SORAA
SIMPLY PERFECT LIGHT

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 IR UV

POINT SOURCE OPTICS

Exceptional beam control with smooth uniform beams

Single light source, single crisp shadow

VP$_3$ VIVID COLOR & VP$_3$ 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

c UL us 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)

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

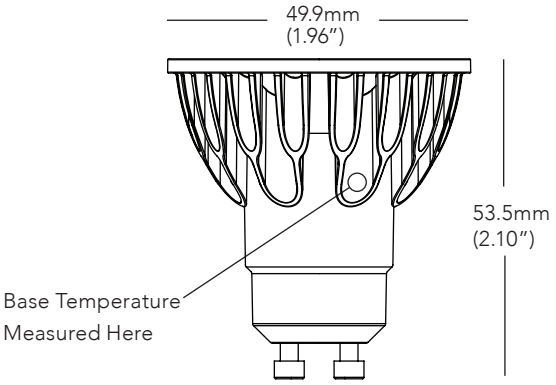
Dimming and Flicker

Dimmable to <20%

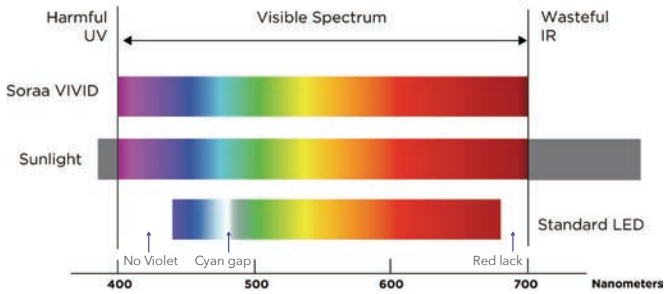
Flicker Index: <0.06

Percent Flicker: 40%

DIMENSIONS

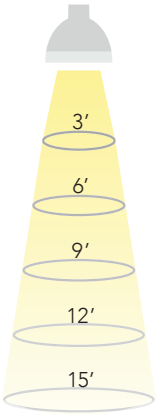


COLOR RENDERING



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%

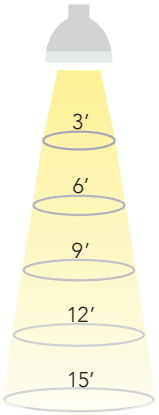


36 DEGREE BEAM

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%



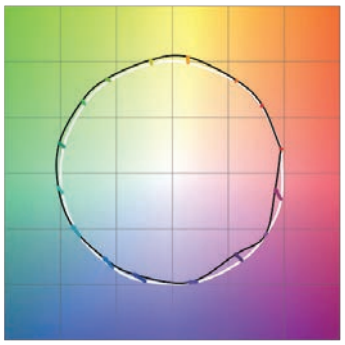
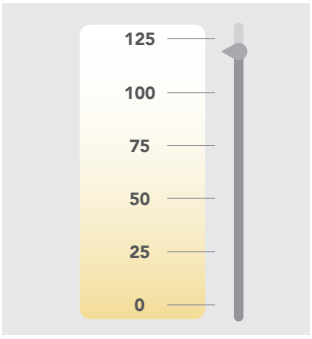
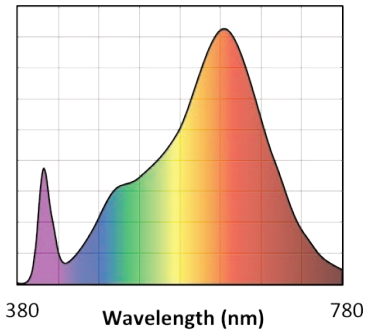
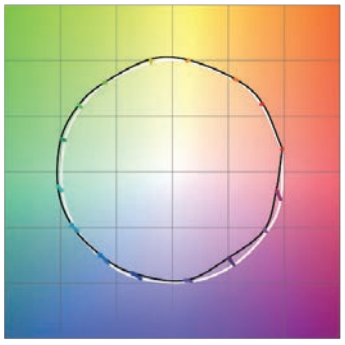
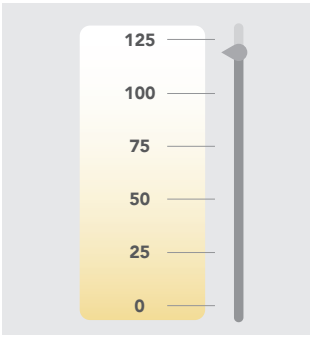
