

Dear Taylor,

Thank you for your updating and could you please refer below is our ENERGY STAR Luminaires V2.2 Comments

**Comment No.1:**

In ENERGY STAR Luminaires V2.2 Page10,Ballast/Driver Variations

<b>Ballast/Driver</b> (no change in nominal wattage or current)	Allowed so long as variations will not negatively impact luminaire's compliance with any performance criteria in this specification.	Thermal measurements of each variation may be required (e.g. ballast case temperature or TMPc).
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**BACL Recommendation:**

Even LED Driver is same nominal wattage or current, but different circuit schematics of LED driver will effect for light output,power,power factor, Luminous Efficacy, start time/run-up time, Transient Protection, Standby Power Consumption, Operating Frequency,Flicker,Ballast or Driver thermal performance, Dimming performance. so we think only thermal measurement of each LED Driver is not enough to evaluate Ballast/Driver Variations.

**Comment No.2:**

In ENERGY STAR Luminaires V2.2 Page10, CCT Variations

<b>Correlated Color Temperature (CCT)</b> (also review Light Source variation below)	Allowed so long as the lamp series or LED package/module/array series (and associated drive current), ballast or driver, and thermal management components are identical, and so long as variations will not negatively impact luminaire's compliance with any performance criteria in this specification.  The representative model shall be the version within the product family with the lowest CCT for SSL products and the highest CCT for <u>discharge products</u> .  Partner shall use different luminaire model numbers to distinguish between models shipped with light sources of varying CCTs.	None
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**BACL Recommendation:**

Please change discharge product to fluorescent products

**Comment No.3:**

In ENERGY STAR Luminaires V2.2section10.1 and 10.2, $L_{70} \geq 50,000$  hours for inseparable other luminaires

<p><b>Solid State</b></p> <p><b>Option 1:</b></p> <p><b>Luminaire, Retrofit kit, LED Light Engine LED Package, Module or Array</b></p>	<p>The LED package(s) /module(s)/array(s), including those incorporated into luminaires, retrofit kits and LED light engines, shall meet the following <math>L_{70}</math> rated lumen maintenance life values, in situ:</p> <ul style="list-style-type: none"><li>• <math>L_{70}(6k) \geq 25,000</math> hours for indoor</li><li>• <math>L_{70}(6k) \geq 35,000</math> hours for outdoor</li><li>• <math>L_{70} \geq 50,000</math> hours for inseparable luminaires</li></ul>
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**BACL Recommendation:**

Because now have two cases, would you please clarification:

- 1) inseparable and in the type of directional luminaire :  $L_{70} \geq 50,000$  hours, if right?
- 2) inseparable other luminaires :  $L_{70} \geq 50,000$  hours, if right?

**Comment No.4:**

In ENERGY STAR Luminaires V2.2 section15.1 dimmable products required provide continuous dimming, but in section16.1 package requirement mention " Step dimming capability, if employed, shall be clearly indicated."

Source Type	ENERGY STAR Requirements
<b>Fluorescent</b> <ul style="list-style-type: none"><li>• compact</li><li>• circline</li></ul>	<p>The luminaire and its components shall provide continuous dimming from 100% to 20% of light output.</p> <p>At minimum light output, the luminaire shall not emit noise above 24 dBA when measured within one meter of the luminaire.</p>
<b>Solid State</b>	<p>The luminaire and its components shall provide <b>continuous dimming</b> from 100% to 20% of light output.</p> <p>At minimum light output, the luminaire shall not emit noise above 24 dBA when measured within one meter of the luminaire.</p>

**For luminaires marketed as dimmable:**

- Luminaire packaging shall indicate dimming range (as applicable), a list or web site address with compatible dimmers or other controls, and known incompatibilities with dimmers, occupancy or vacancy sensors, timing devices or other external lighting controls, or a message noting limitations and web site address to find out more specific information. Partner shall periodically review this packaging language to determine if updates are needed. Partner is encouraged to also maintain an up to date web address where additional compatibility information is detailed.
- **Step dimming capability, if employed, shall be clearly indicated.**

**BACL Recommendation:**

Our question is , if product is ONLY step dimming from 20-100% , if can claim luminaires marketed as dimmable? if yes, but in section 15.1 is required continuous dimming ,not step dimming if can be clarified this definition for dimmable , if dimmable include continuous dimming and step dimming?

**Comment No.5:**

In ENERGY STAR Luminaires V2.2 section 11.7-Fliacker

**BACL Recommendation:**

if EPA will plan to fix Pst and SVM limit value in ENERGYSTAR Requirement?

