

Connected Lighting and Lighting Controls Category Scope

This category is intended to be inclusive of all residential connected lighting applications. Entries are not necessarily limited to standalone products such as smart or connected light bulbs or fixtures; they can also be lighting controls, systems, or system components. Products must be available for sale by retailers serving the residential new construction and major renovation markets in the United States and Canada. If an entry is comprised of components from more than one manufacturer, the competition encourages collaboration in the submission of the entry. Categories include:

- Lamps
- Fixtures
- Dimmers and Switches
- Combination and Multi-function Devices
- Whole House Lighting Systems

The Competition is open to products with primary applicability in the residential sector, or in residential-style applications such as hospitality and assisted living environments. Lighting and controls intended for indoor or outdoor applications are eligible to enter. All controls must be compatible with LED technology. Dimming controls must be able to dim LED lamps marked as “dimmable.”

The Competition is intended to highlight residential lighting products that are available for purchase in 2021. As such, products available or planned for introduction to the market between January 1, 2019 and December 31, 2021 are eligible to enter the 2021 Competition.

If a manufacturer is interested in submitting a product family, the Competition recommends that you select a single product that is representative of the product family and note in the submission form that the single entry is part of a larger family. Manufacturers are also invited to submit images of other products within the family as well as marketing materials that show the product family.

If you are unsure whether your product falls within the category scope or have additional questions, please reach out to Kim Katz at competition@ceel.org.

Desired Capabilities

The Integrated Home Competition is seeking connected lighting devices to help customers manage their energy use. It is not expected that entries will include all of the following, but some qualities and capabilities that are desired include:

2021 Lighting & Lighting Controls Guide

- Meet CEE Tier 1/ENERGY STAR® Program Requirements, if applicable. Products that meet CEE Tier 2 or 3 requirements will be awarded additional points.¹

	Initial Efficacy (lm/W) CRI ≥ 80	Initial Efficacy (lm/W) CRI ≥ 90	Correlated Color Temperature (K)	Rated Life (hours)	Power Factor	Dimming
CEE Tier 1						
Omnidirectional	≥ 80	≥ 70	≤ 6500	≥ 15,000	< 10W, ≥ 0.6 ≥ 10W, ≥ 0.7	Not required
Directional	≥ 70	≥ 61	≤ 6500	≥ 15,000	≥ 0.7	Not required
Decorative	≥ 65	≥ 65	≤ 6500	≥ 15,000	≥ 0.7	Not required
CEE Tier 2						
Omnidirectional	≥ 95	≥ 80	≤ 5000	≥ 25,000	≥ 0.7	≤ 20%
Directional	≥ 85	≥ 70	≤ 5000	≥ 25,000	≥ 0.7	≤ 20%
Decorative	≥ 80	≥ 70	≤ 5000	≥ 15,000	≥ 0.7	≤ 20%
CEE Advanced Tier						
Omnidirectional		≥ 90	≤ 5000	≥ 25,000	≥ 0.9	≤ 10%
Directional		≥ 80	≤ 5000	≥ 25,000	≥ 0.9	≤ 10%
Decorative		≥ 80	≤ 5000	≥ 25,000	≥ 0.9	≤ 10%

- Color tuning and dimming capabilities.
- Low standby power based on functionality provided (less than 0.5W preferred). Standby power refers to the power consumption of the product when the product is not engaged in an “on” state, but the connected functionality remains online.
- Energy management, which encompasses features that reduce the product’s overall energy consumption levels either through core product functionality or influencing customer behavior.
 - Energy consumption information for users, including remote access via an app, website, or home energy management system.
 - Programmable settings, such as vacation, away, or nighttime modes that reduce energy use.
- Ability to receive and respond to a utility or third-party signal (i.e. pricing signal or curtailment signal).
 - Data sharing with consumer-authorized third parties, including operational status and energy consumption reporting.
- Sensing capabilities to optimize lighting operation based on occupancy, light levels, geofencing, motion sensing, or infrared signal sensing.
- Consumer customization, such as:
 - The ability to input preferences and parameters related to product operation.
 - The ability to tailor notifications for events like device status, system failures, power surges, or planned device shutdowns.

¹ <https://library.cee1.org/content/cee-residential-lighting-initiative-october-1-2017/>.

2021 Lighting & Lighting Controls Guide

- Continued functionality when cloud connection is lost.
- Ability to operate seamlessly with other connected devices, systems, and platforms within the home.
- Ongoing, active management of settings through features like automatic scheduling or learning-based schedule creation based on consumer preferences and habits.
- Simplified device set up and use, including installation and account set up.
- Intuitive consumer operation through multiple interfaces.
- Product resiliency, which encompasses features that enable the product to prepare and plan for, absorb, recover from, and more successfully adapt to adverse events (such as battery backup operation or durable components).

Again, it is not expected that entries will include all the above capabilities; rather, products should include measures that save energy and provide a positive consumer experience. Additional capabilities beyond this list will also be considered in the judging process. Products with greater functionality generally receive more points (see the [Judging Criteria](#) for more information).

Entry Requirements

- Complete submission form
- Entries selected for live judging (Finalists):
 - Must ship products to the judging location. For more information, please see the [Shipping Instructions](#) document.
 - Product entries must be submitted in a format that demonstrates how they would work within a typical home, including if they are part of a larger system.
- If selected as a Winner, entrants must:
 - Provide laboratory reports for energy performance.
 - Complete a cybersecurity questionnaire, with the possibility of a follow up interview.

Awards for Connected Lighting and Lighting Controls

Products will likely be awarded at Lightovation: Dallas International Lighting Show, January 2022, subject to change. Winners will also be promoted through press releases to both consumer and trade publications and among CEE members, the Integrated Home Competition website, CEE Meetings, and materials at key industry events. In addition, CEE member efficiency program administrators may choose to recommend winning entries to their customers.

Additional Questions?

Check out the FAQ at <https://www.integratedhome.net/competition/> or contact Kim Katz at competition@ceel.org with any questions.