

LED UPDATE

Like many industries, the lighting industry has had its share of innovation, albeit, rather slow and evolutionary. LEDs have disrupted our industry and accelerated the rate of change. It is the clash of two industries, the lighting, or "gas and glass" guys and the semiconductor, or the "chip heads". Most reading this are probably in the gas and glass camp. LEDs are evolving much faster than any previous light source. For lighting specifiers, and for manufacturers, it's difficult to keep up with the change.

Although we use multiple LED suppliers, Borden Lighting has been using Bridgelux LED arrays for several years and with great success, as they have proved very reliable. It was just about a year ago that we introduced their Gen3 arrays. We are now introducing their Gen4 arrays, called the "Vero" series, that offer increased efficacies that range from 100-120 lumens per watt. We will make the change to the Gen4 over the next few months with many of our fixtures offering increased light levels, and typically using less energy, at no increase in cost. Our catalog cut sheets will reflect these changes, so check our website to see what LED package will be offered.

We are also offering multiple outputs for the same array, making it possible to offer multiple lumen packages for the same fixture. For example, our 720 will be offered with an 11.5W array producing 1350lm or a 16.8W array producing 1850lm. Refer to the photos for other examples.

It is often heard in the media, that "LEDs don't produce heat". Most reading this know that, yes, LEDs don't radiate heat like a traditional light source, but heat is produced and is in fact the enemy. Now that the industry has some trial and error behind it and with the foundation of LM80 testing, we have been able to develop more reliable predictions of lamplife.

The Energy Star website has developed a calculator to estimate lamplife based on the operating temperature of the array. While the industry has

primarily settled on a 50,000 hour life and 70% lumen maintenance (L70) for LEDs, this life was based on the LM80 testing data that ran LEDs at 85C. For our purpose-built fixtures, and for those that use multiple sources, Borden Lighting has designed to operating temperatures of 55-65C. Using the TM21 calculator, this will yield 85,000 to 100,000 plus hours at L70.

This means that LEDs now offer significant energy savings and greatly reduced maintenance costs. If you operate a fixture 10 hrs/day, the LEDs will last 23 years!

Note that we will still not catalog LEDs for our vanity fixtures. The better value remains T5 or T8 lamps, which offer 90-100 lm/W and are now rated at 75-85,000 hrs at L90. For those jobs where they "must have" LEDs, we will quote LED versions of our vanity fixtures on a job-by-job basis.



718
GEN 3: 7.0W/525lm
GEN 4: 9.6W/1060lm



720
GEN 3: 15W/1410lm
GEN 4: 11.5W/1350lm
or 16.8W/1850lm



357
GEN 3: 15W/1410lm
GEN 4: 16.8W/1850lm



307
GEN 3: 26W/2110lm
GEN 4: 20.8W/2500lm



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