



# Certification Body Webinar for Verifying ENERGY STAR Certified Lamps

ENERGY STAR® Program Integrity

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# ENERGY STAR Lamps Verification Testing - Directive 2015-01

- General
- Test Requirements
- Sample Sizes
- Retesting for Marginal Failures
- Reporting to EPA



## Lamps Verification Testing - General

- All ENERGY STAR Lamps certified to the new Lamps specification and currently available in the U.S. are subject to verification testing.
  - Directive 2011-06 Verification Testing Requirements by Product Category – 10% for LEDs and 20% for CFLs
- VT should be conducted based on general requirements and directive 2015-01.
- Labeling verification not included

## Lamps Verification Testing – Core Test Requirements

- Only core performance requirements are included in verification testing of lamps as applicable to the specific model:
  - Efficacy
  - Light output or center beam intensity (verify for equivalency claim)
  - Light output ratio (Directional lamps only)
  - Luminous intensity distribution (Omnidirectional and Decorative LED lamps only)
  - Correlated color temperature
  - Color rendering (Ra for all lamps, R9 for LED lamps)
  - Color maintenance (LED lamps only)
  - Color angular uniformity (Directional LED lamps only)
  - **Lumen maintenance** (1000 hours for CFLs, 3000 and 6000 for LED lamps)
    - Should be conducted using the highest wattage measured of a single unit sample to determine testing temperature unless product is marked not for use in enclosed or recessed fixture. (In this case test at room temperature)
  - Rated life (record how many CFL units are no longer operating after 4000 hours of operation in lieu of lumen maintenance test (>90% of units), and 6000 hours for LED lamps)
  - Run up time (covered CFLs only)
  - Rapid cycle stress test
    - Number of cycle depends on certified start time (or verified if start time test is conducted as part of the “pick two” tests)
  - In-situ temperature test (LED lamps that utilized early certification only)



## Lamps Verification Testing – Pick Two Test Requirements

- In addition to these core requirements, CBs are required to subject each lamp model to two additional tests selected AT RANDOM from the among the requirements listed below
  - Frequency
  - Transient protection
  - Start time
  - Run up time (bare CFLs only)
  - Power factor
  - Dimensional requirements
- CBs are required to document their specific process for selecting these two additional tests at random and be ready to provide documentation if necessary



## Lamps Verification Testing – Sample Sizes

- Sample size approaches the same as for certification with the following exception:
  - Partners have the option to test only one sample of transient protection, start time, run up time, and power factor
- No concurrent testing of multiple samples allowed
  - Additional samples retest after a marginal failure is observed
  - Goal for verification testing is to verify performance with minimum burden to partners



## Lamps Verification Testing – Marginal Failures

- For Lamps verification testing, additional testing is triggered if products fail to meet particular performance requirements as outlined in the Marginal Failure Table
- If a marginal failure occurs, CBs should notify the affected partner and initiate retesting or procurement of new units for retest within five business days.
- Partners may opt out of retesting by accepting disqualification of the model



## Lamps Verification Testing – Reporting to EPA

- CBs should notify EPA at [Enforcement@energystar.gov](mailto:Enforcement@energystar.gov) prior to retesting for Marginal Failures.
  - Notification should include the Partner name and certified model number and the testing results for the marginal failure(s) vs the requirement
  - CBs are responsible for tracking all marginal failures and complying with this directive
- If partner opts out of retesting, the CB should report the failure to EPA within two days using the testing failure form.
- In the bi-annual verification testing summary report, CBs should include all products in progress until all testing is completed.
  - indicate whether initial testing or lifetime testing was completed in the previous 6-month period; otherwise, list the procurement or testing status





# Questions?



## Upcoming Lamps v2 and Luminaires v2 specifications

- Luminaires V2 – Final Draft planned for May 2015
- Lamps V2 - Final Draft planned for June 2015



## Questions? Contact us!

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