



Output	390 - 455 lumen
Beam Angle	10°, 25°, 36°
Color Temperature	2700K, 3000K, 4000K
Color Metrics	CIE Metrics: CRI 95, R9 95 TM30 Metrics: Rf 90, Rg 100 Whiteness Index: Rw 100
Applications	Hotels & Hospitality Galleries & Museums High-End Retail



### SORAA VIVID™

Soraa VIVID lamps offer beautiful and accurate color and white rendering across the entire visible spectrum, mimicking the natural range of sunlight to deliver unmatched quality of light for color critical applications.

### POINT SOURCE OPTICS™

Point Source Optics deliver exceptional beam quality with crisp shadows, perfect uniformity and precisely controlled beam distributions from 10° to 36°.

### SORAA VIVID COLOR™

Soraa VIVID lamps utilize full spectrum light to provide industry-leading color rendition of CRI/95, R9/95, Rf/90, Rg/100 for precise color reproduction.

### SORAA NATURAL WHITE™

Soraa VIVID lamps are engineered to deliver outstanding whiteness rendering for true-to-life whites, which matches or exceeds incandescent sources at 2700K and 3000K.

### FLICKER FREE™

Advanced drivers provide a flicker and noise free experience for enhanced comfort, achieving low levels of flicker in both dimmed and undimmed states.

### ENERGY EFFICIENCY

85% more energy efficient than standard halogen lamps, with typical payback of one year or less.

### GENERAL SPECIFICATIONS

#### Form Factor

Width: 50.1mm (1.97")  
Height: 45.5mm (1.79")  
Weight: 47g

#### Operating Temperature

Minimum: -40°C (ambient)  
Typical: 85°C - 95°C (base)  
Maximum: 100°C (base)

#### Electrical

Wattage: 7.5W  
Power factor: 0.92  
Voltage: 12V +/- 1.2V  
Frequency: 50/60Hz

#### Dimming and Flicker

Dimmable to <20%  
Flicker Index: 0.02  
Percent Flicker: 5%

### THERMAL COMPATIBILITY

Suitable for use in fully enclosed fixtures, subject to the maximum heatsink temperature limits stated in this data sheet. Designed to safely turn down in high temperature environments to protect LED and components.

### ELECTRICAL COMPATIBILITY

Works with trailing edge and leading edge phase cut dimmers, 12V AC magnetic and electronic transformers and 12V DC transformers. Check individual lamp website pages for compatibility data. For more information visit: [www.soraa.com](http://www.soraa.com).

### INTENDED USE & LOCATION RATING

Intended for use in MR16 compatible recessed downlights, track lighting and other indoor and outdoor applications. Suitable for damp locations, not rated for use in wet locations.

### LIFETIME & WARRANTY

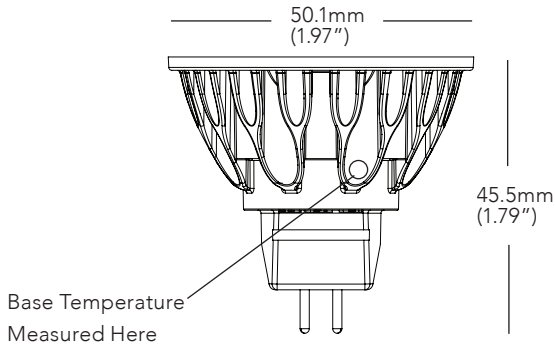
Rated lifetime to L70: 35,000hrs  
Warranty: 3yrs or 25,000hrs whichever comes first  
For warranty information visit: [www.soraa.com/resources/legal](http://www.soraa.com/resources/legal).

### ACCESSORIES

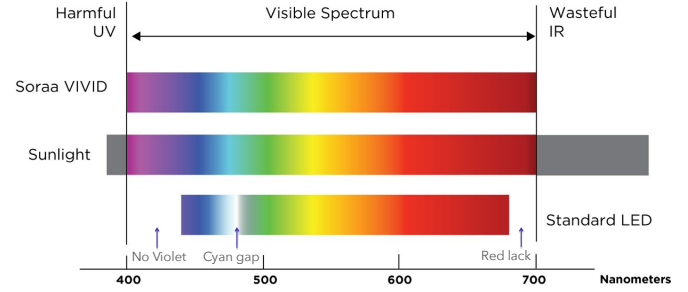
Narrow spot compatible with the Soraa SNAP System™.



## DIMENSIONS

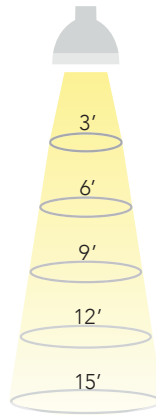


## COLOR RENDERING



## 10 DEGREE BEAM

Beam Dia at 50% CBCP (ft)	Field Dia at 10% CBCP (ft)	Foot-candles (% of CBCP)
0.5	1.1	11.1%
1.0	2.1	2.8%
1.6	3.2	1.2%
2.1	4.2	0.7%
2.6	5.3	0.4%

