

1 DESCRIPTION AND KEY FEATURES

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araya⁵ Tunable Color Round LED Arrays



araya⁵ Logic Modules

Description

araya⁵ Logic Modules (ALM) connect to tunable color high-power round LED arrays that mix five colors of LEDs to deliver tunable and dimmable white light at 90+ CRI* with color consistency of <2 MacAdam ellipse across a tuning range of 1650 - 8000K. The ALM is connected to one LED array via low-cost ribbon cables, and features on-board driver electronics and the araya⁵ control logic for precise control of LED light output while tuning and dimming. On-board closed loop thermal feedback compensates each color channel for thermally induced variations in light output due to dimming or changes in ambient temperatures. On-board closed loop optical feedback measures the lumen depreciation of each channel and re-balances the color model to ensure color consistency over the 50,000 hour life of the LED array. A patented in-line manufacturing process captures and stores the spectral characteristics of each LED on the array, rapidly generating a unique color model for each array. Delivered light can be dimmed from 100 - 1%** in increments of 1% at constant CCT. Gradients of saturated colors from 1 - 100% can be added to color points within the tuning range. The Zhaga-compliant LED arrays are compatible with traditional 0 - 10V wired controls, feature on-board Bluetooth Low Energy (BLE) and Bluetooth Mesh***, and can access DMX512-A-RDM, DALI Type 8**** or Lutron[®] EcoSystem inputs via an optional accessory board that connects to an electrically isolated expansion port within the ALM. For simple deployment, SceneSet[®] allows up to five scenes to be pre-programmed into the LED array during production and recalled at the venue using a 0 - 10V recommended dimmer or via Bluetooth. Commissioning of the LED array and the re-programming of Scenaset is done via the wireless araya⁵ Tunable Color 2.0 iOS app that connects to the embedded Bluetooth radio.

Key Features

- Tunable range: 1650 - 8000K
- 90+ CRI*
- Dimmable from 100 - 1%** at constant CCT
- Color gamut control: gradients of saturated colors from 1 - 100% can be added to color points
- Integrated driver electronics and araya⁵ logic
- On board thermal and optical feedback for color consistency <2 MacAdam ellipse over 50,000 hour life
- In-line spectral capture and storage creates unique color model for each Zhaga-compliant LED array, resulting in consistent CRI and CCT across all arrays
- On-board thermal turndown
- Compatible with 0 - 10V wired controls
- On-board Bluetooth Low Energy (BLE) and Bluetooth Mesh***
- DMX512-A-RDM, DALI Type 8**** or Lutron EcoSystem control accessibility via optional accessory board that connects to an electrically isolated compartment within the ALM
- Copy and Paste for exact fixture to fixture matching
- SceneSet enables up to five scenes to be preprogrammed and recalled using a 0 - 10V recommended dimmer or via Bluetooth
- DMX slots set by RDM or via wireless araya⁵ Tunable Color 2.0 iOS app



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