



### POINT SOURCE OPTICS™

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

Single light source, single crisp shadow

### SORAA VIVID COLOR™ AND SORAA NATURAL WHITE™

All Soraa VIVID lamps feature the right amount of spectral content from violet to deep red in every wavelength from 400nm to 700nm with 95 CRI, R9>95 and Rw 100 typical

Soraa's whiteness methodology means we render white faithfully, matching or exceeding that of halogen and incandescent sources at 2700K and 3000K

<https://www.soraa.com/resources/tm30>

### 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](https://www.soraa.com/resources/legal)

### CERTIFICATIONS

FCC Title 47 Part 15B, RoHS, CE



**RoHS**

### GENERAL SPECIFICATIONS

#### Form Factor

Width: 111mm (4.37")

Height: 57mm (2.24")

Weight: 250g

#### Operating Temperature

Minimum: -40°C (ambient)

Typical: 70°C - 80°C (base)

Maximum: 90°C (base)

#### Electrical

Wattage: 18.5W

Power factor: 0.92

Voltage: 12V +/- 1.2V

Frequency: 50/60Hz

#### Dimming and Flicker

Dimmable to <20%

Flicker Index < 0.1

Percent Flicker: 28%

# AR111 18.5W

Output Range: Vivid Series 930 - 1040 lumen

Beam Angle Range 9°, 25°, 36°

Color Temperature Range 2700K, 3000K

Application Halogen replacement for indoor and outdoor applications



gan-on-gan



full spectrum



natural white



dimmmable



12V AC



G53



damp rated



snap compatible

### HIGHLY COMPATIBLE

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](https://www.soraa.com/resources))

### INTENDED USE AND APPLICATIONS

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

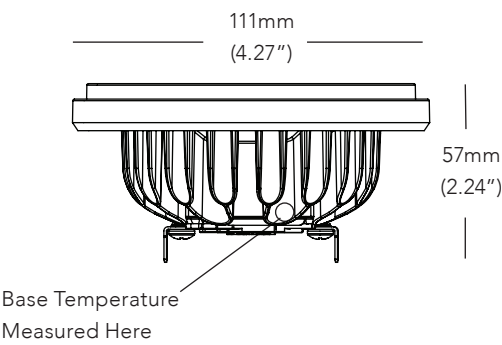
Soraa lamps are designed to safely turn down in any thermal environment not conducive to minimum airflow or proper ventilation

### ACCESSORIES

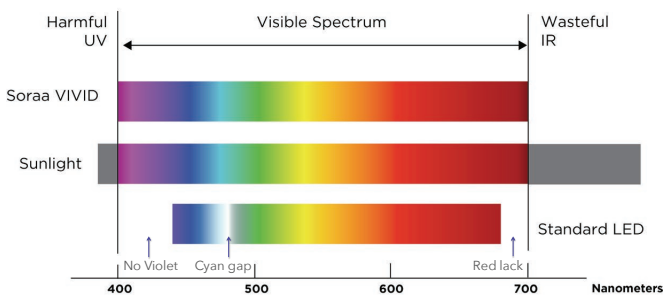
Narrow spot compatible with the Soraa SNAP System™

Soraa AR111 lamps come supplied with an optional Anti-Glare Shield

DIMENSIONS

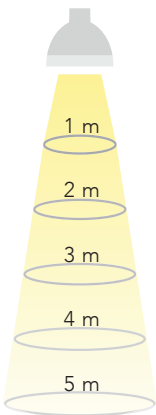


COLOR RENDERING



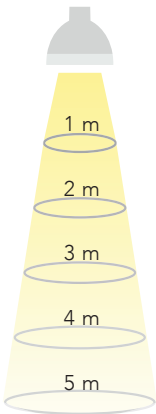
9 DEGREE BEAM

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%

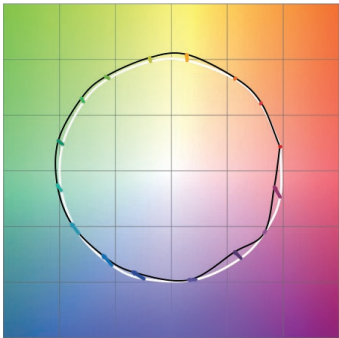
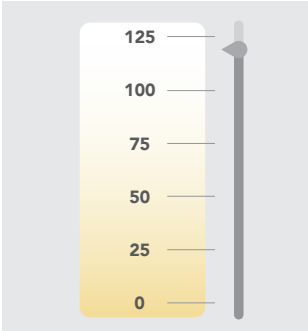
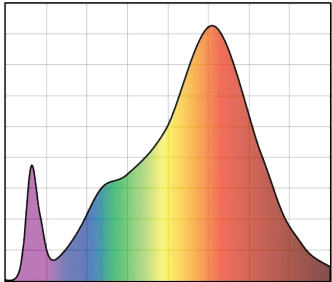
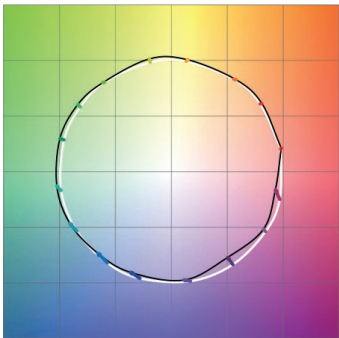
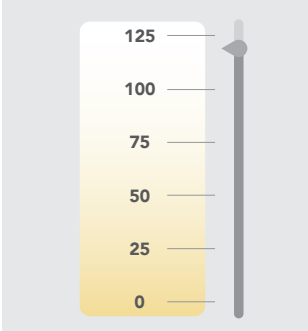
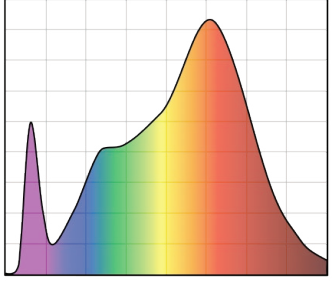
Note: Lux may be calculated by multiplying the peak Intensity of the desired model number by the percentage in the tables above

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	-

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
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

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: Sora-developed metric to measure white fidelity. Rw measures the magnitude of excitation of whitening agents within whites. Rw is about 100 for natural light.