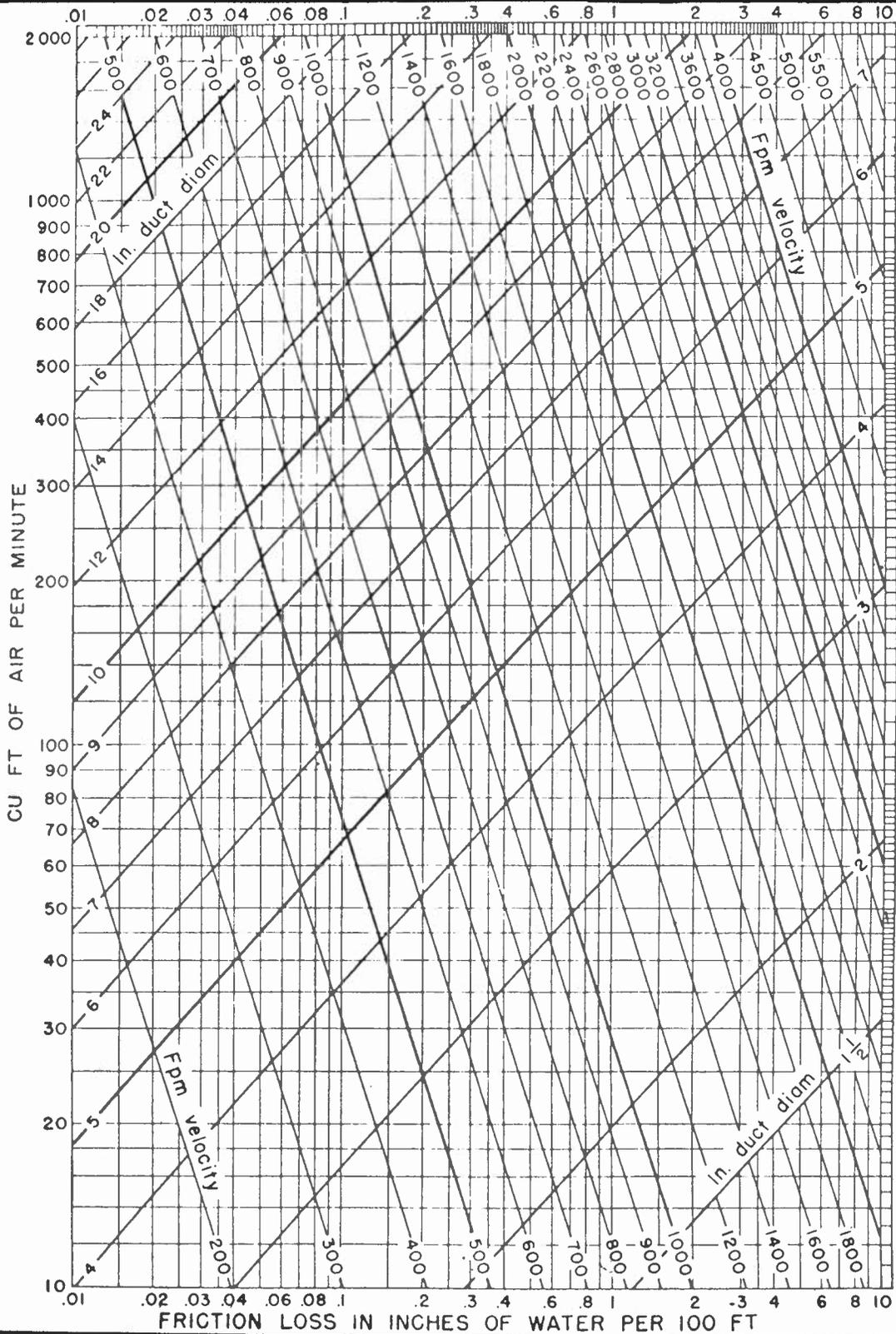
APPENDIX B.2SYSTEM INFORMATION

The following system technical parameters were used in the f-Chart computer performance calculations.

