

MR16-GU10 9.5W



OUTPUT RANGE: VIVID SERIES 440 - 490 lumen

OUTPUT RANGE: BRILLIANT SERIES 535 - 590 lumen

BEAM ANGLE RANGE 25°, 36°, 60°

COLOR TEMPERATURE RANGE 2700K, 3000K

APPLICATION Not suitable for enclosed, lensed, baffled, or deeply recessed fixtures. Halogen replacement for indoor applications.



POINT SOURCE OPTICS

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

VP₃ VIVID COLOR AND VP₃ 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 AND LONG LIFE

85% more energy efficient than standard halogen lamps

Typical payback of one year or less

Rated lifetime to L70: 35,000hrs

Warranty: 3yrs or 25,000hrs whichever comes first

Detailed warranty information available at soraa.com/resources/legal

CERTIFICATIONS

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: 90°C - 95°C (base)

Maximum: 100°C (base)

Electrical

Wattage: 9.5W

Power factor: 0.80

Voltage: 230V +/- 23V

Frequency: 50/60Hz

Dimming and Flicker

Dimmable to <20%

Flicker Index: <0.12

Percent Flicker: 50%

HIGHLY COMPATIBLE

Geometrically compatible with standard fixtures and suitable for damp locations

Not suitable for enclosed, lensed, baffled, or deeply recessed fixtures

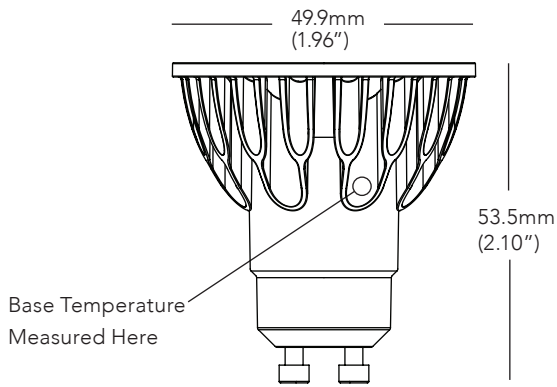
Compatible with trailing edge phase cut dimmers only. Not for use with leading edge dimmers (see www.soraa.com/resources)

INTENDED USE AND APPLICATIONS

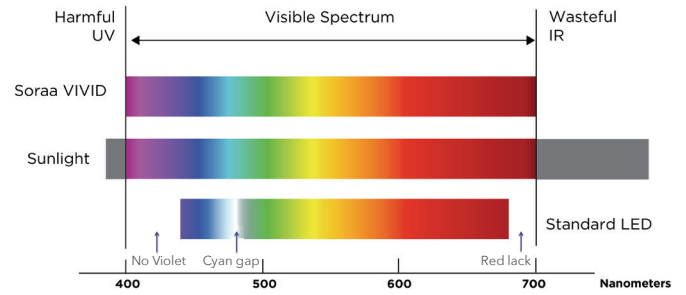
Intended for use in GU10 compatible recessed downlights, track lighting and other indoor applications

Soraa lamps are designed to safely turn down in high temperature environments to protect LED and components. This lamp should not be used in fully enclosed or lensed fixtures

DIMENSIONS

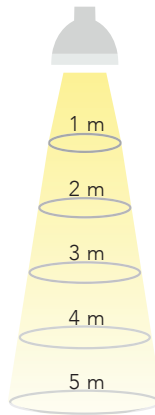


COLOR RENDERING



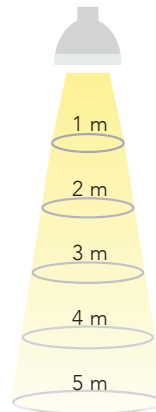
25 DEGREE BEAM

Beam Dia at 50% Intensity (m)	Field Dia at 10% Intensity (m)	Lux (% of Intensity)
0.4	0.7	100%
0.9	1.4	25%
1.3	2.1	11%
1.8	2.8	6%
2.2	3.4	4%



