



# AR111 18.5W

OUTPUT RANGE: VIVID SERIES	930 - 1040 lumen
OUTPUT RANGE: BRILLIANT SERIES	1190 - 1280 lumen
BEAM ANGLE RANGE	9°, 25°, 36°
COLOR TEMPERATURE RANGE	2700K, 3000K, 4000K
APPLICATION	Halogen replacement for indoor & outdoor applications



### POINT SOURCE OPTICS

Exceptional beam control enables unique 9° narrow spot and smooth uniform beams

Single light source, single crisp shadow

### VP<sub>3</sub> VIVID COLOR AND VP<sub>3</sub> 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](http://soraa.com/resources/legal)

### CERTIFICATIONS

FCC Title 47 Part 15B, RoHS, CE



### HIGHLY COMPATIBLE

Narrow spot compatible with Soraa SNAP System accessories

Thermally and geometrically compatible with standard fixtures and suitable for damp locations

Suitable for fully enclosed fixtures. Can be used with front glass cover

Works with trailing edge and leading edge phase cut dimmers, 12V AC magnetic and electronic transformers and 12V DC transformers (see [www.soraa.com/resources](http://www.soraa.com/resources))

### INTENDED USE AND APPLICATIONS

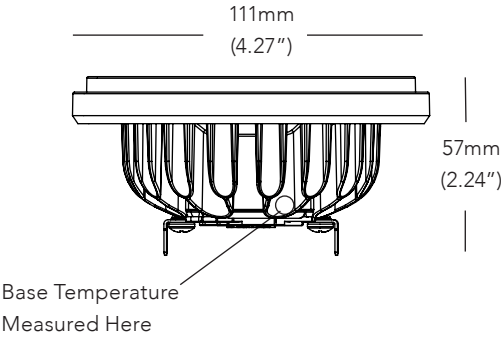
Intended for use in AR111 compatible recessed downlights, track lighting and other indoor and outdoor applications

Soraa lamps are designed to safely turn down in any thermal environment not conducive to minimum airflow or proper ventilation

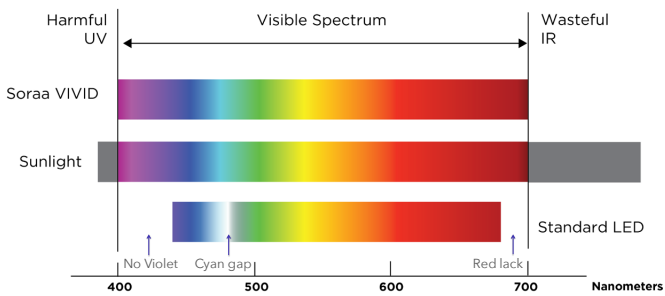
### GENERAL SPECIFICATIONS

Form Factor	Operating Temperature	Electrical	Dimming and Flicker
Width: 111mm (4.37")	Minimum: -40°C (ambient)	Wattage: 18.5W	Dimmable to <20%
Height: 57mm (2.24")	Typical: 70°C - 80°C (base)	Power factor: 0.92	Flicker Index < 0.1
Weight: 250g	Maximum: 90°C (base)	Voltage: 12V +/- 1.2V	Percent Flicker: 28%
		Frequency: 50/60Hz	

DIMENSIONS

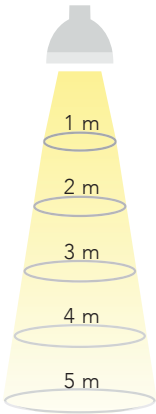


COLOR RENDERING



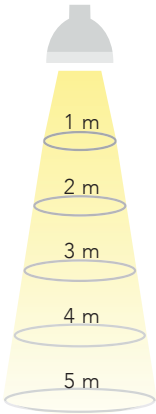
9 DEGREE BEAM

Beam Dia at 50% Intensity (m)	Field Dia at 10% Intensity (m)	Lux (% of Intensity)
0.2	0.3	77%
0.3	0.6	23%
0.5	0.8	11%
0.6	1.1	6%
0.8	1.4	4%



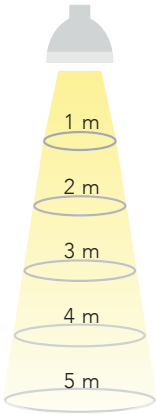
25 DEGREE BEAM

Beam Dia at 50% Intensity (m)	Field Dia at 10% Intensity (m)	Lux (% of Intensity)
0.4	0.7	77%
0.9	1.5	23%
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	1.2	77%
1.3	2.3	23%
1.9	3.5	11%
2.6	4.6	6%
3.2	5.8	4%



