



May 17, 2013

VIA EMAIL To: lamps@energystar.gov

Ms. Taylor Jantz-Sell  
Environmental Protection Agency  
ENERGY STAR Lighting Program Manager  
1200 Penn. Ave NW 6202J  
Washington, DC 20460

TCP Comments on Draft ENERGY STAR® Program Lamp Specification v1.0 Draft 4

Dear Ms. Jantz-Sell,

Technical Consumer Products, Inc. appreciates the opportunity to provide our comments to the latest proposed lamps specification.

- 1) Further clarification is required on the A lamp category: whether A lamps would undergo testing similar to omnidirectional lamps', and will only qualify under omnidirectional if it meets the light output requirement. This would affect the testing of these lamps, as the guidelines for testing differs with the lamp type under test.  
(V1.0, draft 4: Table 1, sec 9.2, note on pg. 12, sec10.1)
- 2) For both LED and CFL products TCP has had high CRI available for many years and only 0.1% of all sales have been attributed to >90 CRI. It is rarely requested in the Commercial side of our business which tends to be very picky about light quality and never requested on the consumer side of our business. We receive no complaints regarding our 82+ CRI products. TCP projects ~8% loss of lumens when incorporating 90+ CRI LEDs. This adversely affects the cost of light as more LED will be required to achieve equivalencies. TCP prefers the current >80 CRI spec to be maintained so that we can better control costs to increase LED adoption.
- 3) TCP would like to see LED CCT considered as a variant to limit the amount of life testing required for products. We propose testing the lowest CCT (2700K) for life, lumen & color maintenance. LM80 data and in-situ testing can then be used to validate other CCT's. We still understand that LM79 photometry should be presented to validate color tolerance, light distribution, & color spatial uniformity. This is a very low risk approach as LED's are already validated through the LM80 process by the manufacturer and currently use CCT as a variant. This will significantly limit cost, capacity, and time and allow for more ENERGY STAR products faster to market.

- 4) The transition period from the existing specification to the new should be expanded to allow for smoother trend toward the new specification. The twelve month re-qualification period may not be sufficient. Testing all products per the new specification would only inundate testing labs with too many test requests, and limit their testing capacity. The test labs would also need time to prepare for testing based on the new spec.
  
- 5) Flicker index - accounts for the average light output, peak to peak amplitude, shape and duty cycle. The flicker frequency is determined using the operating frequency test. Both the above metrics, doesn't allow to directly quantify the variations in 'spectral distribution.' Flicker should be re-defined or the available definition from RP-16 should be used.  
(V1.0, draft 4: pg. 4)
  
- 6) TCP recommends:  
The tolerance of +3% must be applied on every initial luminous flux measurement  
OR  
The tolerance of +3% shall only be applied to the average initial luminous flux measurement if the average of all measured lamps fail to meet the light output or efficacy requirement.  
  
The above would allow consistency in applying this tolerance. Further clarification is required otherwise.
  
- 7) Under clause 9.6 - CCT requirement: the passing criterion is ambiguous; the "ENERGY STAR Requirements" section allows for 9/10 samples, while under "the supplemental testing guidance" it is required for all units to pass.
  
- 8) All directional lamps > 20W, shall be tested in accordance to Option A or B at an operating temperature of 55 +/- 5 deg. The operating temperature under Option A is governed by the lamp under test (on the wattage, form factor, type, etc.), and the specified operating temperature of 55 +/- 5 is hard to achieve. Further clarification is required. (clause 10.1)
  
- 9) If all directional > 20W are tested according to Option A or B, all these lamps would need to be qualified for base-up operation only. This would restrict the manufacturer in qualifying lamps for both orientations. Currently the UUT's are tested base-up and base-down under Option A.



Clarification is required on the orientation restriction as per specified in “draft test method” document (8.2 C).

10) The existing dimming performance specification would lead to inconsistent measurements by different testing labs. TCP recommends ENERGY STAR to specify the various dimmers to be used.

11) Clarification is required on the sample size for noise measurement (sec12.4). From the draft, the required sample size is 1 lamp/dimmer and 4 lamps/dimmer; it is also stated that measurement shall be made on a single lamp.

Thank you and if you have any additional questions please feel free to contact me.

Sincerely,  
Melissa Obradovic  
Product Manager