

Postings: from the desk of Jim Brodrick

Now that I'm back in the confines of my relatively calm office in our nation's capital, I thought I'd share some thoughts on what I saw in the City of Brotherly Love last week at LIGHTFAIR International, which was a buzzing beehive of burning activity. I enjoyed meeting those of you who made it to the show and who stopped by the DOE booth, which was a popular destination throughout the week for buyers of all stripes who wanted an objective, unbiased take on solid-state lighting. Our tutorials were well-attended, and our entire team was kept busy each day answering questions on all aspects of the technology.

That's not surprising, considering that once again LED products dominated the show. What I saw walking the floors there in Philadelphia reflected some of the things I'd heard last month in Boston at [DOE's third annual SSL R&D Workshop](#), where a number of very aggressive forecasts were made about the higher degree of market penetration and efficiencies we'll soon be seeing. It seems that some of those forecasts are already being borne out, and it's exciting to see it happening in "real time."

For example, the range of applications covered by the LED products at this year's LIGHTFAIR was noticeably wider than in years past and ran the gamut from the basic "bread-and-butter" downlights and pendants we've been seeing, all the way to high-end architectural. It used to be that you could only find LED lighting products for this or that niche, but last week in Philadelphia it seemed there was a

product for every kind of application – including some I hadn't even thought of! The overall quality was definitely higher, indicating that there's a good deal of refinement taking place, and we're starting to see an increase in power and punch. It was clear that many of these new products are already being sold and shipped in substantial volumes.

LED outdoor lighting, which had generated so much buzz last year, seemed to be taken more in stride in Philadelphia last week, with attendees appearing to view it as being more established in the marketplace. We continue to see many LED screw-in replacement lamps, and the target incandescent wattages they're intended to replace continue to increase. Last year's 60W target seems to have shifted to 75W and even 100W. The proof will be in the pudding, though, and we'll continue to scan the market and test products to see if they truly meet equivalent output levels matching these claims.

One thing I found especially encouraging at this year's LIGHTFAIR was the presence of more purpose-designed LED fixtures than ever before – integrated luminaires that are specifically designed for SSL, and that consequently take better advantage of the technology than do replacement products. And those fixtures are continuing to improve. A number of major luminaire manufacturers showed 2'x2' and 2'x4' integrated LED ceiling troffers that look very promising in terms of output, efficacy, color quality, and visual comfort. Products like that could provide a better alternative to the LED T8 replacement lamps we've seen on the market, which don't yet match the performance of their fluorescent counterparts for overhead ambient lighting, as a [new GATEWAY report](#) explains.

Another thing that struck me in Philadelphia last week was how SSL

products dominated the LIGHTFAIR Innovation Awards, whereas just a few years ago nearly all of the winners utilized traditional lighting technologies. What's more, a few of this year's winning SSL designs were based on OLEDs rather than LEDs, as OLED technology continues to come along. Among the OLED products on display at this year's LIGHTFAIR were some luminaires that were downright elegant, as well as one prototype that changes colors at a user's prompting.

Quite a few of the SSL products were controllable and dimmable, as manufacturers continue to home in on the kinds of features their customers want. As part of that trend, I noticed greater emphasis on color quality; several exhibit booths had very useful side-by-side visual comparisons contrasting lower and higher CRI, R9 (rendering of deep red), and different CCTs. And I was especially encouraged to see that, on the whole, we're seeing fewer outlandish lifetime claims for luminaires, indicating that manufacturers are considering the life of the overall system and not just the LEDs. It also appeared that more SSL companies are looking seriously at doing at least some of their manufacturing here in the U.S., which should be good news for the economy.

Because it showcases the industry's cutting edge, LIGHTFAIR tells us not only what's happening in the marketplace, but also something about the prevailing winds. Right now, those winds are blowing in the direction of solid-state lighting, thanks to the rapid developments taking place on so many different fronts. And that's making the energy savings forecast – which is DOE's paramount concern – look brighter.

As always, if you have questions or comments, you can reach me at

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