

# MR16-GU10 5.4W



**OUTPUT RANGE: VIVID SERIES** 245 - 260 lumen

**OUTPUT RANGE: BRILLIANT SERIES** 295 - 310 lumen

**BEAM ANGLE RANGE** 25°, 36°, 50°

**COLOR TEMPERATURE RANGE** 2700K, 3000K

**APPLICATION** Halogen replacement for indoor & outdoor applications



120V



GU10



DIM



## POINT SOURCE OPTICS

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

## VP<sub>3</sub> VIVID COLOR & 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 & 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 Class 2 and non-class 2, cULus, FCC 47 CFR Part 15B (EMI), RoHS



**RoHS**

## 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.

Works with trailing edge and leading edge phase cut dimmers (see [www.soraa.com/resources](http://www.soraa.com/resources))

## INTENDED USE AND APPLICATIONS

Intended for use in GU10 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: 49.9mm (1.96")  
Height: 53.5mm (2.10")  
Weight: 61g

### Operating Temperature

Minimum: -40°C (ambient)  
Typical: 60°C - 70°C (base)  
Maximum: 80°C (base)

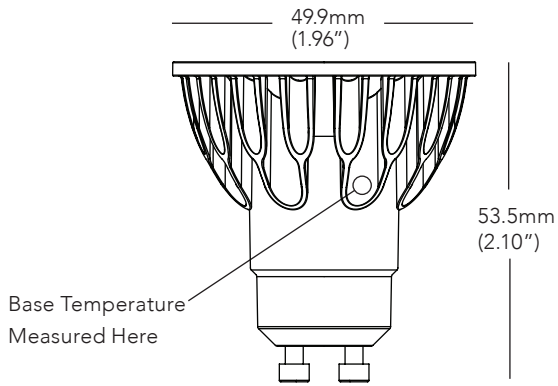
### Electrical

Wattage: 5.4W  
Power factor: 0.93  
Voltage: 120V +/- 12V  
Frequency: 50/60Hz

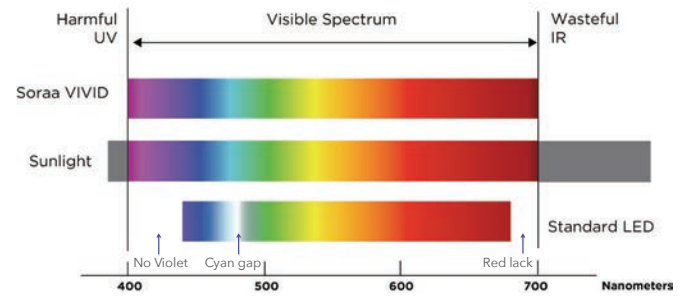
### Dimming and Flicker

Dimmable to <20%  
Flicker Index: <0.06  
Percent Flicker: 40%

## DIMENSIONS

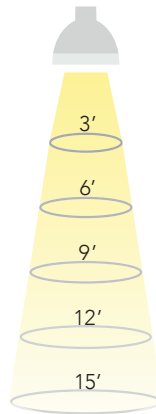


## COLOR RENDERING



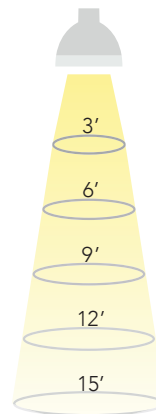
## 25 DEGREE BEAM

| Beam Dia at 50% CBCP (ft) | Field Dia at 10% CBCP (ft) | Foot-candles (% of CBCP) |
|---------------------------|----------------------------|--------------------------|
| 1.3                       | 2.1                        | 11.1%                    |
| 2.7                       | 4.1                        | 2.8%                     |
| 4.0                       | 6.2                        | 1.2%                     |
| 5.3                       | 8.3                        | 0.7%                     |
| 6.7                       | 10.3                       | 0.4%                     |



