Very Efficacious: Transforming the Market with the DesignLights Consortium[®] Qualified Products List

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With more than 25,000 distinct products from more than 300 manufacturers, the DesignLights Consortium (DLC) Qualified Products List (QPL) is an essential database of commercial LED products for use in efficiency programs. The DLC is a project of Northeast Energy Efficiency Partnerships, a regional non-profit, and DLC members include federal agencies, state agencies, utilities, and energy efficiency programs. The DLC responds to the needs of its members by routinely updating its technical requirements and expanding into new lighting applications.

This poster presents trends in the performance of products submitted for qualification since the beginning of the program in 2009. Over the course of the program, the efficacy of qualified products has improved steadily in nearly all product categories. For example, the average outdoor LED product submitted in the first quarter of 2013 is 20% more efficacious than the average outdoor LED product submitted in the first quarter of 2011. The average indoor LED product has become 30% more efficacious over the same period. Because the QPL presents the worst-case performance of its qualified products, the overall improvement in the market is even more impressive.

In addition to these general trends, the poster also shows efficacy trends among some of the commercial market's most important lighting categories, including the following:

- Outdoor area lighting
- Refrigerated case lighting
- Indoor ambient lighting
- High-bay and low-bay lighting
- Retrofit kits

For each of these categories, we compare the performance of DLC-qualified products with the larger population of products in the U.S. Department of Energy's LED Lighting Facts database. We show how the DLC's specification revision process has kept pace with and, at times, driven improvements in the market at the high and low ends of product performance.

Based on the trends that can be observed in the QPL, the performance benchmarks used by utilities to measure deemed savings likely understate the actual savings values of commercial LED products. With an average of more than 900 new products added to the QPL every month, it is extremely important that energy efficiency programs understand these trends and adapt to the rapidly improving market for commercial LEDs.