



### 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](http://soraa.com/resources/legal)

### CERTIFICATIONS

UL/CUL Class 2 and non-Class 2, FCC Title 47 Part 15B, RoHS, CE, Title 24 Compliant



**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



dimmable



no IR



no UV



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

### INTENDED USE AND APPLICATIONS

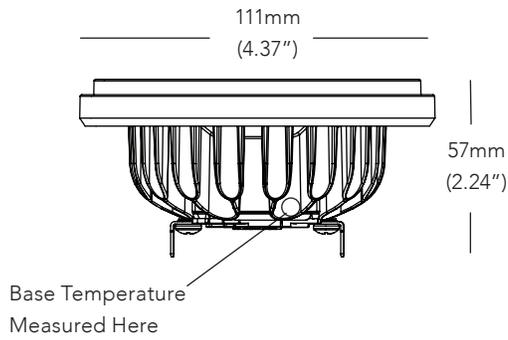
Intended for use in AR111 compatible recessed downlights, track lighting and other indoor and outdoor applications

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

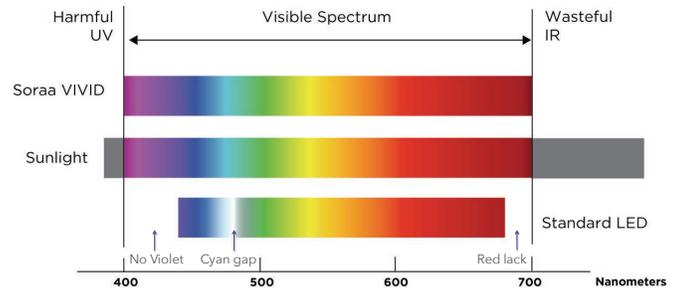
### ACCESSORIES

Narrow spot compatible with the Soraa SNAP System™

## DIMENSIONS

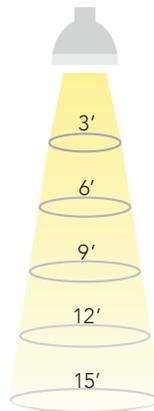


## COLOR RENDERING



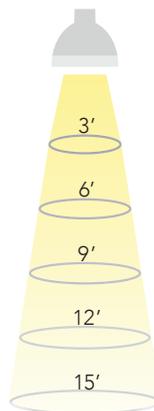
## 9 DEGREE BEAM

Beam Dia at 50% CBCP (ft)	Field Dia at 10% CBCP (ft)	Foot-candles (% of CBCP)
0.5	0.8	8.6%
0.9	1.7	2.5%
1.4	2.5	1.2%
1.9	3.4	0.7%
2.4	4.2	0.4%



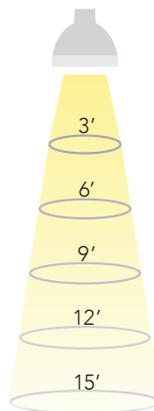
## 25 DEGREE BEAM

Beam Dia at 50% CBCP (ft)	Field Dia at 10% CBCP (ft)	Foot-candles (% of CBCP)
1.3	2.2	8.6%
2.7	4.4	2.5%
4.0	6.6	1.2%
5.3	8.7	0.7%
6.7	10.9	0.4%



## 36 DEGREE BEAM

Beam Dia at 50% CBCP (ft)	Field Dia at 10% CBCP (ft)	Foot-candles (% of CBCP)
1.9	3.5	8.6%
3.9	6.9	2.5%
5.8	10.4	1.2%
7.8	13.9	0.7%
9.7	17.3	0.4%



