

LED Lighting Reduces Energy Use and Increases Savings

Curbell Plastics, Inc. is realizing a strong return on investment while helping the environment through an extensive conversion to LED lighting at its corporate headquarters. Curbell, Inc., parent company of Curbell Plastics, undertook the relighting project that involved a conversion of all internal and external lighting to more energy efficient fixtures and LED bulbs at its corporate headquarters in Orchard Park, NY, USA. In all, 350 troffer ceiling lights were outfitted with Makrolon® Lumen XT, a light diffusing polycarbonate sheet.

Strong environmental and sustainability practices at Curbell, Inc. and a US\$20,000 energy use reduction rebate from the New York State Electric and Gas Corporation (NYSEG) drove the US\$25,000 project forward. It included the conversion of approximately 606 interior and exterior lights of various types. A full return on the new lighting investment is expected in less than a year and a half due to the energy cost savings (approximately US\$18,000), reduction in energy usage and a reduction in maintenance costs. In fact, the LED lights have an expected lifespan of more than 11



Troffer ceiling lights at Curbell Plastics, Inc. corporate headquarters outfitted with new LED bulbs and Makrolon® Lumen XT light diffusing polycarbonate sheet panels.

Recycling Facts

“Recycling a ton of ‘waste’ has twice the economic impact of burying it in the ground. In addition, recycling one additional ton of waste will pay US\$101 more in salaries and wages, produce US\$275 more in goods and services and generate US\$135 more in sales than disposing of it in a landfill.”

— From *Recycling: Good for the Economy, Good for the Environment*

years. The average reduction in electric power consumption is projected to be 15,000 kilowatts per month, generating approximately US\$1,500 in energy cost savings.

As part of the project, the company used 2' x 4' panels of .060" thick, Makrolon Lumen XT polycarbonate sheet for their troffer ceiling lights. Makrolon Lumen XT is a translucent polycarbonate sheet with a textured surface on one side designed specifically for LED lighting applications providing high light diffusion and light transmission. Curbell, Inc. Environmental Health & Safety Manager Mike Neeson commented, “We tested a number of materials but the .060" Makrolon Lumen XT provided the right light transmission, LED bulb diffusion and the look we desired for our office space. It was important to us that the material was recyclable as well in light of our zero landfill status at our two Orchard Park facilities.” Benefits for the employees

over the old lighting include more evenly distributed light, reduced glare and a cleaner more modern appearance.

According to Neeson, “With this conversion we achieved three main goals, all of which positively affect our sustainability and environmental objectives. We created better lighting for our employees, reduced our energy consumption and reduced maintenance and material costs which improved our bottom line.”

All materials removed from the facility have been repurposed or reused, including a donation of all the existing fluorescent light bulbs to Orchard Park, NY’s school district.