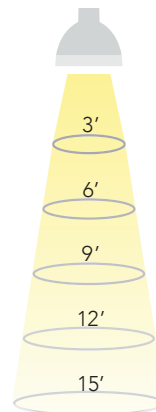


## 25 DEGREE BEAM

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%



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 GU5.3 7.5W 12V

Model #	Product Code	CCT (K)	Beam Angle	Field Angle	CBCP (Cd)	Total Flux (Lm)	Efficacy (Lm/W)	McA	SNAP	Certification
<b>VIVID SERIES</b>										
SM16-07-10D-927-03	00919	2700	10	20	5710	390	52	3	YES	JA8
SM16-07-25D-927-03	00931	2700	25	40	2260	410	55	3	-	JA8
SM16-07-36D-927-03	00943	2700	36	57	1070	410	55	3	-	JA8
SM16-07-10D-930-03	00923	3000	10	20	6000	410	55	3	YES	JA8
SM16-07-25D-930-03	00935	3000	25	40	2400	435	58	3	-	JA8
SM16-07-36D-930-03	00947	3000	36	57	1130	435	58	3	-	JA8
SM16-07-10D-940-03	00925	4000	10	20	6290	430	58	4	YES	-
SM16-07-25D-940-03	00937	4000	25	40	2510	455	61	4	-	-
SM16-07-36D-940-03	00949	4000	36	57	1190	455	61	4	-	-

**CCT:** Correlated Color Temperature **McA:** White Point Accuracy in McA step **SNAP:** SORAA SNAP System Compatible

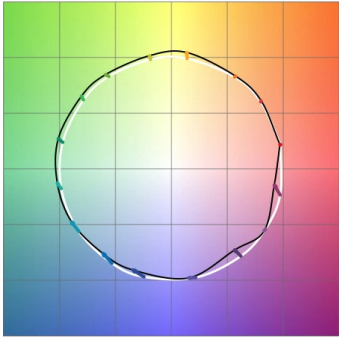
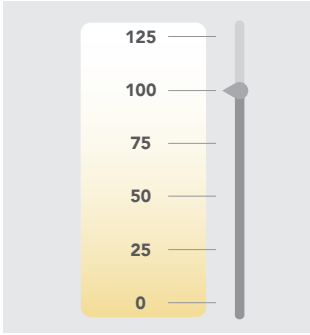
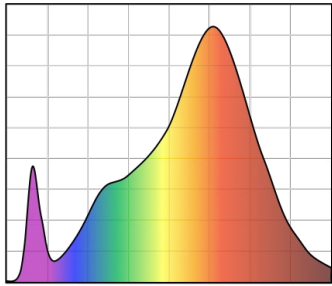
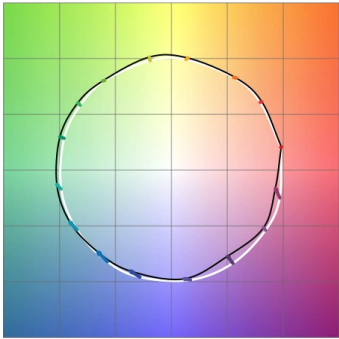
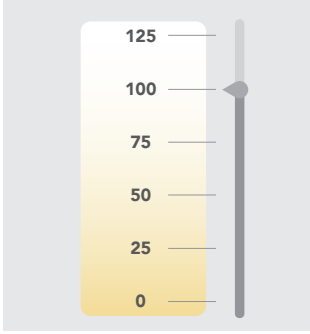
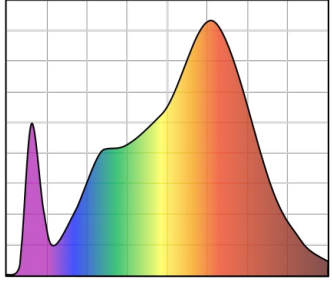
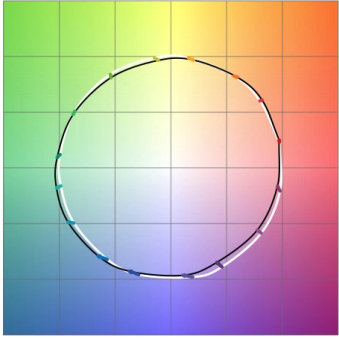
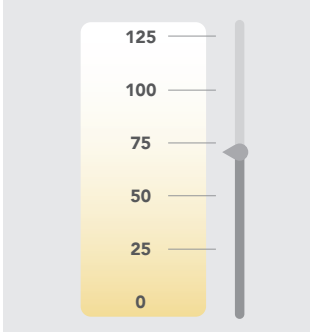
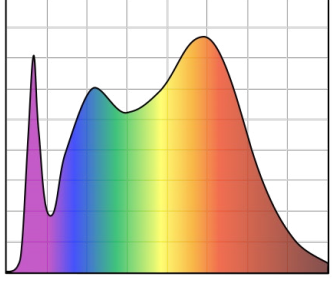
\*Specifications are at stable warm operating conditions (25°C ambient)

**SERIES/CCT**

**COLOR ACCURACY**

**WHITENESS INDEX**

**SPECTRAL POWER DISTRIBUTION**

<p><b>VIVID 2700K</b></p>	 <p><b>Rf: 90, Rg: 100, Rfh1: 95</b></p>	 <p><b>Rw: 100</b></p>	 <p><b>CRI: 95, R9: 95</b></p>
<p><b>VIVID 3000K</b></p>	 <p><b>Rf: 90, Rg: 100, Rfh1: 95</b></p>	 <p><b>Rw: 100</b></p>	 <p><b>CRI: 95, R9: 95</b></p>
<p><b>VIVID 4000K</b></p>	 <p><b>Rf: 90, Rg: 100, Rfh1: 95</b></p>	 <p><b>Rw: 70</b></p>	 <p><b>CRI: 95, R9: 95</b></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.