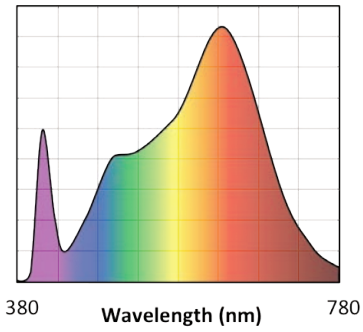
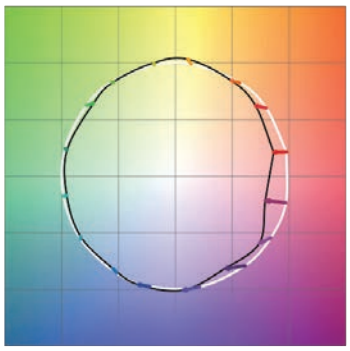
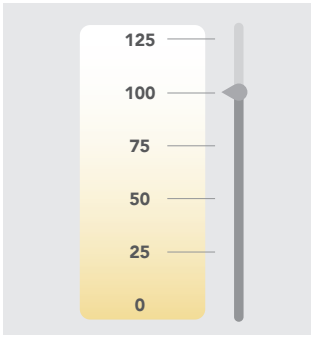
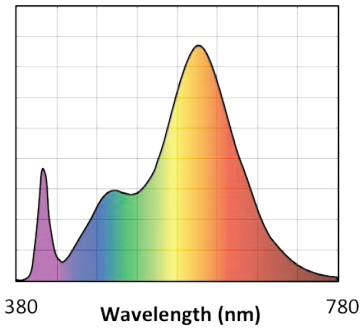
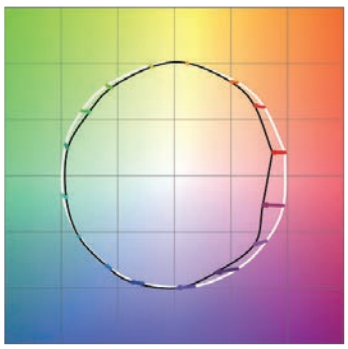
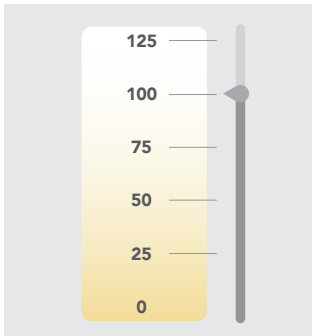
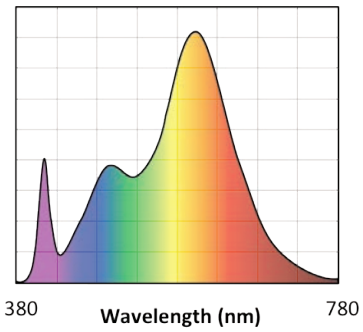
Note: Footcandles may be calculated by multiplying the CBCP of the desired model number by the percentage in the tables above

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
VIVID SERIES											
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	-	-
BRILLIANT SERIES											
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
VIVID 2700K	 Rf: 90, Rg: 100, Rfh1: 95	 Rw: 120	 CRI: 95, R9: 95
VIVID 3000K	 Rf: 90, Rg: 100, Rfh1: 95	 Rw: 120	 CRI: 95, R9: 95
BRILLIANT 2700K	 Rf: 85, Rg: 92, Rfh1: 77	 Rw: 100	 CRI: 85, R9: >0
BRILLIANT 3000K	 Rf: 85, Rg: 92, Rfh1: 77	 Rw: 100	 CRI: 85, R9: >0

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.

Information and specifications subject to change.
SM16GA 5.4W Rev 1 6.06.16