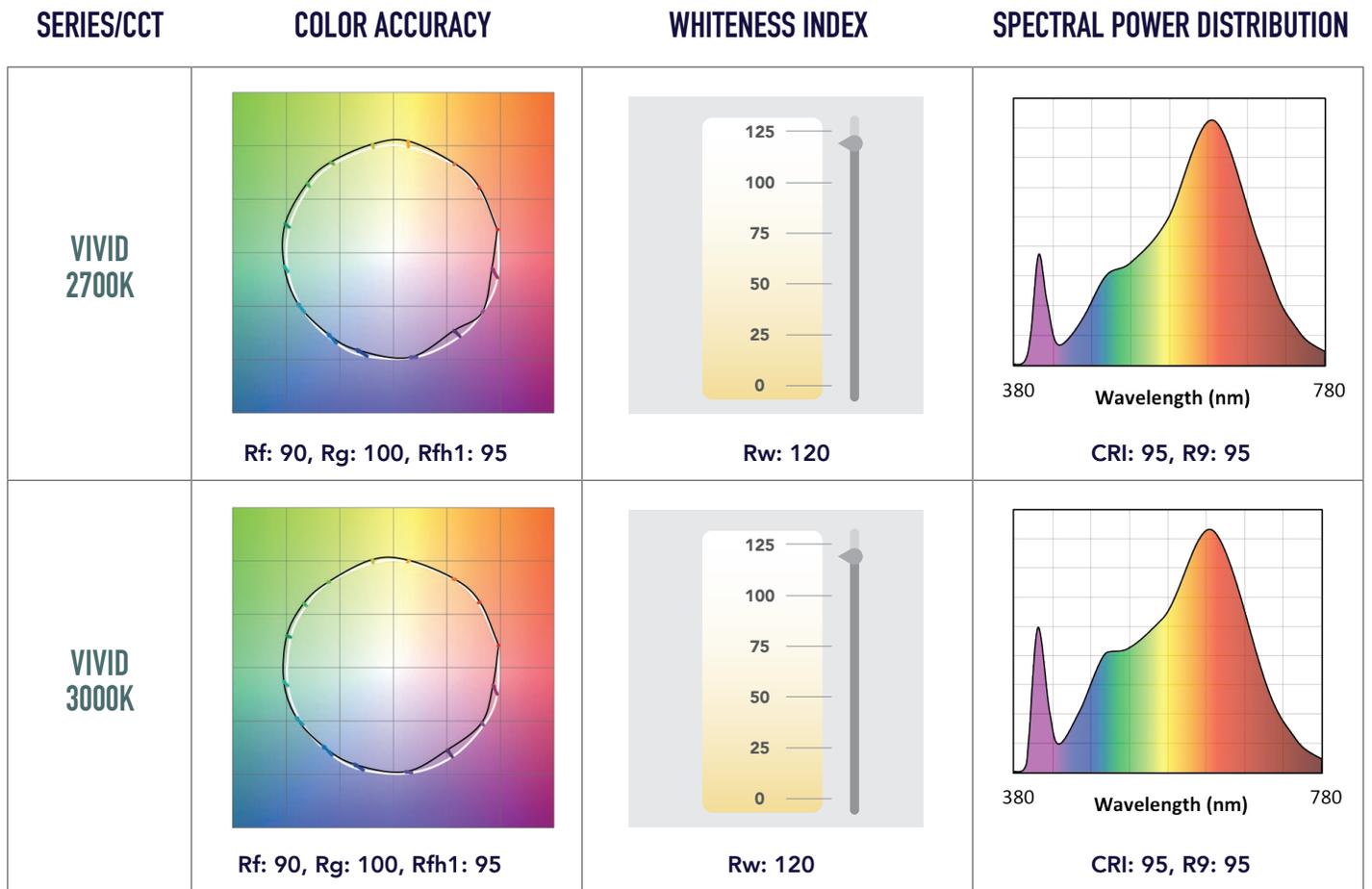
Note: Footcandles may be calculated by multiplying the CBCP of the desired model number by the percentage in the tables above

# SPECIFICATIONS BY MODEL NUMBER\* SORAA LED AR111 18.5W

Model #	Product Code	CCT (K)	Beam Angle	Field Angle	CBCP (Cd)	Halogen Equivalent	Total Flux (Lm)	Efficacy (Lm/W)	McA	SNAP
<b>VIVID SERIES</b>										
SR111-18-09D-927-03	00869	2700	9	16	22400	75	930	50	3	YES
SR111-18-25D-927-03	00871	2700	25	40	5020	75	930	50	3	-
SR111-18-36D-927-03	00873	2700	36	60	2320	75	930	50	3	-
SR111-18-09D-930-03	00885	3000	9	16	24100	75	1000	54	3	YES
SR111-18-25D-930-03	00887	3000	25	40	5400	75	1000	54	3	-
SR111-18-36D-930-03	00889	3000	36	60	2500	75	1000	54	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)



**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.