

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

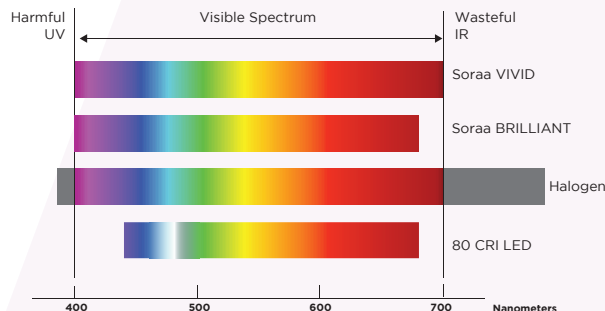
Operating Temperature

Minimum: -40°C (ambient)
Typical: 70°C - 80°C (base)
Maximum: 85°C (base)

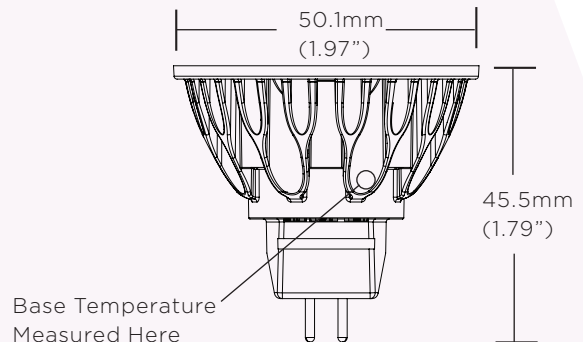
Electrical

Wattage: 6W
Power factor: 0.92
Voltage: 12V +/- 1.2V
Dimmable to < 20%
Frequency: 50/60Hz

COLOR RENDERING



DIMENSIONS



RoHS

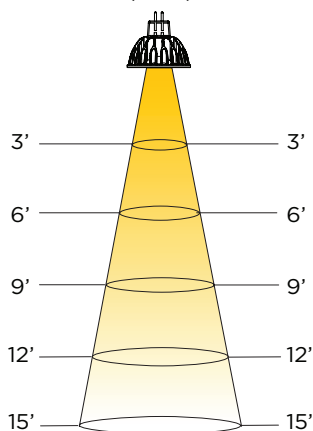
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BEAM DIAGRAM

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% |

Distance to Floor (Feet)



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
Soraa Inc. 6500 Kaiser Drive, Suite 110, Fremont, CA 94555
 855 GO-SORAA / 855 467-6722 www.soraa.com