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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 Lumenetix

A manufacturer that's devoted exclusively to solid-state lighting, Lumenetix primarily designs and builds color-tunable LED light engines that emulate the range and quality of sunlight down to candlelight, although the company also makes fixed white LED modules. Founded in 2009, Lumenetix is headquartered in Scotts Valley, CA, just a few miles from Santa Cruz – birthplace of longboarding and home to the University of California at Santa Cruz "Banana Slugs," which have to rank among the most memorably named teams in all of college sports.

The building was formerly a manufacturing facility for Seagate, the computer hard drive manufacturer. Lumenetix occupies just that one facility, which houses about 70 people – ranging from engineers, to sales personnel, to production workers, to technicians. There, the company does all of its R&D and engineering, as well as the subassembly, assembly, and testing of all of its products – with the components, such as the LEDs, raw circuit boards, and mechanical fabricated parts, purchased from all over the world, primarily in Asia.

Lumenetix sells to luminaire manufacturers globally, although primarily in North America and Europe. CEO Jim Kingman notes that close proximity to customers is a huge advantage, not only because it allows the company to respond more quickly to the demands of the marketplace, but also because most of Lumenetix's light engines are customized to meet customer specifications, and doing that domestically means it can be done in a matter of days or weeks instead of months – with the customer easily visiting Lumenetix headquarters, or vice versa, when a face-to-face meeting is necessary. Those light engines each contain a fair amount of software as well as built-in sensors and controls; the software enables users to tune the color of the light to suit their own needs, either wirelessly or with wired controls, in order to provide the aesthetic, health, and productivity benefits that have been receiving an increasing amount of attention lately.

Lumenetix's assembly process is highly automated, which Jim explains largely offsets the higher U.S. hourly labor rates – although he does note that employee benefit packages, as well as salaries, are considerably higher here than overseas. But Jim points out that the company's Silicon Valley location also puts a wealth of key technical expertise within easy reach, along with businesses that are at the forefront of the fast-growing Internet of Things. He cites intellectual property protection as another big advantage of domestic manufacturing, because the manufacturing process can be much more closely guarded and controlled here than if it were done overseas. Although Lumenetix currently has no facilities other than the one in Scotts Valley, Jim says it is considering opening one in Europe to better serve its European customers.

Lumenetix 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.