

SSL Postings

U.S. DEPARTMENT OF ENERGY

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Although you do not often hear about growth in domestic manufacturing here in the United States, the solid-state lighting industry is steadily growing and establishing a manufacturing presence here at home. Solid-state lighting was not only born of U.S. ingenuity and R&D, but is also riding the crest of a worldwide trend toward greater energy efficiency. This offers a golden opportunity for U.S. manufacturing to take a significant role in SSL. From time to time, the Postings focus on SSL companies manufacturing here in the U.S., in a series called “SSL in America.” This is not intended to endorse or promote any of the companies, but rather to describe advances in energy-efficient solid-state lighting. The activities you’ll read about here are consistent with the U.S. Department of Energy (DOE) white paper [“Prospects for U.S.-Based Manufacturing in the SSL Industry.”](#)

Spotlight on Luminit

Luminit manufactures diffusers — also known as spread lenses or tertiary optics — that are made primarily of polycarbonates or glass. About 80% of the company’s diffusers are used in LED-based applications, of which luminaires account for the vast majority, but which also include automobiles, microscopes, projectors, high-end medical equipment, and other high-tech uses. In LED luminaires, Luminit’s diffusers shape the illumination to suit the application. They’re positioned in front of the secondary optics and increase the beam angle, allowing luminaire manufacturers to customize the illumination pattern for each product.

According to Suleyman Turgut, director of sales, 95% of Luminit’s sales volume is from diffusers that are manufactured entirely in Torrance, CA, where the company is headquartered and where about 65 people work in jobs ranging from engineering and R&D to production and sales and marketing. The other 5% of Luminit’s products are manufactured overseas. The company gets its polycarbonate substrates, as well as the additives that are mixed into the polycarbonates, from U.S. suppliers. About 60% of Luminit’s customers are based in North America, with the rest in Europe and Asia. The company was founded in late 2005 as a spinoff of Physical Optics Corporation, a Torrance-based R&D firm that developed the diffusers with the help of Small Business Innovation Research funding.

A major reason why Luminit manufactures domestically, says Suleyman, is that it's easier to protect intellectual property here than it would be if the company's products were manufactured overseas. In addition, he notes, lead times are cut in half. It's also easier to provide customers with a high level of technical support, since there's generally not a sizeable time-zone disparity or language barrier. What's more, says Suleyman, the communication loop is much shorter due to the proximity of the company's R&D, engineering, and manufacturing groups, which means that retooling for custom products takes less time — although he explains that such retooling is rare for diffusers that are used in SSL, because Luminit maintains a large library of diffusion angles customers can choose from.

As for disadvantages of manufacturing in the U.S., Suleyman says there aren't any to speak of. For one thing, he notes, overseas labor rates have gone up, and Luminit's manufacturing processes are highly automated in any case, so labor cost is not a big consideration.

Suleyman says the company has no plans to cut back on its U.S. manufacturing, but as its European customer base continues to grow it will consider making products in Europe as well, to better serve that market.

Luminit is among a number of companies that are working to create and strengthen a solid-state lighting manufacturing base here in the U.S. This will not only help bring significant energy savings through more efficient lighting products, but will benefit our economy by adding jobs at multiple levels of the supply chain.

As always, if you have questions or comments, you can reach us at postings@akoyaonline.com.