SORAA vivid™

MR16 GU10 7.5W 230V

Output	390 - 455 lumen
Beam Angle	10°, 25°, 36°, 60°
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 60°.

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
Soraa lamps demonstrate 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.

ACCESSORIES
Narrow spot compatible with the Soraa SNAP System™.

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
Compatible with trailing edge phase cut dimmers only.
Not for use with leading edge dimmers
Check individual lamp website pages for compatibility data.
For more information visit: www.soraa.com

INTENDED USE & LOCATION RATING
Intended for use in MR16 GU10 compatible recessed downlights, track lighting and other indoor 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

RoHS CE

GENERAL SPECIFICATIONS

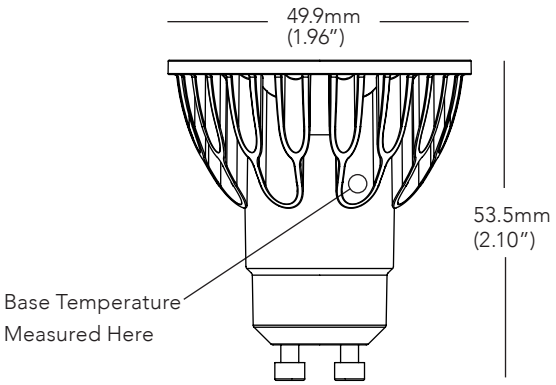
Form Factor
Width: 49.9mm (1.96")
Height: 53.5mm (2.10")
Weight: 61g

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

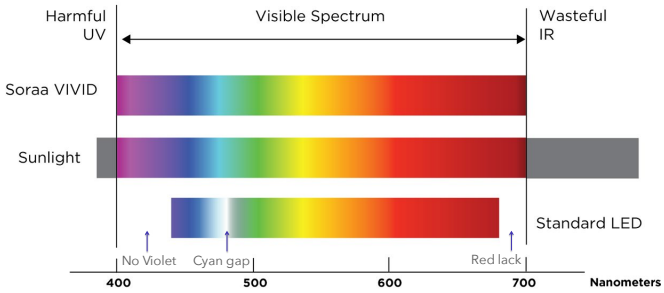
Electrical
Wattage: 7.5W
Power factor: 0.80
Voltage: 230V +/- 23V
Frequency: 50/60Hz

Dimming and Flicker
Dimmable to <20%
Flicker Index: <0.12
Percent Flicker: 40%

DIMENSIONS

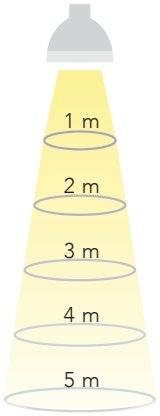


COLOR RENDERING



10 DEGREE BEAM

Beam Dia at 50% Intensity (m)	Field Dia at 10% Intensity (m)	Lux (% of Intensity)
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%

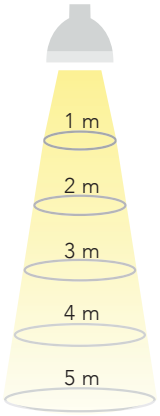


25 DEGREE BEAM

Beam Dia at 50% Intensity (m)	Field Dia at 10% Intensity (m)	Lux (% of Intensity)
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% Intensity (m)	Field Dia at 10% Intensity (m)	Lux (% of Intensity)
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%



60 DEGREE BEAM

Beam Dia at 50% Intensity (m)	Field Dia at 10% Intensity (m)	Lux (% of Intensity)
3.5	5.4	11.1%
6.9	10.8	2.8%
10.4	16.2	1.2%
13.9	21.6	0.7%
17.3	27.0	0.4%

