

1 DESCRIPTION AND ORDERING INFORMATION



Description

araya⁵ Dynamic Dimming Modules mix five colors of LEDs to deliver tunable white light that warms as it dims at 90+ CRI and color consistency of <2 MacAdam ellipses. Delivered light dims from 3050K at full intensity to 1800K at 1% intensity, in increments of 1%. araya⁵ modules integrate the driver electronics for precise control of current and PWM inputs and LED light output while dimming. An MR16 halogen dimming profile is offered. On board closed loop thermal feedback compensates each color channel for thermally induced variations due to changes in CCT, 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 module. araya⁵ Dynamic Dimming Modules are compatible with traditional 0 - 10V wired controls, and digital protocols including Lutron[®] EcoSystem and DMX / Bluetooth using the optional Lumenetix Digital Control Adapter. The DDM Zero series features light emitting surfaces (LES) of 22 and 32 mm.

Key Features

- Dimming profile that warms as it dims, launching at 3050K at full intensity to 1800K at 1%
- 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 with optional Digital Control Adapter
- Two light emitting surfaces (LES): 22 mm and 32 mm
- Front heat sink mounting
- Provisions for reflector mounting

Photometrics and Ordering Codes

Dimming Range: 3050 - 1800K	Nominal Wattage	Dimming Profile	DDM 0ND		DDM 0TD	
			Typical Peak Lumens	Ordering Code	Typical Peak Lumens	Ordering Code
Specifications*	32W	MR16	1600	45.011.005.02	1800	45.011.006.01
	25W	MR16	1325	45.011.010.01	1500	45.011.011.01
	20W	MR16	1200	45.011.012.01	1300	45.011.013.01
CRI (Ra) Across Tuning Range	>90					
Dimming	100% to 1% in increments of 1%					
Nominal Color Consistency	<2 MacAdam ellipse (± 0.002 Duv from 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.