

# MR16 6W



**OUTPUT RANGE: VIVID SERIES** 290 - 310 lumen

**OUTPUT RANGE: BRILLIANT SERIES** 355 - 375 lumen

**BEAM ANGLE RANGE** 25°, 36°

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

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

**FLICKER FREE**



**12V AC**



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



**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. A list of qualified enclosed fixtures can be found at [www.soraa.com/resources](http://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](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

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

Frequency: 50/60Hz

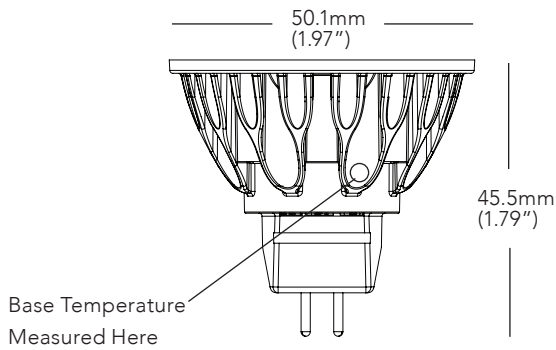
### Dimming and Flicker

Dimmable to <20%

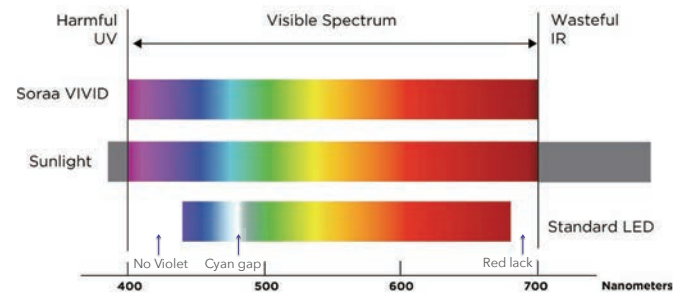
Flicker Index: 0.02

Percent Flicker: 5%

## DIMENSIONS

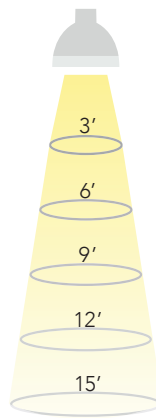


## COLOR RENDERING



## 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%

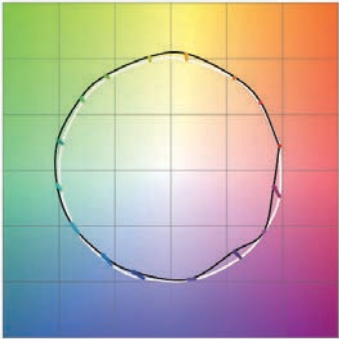
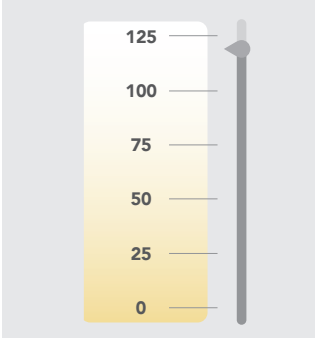
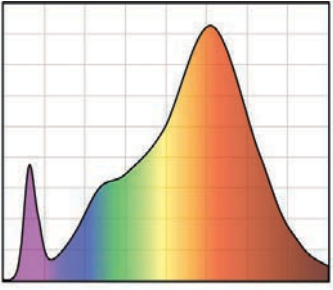
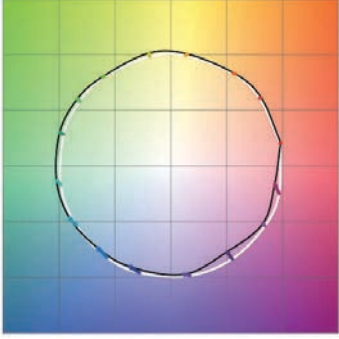
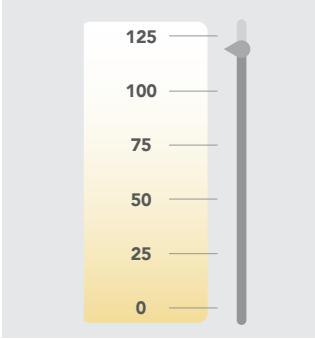
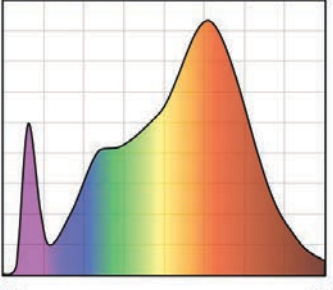
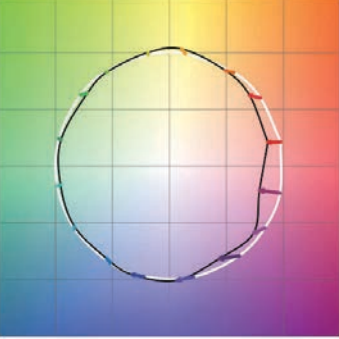
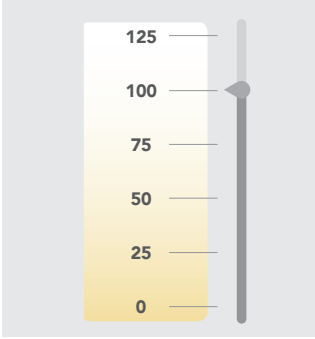
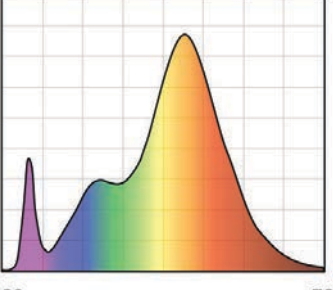
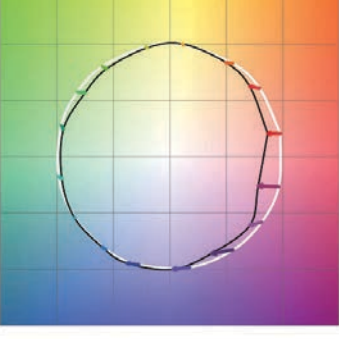
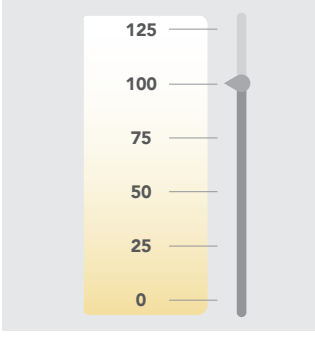
