



## The Light Pipe

Lorne Whitehead's Light Pipe carries light around corners in the dark. Sunlight goes in one end and comes out almost undiminished at the other. The pipe is a square acrylic tube with inner walls of mirrors that reflect 100 per cent of the light. The mirrors are smooth on the inside with rows of 45-degree, sawtooth ridges – precisely moulded prisms – on the back. The principle – Total Internal Reflection – is the same as in fibre optics, but the pipe costs only a fraction as much.

Mr. Whitehead, who began as a graduate student in physics at the University of British Columbia, took five years to find a way to get the kinks out of the ridges.

The light source can be clear metal halide, high-pressure sodium, compact source iodide (CSI), incandescent lamps or sunlight.

Since the light in the pipe comes from a single source, it is an ideal way to illuminate difficult places – swimming pools, atriums, gymnasiums. The light is spread evenly and reflectors send it

around 90-degree corners. With an opaque sleeve it is a conduit; without one it is a long, glowing luminaire. Since it produces only a fifth as much heat as conventional lighting, it can be used efficiently in refrigerated or air-conditioned areas, and since it has no electrical current or glowing wires it can be used without fear where explosives or highly combustible materials are stored and in recording studios where electrical interference can distort sound.

It costs \$50 a foot before installation, which is more than the cost of conventional lighting, but since the pipe reduces energy, bulb replacement and the cost of installation and cleaning, it pays for itself. (Mr. Whitehead's company, TIR, and Canada's National Research Council are installing a pilot heliostat on top of a Vancouver building, which will distribute sunlight throughout the building.)

Those interested should get in touch with S. Newton Hockey, Marketing Director, TIR Systems, Ltd., 2227 Quebec Street, Vancouver, British Columbia V5T 3A1, (604) 873-1683.

## MOMA's Boy

Thomas Lamb designs folding chairs. Some are for dining, some for lounging, some are black, some natural, some laquered. All are elegant, comfortable and moulded in nine-ply, long-grain maple veneer. He also makes chaises longues, pedestal tables, trestle tables and ottomen. The full array, called the Steamer Collection, won a Gold International Business Designers award and is in the Museum of Modern Art. They are not cheap (this lounge chair costs \$340 wholesale, about double retail) but they are sturdy, long-lived and classically handsome. Write or call Michelle Gilgan, Ambient Systems Ltd., 76 Richmond Street East, Toronto, Ontario M5C 1P1, (416) 863-0863; or Nancy Doud, Ambient Systems Inc., Merchandise Mart, Suite 861, Chicago, Illinois 60654, (312) 644-2111.

