

MR16-E11 7.5W



OUTPUT RANGE: VIVID SERIES 390 - 455 lumen

OUTPUT RANGE: BRILLIANT SERIES 475 - 525 lumen

BEAM ANGLE RANGE 10°, 25°, 36°

COLOR TEMPERATURE RANGE 2700K, 3000K, 4000K

APPLICATION Halogen replacement for indoor & outdoor applications



100V



E11



DIM



POINT SOURCE OPTICS

Exceptional beam control enables unique 10° narrow spot and 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

PSE, RoHS



RoHS



HIGHLY COMPATIBLE

Narrow spot compatible with Soraa SNAP System accessories

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 E11 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: 63.2mm (2.48")

Weight: 65g

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: 100V +/- 10V

Frequency: 50/60Hz

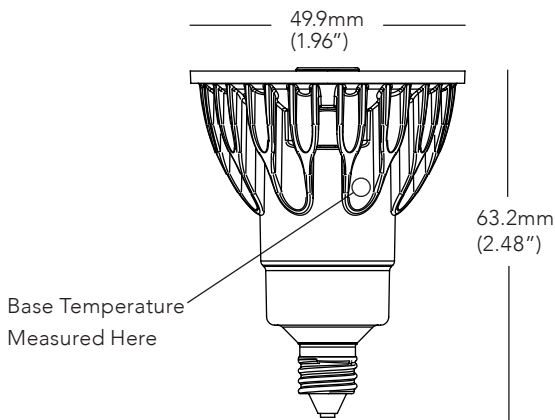
Dimming and Flicker

Dimmable to <20%

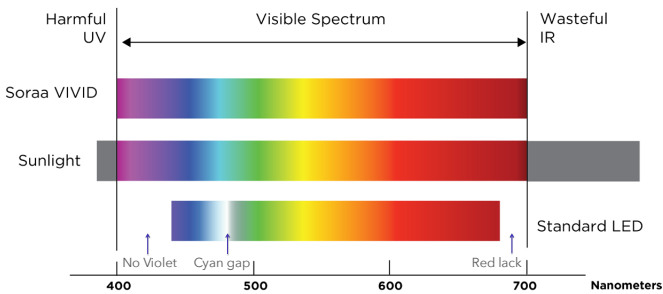
Flicker Index: <0.12

Percent Flicker: 40%

DIMENSIONS

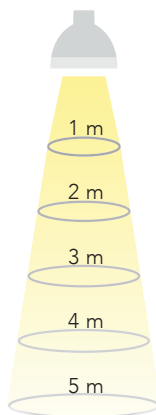


COLOR RENDERING



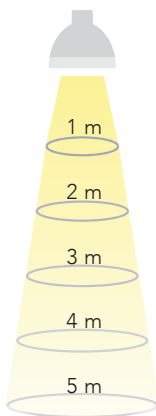
10 DEGREE BEAM

Beam Dia at 50% Intensity (m)	Field Dia at 10% Intensity (m)	Lux (% of Intensity)
0.2	0.4	100%
0.3	0.7	25%
0.5	1.1	11%
0.7	1.4	6%
0.9	1.8	4%



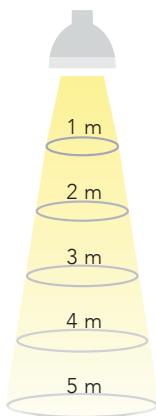
25 DEGREE BEAM

Beam Dia at 50% Intensity (m)	Field Dia at 10% Intensity (m)	Lux (% of Intensity)
0.4	0.7	100%
0.9	1.5	25%
1.3	2.2	11%
1.8	2.9	6%
2.2	3.6	4%



36 DEGREE BEAM

Beam Dia at 50% Intensity (m)	Field Dia at 10% Intensity (m)	Lux (% of Intensity)
0.6	1.1	100%
1.3	2.2	25%
1.9	3.3	11%
2.6	4.3	6%
3.2	5.4	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-E11 7.5W

