



FOR IMMEDIATE RELEASE

**Orb Optronix announces new standard LED testing services for Pulse Width Modulated (PWM) and Single Pulse LED Characterization.**

KIRKLAND, Washington (January 14, 2010) -- Orb Optronix announced today the company will offer Pulse Width Modulation (PWM) and Single Pulse LED Characterization through its LED Test and Measurement Lab as standard testing services. PWM and Single Pulse LED Characterization services were previously offered as customized tests for customers. In response to requests from customers, these services have been automated and are now offered as standard tests.

Customers utilizing Orb's ETΦ (Electrical-Thermal-Optical) [LED measurement services](#), also known as ETO test services, may now include PWM electrical input variables and Single Pulse LED Characterization in their test plan.

Pulse Width Modulation is a common method of varying the amount of power delivered to an LED. By varying the duty cycle, or on-time, the LED output can be controlled. For general illumination or display applications, the pulses occur much faster than the eye will notice (100 Hz or faster). Orb Optronix PWM testing regimen allows sweeping of any one of duty cycle (pulse duration), pulse frequency, or LED drive current in conjunction with temperature to produce the parametric data sets necessary to optimize LED performance in a PWM controlled system.

Single Pulse LED Characterization allows a customer to gather comparative data by testing a device using single pulse NIST traceable measurements. The resulting measurements provide data for comparison of specific lots of LEDs to the specifications provided by LED manufacturers in their datasheets. These tests can also be used to generate comprehensive LED datasheets for manufacturers from an independent test lab.

Orb provides benchmark testing for comparative purposes. The current industry standard of production testing LEDs with a single short pulse measures the basic features of LEDs for sorting purposes. These quick measurements are very practical for the manufacturer as the same fixture can test 20 or more LEDs per second. However, the measurements of an LED's color, dominant wavelength, efficiency and forward voltage using the 25ms pulse method does not give realistic performance metrics for true use environments.

As more sophisticated LED applications such as dimming, color control and color mixing are introduced to the marketplace, LED Luminaire designers require testing that reflects more realistic use conditions. These LED characterization methods are critical to ensure LEDs are meeting manufacturer's specifications, for "apples to apples" comparison of similar types of LEDs produced by different manufacturers and for statistical studies of large lots of LEDs for quality and consistency.

"Orb is always responsive to customer demands for better data. Our company is providing systems and services to gather critical information necessary for the proper design of sophisticated LED systems. Although there are ad-hoc methods to obtain some of this data, Orb provides a much more comprehensive data set that can be used to produce highly accurate LED models created using NIST traceable measurements." says Orb Optronix founder Rand Lee.

Orb Optronix is the industry leader in LED Characterization Systems, offering both LED testing equipment and LED testing services. ETΦ LED Characterization Systems assist product development engineers by solving the problem of efficiently measuring the quantity, quality and color of light from LEDs over a range of

temperatures and electrical input power variables. [ETΦ LED Characterization Systems](#) have both automated data acquisition and extensive data analysis features. ETΦ Systems allow engineers to automatically sequence measurements of light output and spectrum over a wide range of temperatures and currents, and comprehensive data analysis features allow users to quickly and easily view different groupings of data in over 300 graphs.

In addition to the new PWM and Single Pulse ETΦ LED Characterization, **Orb Optronix LED measurement services** include DC [ETΦ LED Characterization](#), [Angular Distribution Characterization](#), [IES Photometric testing](#), and [LED Eye Safety Testing](#). For more information on Orb's LED test and measurement services visit [http://www.orboptronix.com/LED/led\\_test.html](http://www.orboptronix.com/LED/led_test.html).

### **About Orb Optronix**

Orb Optronix operates an LED measurement services laboratory as an integral part of its engineering services unit located in Kirkland, Washington. Orb's interdisciplinary engineering group specializes in product development services involving Light Emitting Diodes (LEDs), digital imaging, and electronic display systems for consumer, medical and military applications.

Contact:

Rob Leonard

Director of Sales and Marketing

RLeonard@OrbOptronix.com

(425) 605-8500 x205