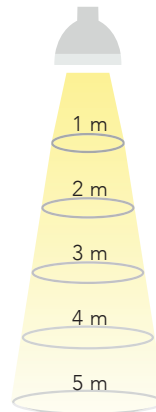
36 DEGREE BEAM

Beam Dia at 50% Intensity (m)	Field Dia at 10% Intensity (m)	Lux (% of Intensity)
0.6	1.0	100%
1.3	2.0	25%
1.9	3.1	11%
2.6	4.1	6%
3.2	5.1	4%



60 DEGREE BEAM

Beam Dia at 50% Intensity (m)	Field Dia at 10% Intensity (m)	Lux (% of Intensity)
1.2	1.8	100%
2.3	3.6	25%
3.5	5.4	11%
4.6	7.2	6%
5.8	9.0	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 9.5W

Model #	Product Code	CCT (K)	Beam Angle	Field Angle	Peak Intensity	Total Flux (Lm)	Efficacy (Lm/W)	90° Lumens	McA	EI	SNAP
VIVID SERIES											
SM16GW-09-25D-927-03-S3	01969	2700	25	38	2570	465	49	440	3	A	-
SM16GW-09-36D-927-03-S3	01977	2700	36	54	1210	465	49	425	3	A	-
SM16GW-09-60D-927-03-S3	01985	2700	60	84	470	465	49	425	3	A	-
SM16GW-09-25D-930-03-S3	01973	3000	25	38	2700	490	52	465	3	A	-
SM16GW-09-36D-930-03-S3	01981	3000	36	54	1280	490	52	450	3	A	-
SM16GW-09-60D-930-03-S3	01989	3000	60	84	500	490	52	450	3	A	-
BRILLIANT SERIES											
SM16GW-09-25D-827-03-S3	01967	2700	25	38	3090	560	59	530	3	A	-
SM16GW-09-36D-827-03-S3	01975	2700	36	54	1460	560	59	515	3	A	-
SM16GW-09-60D-827-03-S3	01983	2700	60	84	570	560	59	515	3	A	-
SM16GW-09-25D-830-03-S3	01971	3000	25	38	3260	590	62	560	3	A	-
SM16GW-09-36D-830-03-S3	01979	3000	36	54	1540	590	62	540	3	A	-
SM16GW-09-60D-830-03-S3	01987	3000	60	84	600	590	62	540	3	A	-

