

# SORAA LED MR16

## 9W



|                                |                                                       |
|--------------------------------|-------------------------------------------------------|
| OUTPUT RANGE: VIVID SERIES     | 465 - 490 lumen; CRI-95, R9>90                        |
| OUTPUT RANGE: BRILLIANT SERIES | 560 - 590 lumen; CRI-80                               |
| BEAM ANGLE RANGE               | 25°, 36°                                              |
| COLOR TEMPERATURE RANGE        | 2700K, 3000K                                          |
| APPLICATION                    | Halogen replacement for indoor & outdoor applications |



### POINT SOURCE OPTICS

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

### VP<sub>3</sub> VIVID COLOR AND VP<sub>3</sub> 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

Thermally and geometrically compatible with standard fixtures

Suitable for fully enclosed fixtures per UL 1993. Can be used with front glass cover

Suitable for damp locations per UL

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](http://www.soraa.com/resources))

### INTENDED USE AND APPLICATIONS

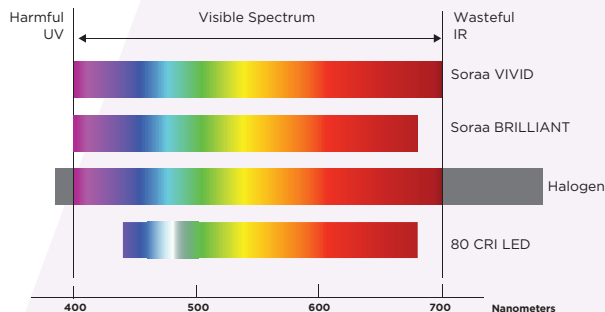
Intended for use in MR16 compatible recessed downlights, track lighting and other indoor and outdoor applications

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

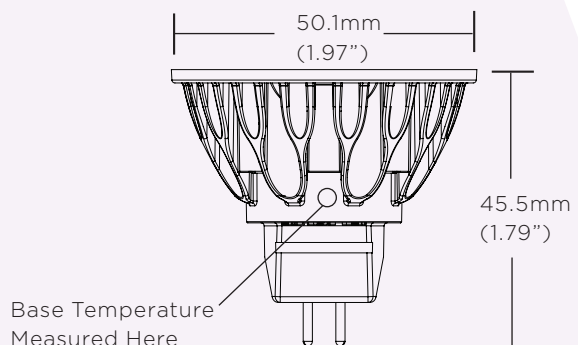
### GENERAL SPECIFICATIONS

| Form Factor            | Operating Temperature       | Electrical            |
|------------------------|-----------------------------|-----------------------|
| Width: 50.1mm (1.97")  | Minimum: -40°C (ambient)    | Wattage: 9W           |
| Height: 45.5mm (1.79") | Typical: 80°C - 90°C (base) | Power factor: 0.92    |
| Weight: 47g            | Maximum: 100°C (base)       | Voltage: 12V +/- 1.2V |
|                        |                             | Dimmable to < 20%     |

### COLOR RENDERING



### DIMENSIONS

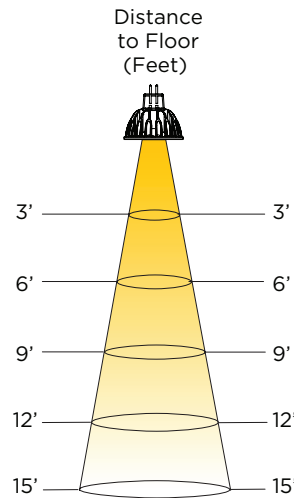


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### BEAM DIAGRAM

#### Narrow Flood 25°

| Beam Dia at 50% CBCP (ft) | Field Dia at 10% CBCP (ft) | Foot-candles (% of CBCP) |
|---------------------------|----------------------------|--------------------------|
| 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%                     |



#### Flood 36°

| 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\*

| 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) |
|-------------------------------|-----------------------|--------------|---------|----------------|-----------|------------------------------|-----------------|-----------------|---------|-------------------|
| <b>SORAA VIVID SERIES</b>     |                       |              |         |                |           |                              |                 |                 |         |                   |
| SM16-09-25D-927-03            | MR16-65-B01-12-927-25 | 00955        | 2700    | 25             | 2570      | 60                           | 465             | 52              | 95/95   | 3                 |
| SM16-09-36D-927-03            | MR16-65-B01-12-927-36 | 00963        | 2700    | 36             | 1210      | 60                           | 465             | 52              | 95/95   | 3                 |
| SM16-09-25D-930-03            | MR16-65-B01-12-930-25 | 00959        | 3000    | 25             | 2700      | 60                           | 490             | 54              | 95/95   | 3                 |
| SM16-09-36D-930-03            | MR16-65-B01-12-930-36 | 00967        | 3000    | 36             | 1280      | 60                           | 490             | 54              | 95/95   | 3                 |
| <b>SORAA BRILLIANT SERIES</b> |                       |              |         |                |           |                              |                 |                 |         |                   |
| SM16-09-25D-827-03            | MR16-75-B01-12-827-25 | 00953        | 2700    | 25             | 3090      | 75                           | 560             | 62              | 80/>0   | 3                 |
| SM16-09-36D-827-03            | MR16-75-B01-12-827-36 | 00961        | 2700    | 36             | 1460      | 75                           | 560             | 62              | 80/>0   | 3                 |
| SM16-09-25D-830-03            | MR16-75-B01-12-830-25 | 00957        | 3000    | 25             | 3260      | 75                           | 590             | 66              | 80/>0   | 3                 |
| SM16-09-36D-830-03            | MR16-75-B01-12-830-36 | 00965        | 3000    | 36             | 1540      | 75                           | 590             | 66              | 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 9W Rev 1 10.09.14