Storage Capacity	15 Btu/°F ft <sup>2</sup>
Effective Building UA	625 Btu/hr°F
Constant Daily Building Heat Generation	2500 Btu/hr
Hot Water Usage	60 gal/day
Water Set Temp.	140°F
Water Main Temp.	55°F

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Friction of Air in Straight Ducts for Volumes of 10 to 2000 cfm



FROM ASHRAE 1977 FUNDAMENTALS

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APPENDIX B.3RELATED TECHNICAL PAPERS

"Evaluation of Six Designs for a Site-Fabricated, Building Integrated Air Heater. Part I: Theoretical Performance," Proceedings of the 1978 Annual Meeting of the American Section of the International Solar Energy Society, Vol. 2.1 (September, 1978) (J. Coleman, J. Kohler, P. Sullivan, P. Temple).

"Evaluation of Six Designs for a Site-Fabricated, Building Integrated Air Heater, Part II: Cost, Seasonal Performance, Building Integration, Reliability and Aesthetics," Proceedings of the 1978 Annual Meeting of the American Section of the International Solar Energy Society, Vol. 2.1 (September, 1978) (J. Coleman, J. Kohler, P. Sullivan, P. Temple).

"Development of a Site-Fabricated, Building Integrated Air Collector, Part I: Evaluation of Alternative Collector Designs," Proceedings of the First Annual New England Site-Built Collector Conference, December, 1978 (J. Coleman, J. Kohler, P. Sullivan, P. Temple).

"The MODEL-TEA Site-Fabricated Building Integrated Air Collector," June, 1979. ASHRAE Annual Meeting (J. Kohler, P. Sullivan, P. Temple).

"Assessment of Site-Fabricated Air Heaters", excerpted from TEA Interim Report on Grant No. EG-77-6-0404123, April 28, 1978. Available from TEA. (J. Coleman, J. Kohler, P. Sullivan, P. Temple).

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APPENDIX C.1

OTHER SITE-BUILT DESIGNS

Nicholson Design:

Ayer's Cliff Centre for Solar Research  
P.O. Box 344, Ayer's Cliff, Quebec Canada

Ecotope Group  
2332 East Madison  
Seattle, WA 98112

NMSEA  
P.O. Box 2004  
Santa Fe, NM 87501

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APPENDIX C.2PUBLICATIONSBooks

"The Solar Home Book: Heating, Cooling and Designing with the Sun", Bruce Anderson, Brick House Publishing Co., Andover, MA (1976)

"Solar Energy: Fundamentals in Building Design", Bruce Anderson, McGraw-Hill, New York, NY (1977)

"Solar Heating Design by the f-Chart Method", William A. Beckman, Sanford A. Klein, John A. Duffie, John Wiley & Sons, New York, NY (1977)

"Fundamentals", ASHRAE Handbook & Product Directory, 1977, ASHRAE, New York, NY (1977)

"Installation Standard for One & Two Family Dwellings and Multi-family Housing including Solar", Sheet Metal and Air Conditioning Contractors National Association, Inc., 8224 Old Courthouse Road, Tysen's Corner, Vienna, VA (1977)

"Model Document for Code Officials on Solar Heating & Cooling of Buildings", Second Draft, U.S. Department of Energy, Washington, D.C. (1979) Not a law. Does show how to use solar and still comply with local building codes.

Magazines

Solar Age. SolarVision, Harrisville, NH 03450. Monthly. \$20 per year. Articles on projects, ideas, events, new procedures.

Solar Engineering Magazine, 8435 N. Stemmons Freeway, Dallas, TX 75247. Monthly. \$15 per year. Information about products and systems.

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APPENDIX C.3

ORGANIZATIONS

National Solar Heating and Cooling Information Center, Franklin Research Center, Philadelphia, PA 19103. Hotline. (800) 523-2929 or in Pennsylvania (800) 462-4983. In Alaska and Hawaii call (800) 523-4700. Information on all aspects of solar energy.

State Energy Offices. Call the National Solar Heating and Cooling Information Center (see above) for latest listing for your state.

Federal and State Incentives. Call the National Solar Heating and Cooling Information Center for latest Federal incentives and your State Energy Office for those applying to your state.

Brace Research Institute, McGill University, Montreal, P.Q. CANADA. Plans, books and reports.

Farallones Institute, 1516 Fifth St., Berkeley, CA 94710. Plans, books and reports.

National Center for Appropriate Technology, 3040 Continental Drive, Butte, MT 59701. Fact sheets, pamphlets.

National Climatic Center, Federal Building, Asheville, NC  
Weather data.

New Alchemy Institute, P.O. Box 432, Woods Hole, MA 02543. Books, journal and reports.

Total Environmental Action, Inc., Church Hill, Harrisville, NH 03450. Books, workshops, consulting, research and reports.

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