Model #	Product Code	CCT (K)	Beam Angle	Field Angle	CBCP (Cd)	Total Flux (Lm)	Efficacy (Lm/W)	McA	SNAP
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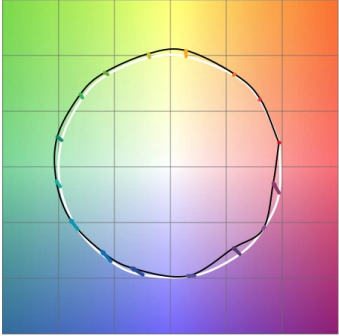
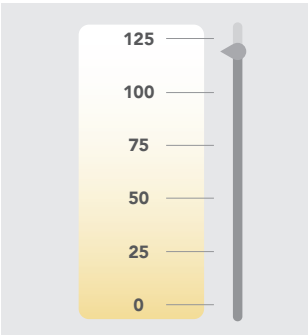
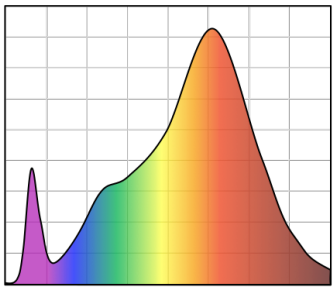
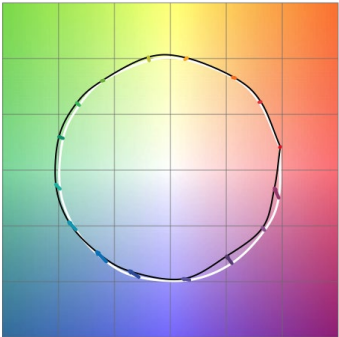
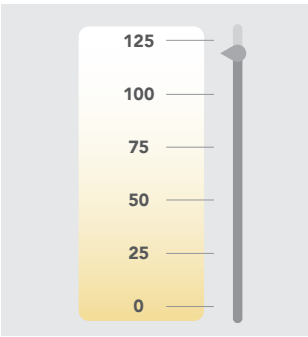
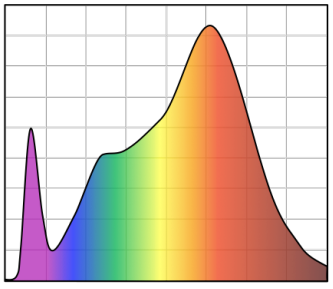
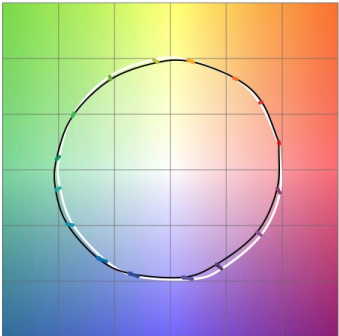
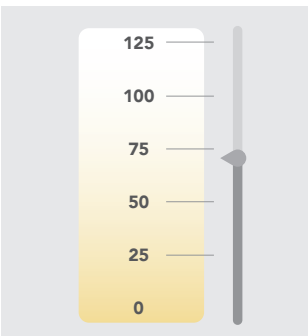
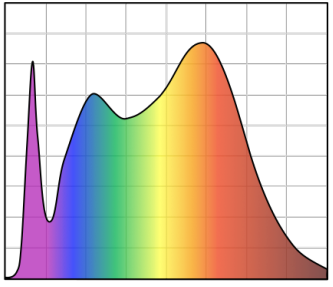
VIVID SERIES

SM16J-07-10D-927-03-S5	02097	2700	10	17	5710	390	52	3	YES
SM16J-07-25D-927-03-S5	02109	2700	25	39	2260	410	55	3	-
SM16J-07-36D-927-03-S5	02121	2700	36	54	1070	410	55	3	-
SM16J-07-10D-930-03-S5	02101	3000	10	17	6000	410	55	3	YES
SM16J-07-25D-930-03-S5	02113	3000	25	39	2400	435	58	3	-
SM16J-07-36D-930-03-S5	02125	3000	36	54	1130	435	58	3	-
SM16J-07-10D-940-03-S5	02103	4000	10	17	6290	430	57	3	YES
SM16J-07-25D-940-03-S5	02115	4000	25	39	2510	455	61	3	-
SM16J-07-36D-940-03-S5	02127	4000	36	54	1190	455	61	4	-

