From the Community of Manufacturing, Design and Contracting Teams of U.S. Power Vision, LLC

The Fabulous Lighting Maven

Unexpectedly Illuminating

ACTION-ORIENTED PEARLS OF WISDOM FOR INDUSTRIAL MANAGERS AND CONTRACTORS

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Dear Reader:

The buyer of a new LED lighting system engaged in her/his due diligence can be faced with a dizzying array of considerations, and in the interest of time, it's important to – very early on - separate the noise from the key performance indicators inherent to each device, fixture or system.

The operative word there is "key".

Think about what you'll really be buying: performance, over time. When comparing different fixtures, or 'luminaires' as the industry refers to them, the closer you can stay to the KPIs that are truly important, the easier it is make meaningful comparisons.

As it's likely your upcoming purchase will be categorized as a capital expenditure - by definition a fixed asset – the time factor is an extremely important component to your set of considerations, i.e., how well your new lighting system will be performing at some later point in time, when it's no longer not-so-new.

YOUR MORNING GRIN

We occupy a space in the Facility Manager's imagination.
It's called lighting utopia. And we'll be there ...

even after you put this down.

Ron Motsch
(616) 570-9319

Building and Managing a Suite of The Most Productive and Admired LED Lighting Systems on Earth

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LUMEN MAINTENANCE

One of the most important fixture metrics, or KPIs, is Lumen Maintenance; that is, how well the fixture holds its output, or delivered lumens, as compared to its original output right out of the box. What separates LED from other lighting technologies is that, by-and-large, the diodes (the 'diode' portion of the 'light-emitting diode' name) generally don't fail.

They do, however, depreciate over time, and eventually reach a point where the illumination levels will be unacceptable to you. The industry has generally defined that as the point at which a fixture reaches 70% of its original output, and refers to this metric as the L70, for Lumens at 70%.

You'll also want to concern yourself with heat, and its impact on a fixture's performance over time. Heat is the enemy of any electrical device, and LED is no different. A fixture's L70 at 77° will be dramatically longer than that same fixture's L70 when hung in a 131°F foundry, for example. The fixture will simply depreciate more slowly, and as a result, last longer.

If you'd like to get geeky with this, the Illuminating Engineering Society has published a pamphlet on the topic, and you can go to it here: Projecting Long-Term Luminous, Photon, and Radiant Flux Maintenance of LED Light Sources.

The savvy Asset Manager might also want to reference our piece on Rated Life, as there is a difference between what a fixture is rated for, and its actual life to be expected.

U.S. Power is an industrial energy services company that specializes in the reduction of energy consumption across a broad array of manufacturing and food processing facilities located in Michigan, Ohio, Indiana, Illinois and Wisconsin. In addition, the company publishes a useful curation of lighting-oriented information from the marketplace, and consolidates it into this concise, twice per month letter known as The Fabulous Lighting Maven, distributed to Facilities Managers throughout the nation.

While the company prides itself in its diversity, it owns and operates a niche lighting contracting firm as well, known as U.S. Power Vision, LLC. With a core business in and around industrial LED lighting, it keeps itself and its clients at the cutting edge of illuminating technologies, all aimed at providing – from the eyes to the fingertips – exceptional illumination, superb control and intuitive simplicity.

The Maven publishes these pearls weekly, or more frequently if we feel like it, because we believe America is already great, and poised to be even greater if we commit to doing our part towards cooling the planet. Publisher Ron Motsch can be reached at (616) 570-9319.