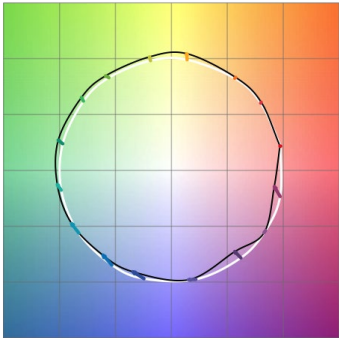
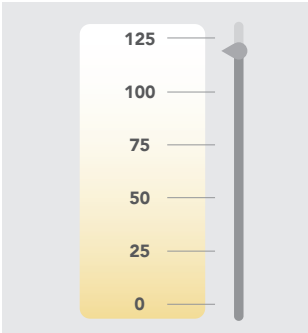
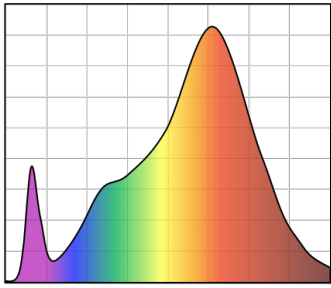
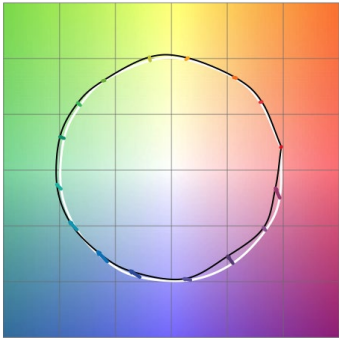
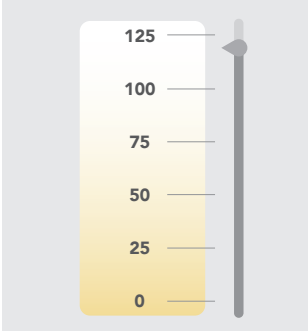
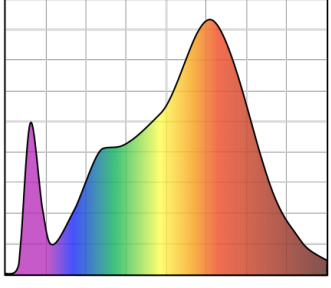
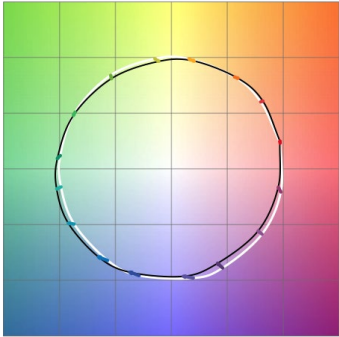
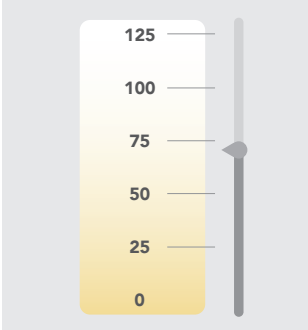
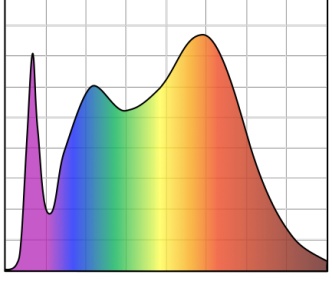
Note: Lux may be calculated by multiplying the peak Intensity of the desired model number by the percentage in the tables above