**11.7 Flicker: All Luminaires (Exempt: Luminaires shipped with ENERGY STAR certified Lamps)**

ENERGY STAR Requirements	Methods of Measurement and/or Reference Documents	Supplemental Testing Guidance																																
<p>The following flicker-related metrics shall be reported for certifications as of September 1, 2018:</p> <ul style="list-style-type: none"> <li>• Short Term Flicker Indicator (P<sub>st</sub>)</li> <li>• Stroboscopic Visibility Measure (SVM)</li> </ul> <p>Optional: meet NEMA 77-2017 for temporal light modulation limits.</p> <p>These requirements address problems with visible flicker due to low frequency operation and applies to steady-state as well as dimmed operation.</p>	<p><b>Method of Measurement:</b> NEMA 77-2017</p> <p><b>Reference Document:</b> IEEE PAR1789</p>	<p><b>Sample Size:</b> 1 luminaire, LED light engine, or retrofit kit shall be tested.</p> <p>Laboratory test results shall be produced using the specific luminaire, or LED light engine used in the luminaire.</p> <p>For luminaires not marketed as dimmable, measurements shall be taken at full light output.</p> <p>For luminaires marketed as dimmable, measurements shall be taken at the dimmed levels recommended in NEMA 77.</p> <p>The reported values of P<sub>st</sub> and SVM shall be the highest value measured.</p> <p>For the purposes of ENERGY STAR, the waveform digitizer (e.g., oscilloscope) used to capture the waveform data used for the calculation of the reported metrics must have:</p> <table border="1"> <thead> <tr> <th>Parameter</th> <th></th> <th>Units</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Dynamic range of waveform amplitude</td> <td>P<sub>st</sub></td> <td></td> <td>≥ 1000:1 (60 dB)</td> </tr> <tr> <td>SVM</td> <td></td> <td>≥ 100:1 (40 dB)</td> </tr> <tr> <td rowspan="2">Sampling Time</td> <td>P<sub>st</sub></td> <td>Seconds</td> <td>≥ 180</td> </tr> <tr> <td>SVM</td> <td>Seconds</td> <td>≥ 1</td> </tr> <tr> <td rowspan="2">Sampling Rate</td> <td>P<sub>st</sub></td> <td>kHz</td> <td>≥ 10</td> </tr> <tr> <td>SVM</td> <td>kHz</td> <td>≥ 20</td> </tr> <tr> <td rowspan="2">Temporal bandwidth (-3 dB cutoff frequency)</td> <td>P<sub>st</sub></td> <td>kHz</td> <td>≥ 0.5</td> </tr> <tr> <td>SVM</td> <td>kHz</td> <td>≥ 5</td> </tr> </tbody> </table> <p>Waveform data shall be submitted in CSV format to support the reported values of P<sub>st</sub> and SVM</p>	Parameter		Units	Value	Dynamic range of waveform amplitude	P <sub>st</sub>		≥ 1000:1 (60 dB)	SVM		≥ 100:1 (40 dB)	Sampling Time	P <sub>st</sub>	Seconds	≥ 180	SVM	Seconds	≥ 1	Sampling Rate	P <sub>st</sub>	kHz	≥ 10	SVM	kHz	≥ 20	Temporal bandwidth (-3 dB cutoff frequency)	P <sub>st</sub>	kHz	≥ 0.5	SVM	kHz	≥ 5
Parameter		Units	Value																															
Dynamic range of waveform amplitude	P <sub>st</sub>		≥ 1000:1 (60 dB)																															
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**Comment No.6:**

In ENERGY STAR Luminaires V2.2, Section 1 Note box Mention "products such as portable desk task lights with an AC outlet or USB charger":