BRILLIANT SERIES

SM16J-07-10D-827-03-S5	02095	2700	10	17	6950	475	63	3	YES
SM16J-07-25D-827-03-S5	02107	2700	25	39	2760	500	67	3	-
SM16J-07-36D-827-03-S5	02119	2700	36	54	1310	500	67	3	-
SM16J-07-10D-830-03-S5	02099	3000	10	17	7320	500	67	3	YES
SM16J-07-25D-830-03-S5	02111	3000	25	39	2900	525	70	3	-
SM16J-07-36D-830-03-S5	02123	3000	36	54	1370	525	70	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)

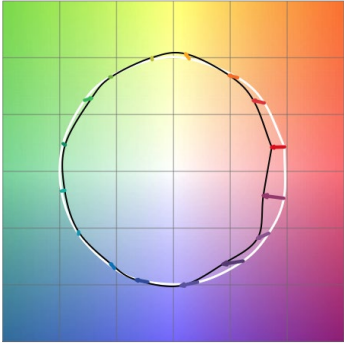
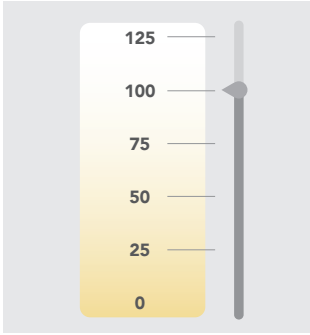
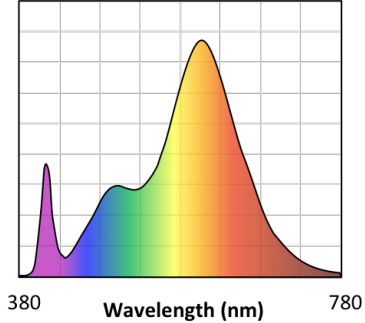
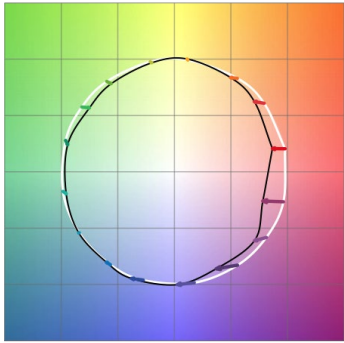
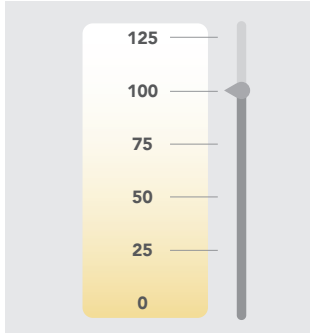
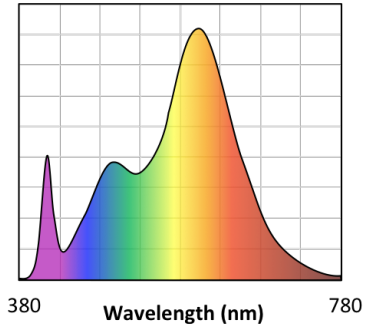
SERIES/CCT	COLOR ACCURACY	WHITENESS INDEX	SPECTRAL POWER DISTRIBUTION
VIVID 2700K	 <p>Rf: 90, Rg: 100, Rfh1: 95</p>	 <p>Rw: 120</p>	 <p>380 Wavelength (nm) 780</p> <p>CRI: 95, R9: 95</p>
VIVID 3000K	 <p>Rf: 90, Rg: 100, Rfh1: 95</p>	 <p>Rw: 120</p>	 <p>380 Wavelength (nm) 780</p> <p>CRI: 95, R9: 95</p>
VIVID 4000K	 <p>Rf: 90, Rg: 100, Rfh1: 95</p>	 <p>Rw: 70</p>	 <p>380 Wavelength (nm) 780</p> <p>CRI: 95, R9: 95</p>

SERIES/CCT

COLOR ACCURACY

WHITENESS INDEX

SPECTRAL POWER DISTRIBUTION

BRILLIANT 2700K	 <p>Rf: 85, Rg: 92, Rfh1: 77</p>	 <p>Rw: 100</p>	 <p>CRI: 85, R9: >0</p>
BRILLIANT 3000K	 <p>Rf: 85, Rg: 92, Rfh1: 77</p>	 <p>Rw: 100</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. 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.