

# 1 DESCRIPTION AND ORDERING INFORMATION



## Description

araya<sup>5</sup> Color Tuning Modules mix five colors of LEDs to deliver tunable and dimmable white light at 90+ CRI and color consistency of <2 MacAdam ellipse across tuning ranges of 1650 - 4000K or 2700 - 6000K. 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. araya<sup>5</sup> modules integrate the driver electronics for precise control of current and PWM inputs and LED light output while tuning and dimming. On board closed loop thermal feedback compensates each color channel for thermally induced variations in optical output due to tuning, dimming or 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 module. An in-line manufacturing process captures the spectral characteristics of each LED under multiple conditions, generating a unique color model for each color tuning module. araya<sup>5</sup> Color Tuning Modules are compatible with traditional 0 - 10V wired controls, and digital protocols including Lutron<sup>®</sup> EcoSystem and DMX / Bluetooth using the optional Lumenetix Digital Control Adapter. For simple deployment, SceneSet<sup>®</sup> allows up to five scenes to be pre-programmed into the module during production and recalled at the venue using a 0 - 10V controller. Commissioning of the module and the re-programming of SceneSet<sup>®</sup> is done via the wireless Lumenetix Light Commissioning Tool that connects to the embedded radio. The CTM Zero series features light emitting surfaces (LES) of 22 mm and 32 mm, and tuning ranges of 1650 - 4000K and 2700 - 6000K.

## Key Features

- Two tunable ranges: 1650 - 4000K and 2700 - 6000K
- 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
- On board thermal & optical feedback for color consistency of <2 MacAdam ellipse over 50,000 hour life
- On board thermal turndown
- In-line spectral capture creates unique color model for each module
- Compatible with 0 - 10V wired controls
- Lutron EcoSystem, DMX / Bluetooth compatibility via the optional Digital Control Adapter
- Copy and Paste for exact fixture to fixture matching
- SceneSet enables up to five scenes to be preprogrammed and recalled using a 0 - 10V controller
- Commissioning via wireless Light Commissioning Tool
- Two light emitting surfaces: 22mm and 32mm
- Front heat sink mounting
- Provisions for reflector mounting



Light Commissioning Tool

## Photometrics and Ordering Codes

Tunable Color Ranges: 1650 - 4000K 2700 - 6000K		Wattage	Peak Lumens / Ordering Codes			
			Peak Lumens	Ordering Code	Peak Lumens	Ordering Code
Specifications*	CTM 0TD	32W	1800	45.011.003.01	2000	45.011.004.01
	CTM 0ND	32W	1600	45.011.001.01	1800	45.011.002.01
	CTM 0TD	25W	1500	45.011.008.01	1575	45.010.018.01
	CTM 0ND	25W	1400	45.011.007.01	1450	45.010.016.01
	CTM 0TD	20W	1300	45.010.023.01	1350	45.011.009.01
	CTM 0ND	20W	1200	45.010.020.01	1250	45.010.015.01
CRI (Ra) Across Tuning Range	>90					
Dimming	100% to 1% in increments of 1% at constant CCT					
Nominal Color Consistency	<2 MacAdam ellipse (±0.002 Duv from C78.377-2008 ANSI curve)					
Color Consistency Over Life	Calibration maintains original color points over life					
Lumen Maintenance	L70 (70% of initial lumens) at 50,000 hours					

\* Lumen and wattage range is within +/- 10% of the nominal value. Peak efficacy is not necessarily at typical peak lumens.