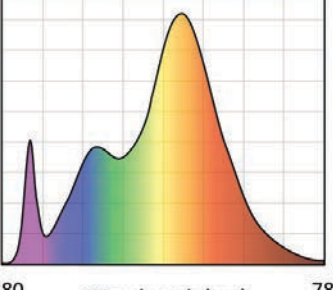
Note: Footcandles may be calculated by multiplying the CBCP of the desired model number by the percentage in the tables above

## SPECIFICATIONS BY MODEL NUMBER\* SORAA LED MR16 6W

Model #	Product Code	CCT (K)	Beam Angle	CBCP (Cd)	Halogen Equivalent	Total Flux (Lm)	Efficacy (Lm/W)	McA	Energy Star	SNAP
<b>VIVID SERIES</b>										
SM16-06-25D-927-03	01161	2700	25	1600	35	290	48	3	-	-
SM16-06-36D-927-03	01173	2700	36	750	35	290	48	3	-	-
SM16-06-25D-930-03	01165	3000	25	1710	35	310	52	3	-	-
SM16-06-36D-930-03	01177	3000	36	810	35	310	52	3	-	-
<b>BRILLIANT SERIES</b>										
SM16-06-25D-827-03	01159	2700	25	1960	35	355	59	3	-	-
SM16-06-36D-827-03	01171	2700	36	930	35	355	59	3	-	-
SM16-06-25D-830-03	01163	3000	25	2070	35	375	62	3	-	-
SM16-06-36D-830-03	01175	3000	36	980	35	375	62	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 2700K</b>	 <p>Rf: 90, Rg: 100, Rfh1: 95</p>	 <p>Rw: 120</p>	 <p>380 Wavelength (nm) 780</p> <p>CRI: 95, R9: 95</p>
<b>VIVID 3000K</b>	 <p>Rf: 90, Rg: 100, Rfh1: 95</p>	 <p>Rw: 120</p>	 <p>380 Wavelength (nm) 780</p> <p>CRI: 95, R9: 95</p>
<b>BRILLIANT 2700K</b>	 <p>Rf: 85, Rg: 92, Rfh1: 77</p>	 <p>Rw: 100</p>	 <p>380 Wavelength (nm) 780</p> <p>CRI: 85, R9: &gt;0</p>
<b>BRILLIANT 3000K</b>	 <p>Rf: 85, Rg: 92, Rfh1: 77</p>	 <p>Rw: 100</p>	 <p>380 Wavelength (nm) 780</p> <p>CRI: 85, R9: &gt;0</p>

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.