

## 1 DESCRIPTION AND ORDERING INFORMATION



DDM 109



DDM 112



DDM 119



DDM 119NR

### Description

araya<sup>5</sup> 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%. araya<sup>5</sup> modules integrate the driver electronics for precise control of current and PWM inputs and LED light output while dimming. An MR16 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. araya<sup>5</sup> Dynamic Dimming 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. 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 at 1%
- 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
- Lutron EcoSystem, DMX / Bluetooth control compatibility with optional Digital Control Adapter
- Three light emitting surfaces (LES): 9, 12 and 22 mm
- Zhaga compliant footprint and front heat sink mounting
- Provisions for reflector mounting

### Photometrics and Ordering Codes

	Tunable Range	Wattage	Dimming Profile	DDM 109		DDM 112		DDM 119 / 119NR		
				Peak Lumens	Ordering Code	Peak Lumens	Ordering Code	Peak Lumens	Ordering Code (DDM 119)	Ordering Code (DDM 119NR)
Specifications*	3050 - 1800K	20W	MR16	875	45.007.003.02	1000	45.007.004.02	1200	45.007.002.02	45.007.005.02
		12.5W	MR16	600	45.007.010.07	650	45.007.010.05	800	45.007.010.03	45.007.010.01
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 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.