

QUESTIONS YOU MUST ASK WHEN CHOOSING AN ENERGY-EFFICIENT LED LUMINAIRE



1. Can I rely on the manufacturer's quality?

Finelite is one of the largest independent lighting fixture manufacturers in the United States known for setting standards of excellence for service and quality.

2. Is there IES LM-79-08 testing for verification of electrical and photometric performance? Are .ies data files available?

LM-79 is the approved method for determining the electrical and photometric performance of LED luminaires. Standard laboratory conditions ensure reproducible measurements of total luminous flux, electrical power, luminous intensity distribution, and chromaticity, which must be based on *Absolute Photometry* methods for LED luminaires. To determine if you have a valid LM-79 test, you need to look for three items:

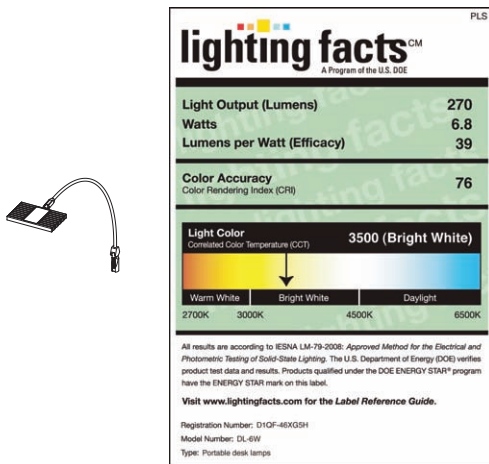
- 1) A test date after January 1, 2009.
- 2) The words "tested in accordance with IES LM-79-08" and "absolute photometry".
- 3) A test report from one of the [DOE-approved CALiPER Testing Laboratories](#).

Finelite's IES LM-79-08 test reports and .ies data files for all PLS luminaires are available at www.finelite.com.

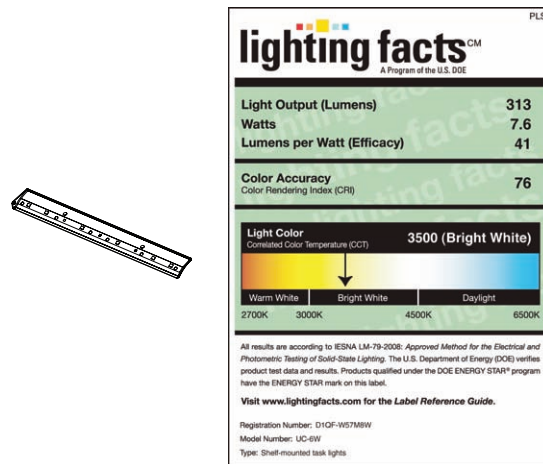
3. What are the delivered lumens and LPW of the luminaire?

While you can find out this information from an IES LM-79-08 test report, an easier way is to look for the Lighting Facts™ label. Here are the PLS facts:

Desk Lamps



Undercabinets



— View all [PLS Desk Lamp and Undercabinet Lighting Facts^{CM} Labels](#).

4. Is there an IES LM-80-08 test report for verification of lumen maintenance?

LM-80 is the approved method for measuring the lumen depreciation of an LED source. Standard laboratory conditions ensure that lumen maintenance is determined consistently among manufacturers. Because this is a relatively new standard that requires a minimum of 6,000 hours (nearly a year) of data, LED manufacturers have not had time to make LM-80 tests for all of their LEDs. A report on Finelite's LM-80 test results is available at www.finelite.com.

5. What is the operating temperature range specification and what is the maximum junction temperature (T_j) of the LED lamps over that operating range?

The operating temperature range for Finelite's PLS is 0 °C to 35 °C (32 °F to 95 °F). The maximum junction temperature (T_j) over that operating range is 80 °C (176 °F).

6. What is the expected L₇₀ lifetime and how was it calculated?

L₇₀ lifetime is the number of hours to 70% of initial lumens - the industry standard for expected useful life. The L₇₀ lifetime of Finelite's PLS is over 50,000 hours, 15 to 30 years in normal office use. More information is available at www.finelite.com.

7. Is the chromaticity of the luminaire in the ANSI C78.377A color space and is it stable over time? How is this verified?

LM-79 testing shows that PLS luminaires are within the DOE Energy Star® SSL definition for 3500K (4000K for the 3W Desk Lamp). LM-80 testing provides data for color stability.

8. Does the color of the light output vary from fixture to fixture or in different spatial locations for a single fixture?

The color output of Finelite's PLS is very uniform – this can be assessed by using a white piece of paper against near the LEDs to look at the color pattern of the light beam. DOE Energy Star® SSL requires a color spatial uniformity of .004 on the CIE 1976 (u'v') diagram.

9. What is the power factor of the power supply? How much power does it consume in the "off" state?

Finelite's PLS 60W power supply has a power factor greater than 0.9 and consumes less than 0.5W in the off state. This power supply also integrates with an optional occupancy sensor to make sure PLS luminaires are on only when needed.

10. Is the luminaire lead-free and mercury-free?

PLS uses lead-free solder in its electronic components and the LEDs are mercury-free.

11. What is the warranty and does the manufacturer have the resources to stand behind the product?

PLS is fully warranted for three years, meeting DOE Energy Star® SSL requirements. Finelite is committed to completely stand by any of its products.

12. Has the manufacturer applied for the DOE Energy Star®?

Finelite won the DOE-sponsored 2007 Lighting for Tomorrow Competition for both the Desk Lamp and Undercabinet luminaire categories. The DOE Energy Star® SSL standard was in preliminary development at the time, and PLS hit the early benchmarks. Finelite is in the process of fully aligning PLS performance with the final version of Energy Star®. Nonetheless, as substantiated by LM-79 and LM-80 testing data, PLS exceeds the Energy Star® performance targets for light output and distribution, color, efficacy, and life.