**1 SPECIFICATION SCOPE & LUMINAIRE CLASSIFICATION**

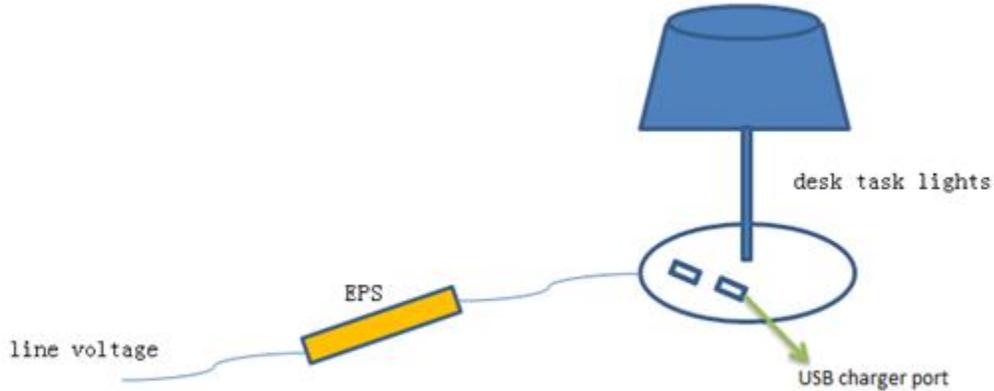
The ENERGY STAR Luminaires specification ("this specification") covers luminaire types outlined in this section. This specification is limited to residential type lighting products, however to the extent that products that fall under the scope of this specification are sold into the commercial market, they may be included and listed appropriately for the applicable end user. Certification is limited to luminaires below a total input power of 250 watts intended to be connected directly to the electric power grid. Refer to the Definitions section in [Section 4](#) for definitions of each directional luminaire type detailed below. Questions about scope may be directed to an EPA recognized Certification Body or [lighting@energystar.gov](mailto:lighting@energystar.gov).

**Note box:** Consumers may carry upwards of three personal devices when they travel and may use more than one device at a time when home. Because of this, table and floor lights with USB charging ports or AC outlets are now prevalent in hotel guestrooms and retailers are increasingly selling these for use in homes. Because there is a federal standard that limits the amount of power consumed by external power supplies used to enable this functionality, EPA modified the exclusion of products incorporating energy-consuming features not related to illumination to allow products such as portable desk task lights with an AC outlet or USB charger to seek ENERGY STAR certification. Products offering this optional functionality are subject to the standby power consumption requirements of Section 11.5.

Additionally, EPA clarified that integral battery packs intended solely for emergency operation of the light source(s) in the event of loss of normal power are considered a feature related to the control of illumination so are not excluded for the purposes of ENERGY STAR certification. This was always intended but never explicitly stated.

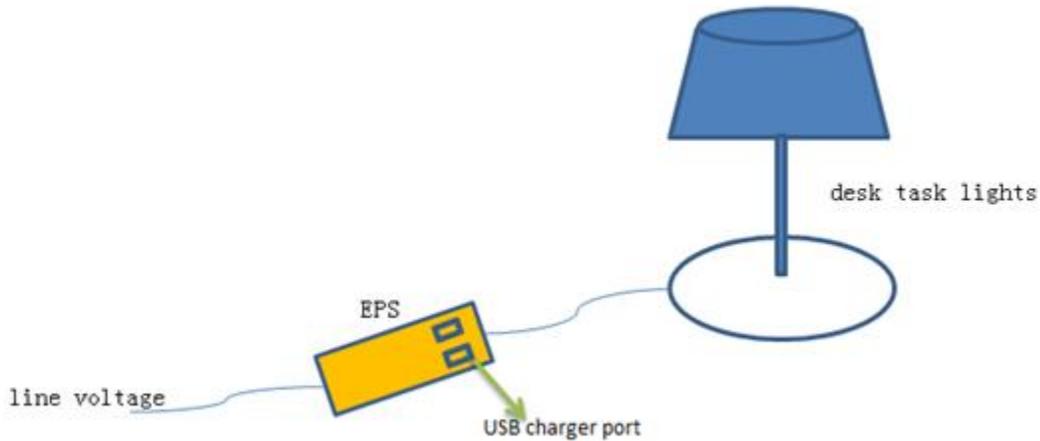
**BACL Recommendation:**

If portable desk task lights supplied by an external power supplies(EPS),and also include 2pcs of AC outlets or USB charger ports, so according to ENERGY STAR Luminaires V2.2 section 11.5 , if required to comply the level V or higher performance requirement?



