## **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 Ephesus**

Ephesus is a manufacturer of high-performance LED lighting systems for challenging applications in the sports and industrial lighting markets. The company made news and history earlier this year, when Super Bowl 2015 became the first Super Bowl to be lit with LED lighting — courtesy of an Ephesus system that was installed last year at the University of Phoenix Stadium in Glendale, AZ, making it the first NFL field to be lit by LEDs.

Ephesus was founded in 2010 with the idea of applying solid-state technology to applications other than lighting, but before any actual manufacturing was done it decided to focus on lighting, and the company's first lighting products were on the market by 2011. Ephesus is headquartered in downtown Syracuse, NY, where nearly 50 employees work in jobs ranging from engineering, R&D, sales, customer support, and procurement. In addition, the company has several dozen sales personnel and field service technicians strategically located across North America.

Ephesus designs and tests all of its products at its Syracuse headquarters, but the actual manufacturing is contracted out to two companies: one in Ogdensburg, NY, where Ephesus' industrial fixtures and indoor sports fixtures are manufactured; and the other in Mentor, OH, where the outdoor sports lighting systems are manufactured. The only major components not manufactured in the U.S.,

according to Ephesus president Mike Lorenz, are the heat sinks. The company recently switched to a New Hampshire-based supplier for the drivers, which had previously been obtained from overseas. Mike notes that as a matter of policy, Ephesus tries to use U.S.-based suppliers whenever possible.

He says one of the reasons the company manufactures domestically is that it reduces time to market, as many of Ephesus's customers are located here in the U.S. But the biggest reason, Mike says, is that it makes it easier to ensure consistent high quality in its products — many of which are used in "mission-critical" applications where the slightest deviation in the expected high performance is likely to be noticed. He explains that it's easier to create a balanced relationship with domestic manufacturing partners — with whom Ephesus works very closely — than if those partners were located overseas, and it also gives Ephesus more influence over the manufacturing process. For example, Mike says, the company's contract manufacturers visit Ephesus headquarters often to discuss various technical and production aspects — something that would be much more difficult and costly if they weren't U.S.-based. This kind of close relationship, he says, also makes it more likely that such partners will "go the extra mile" for Ephesus.

On the flip side, Mike observes that costs can be higher here in the U.S. than overseas, which requires working collaboratively with domestic partners to maintain competitiveness. However, there are a number of local resources that Ephesus has made good use of. For example, early on, Mike recalls, the company worked closely with Rensselaer Polytechnic Institute's Lighting Research Center, located in Troy, NY, and also received welcome financial support from the New York State Energy Research and Development Authority (NYSERDA). He says Ephesus has no plans to change its policy of manufacturing domestically, which so far has served it well.

Ephesus 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.