

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 promote any of the companies, but rather to promote energy-efficient solid-state lighting. The philosophy and actions of the companies you'll read about here align with the recommendations set forth in 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.

LEDnovation is a small company – about 25 employees – that's focused entirely on solid-state lighting. Founded in late 2008, it designs and manufactures LED-based replacement lamps, producing them in a variety of formats, including A-19, MR-16, and PAR. The majority of its customers are businesses – primarily hotels, restaurants, and retailers, which typically operate their lamps for more than 10 hours a day and have very exacting requirements with regard to such characteristics as color quality, beam angle, and lumen output. These customers also tend to value longevity in their lamps because of the high cost of maintenance.

LEDnovation shipped five times as many lamps in the first half of 2011 as it did in all of 2010, and CEO Israel Morejon says the upward trend continues. This year, a LEDnovation product had the highest luminous efficacy of any LED replacement lamp tested to date by DOE's CALiPER program: 97 lumens per watt and producing 614 lumens in warm white (2880 K) and high color rendering (93 CRI).

According to Israel, LEDnovation's lamps are designed at its headquarters in Tampa, Florida, where prototypes and small "boutique" orders are also built. The majority of LEDnovation's products, he says, are assembled at two contract facilities also located in Florida. One of those contractors also has a facility in Mexico, which began building some of LEDnovation's products earlier this year. But the bulk of the company's output is assembled in Florida, and the components come from various suppliers in the U.S. and overseas.

One reason LEDnovation opted for domestic manufacturing, according to Israel, was that this makes it easier to develop many new products in a short period of time. The company already offers more than 120 individual product variants, and some of them are second- and even third-generation products. Israel and his team find that it's easier to oversee such rapid product development when the manufacturing is done close to home. They also like the flexibility of being able to take a new component that's being substituted for another one and personally drive it over to the manufacturing plant.

Israel points out that product development, by its very nature, involves a great deal of that kind of tweaking and cites the example of Thomas Edison trying out many different filaments in his incandescent bulb until he found one that lasted long enough. Israel says it's much easier to do that when the manufacturing is done nearby. And, of course, this also shortens the time it takes to get a new product to market.

Another factor in favor of his company manufacturing domestically, Israel says, is that much of that manufacturing is automated. This offsets the comparatively low cost of foreign labor, since the cost of capital equipment (in this case, the machinery that automates the manufacturing process) is the same the world over. In addition, manufacturing in the U.S. shortens the supply chain, lowering the cost of transporting products back and forth, and allows LEDnovation to build many of its products to order rather than stocking a large and extensive inventory. That not only saves money, but it also reduces the risk of ending up stuck with products that are unsellable because they've been superseded by newer models – a risk that must be considered when technology is developing as rapidly as solid-state lighting.

Israel says his company plans to continue growing its U.S. manufacturing presence with the products it's developing, which he thinks will find an expanding market here.

LEDnovation 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.
