



LEARN MORE AT
energystar.gov

ENERGY STAR®, a U.S. Environmental Protection Agency program, helps us all save money and protect our environment through energy efficient products and practices. For more information, visit www.energystar.gov.

Dear ENERGY STAR Solid-State Lighting or Integral LED Lamps Stakeholder,

On July 8, 2010, EPA distributed a letter clarifying issues surrounding LM-80 lumen maintenance testing of LED packages, arrays and modules for the ENERGY STAR Solid-State Lighting Luminaires program, and the forthcoming ENERGY STAR Luminaires program. That letter included the following statement:

"As of September 30, 2010 the current SSL V1.1 specification requires that LM-80 test data come from a NVLAP accredited laboratory... On an interim basis, EPA will recognize labs that have otherwise achieved ISO/IEC 17025 accreditation through NVLAP, have demonstrated competence in conducting LM-80 testing, and can demonstrate that they are in the process of obtaining accreditation for LM-80 testing."

With this email, the Agency wishes to clarify that laboratories may work with any EPA-recognized accreditation body, not exclusively NVLAP. Lists of EPA-recognized accreditation bodies, laboratories and certification bodies are available at www.energystar.gov/testingandverification.

The July 8 letter also indicated the guidance will apply to Integral LED Lamps. The Agency notes that as written, the ENERGY STAR Integral LED Lamps specification does not require accreditation - from NVLAP or otherwise - of the laboratories producing LM-80 test reports required for early qualification. Integral LED Lamp partners should note that by the end of this year, third-party certification requirements will go into effect across all ENERGY STAR product categories, requiring testing in EPA-recognized laboratories. At that point, LED packages incorporated into integral LED lamps will need to be tested in laboratories with LM-80 included in their scope of accreditation or in laboratories meeting interim recognition requirements outlined in the letter. Please visit www.energystar.gov/testingandverification to review the proposed ENERGY STAR program changes referenced above.

Please feel free to contact me with questions.

Regards,

Alex Baker
Lighting Program Manager, ENERGY STAR
US EPA

For more information, visit: www.energystar.gov

This message was sent to you on behalf of ENERGY STAR. Each ENERGY STAR partner organization must have at least one primary contact receiving e-mail to maintain partnership. If you are no longer working on ENERGY STAR, and wish to be removed as a contact, please update your contact status in your [MESA](#) account. If you are not a partner organization and wish to opt out of receiving e-mails, you may call the ENERGY STAR Hotline at 1-888-782-7937 and request to have your mass mail settings changed. Unsubscribing means that you will no longer receive program-wide or product-specific e-mails from ENERGY STAR.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460



OFFICE OF
AIR AND RADIATION

July 8, 2010

Dear ENERGY STAR Solid-State Lighting or Integral LED Lamps Stakeholder,

This letter is intended to clarify issues surrounding LM-80 testing of LED packages, arrays and modules for the current ENERGY STAR Solid-State Lighting Luminaires program, and the forthcoming ENERGY STAR Luminaires program. These clarifications are also applicable to Integral LED Lamp partners electing to leverage the early initial qualification option using LM-80 test data when the specification becomes effective August 31, 2010.

The existing ENERGY STAR Solid-State Lighting Luminaires V1.1 specification (SSL V1.1), which references IES LM-80-08, remains in effect until the ENERGY STAR Luminaires V1.0 specification replaces it in the summer of 2011.

As of March 31, 2010 EPA is only accepting data collected in compliance with the [LM-80 standard](#), with sample sizes as specified in the ENERGY STAR [Manufacturer's Guide for Qualifying Solid State Lighting Luminaires](#). Therefore data collected prior to publication of the LM-80 standard, not performed in compliance with the standard, will not be accepted for ENERGY STAR qualification of an SSL luminaire. Questions about laboratory changes in equipment should be directed to the [NVLAP](#) program at the National Institute of Standards and Technology (NIST), which is the accreditation body for LM-80 testing recognized in the current lighting specifications; other accreditation bodies may be added in the future.

As of September 30, 2010 the current SSL specification (V1.1) requires that LM-80 test data come from an NVLAP accredited laboratory. Applications for recognition by EPA as an accredited lab for purposes of LM-80 testing are available at www.energystar.gov/testingandverification. As of today, EPA understands from NVLAP that no labs have yet received this accreditation. Given that accreditation takes 3 to 6 months, EPA recognizes that as of September 30 access to accredited labs will be limited. On an interim basis, EPA will recognize labs that have otherwise achieved ISO/IEC 17025 accreditation through NVLAP, have demonstrated competence in conducting LM-80 testing, and can demonstrate they are in the process of obtaining accreditation for LM-80 testing. Labs seeking this interim recognition should contact Taylor Jantz-Sell at D&R International; contact information is provided below. Progress towards LM-80 accreditation for these laboratories will be closely monitored, and products qualified through labs which do not complete accreditation or demonstrate progress towards accreditation will be disqualified.

Regarding lumen maintenance projections, current protocols outlined the SSL V1.1 specification and the aforementioned Manufacturers Guide remain in effect until the Luminaires specification

becomes effective in summer of 2011. Under the forthcoming Luminaires specification, lumen maintenance projections using data collected in accordance with LM-80 will be governed by the forthcoming IES technical memorandum TM-21-11.

The Agency would also like to address the testing requirements for improvements to LED packages, arrays, or modules. EPA's understanding of the intent behind IES test procedures is that LED packages should be considered new if material changes have been made which result in any sizeable change(s) in performance; these new components would not be considered "successors". New LED packages must be tested according to LM-80.

For purposes of initial ENERGY STAR qualification or maintenance of qualification status of a fixture currently qualified using successor components, until the Luminaires specification is final and effective please refer to guidance on "Lumen Maintenance -- Successor LED packages/modules/arrays" on page 4 in the aforementioned ENERGY STAR Manufacturer's Guide. A proposal about the handling of successor LED packages/arrays/modules under the new Luminaires specification will be included in a subsequent draft to be distributed this summer. All information related to the Luminaire specification development process can be found at www.energystar.gov/luminaires.

Finally, EPA is currently working to clarify requirements pertaining to LM-80 sample sizes and acceptable variations of correlated color temperature within those samples; direction will be provided in a separate forthcoming communication to partners and stakeholders.

While the SSL V1.1 specification remains in effect, questions regarding the above topics should be directed to Taylor Jantz-Sell at D&R International at tjsell@drintl.com or (301) 588-9387. Questions regarding the above topics as they pertain to the forthcoming Luminaires specification should be directed to me at baker.alex@epa.gov or (202) 343-9272. Questions regarding the enhanced testing and verification program EPA is implementing across all ENERGY STAR products can be directed to ENERGYSTARVerificationProgram@energystar.gov.

Sincerely,

Alex Baker
Lighting Program Manager, ENERGY STAR
US EPA