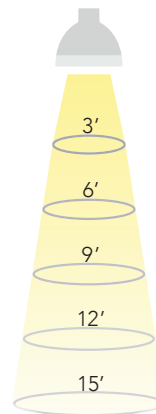
## 36 DEGREE BEAM

| Beam Dia at 50% CBCP (ft) | Field Dia at 10% CBCP (ft) | Foot-candles (% of CBCP) |
|---------------------------|----------------------------|--------------------------|
| 1.9                       | 3.1                        | 11.1%                    |
| 3.9                       | 6.1                        | 2.8%                     |
| 5.8                       | 9.2                        | 1.2%                     |
| 7.8                       | 12.2                       | 0.7%                     |
| 9.7                       | 15.3                       | 0.4%                     |



## 50 DEGREE BEAM

| Beam Dia at 50% CBCP (ft) | Field Dia at 10% CBCP (ft) | Foot-candles (% of CBCP) |
|---------------------------|----------------------------|--------------------------|
| 2.8                       | 5.0                        | 11.1%                    |
| 5.6                       | 10.1                       | 2.8%                     |
| 8.4                       | 15.1                       | 1.2%                     |
| 11.2                      | 20.1                       | 0.7%                     |
| 14.0                      | 25.2                       | 0.4%                     |



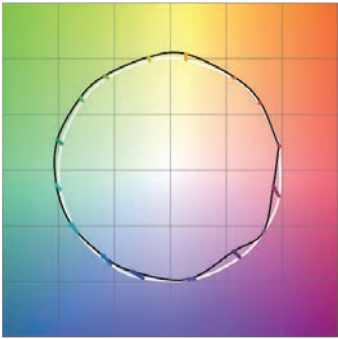
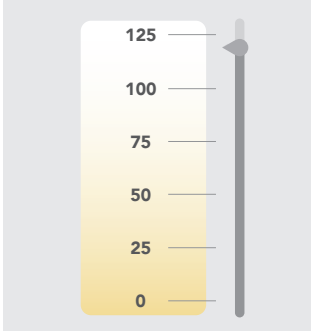
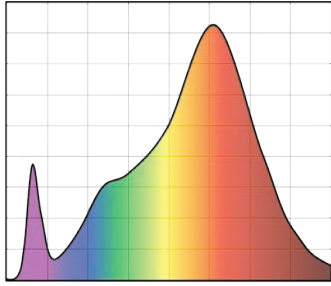
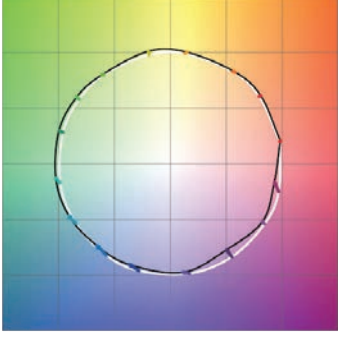
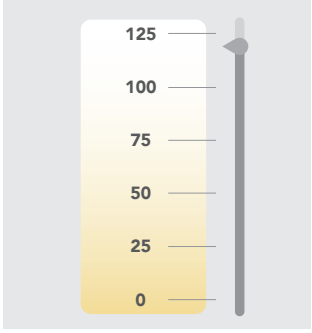
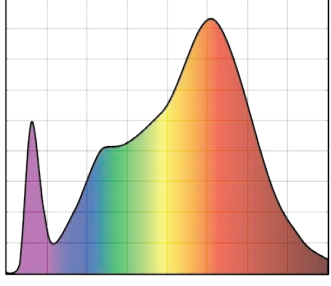
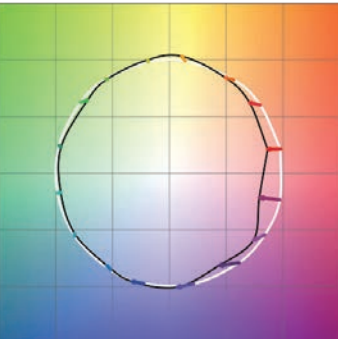
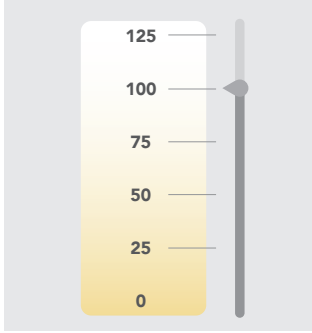
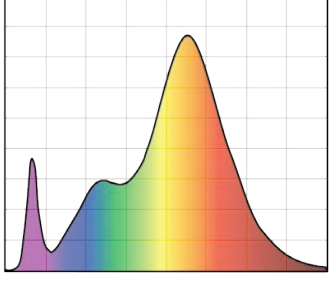
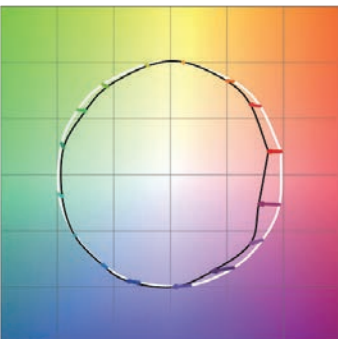
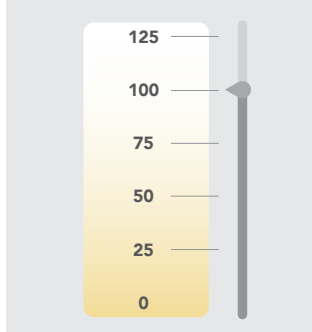
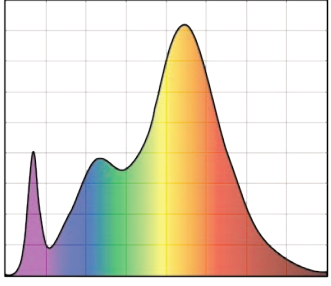
Note: Footcandles may be calculated by multiplying the CBCP of the desired model number by the percentage in the tables above