**BACL Recommendation:**

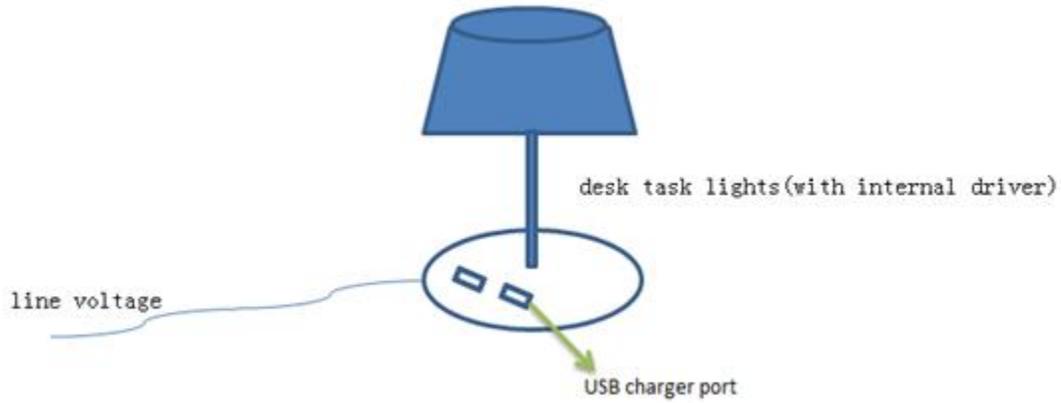
If portable desk task lights supplied by external power supplies(EPS),EPS output include 2 pcs of AC outlet or USB charger port, so according to ENERGY STAR Luminaires V2.2 section 11.5 , if required to comply EPS meet level VI or higher performance requirements.



**BACL Recommendation:**

if portable desk task lights is supplied by one built-in LED Driver, and include 2pcs of AC outlet or USB charger port,

if required to comply with External power supplies (EPS) enabling USB charging functionality shall meet the level VI ?



**Comment No.7:**

In ENERGY STAR Luminaires V2.2, if one luminaire use a DoB IC as LED driver , LED driver on the same board with LED package as below DoB IC photo:

**BACL Recommendation:**

if EPA consider DoB IC used in luminaires to apply Energystar , how to define LED Driver Case Temperature Measurement Point (TMPC), and if have any deviation with other general LED driver?



Wait for your prompt reply and thank you so much! if have any question please contact with me ,thanks!

Thanks and Best Regards

Jeanne Han  
Safety Dept.



**Bay Area Compliance Labs Corp.(Shenzhen)**

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主题: ENERGY STAR Luminaires Version 2.2 Draft Specification

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



OFFICE OF AIR AND  
RADIATION

July 22, 2019

Dear ENERGY STAR® Lighting Stakeholders:

The U.S. Environmental Protection Agency (EPA) is proposing to make minor adjustments reflected in the ENERGY STAR Luminaires Version 2.2 Draft Specification to support several new market developments and provide clarification on two requirements. Current certifications will not be affected by these changes.

The proposed changes include:

1. Personal Device Charging: Products such as portable floor and desk task lights with integral USB chargers and AC outlets are currently excluded from the Luminaires specification. Because consumers may carry upwards of three devices when they travel, table and floor lights with AC outlets and/or USB charging ports are now prevalent in hotel guestrooms and retailers are increasingly selling these for use in homes. Unlike other functionality (e.g., voice assistance, audio speakers, and UV disinfection), EPA is able to propose the inclusion of integral AC outlets and USB charging ports because a federal standard exists that limits the amount of power consumed by the external power supplies used to enable USB charging functionality.
2. New Method of Measurement: The IES has updated LM-79 since the release of the Luminaires V2.1 specification. EPA has evaluated it for consistency and is including it as an acceptable method of measurement for new product certifications.
3. Integral Battery Packs: Products with integral battery packs intended for emergency light

source operation in the event of loss of normal power are not excluded for the purposes of ENERGY STAR certification. This was always intended and is now explicitly stated in Section 1.1.

4. Inseparable Other SSL Luminaires: EPA has included a formal definition for inseparable “other” to clarify that solid state (LED) luminaire types not otherwise itemized in the directional scope must be measured with luminaire photometry.

Clarification was also added to express that directional types that are called out in the specification can be separable or inseparable. The exemption of inseparable other products from Color Angular Uniformity and Luminaire Serviceability requirements was always intended and is now explicitly stated as well.

Partners and stakeholders are encouraged to submit comments on the draft to [lighting@energystar.gov](mailto:lighting@energystar.gov) by August 5, 2019. Please indicate “ENERGY STAR Luminaires V2.2 Draft Specification Comments” in the email subject line. Comments received will be posted to the ENERGY STAR website unless otherwise requested.

EPA appreciates your contribution to the development of this specification and welcomes individual inquiries; please contact me with questions, comments or concerns at (202) 343-9042 or [jantz-sell.taylor@epa.gov](mailto:jantz-sell.taylor@epa.gov) or [lighting@energystar.gov](mailto:lighting@energystar.gov). Thank you for your support of ENERGY STAR.

Sincerely,



Taylor Jantz-Sell  
ENERGY STAR Lighting Program Manager  
U.S. Environmental Protection Agency

For more information, visit: [www.energystar.gov](http://www.energystar.gov)

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