

MR16 9W



OUTPUT RANGE: VIVID SERIES 465 - 490 lumen

OUTPUT RANGE: BRILLIANT SERIES 560 - 590 lumen

BEAM ANGLE RANGE 25°, 36°

COLOR TEMPERATURE RANGE 2700K, 3000K

APPLICATION Not suitable for enclosed or lensed fixtures. Halogen replacement for indoor applications.

**FLICKER
FREE**



**12V
AC**



DIM



POINT SOURCE OPTICS

Exceptional beam control with smooth uniform beams
Single light source, single crisp shadow

VP₃ VIVID COLOR & VP₃ NATURAL WHITE

VIVID series provides accurate color rendering across the visible spectrum from 400nm to 700nm, with CRI/95, R9/95, Rf/90, Rg/100

Whiteness rendering matches or exceeds that of halogen and incandescent sources at 2700K and 3000K

ENERGY EFFICIENCY & LONG LIFE

85% more energy efficient than standard halogen lamps

Typical payback of one year or less

Rated lifetime of 35,000 hours. 3 year warranty

CERTIFICATIONS

UL/CUL Class 2 and non-Class 2, FCC Title 47 Part 15B, RoHS, CE



RoHS

HIGHLY COMPATIBLE

Geometrically compatible with standard fixtures

This lamp is not recommended for use in enclosed fixtures or for use with front glass cover.

Suitable for damp locations

Works with trailing edge and leading edge phase cut dimmers, 12V AC magnetic and electronic transformers and 12V DC transformers (see www.soraa.com/resources)

INTENDED USE AND APPLICATIONS

Intended for use in MR16 compatible recessed downlights, track lighting and other indoor applications

Soraa lamps are designed to safely turn down in high temperature environments to protect LED and components. This lamp should not be used in fully enclosed or lensed fixtures

GENERAL SPECIFICATIONS

Form Factor

Width: 50.1mm (1.97")

Height: 45.5mm (1.79")

Weight: 47g

Operating Temperature

Minimum: -40°C (ambient)

Typical: 90°C - 95°C (base)

Maximum: 100°C (base)

Electrical

Wattage: 9W

Power factor: 0.92

Voltage: 12V +/- 1.2V

Frequency: 50/60Hz

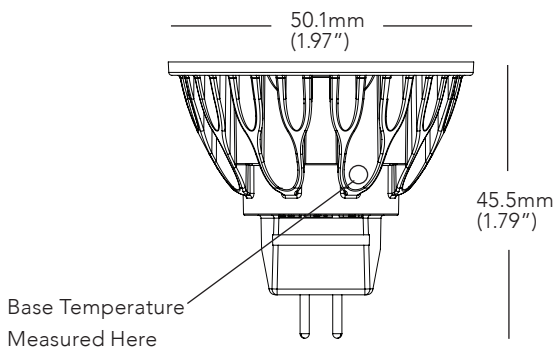
Dimming and Flicker

Dimmable to <20%

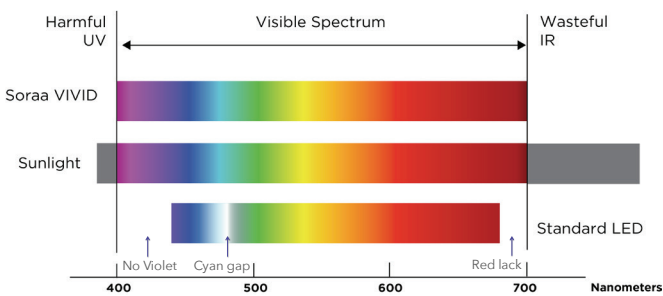
Flicker Index: 0.02

Percent Flicker: 5%

DIMENSIONS

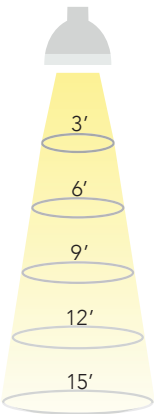


COLOR RENDERING



25 DEGREE BEAM

Beam Dia at 50% CBCP (ft)	Field Dia at 10% CBCP (ft)	Foot-candles (% of CBCP)
1.3	2.2	11.1%
2.7	4.4	2.8%
4.0	6.6	1.2%
5.3	8.7	0.7%
6.7	10.9	0.4%



