

SORAA LED MR16

6W



OUTPUT RANGE: VIVID SERIES	290 - 310 lumen; CRI-95, R9>90
OUTPUT RANGE: BRILLIANT SERIES	355 - 375 lumen; CRI-80
BEAM ANGLE RANGE	25°, 36°
COLOR TEMPERATURE RANGE	2700K, 3000K
APPLICATION	Halogen replacement for indoor & outdoor applications

12VAC

GU-5.3



DIM



POINT SOURCE OPTICS

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

VP₃ VIVID COLOR AND VP₃ NATURAL WHITE

VIVID series provides accurate color rendering across the visible spectrum from 400nm to 700nm, CRI-95, R9>90

Accurate white rendering based on >70% excitation of Optical Brightening Agents with emission between 400nm & 440 nm

ENERGY EFFICIENCY AND LONG LIFE

85% more energy efficient than standard halogen lamps
Typical payback of one year or less
Rated lifetime of 35,000 hours. Three year warranty

CERTIFICATIONS

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

HIGHLY COMPATIBLE

Geometrically compatible with standard fixtures and suitable for damp locations

This lamp is suitable for use in fully enclosed fixtures, subject to the maximum heatsink temperature limits stated in this data sheet. A list of qualified enclosed fixtures can be found at www.soraa.com/resources

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 and outdoor applications

Soraa lamps are designed to safely turn down in any thermal environment not conducive to minimum airflow or proper ventilation

GENERAL SPECIFICATIONS

Form Factor

Width: 50.1mm (1.97")

Height: 45.5mm (1.79")

Weight: 47g

Operating Temperature

Minimum: -40°C (ambient)

Typical: 70°C - 80°C (base)

Maximum: 85°C (base)

Electrical

Wattage: 6W

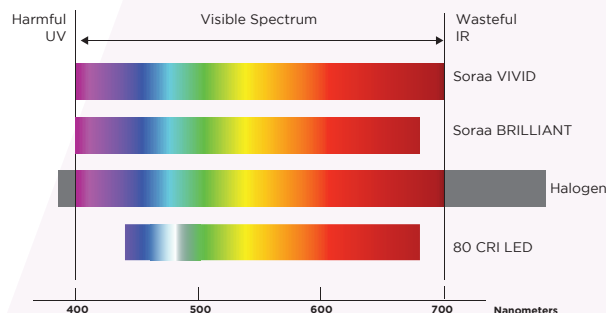
Power factor: 0.92

Voltage: 12V +/- 1.2V

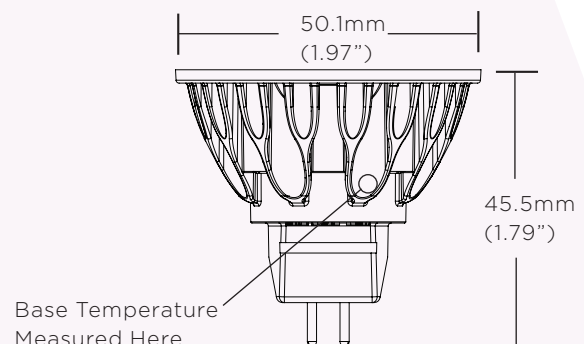
Dimmable to < 20%

Frequency: 50/60Hz

COLOR RENDERING



DIMENSIONS



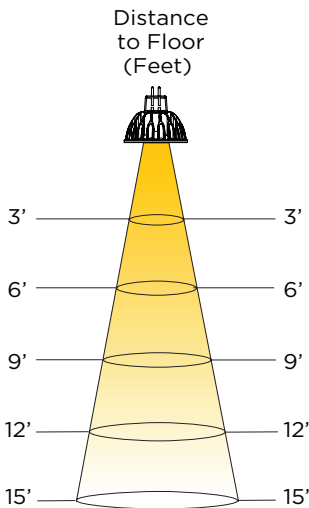
RoHS

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BEAM DIAGRAM

Narrow Flood 25°

Beam Dia at 50% CBCP (ft)	Field Dia at 10% CBCP (ft)	Foot-candles (% of CBCP)
0.4	0.7	11.1%
0.9	1.5	2.8%
1.3	2.2	1.2%
1.8	2.9	0.7%
2.2	3.6	0.4%



Flood 36°

Beam Dia at 50% CBCP (ft)	Field Dia at 10% CBCP (ft)	Foot-candles (% of CBCP)
0.6	1.1	11.1%
1.3	2.2	2.8%
1.9	3.3	1.2%
2.6	4.3	0.7%
3.2	5.4	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*

Model Number	Reference Number	Product Code	CCT (K)	Beam Angle (°)	CBCP (Cd)	Halogen Equivalent** (Watts)	Total Flux (Lm)	Efficacy (Lm/W)	CRI/ R9	White Point (McA)
SORAA VIVID SERIES										
SM16-06-25D-927-03	MR16-36-B01-12-927-25	01161	2700	25	1600	35	290	48	95/95	3
SM16-06-36D-927-03	MR16-36-B01-12-927-36	01173	2700	36	750	35	290	48	95/95	3
SM16-06-25D-930-03	MR16-36-B01-12-930-25	01165	3000	25	1710	35	310	52	95/95	3
SM16-06-36D-930-03	MR16-36-B01-12-930-36	01177	3000	36	810	35	310	52	95/95	3
SORAA BRILLIANT SERIES										
SM16-06-25D-827-03	MR16-50-B01-12-827-25	01159	2700	25	1960	35	355	59	80/>0	3
SM16-06-36D-827-03	MR16-50-B01-12-827-36	01171	2700	36	930	35	355	59	80/>0	3
SM16-06-25D-830-03	MR16-50-B01-12-830-25	01163	3000	25	2070	35	375	62	80/>0	3
SM16-06-36D-830-03	MR16-50-B01-12-830-36	01175	3000	36	980	35	375	62	80/>0	3

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

CCT = Correlated Color Temperature CRI = Color Rendering Index (Ra-8) White Point = White Point Accuracy in McA step

SAFETY NOTE ON HEAT

Although Soraa's lamps operate at cooler temperatures than halogen lamps, it is recommended that gloves be worn when handling bare lamps that have been energized.

Information and specifications subject to change. SM16 6W Rev 1 11.23.15
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