DiiA debuts DALI-2 certification of tunable white LED drivers

DALI-2 brings standardization to tunable white LED drivers, enabling human-centric lighting control that can mimic changes in natural light during the day.

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The Digital Illumination Interface Alliance (DiiA), the global industry organization for DALI lighting control, has expanded the scope of the DALI-2 certification program to include tunable white colour control.

DiiA has added the colour temperature Tc method of colour control as a feature for DALI-2 control gear such as LED drivers. Commonly referred to as "tunable white", Tc allows control of the correlated colour temperature (CCT) along the black-body line, from warm white to cool white.

“DALI-2 certification for tunable white colour control has important implications for well-being and productivity in buildings,” says Paul Drosihn, DiiA General Manager. “For example, colour temperature control at different times of the day, coupled with light intensity measurements and occupancy detection from DALI-2 sensors, results in comfortable and efficient lighting schemes.”

The first DALI-2 tunable white LED drivers, from DiiA member eldoLED, are already listed in the online Product Database (www.dali2.org/products).

Tc is one of several methods to control the colour output of light sources—known as colour types—that are described in Part 209 of the IEC 62386 standard. DiiA created the rigorous DALI-2 test procedures that allow DiiA members to confirm that their products meet the requirements of Part 209 colour type Tc. The test results are verified by DiiA as part of the DALI-2 certification process, building further confidence in multi-vendor interoperability of certified DALI-2 products.

DALI-2 certification of LED drivers has been available since mid-2017. All DALI-2 drivers have compulsory attributes such as a standardized dimming curve. Tunable white colour control is now added to the list of optional features for LED drivers, which also includes the ability to store and report a rich set of luminaire, energy and diagnostics data (DiiA Parts 251-253 respectively).

The other main colour types are RGBWAF (known as "RGB colour control”) and xy-coordinate (known as “xy colour control”). DiiA is developing DALI-2 tests for these colour types so they can be included in the DALI-2 certification program at a later date.

About DiiA

The Digital Illumination Interface Alliance (DiiA) is an open, global consortium of lighting companies that is growing the market for lighting-control solutions based on the internationally standardized Digital Addressable Lighting Interface (DALI) protocol. DiiA is driving the adoption of DALI-2, which includes more product types such as sensors and controllers; more features such as luminaire, energy and diagnostics data; clearer specifications; and increased testing.

DALI-2 also includes a certification and trademark program, operated by DiiA, which builds confidence in cross-vendor product interoperability. DiiA develops test specifications for DALI-2 product compliance testing, and also creates new specifications to extend DALI-2. The new D4i certification program from DiiA brings standardization to intra-luminaire DALI. For more information, please visit www.digitalilluminationinterface.org.

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