

# 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, lensed, baffled, or deeply recessed fixtures. Halogen replacement for indoor applications.

**FLICKER FREE**



**12V AC**



**GU-5.3**



**DIM**



## 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, 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 AND LONG LIFE

85% more energy efficient than standard halogen lamps

Typical payback of one year or less

Rated lifetime to L70: 35,000hrs

Warranty: 3yrs or 25,000hrs whichever comes first.

Detailed warranty information available at [sora.com/resources/legal](http://sora.com/resources/legal)

## CERTIFICATIONS

JA8-2016-E, UL/CUL Class 2 and non-Class 2, FCC Title 47 Part 15B, RoHS, CE



**RoHS**

## HIGHLY COMPATIBLE

Geometrically compatible with standard fixtures

Not suitable for enclosed, lensed, baffled, or deeply recessed fixtures

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

## INTENDED USE AND APPLICATIONS

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

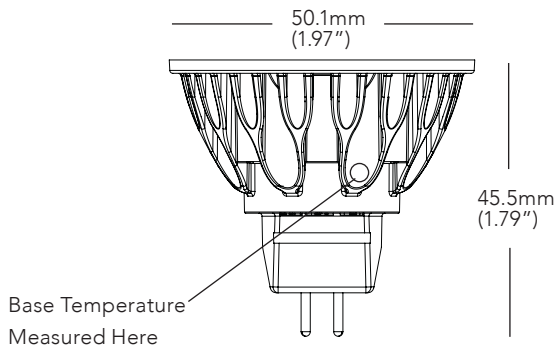
Soraa lamps are designed to safely turn down in high temperature environments to protect LED and components.

## GENERAL SPECIFICATIONS

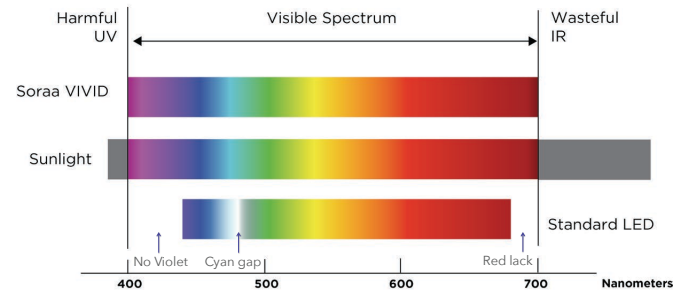
| Form Factor            | Operating Temperature       | Electrical            | Dimming and Flicker  |
|------------------------|-----------------------------|-----------------------|----------------------|
| Width: 50.1mm (1.97")  | Minimum: -40°C (ambient)    | Wattage: 9W           | Dimmable to <20%     |
| Height: 45.5mm (1.79") | Typical: 90°C - 95°C (base) | Power factor: 0.92    | Flicker Index: 0.02  |
| Weight: 47g            | Maximum: 100°C (base)       | Voltage: 12V +/- 1.2V | Percent Flicker: 5%* |
|                        |                             | Frequency: 50/60Hz    |                      |

\* These Soraa lamps are certified to California's demanding JA8 standard, which requires <30% flicker