## SPECIFICATIONS BY MODEL NUMBER\* SORAA LED MR16-GU10 5.4W

| Model #                 | Product Code | CCT (K) | Beam Angle | Field Angle | CBCP (Cd) | Halogen Equivalent | Total Flux (Lm) | Efficacy (Lm/W) | McA | Energy Star | SNAP |
|-------------------------|--------------|---------|------------|-------------|-----------|--------------------|-----------------|-----------------|-----|-------------|------|
| <b>VIVID SERIES</b>     |              |         |            |             |           |                    |                 |                 |     |             |      |
| SM16GA-05-25D-927-03    | 01261        | 2700    | 25         | 38          | 1350      | 35                 | 245             | 45              | 3   | -           | -    |
| SM16GA-05-36D-927-03    | 01273        | 2700    | 36         | 54          | 640       | 35                 | 245             | 45              | 3   | -           | -    |
| SM16GA-05-50D-927-03    | 01285        | 2700    | 50         | 80          | 300       | 35                 | 245             | 45              | 3   | -           | -    |
| SM16GA-05-25D-930-03    | 01265        | 3000    | 25         | 38          | 1430      | 35                 | 260             | 48              | 3   | -           | -    |
| SM16GA-05-36D-930-03    | 01277        | 3000    | 36         | 54          | 680       | 35                 | 260             | 48              | 3   | -           | -    |
| SM16GA-05-50D-930-03    | 01289        | 3000    | 50         | 80          | 310       | 35                 | 260             | 48              | 3   | -           | -    |
| <b>BRILLIANT SERIES</b> |              |         |            |             |           |                    |                 |                 |     |             |      |
| SM16GA-05-25D-827-03    | 01259        | 2700    | 25         | 38          | 1630      | 35                 | 295             | 55              | 3   | -           | -    |
| SM16GA-05-36D-827-03    | 01271        | 2700    | 36         | 54          | 770       | 35                 | 295             | 55              | 3   | -           | -    |
| SM16GA-05-50D-827-03    | 01283        | 2700    | 50         | 80          | 360       | 35                 | 295             | 55              | 3   | -           | -    |
| SM16GA-05-25D-830-03    | 01263        | 3000    | 25         | 38          | 1710      | 35                 | 310             | 57              | 3   | -           | -    |
| SM16GA-05-36D-830-03    | 01275        | 3000    | 36         | 54          | 810       | 35                 | 310             | 57              | 3   | -           | -    |
| SM16GA-05-50D-830-03    | 01287        | 3000    | 50         | 80          | 380       | 35                 | 310             | 57              | 3   | -           | -    |

**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: Sora-developed metric to measure white fidelity. Rw measures the magnitude of excitation of whitening agents within whites. Rw is about 100 for natural light.