36 DEGREE BEAM

Beam Dia at 50% CBCP (ft)	Field Dia at 10% CBCP (ft)	Foot-candles (% of CBCP)
1.9	3.3	11.1%
3.9	6.5	2.8%
5.8	9.8	1.2%
7.8	13.0	0.7%
9.7	16.3	0.4%

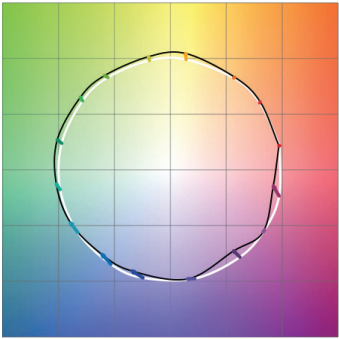
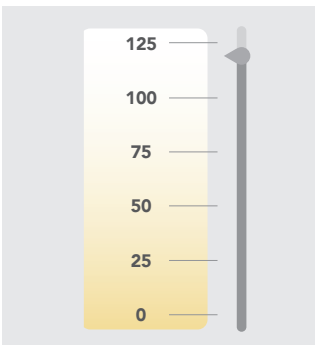
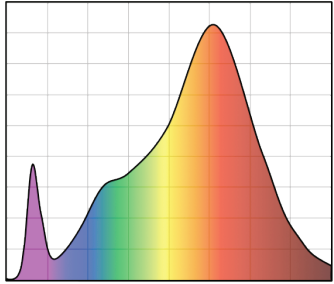
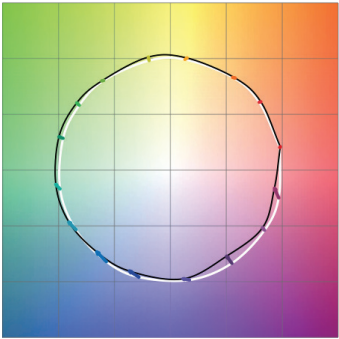
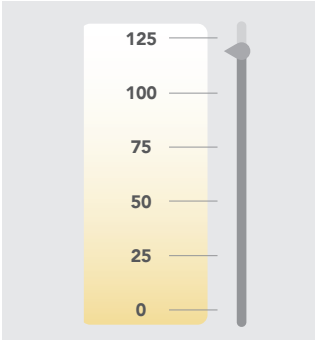
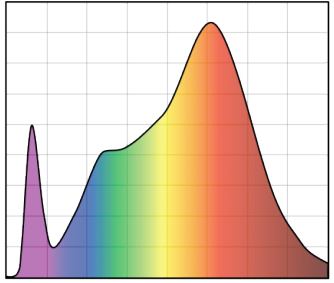
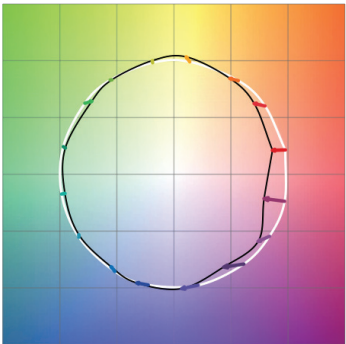
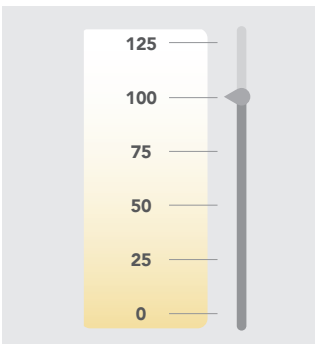
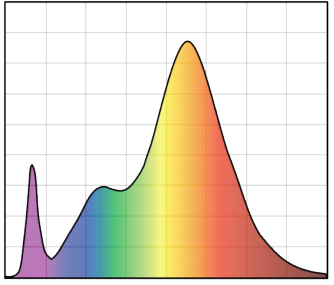
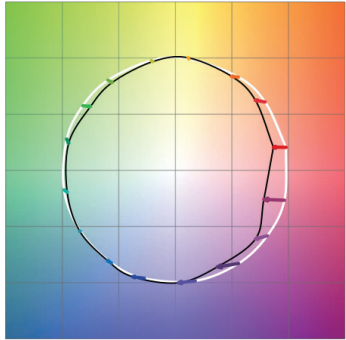
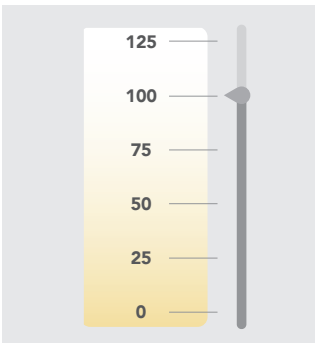
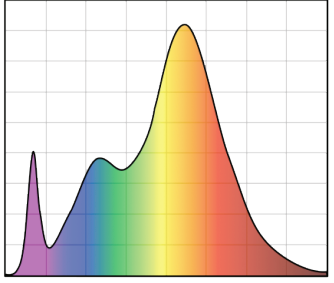
Note: Footcandles may be calculated by multiplying the CBCP of the desired model number by the percentage in the tables above