## DIMENSIONS

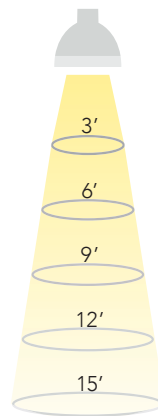


## COLOR RENDERING



## 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%                     |

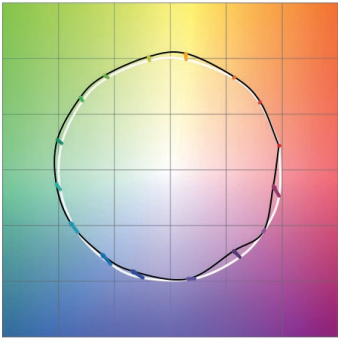
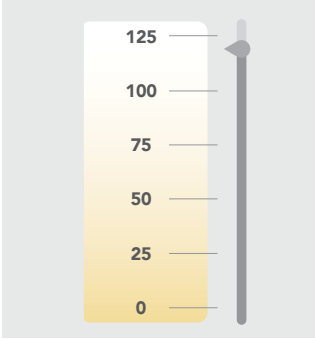
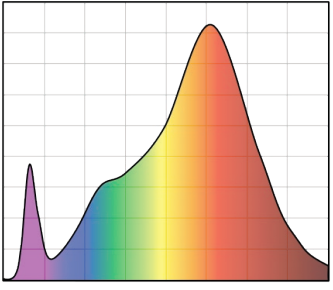
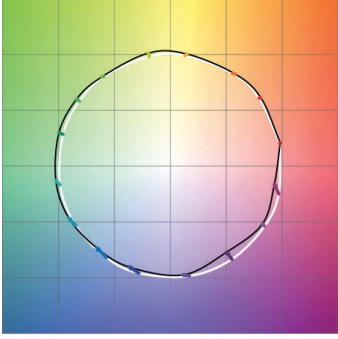
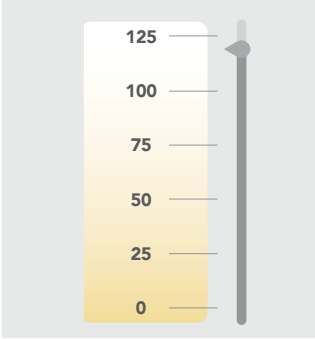
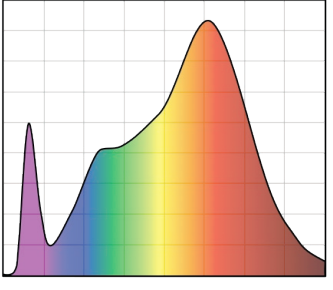
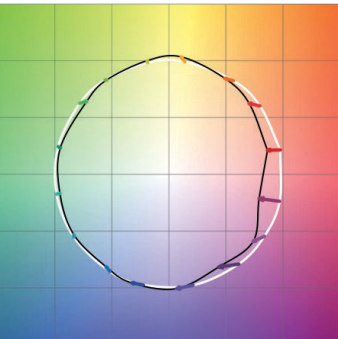
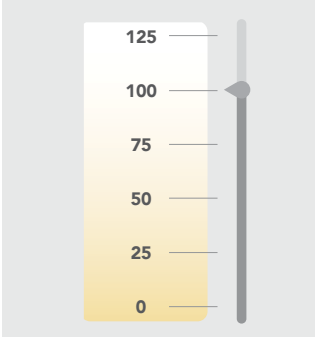
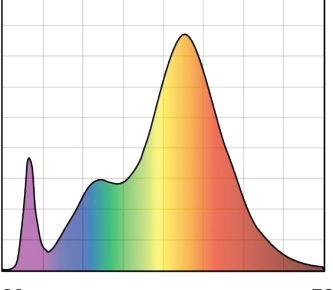
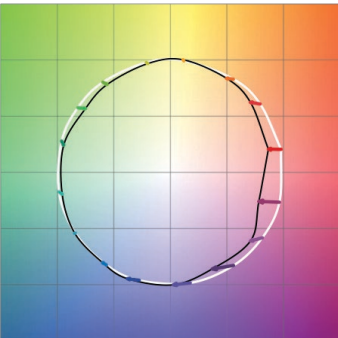
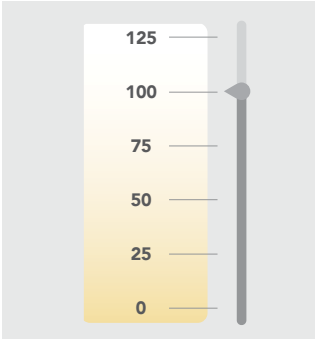
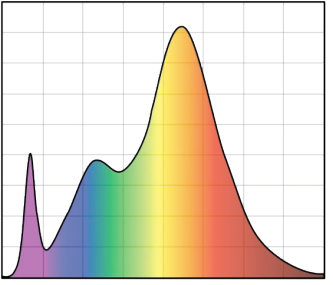
Note: Footcandles may be calculated by multiplying the CBCP of the desired model number by the percentage in the tables above

## 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 | JA8-2016-E | SNAP |
|-------------------------|--------------|---------|------------|-----------|--------------------|-----------------|-----------------|-----|------------|------|
| <b>VIVID SERIES</b>     |              |         |            |           |                    |                 |                 |     |            |      |
| 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        | -    |
| <b>BRILLIANT SERIES</b> |              |         |            |           |                    |                 |                 |     |            |      |
| SM16-09-25D-827-03      | 00953        | 2700    | 25         | 3090      | 75                 | 560             | 62              | 3   | NA         | -    |
| SM16-09-36D-827-03      | 00961        | 2700    | 36         | 1460      | 75                 | 560             | 62              | 3   | NA         | -    |
| SM16-09-25D-830-03      | 00957        | 3000    | 25         | 3260      | 75                 | 590             | 66              | 3   | NA         | -    |
| SM16-09-36D-830-03      | 00965        | 3000    | 36         | 1540      | 75                 | 590             | 66              | 3   | NA         | -    |

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  |
|----------------------------|--|--|--|
| <b>VIVID<br/>2700K</b>     | <br><b>Rf: 90, Rg: 100, Rfh1: 95</b>  | <br><b>Rw: 120</b>   | <br><b>CRI: 95, R9: 95</b>      |
| <b>VIVID<br/>3000K</b>     | <br><b>Rf: 90, Rg: 100, Rfh1: 95</b>  | <br><b>Rw: 120</b>   | <br><b>CRI: 95, R9: 95</b>      |
| <b>BRILLIANT<br/>2700K</b> | <br><b>Rf: 85, Rg: 92, Rfh1: 77</b> | <br><b>Rw: 100</b> | <br><b>CRI: 85, R9: &gt;0</b> |
| <b>BRILLIANT<br/>3000K</b> | <br><b>Rf: 85, Rg: 92, Rfh1: 77</b> | <br><b>Rw: 100</b> | <br><b>CRI: 85, R9: &gt;0</b> |

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.