

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 Bright View Technologies

Bright View Technologies manufactures engineered optics for LED lighting, including diffuser films, rigid lenses, high-performance reflectors, and light-guide plates. The company is based in Durham, NC, where it moved from nearby Morrisville in 2015 in order to occupy larger quarters.

Founded in 2002 with a focus on technology that was acquired through nearby Duke University, Bright View was bought in 2010 by Virginia-based Tredegar Corporation, a global provider of polymer films and aluminum extrusions. Since then, Bright View has been a wholly owned subsidiary of Tredegar and, according to Bright View president Jennifer Aspell, has focused its efforts on developing and manufacturing optical components that increase the efficiency and performance of LED luminaires.

She explains that because light can bounce multiple times within the optical cavity of a luminaire, even a small increase in reflectivity can significantly increase the light output. As an example, Jennifer notes that when a reflector is 90% reflective, the light output diminishes by 10% with each bounce; whereas it only diminishes by 3% per bounce with a reflector such as Bright View’s, which is 97% reflective. An advantage of increasing the light output, she points out, is that it increases the efficiency and may also enable a reduction in the number of LEDs.

According to Jennifer, Bright View does the bulk of its manufacturing at its Durham headquarters, which is home to more than 40 employees, who work in areas ranging from R&D, to sales and marketing, to operations, to finance. The rest of the manufacturing, she says, involves making specialized films and is done at Tredegar facilities elsewhere in the U.S. All of the R&D for Bright View's products is done in Durham and is focused on making them even more efficient — i.e., making the diffusers more transmissive and the reflectors more reflective — as well as better able to control the light distribution.

Jennifer notes that one of the advantages of manufacturing in North Carolina's Research Triangle area is that, with three major universities close at hand (Duke in Durham, the University of North Carolina in Chapel Hill, and North Carolina State University in Raleigh), there's easy access to employees with the needed technical skill sets. In addition, she says, Bright View's customers — most of which are luminaire manufacturers — are increasingly concerned about the length of their supply chain, because their own customers are demanding a short lead time. This means that many of Bright View's North American customers prefer to use North American suppliers. Its overseas customers can buy Bright View's products from global distributors to shorten the supply chain.

Jennifer notes that Bright View's own supply chain is shortened by sourcing many of its raw materials domestically, adding that most of the manufacturing equipment at the Durham facility is U.S.-made. Another advantage of manufacturing domestically, she says, is that it makes it easier to protect intellectual property, which is especially important to Bright View because it has a proprietary manufacturing process. Jennifer notes that Bright View is able to be cost-competitive while manufacturing domestically, because much of that manufacturing is automated, and also because of the value its products bring to luminaire manufacturers.

Bright View Technologies 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.