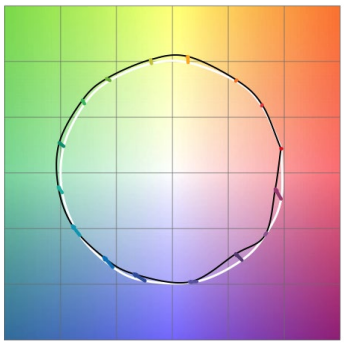
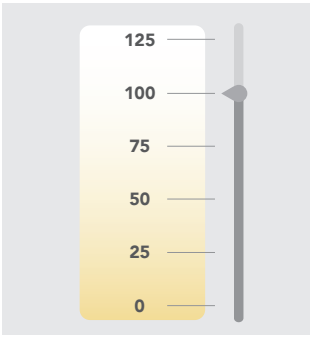
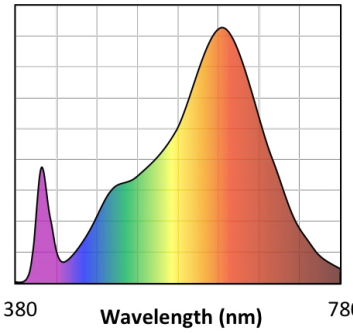
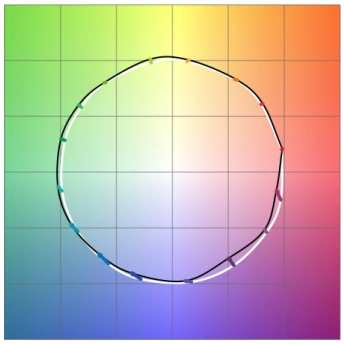
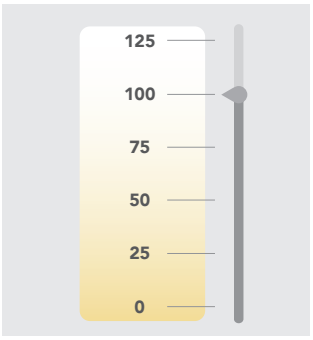
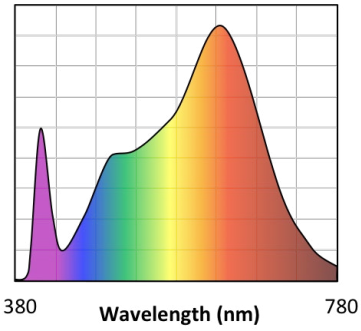
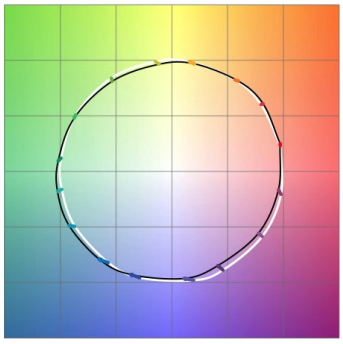
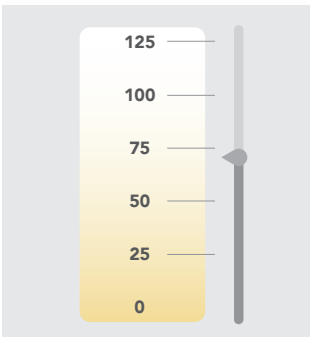
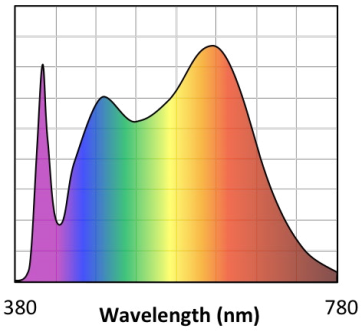
Note: Lux may be calculated by multiplying the Peak Intensity of the desired model number by the percentage in the tables above

SPECIFICATIONS BY MODEL NUMBER* SORAA LED MR16-GU10 7.5W 230V

Model #	Product Code	CCT (K)	Beam Angle	Field Angle	Peak Intensity	Total Flux (Lm)	90° Lumens	Efficacy (Lm/W)	McA	SNAP
VIVID SERIES										
SM16GW-07-10D-927-03-S3	01075	2700	10	17	5710	390	345	52	3	YES
SM16GW-07-25D-927-03-S3	01087	2700	25	38	2260	410	385	55	3	-
SM16GW-07-36D-927-03-S3	01099	2700	36	54	1070	410	375	55	3	-
SM16GW-07-60D-927-03-S3	01585	2700	60	84	420	410	375	55	3	-
SM16GW-07-10D-930-03-S3	01079	3000	10	17	6000	410	360	55	3	YES
SM16GW-07-25D-930-03-S3	01091	3000	25	38	2400	435	410	58	3	-
SM16GW-07-36D-930-03-S3	01103	3000	36	54	1130	435	400	58	3	-
SM16GW-07-60D-930-03-S3	01589	3000	60	84	440	435	400	58	3	-
SM16GW-07-10D-940-03-S3	01081	4000	10	17	6290	430	380	57	4	YES
SM16GW-07-25D-940-03-S3	01093	4000	25	38	2510	455	430	61	4	-
SM16GW-07-36D-940-03-S3	01105	4000	36	54	1190	455	415	61	4	-
SM16GW-07-60D-940-03-S3	01591	4000	60	84	460	455	415	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
VIVID 2700K	 Rf: 90, Rg: 100, Rfh1: 95	 Rw: 100	 CRI: 95, R9: 95
VIVID 3000K	 Rf: 90, Rg: 100, Rfh1: 95	 Rw: 100	 CRI: 95, R9: 95
VIVID 4000K	 Rf: 90, Rg: 100, Rfh1: 95	 Rw: 70	 CRI: 95, R9: 95

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.

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