Dear DLC Members and Stakeholders:

The DLC is pleased to release the final version of LUNA Technical Requirements V1.0. By establishing requirements and reporting standards for light distribution, spectral characteristics, and controllability, a LUNA qualification will identify energy efficient luminaires on the Solid-State Lighting (SSL) Qualified Products List (QPL) that also minimize light pollution, are controllable, provide appropriate visibility for people, and limit negative impacts to the environment. The DLC will begin accepting applications for LUNA products in early 2022.

View LUNA Technical Requirements V1.0

LUNA V1.0 Technical Requirements

The DLC LUNA requirements are intended to mitigate negative impacts of lighting at night by establishing system performance specifications and best practices with the following goals:

- **Minimize lighting energy use.** In addition to meeting the efficacy thresholds of the DLC's SSL V5.1 Technical Requirements, LUNA qualified products must meet additional dimming, control, and shielding requirements to ensure efficient use of lighting energy. These thresholds will help efficiency programs meet or exceed their energy savings goals and end users reduce operational costs.
- **Minimize light pollution.** The LUNA program introduces requirements for light distribution, correlated color temperature (CCT), and dimming controls that ensure less light is scattered into the atmosphere, resulting in reduction of light trespass and sky glow, and darker skies for stargazers, astronomers, and wildlife.
- **Provide appropriate visibility for people.** The LUNA program incorporates all SSL V5.1 spectral quality requirements, BUG reporting requirements, and additional spectral power distribution and intensity distribution reporting requirements, enabling lighting installations to meet recommended practices and voluntary guidelines for dark-sky best practices.

The final Technical Requirements include changes resulting from comments received on Draft 2, summarized below:

1. **General comments**
    - The DLC received a total of 80 comments on Draft 2. General comments included requests for reference document changes and clarifications, as well as clearer messaging on the scope of products that are eligible for LUNA.
    - To address the general comments, the final Technical Requirements clarify that LUNA Version 1.0 only addresses white light. Also, an updated reference section at the end of the document includes additional references such as ANSI/IES Recommended Practice For

Design And Maintenance Of Roadway And Parking Facility Lighting (ANSI/IES RP-8-18, which will be updated shortly).

2. **Light Distribution**
    - The DLC received 27 comments related to Light Distribution on Draft 2, which included questions about testing and reporting requirements, uplight from roadway applications, as well as responses to key questions on shielding efficacy allowances, distribution test reporting, and a proposed lowered U Rating for Specialty Hazardous Wall Mounted Luminaires PUDs.
    - To address these comments, the final policy clarifies testing and reporting requirements, and changes the maximum U Rating for Specialty Hazardous Wall Mounted Luminaires PUDs to U1.
3. **Spectral Quality**
    - The DLC received 22 comments related to Spectral Quality on Draft 2, which included considering tunable products with respect to the LUNA eligible CCT range, the weak correlation of CCT to the impacts of light at night, and the potential of graphical representations of spectral data to be misleading when using them to infer specific impacts.
    - To address these comments, the Version 1.0 final Technical Requirements maintain draft proposals that tunable and static products are eligible if they only operate within the eligible chromaticity range and, similar to distribution, the DLC will create SPD images (.png) based on submitted photometric data. To enable product evaluation beyond the SPD image (e.g., to evaluate specific flux proportions within specific wavelength ranges) the DLC will also publish submitted .spdx files for tested products directly for download and use by DLC SSL QPL users.
4. **Controllability**
    - The DLC received 15 comments related to Controllability on Draft 2, which included additional dimming protocols and standards, questions about the “acceptable terms” process, and considerations to align with code.
    - The DLC is maintaining the dimming requirement and has clarified that for Tables 7, 8, and 9, applications for LUNA qualification will follow the same process as for SSL V5.1 controllability, clarifying “acceptable terms” as needed, based on discussion between reviewers and applicants.

Informational Webinar

The DLC will host an informational webinar in English on **Wednesday, January 26 at 1:00 pm ET** to review the final LUNA V1.0 Technical Requirements. A Mandarin webinar will be held on **Thursday, February 17 at 9:00 pm ET**.

Register for English Webinar **Register for Mandarin Webinar**

If you have questions about the LUNA requirements, please contact info@designlights.org. We look forward to engaging with you as we continue to develop the LUNA program.

Best regards,

The DLC Team