SPECIFICATIONS BY MODEL NUMBER* SORAA LED MR16 9W

Model #	Product Code	CCT (K)	Beam Angle	CBCP (Cd)	Halogen Equivalent	Total Flux (Lm)	Efficacy (Lm/W)	McA	Energy Star	SNAP
VIVID SERIES										
SM16-09-25D-927-03	00955	2700	25	2570	60	465	52	3	YES	-
SM16-09-36D-927-03	00963	2700	36	1210	60	465	52	3	YES	-
SM16-09-25D-930-03	00959	3000	25	2700	60	490	54	3	YES	-
SM16-09-36D-930-03	00967	3000	36	1280	60	490	54	3	YES	-
BRILLIANT SERIES										
SM16-09-25D-827-03	00953	2700	25	3090	75	560	62	3		-
SM16-09-36D-827-03	00961	2700	36	1460	75	560	62	3	YES	-
SM16-09-25D-830-03	00957	3000	25	3260	75	590	66	3	YES	-
SM16-09-36D-830-03	00965	3000	36	1540	75	590	66	3	YES	-

CCT: Correlated Color Temperature **McA**: White Point Accuracy in McA step **SNAP**: SORAA SNAP System Compatible

*Specifications are at stable warm operating conditions (25°C ambient)

SERIES/CCT	COLOR ACCURACY	WHITENESS INDEX	SPECTRAL POWER DISTRIBUTION
VIVID 2700K	 <p>Rf: 90, Rg: 100, Rfh1: 95</p>	 <p>Rw: 120</p>	 <p>380 Wavelength (nm) 780</p> <p>CRI: 95, R9: 95</p>
VIVID 3000K	 <p>Rf: 90, Rg: 100, Rfh1: 95</p>	 <p>Rw: 120</p>	 <p>380 Wavelength (nm) 780</p> <p>CRI: 95, R9: 95</p>
BRILLIANT 2700K	 <p>Rf: 85, Rg: 92, Rfh1: 77</p>	 <p>Rw: 100</p>	 <p>380 Wavelength (nm) 780</p> <p>CRI: 85, R9: >0</p>
BRILLIANT 3000K	 <p>Rf: 85, Rg: 92, Rfh1: 77</p>	 <p>Rw: 100</p>	 <p>380 Wavelength (nm) 780</p> <p>CRI: 85, R9: >0</p>

Rf: TM-30 metric measuring color fidelity (whether colors are similar to those under natural light). Rf is a more accurate version of the CRI Ra. Rf is 100 for natural light.
Rg: TM-30 metric measuring color gamut (whether colors are more saturated than under natural light). Rg is 100 for natural light.
Rfh1: TM-30 metric measuring color fidelity for red tones. Rfh1 is a more accurate version of the CRI R9. Rfh1 is 100 for natural light.
Rw: Soraa-developed metric to measure white fidelity. Rw measures the magnitude of excitation of whitening agents within whites. Rw is about 100 for natural light.