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

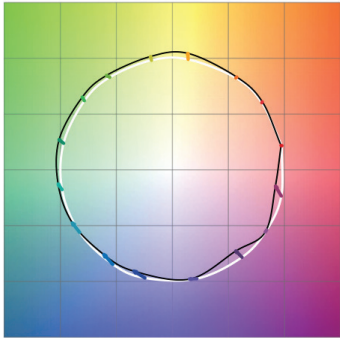
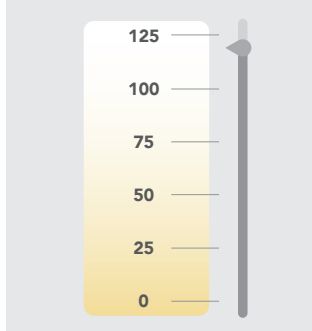
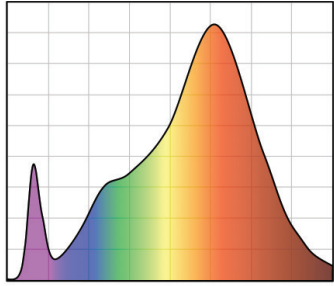
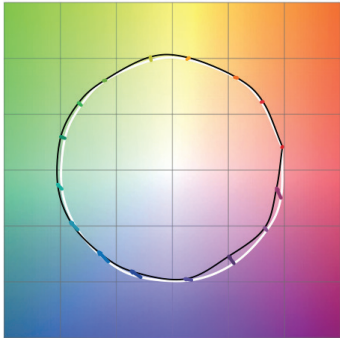
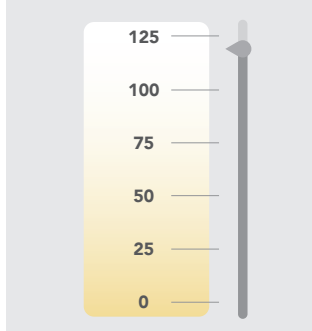
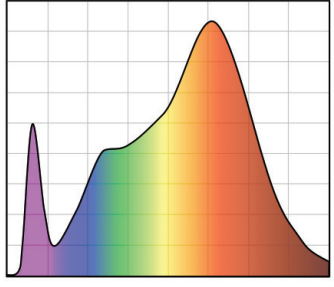
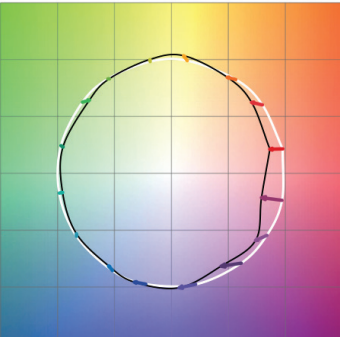
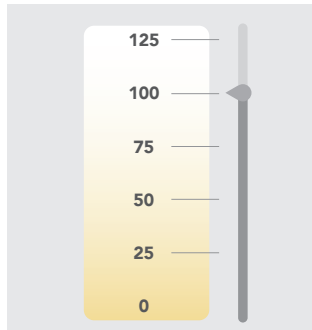
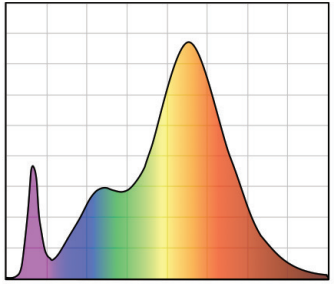
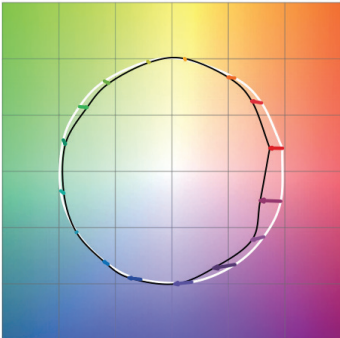
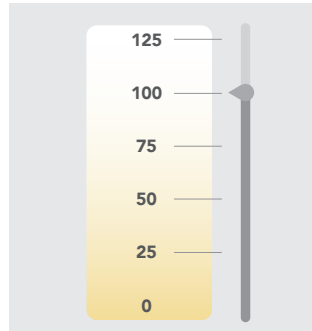
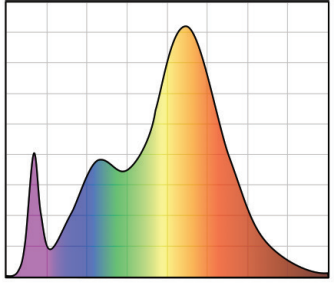
*Specifications are at stable warm operating conditions (25°C ambient)

SERIES/CCT

COLOR ACCURACY

WHITENESS INDEX

SPECTRAL POWER DISTRIBUTION

<p>VIVID 2700K</p>	 <p>Rf: 90, Rg: 100, Rfh1: 95</p>	 <p>Rw: 120</p>	 <p>Wavelength (nm) 380 780</p> <p>CRI: 95, R9: 95</p>
<p>VIVID 3000K</p>	 <p>Rf: 90, Rg: 100, Rfh1: 95</p>	 <p>Rw: 120</p>	 <p>Wavelength (nm) 380 780</p> <p>CRI: 95, R9: 95</p>
<p>BRILLIANT 2700K</p>	 <p>Rf: 85, Rg: 92, Rfh1: 77</p>	 <p>Rw: 100</p>	 <p>Wavelength (nm) 380 780</p> <p>CRI: 85, R9: >0</p>
<p>BRILLIANT 3000K</p>	 <p>Rf: 85, Rg: 92, Rfh1: 77</p>	 <p>Rw: 100</p>	 <p>Wavelength (nm) 380 780</p> <p>CRI: 85, R9: >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. Rf 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.