



Five Tips to a Fair Comparison of LED Luminaires

Not all LED luminaires are created equal.

Cree® is committed to providing educational information so you can cut through competitive manufacturer claims and separate fact from fiction. That's why we developed tools to guide you in making informed buying decisions. Plus, our application engineers and product representatives are well-trained and will help you objectively consider your options.

Total Systems Approach

As you begin investigating LED lighting for your specific applications, keep in mind that you're buying an integrated system, not just individual components. An effective LED lighting fixture is only as strong as its weakest link. Look for features that provide the key benefits you expect on every installation—performance, longevity, efficiency, style and reliability.

Measurable Performance Data

Visit www.cree.com to find our spec sheets and IES Photometric files as well as examples of successful, in-market installations, case studies, and articles that offer proof with measurable data and test results.

Let us assist you in making a side-by-side comparison of any lighting product to Cree® outdoor luminaires. Our application engineers and product representatives will remain objective to help you make informed decisions.

For quotes, product selection and application design assistance, contact your local Cree® representative or reach Cree directly at (800) 236-6800 or sales@cree.com.

1 Compare Performance at the Application Level

Conduct "in field" application level performance evaluations using IESNA recommended practices and standards. Utilize the best available design software and application engineering practices to predict application level performance.

Evaluate relevant and credible case studies such as the Department of Energy's CALiPER and GATEWAY programs.

2 Request Certified Photometric Data

Make sure the LED luminaire manufacturer provides a certified photometric report (per IESNA LM-79) from an approved DOE lab to validate the manufacturer's photometric performance claims.

3 Validate Lumen Depreciation

Obtain lumen depreciation (life) data for the LED luminaire supported by the LED chip manufacturer's IESNA LM-80 test data that is directly correlated to luminaire level performance.

4 Apply the Appropriate Light Loss Factors

An accurate application comparison must account for the light levels at the end of the application life. Using the manufacturer's LED luminaire lumen depreciation data, apply the correct light loss factor to the application.

For example, a typical outdoor dusk-to-dawn application may be evaluated at a 50,000 hour (-11 - 12 year) application life. Based on this example, you would conduct an evaluation based on each manufacturer's 50,000 hour lumen depreciation values.

5 Evaluate Lifetime Luminaire Value

Analyze initial investment versus lifetime value by considering all LED fixture benefits such as lighting performance, total power consumption, maintenance and warranty. The entire luminaire must be built to last for the length of the application life.

These Five Tips are a starting point for you to better understand LED comparisons. We know it can be confusing, especially when you add in unique market application variables. Please contact us for guidance in understanding and implementing the tips, regardless of manufacturer or brand. We can be reached at (800) 236-6800 or sales@cree.com.