

SSL Postings



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 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, these Postings will focus on SSL companies manufacturing here in the U.S., a series we call "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](#) "Keeping Manufacturing in the United States," which grew out of DOE's 2010 SSL Manufacturing R&D Workshop.

Lighting Science Group (LSG) is a Florida-based manufacturer that's focused entirely on SSL. Two years ago, it had 50 U.S. employees, but that number has grown to about 300.

Headquartered in Satellite Beach, the company started out with just a handful of products but now makes lamps and luminaires covering a wide range of applications. Not all of those products bear the LSG name; some are privately labeled. But all of them are designed and developed in the U.S., and the initial manufacturing takes place here as well.

However, although founder and chief technology officer Fred Maxik says LSG is committed to manufacturing as much as possible in the

U.S., he notes that a number of economic forces, such as subsidies and other incentives from foreign governments, work against this. That's why, after an LSG product has achieved a certain degree of market maturity, its manufacturing may be moved to a facility in Mexico. All told, Fred says, about 25 percent of LSG's products – including all of its luminaires – are made in the U.S., with the rest, including all of its lamps, made south of the border.

He explains that with high-volume products like lamps, it makes more economic sense to manufacture in Mexico, where the labor rates are cheaper, the cost of operating a facility is less, and the supply chain is closer at hand. By contrast, he says, suppliers have moved away from the U.S. as manufacturing here has decreased. However, Fred doesn't see this trend as irreversible and says that as more and more SSL manufacturing gets done in the U.S., those suppliers will gravitate here as well, because they want to be closer to their customers.

He notes that unlike replacement products, which are designed for fixtures intended for traditional lighting, integral LED luminaires can make the most of SSL technology. Fred says many of the luminaires that LSG manufactures are made to order, which makes it advantageous to produce them here in the U.S. because, since the bulk of the company's customers are located here, it cuts down on response time. In addition, he says the fact that LSG's Satellite Beach headquarters has everyone – from researchers, to engineers, to production-line workers – all in the same facility enables the company to respond very rapidly to customer demand, and to fix production glitches quickly and effectively and learn from them. It also results in a certain amount of cross-pollination and synergy, because the R&D, engineering, and manufacturing are all done under the same roof.

Lighting Science Group 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@lightingfacts.com.
