

March 10, 2015

Still Much Work to Be Done

In the past two months, DOE's SSL team has participated in three major conferences. Our [12th annual Solid-State Lighting R&D Workshop](#) was held January 27–29 in San Francisco, and Strategies in Light took place February 24–26 in Las Vegas. Both conferences are attended by lighting experts and lighting industry thought leaders, who present their insights on where the industry and this rapidly evolving technology are headed. In between those two events was the Grainger Show, held February 16–18 in Orlando, FL, and attended primarily by lighting sales reps and buyers. Here the SSL team gave informational talks (see the [DOE website](#) for our Grainger presentations) and got valuable feedback from attendees that helps us in planning our R&D program. The contrast between that show and the other two was striking. It was clear from talking to the folks at Grainger that when it comes to SSL, many of them are still circling the pool, intrigued but unsure whether the water is safe.

It's easy for those of us who have a keen interest in solid-state lighting to lose sight of the fact that not everyone has been keeping up with its dizzying development—and that for many people out there, it's still a relatively unknown quantity. The folks at the Grainger Show consisted mainly of Grainger sales reps and their corporate clients. Many of those clients represent large national chains, and most are facilities-management types concerned with everything from fleet maintenance, to safety equipment, to janitorial supplies—which is to say that lighting is just one small part of their considerable bailiwick. And the same goes for the Grainger sales reps—who, in order to properly service their clients, have to be familiar with the full range of products Grainger carries. It's virtually impossible for those folks to keep up with every area of technology that falls under their jurisdiction.

So it's no wonder the people at Grainger were hungry for unbiased, vendor-neutral information about SSL. Understandably, there was a great deal of caution on their part about the technology, and quite a bit of concern about price and performance. Another thing that struck us was that although the lighting manufacturers who were exhibiting at the Grainger Show had some LED products on display, they were also showing a great deal of conventional lighting products, including fluorescent and high-intensity discharge—a clear reflection of Grainger customer buying habits. We saw and heard clear evidence that T12 fluorescent lamps are

still seeing heavy use in certain applications, even though a much better and more efficient fluorescent product, the T8, has been available for quite some time—to say nothing of LED alternatives.

DOE's focus is saving energy. National interest in solid-state lighting is clearly building, which is a good sign. But despite all of the progress made to date, SSL is just starting to gain serious traction. In 2013, LEDs accounted for only 1.3% of all U.S. indoor lighting and 1.4% of all outdoor lighting—compared with 97% of all traffic signals and 92% of all exit signs. For SSL to reach that level of penetration, there's still much work to be done. Fundamentally different from conventional lighting, SSL products are often not one-for-one drop-in replacements, and the quality can vary widely from product to product—so doing one's homework is essential.

Many DOE partners draw on the resources available on the [DOE website](#) to educate their stakeholders, customers, and even sales staff on how to make informed decisions about SSL. For reference, here's a recap of some of the most popular web sections:

- [SSL Basics](#): A helpful guide to understanding solid-state lighting.
- [Using LEDs](#): A look at various [applications](#) for LED lighting, plus [factors to consider](#) when comparing it to conventional lighting.
- [CALiPER testing](#): Impartial DOE evaluations of LED troffers, PAR38 lamps, MR16 lamps, and replacement bulbs.
- [GATEWAY evaluations](#): SSL installations providing valuable field data and experience with product performance in various applications.

Despite SSL's increasingly high profile and the fact that LEDs can be found in showcase settings from the Sistine Chapel to the Super Bowl, there's much work still to be done on improving the performance and deployment of this still very new and emerging technology.

As always, if you have questions or comments, you can reach us at postings@akoyaonline.com.