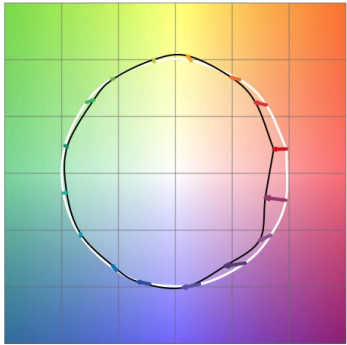
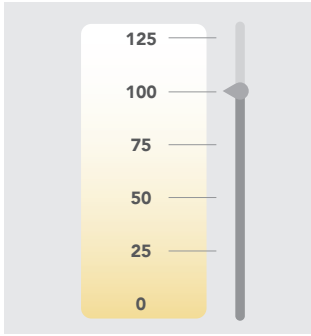
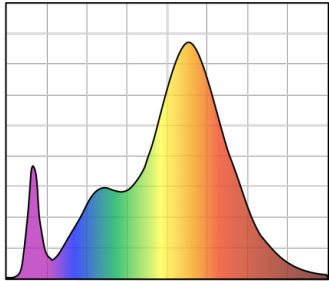
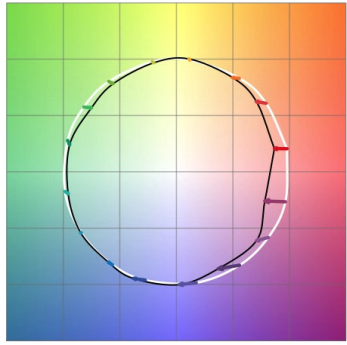
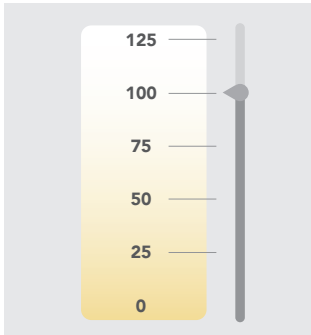
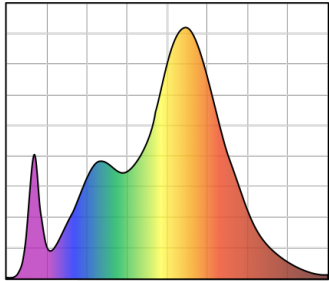
SPECIFICATIONS BY MODEL NUMBER\* SORAA LED AR111 18.5W

Model #	Product Code	CCT (K)	Beam Angle	Field Angle	Peak Intensity	Total Flux (Lm)	Efficacy (Lm/W)	90° Lumens	McA	EEI	SNAP
VIVID SERIES											
SR111-18-09D-927-03-S3	01025	2700	9	16	22400	930	50	835	3	A	YES
SR111-18-25D-927-03-S3	01027	2700	25	40	5020	930	50	860	3	A	-
SR111-18-36D-927-03-S3	01029	2700	36	60	2320	930	50	855	3	A	-
SR111-18-09D-930-03-S3	01041	3000	9	16	24100	1000	54	900	3	A	YES
SR111-18-25D-930-03-S3	01043	3000	25	40	5400	1000	54	930	3	A	-
SR111-18-36D-930-03-S3	01045	3000	36	60	2500	1000	54	920	3	A	-
SR111-18-09D-940-03-S3	01057	4000	9	16	25060	1040	56	935	4	A	YES
SR111-18-25D-940-03-S3	01059	4000	25	40	5600	1040	56	965	4	A	-
SR111-18-36D-940-03-S3	01061	4000	36	60	2600	1040	56	955	4	A	-
BRILLIANT SERIES											
SR111-18-09D-827-03-S3	01033	2700	9	16	28660	1190	64	1070	3	A	YES
SR111-18-25D-827-03-S3	01035	2700	25	40	6420	1190	64	1105	3	A	-
SR111-18-36D-827-03-S3	01037	2700	36	60	2960	1190	64	1090	3	A	-
SR111-18-09D-830-03-S3	01049	3000	9	16	30840	1280	69	1150	3	A	YES
SR111-18-25D-830-03-S3	01051	3000	25	40	6900	1280	69	1190	3	A	-
SR111-18-36D-830-03-S3	01053	3000	36	60	3200	1280	69	1175	3	A	-

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

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

SERIES/CCT	COLOR ACCURACY	WHITENESS INDEX	SPECTRAL POWER DISTRIBUTION
<b>VIVID 2700K</b>	 Rf: 90, Rg: 100, Rfh1: 95	 Rw: 120	 CRI: 95, R9: 95
<b>VIVID 3000K</b>	 Rf: 90, Rg: 100, Rfh1: 95	 Rw: 120	 CRI: 95, R9: 95
<b>VIVID 4000K</b>	 Rf: 90, Rg: 100, Rfh1: 95	 Rw: 70	 CRI: 95, R9: 95

SERIES/CCT	COLOR ACCURACY	WHITENESS INDEX	SPECTRAL POWER DISTRIBUTION
BRILLIANT 2700K	 <p>Rf: 85, Rg: 92, Rfh1: 77</p>	 <p>Rw: 100</p>	 <p>380 Wavelength (nm) 780</p> <p>CRI: 85, R9: &gt;0</p>
BRILLIANT 3000K	 <p>Rf: 85, Rg: 92, Rfh1: 77</p>	 <p>Rw: 100</p>	 <p>380 Wavelength (nm) 780</p> <p>CRI: 85, R9: &gt;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.