



AN INTRODUCTION TO DAYLIGHTING WITH SKYLIGHTS

Properly designed, daylighting measures utilizing high performance skylights can play a major roll in reducing America's peak electrical load demand by replacing electrical lighting with daylighting for approximately 70% of daylight hours. According to John McHugh, a research Mechanical Engineer with the Heschong-Mahone Group (a pioneer in daylighting sciences / www.h-m-g.com), if America were to retrofit the existing buildings that make sense to daylight with skylights, the reduced peak load is worth approximately 20,000 Megawatts. That is equal to output of 20 Three Mile Island nuclear power plants.

*As of December 1, 2007, Wal*Mart, a leader in the daylighting movement, has approximately 400,000,000 square feet of daylighted stores across the United States. With a connected lighting load of approximately 1.2 watts per square foot, Wal*Mart's reduced peak load is equal to over 400 megawatts of power. That is close to the energy production of half of one of the Three Mile Island nuclear power plants . For 15 years, SUNOPTICS has played a major role in helping Wal*Mart achieve this goal. by providing over 400,000 prismatic skylights in over 1,800 stores nationwide.*

Daylighting a building with SUNOPTICS PRISMATIC SKYLIGHTS can save energy through reduced electrical demand at the price of one cent per kWh over the life of the product. In fact, one 5' x 6' Sunoptics Prismatic Skylight has been proven to remove approximately 2 kW of a utilities' peak load in a building for a high percentage of daylight hours. This equates to an average annual energy savings of 2,800 kWh of electricity in a 7 day a week facility which is equal to the annual energy production of 4,000 square feet of photovoltaic solar panels.

The enclosed SUNOPTICS Job Photo CD provides a visual and documented representation of how powerful good daylighting can be. There are four categories of job types on this CD: Industrial, Retail, Commercial, & Educational. The majority of these photos were taken without any electric lights on and have well over 100 foot candles of cool, optimally diffused natural light throughout each space. All of the school projects and most of the commercial projects also incorporate our SUNOPTICS Light Louvers to control the amount of daylight coming from the skylights as well as the LCM 1000 Photo-Control System to maintain a desired light level automatically from sunrise to sunset. This system is also designed to automatically turn the electric lights on and off in two, three or four stage switching or electronic ballast dimming depending on your projects lighting needs.

We hope that after viewing these photos, you come away with a better appreciation of what a powerful, energy efficient, sustainable building tool daylighting can be with SUNOPTICS PRISMATIC SKYLIGHTS. Our company is devoted to support you in every step of the design and implementation process should your project require our services. Our goal is to help you and / or your design team realize that you can harness the power of the sun and reap the rewards both environmentally as well as economically.

SUNOPTICS PRISMATIC SKYLIGHTS - There's No Greater Efficiency Than Off!

