

1 DESCRIPTION AND ORDERING INFORMATION



DDM 109



DDM 112



DDM 119



DDM 119NR

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 5% intensity, and then maintains 1800K to 1%. araya⁵ modules integrate the driver electronics for precise control of current and PWM inputs and LED light output. 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 color tuning module. araya⁵ Dynamic Dimming Modules feature on board Bluetooth Low Energy and DMX512-A-RDM. Lutron[®] EcoSystem compatibility is achieved using the optional Lumenetix Digital Control Adapter. For simple deployment, SceneSet[®] allows up to five scenes to be pre-programmed into the module during production and recalled at the venue using a 0 - 10V recommended dimmer. Commissioning of the module, re-programming of SceneSet, and configuration of DMX channels is done via RDM or the wireless araya⁵ Tunable Color 2.0 iOS app that connects to the embedded radio. The DDM One series features light emitting surfaces (LES) of 9, 12 and 22 mm.

Key Features

- Dimming profile that warms as it dims, launching at 3050K at full intensity to 1800K from 5% down to 1%
- 90+ CRI*
- Integrated driver electronics
- On board thermal and 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
- Embedded Bluetooth radio
- On-board DMX512-A-RDM, with DMX slots set by RDM or via wireless araya⁵ Tunable Color 2.0 iOS app
- Lutron EcoSystem compatibility via the optional Digital Control Adapter
- SceneSet enables up to five scenes to be preprogrammed and recalled using a 0 - 10V recommended dimmer
- Three light emitting surfaces (LES): 9, 12 and 22 mm
- Zhaga compliant footprint and front heat sink mounting
- Provisions for reflector mounting



araya⁵ Tunable Color 2.0 iOS App

Photometrics and Ordering Codes

Dimming Range: 3050 - 1800K	Nominal Wattage	Dimming Profile	DDM 109		DDM 112		DDM 119 / 119NR		
			Typical Peak Lumens	Ordering Code	Typical Peak Lumens	Ordering Code	Typical Peak Lumens	Ordering Code (DDM 119)	Ordering Code (DDM 119NR)
Specifications**	25W	MR16	1100	80.002.057.01	1250	80.002.060.01	1500	80.002.063.01	80.002.066.01
	18W	MR16	850	80.002.058.01	1000	80.002.061.01	1200	80.002.064.01	80.002.067.01
	12.5W	MR16	700	80.002.059.01	830	80.002.062.01	1000	80.002.065.01	80.002.068.01
CRI (Ra) Across Tuning Range	>90*								
Dimming	100% to 1% in increments of 1% at variable CCT								
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								

* From 2000 - 3050K.

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