SORAA
SIMPLY PERFECT LIGHT

PRELIMINARY
PAR36 18.5W

OUTPUT RANGE: VIVID SERIES	930 - 1050 lumen
OUTPUT RANGE: BRILLIANT SERIES	1190 - 1280 lumen
BEAM ANGLE RANGE	9°, 25°, 36°, 60°
COLOR TEMPERATURE RANGE	2700K, 3000K, 4000K, 5000K
APPLICATION	Halogen replacement for indoor & outdoor applications

12V AC · ST · DIM · IR · UV

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

Single light source, single crisp shadow

VP$_3$ VIVID COLOR & VP$_3$ 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 & LONG LIFE
85% more energy efficient than standard halogen lamps

Typical payback of one year or less

Rated lifetime of 35,000 hours. 3 year warranty

CERTIFICATIONS
UL/CUL Class 2 and non-Class 2, 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)

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

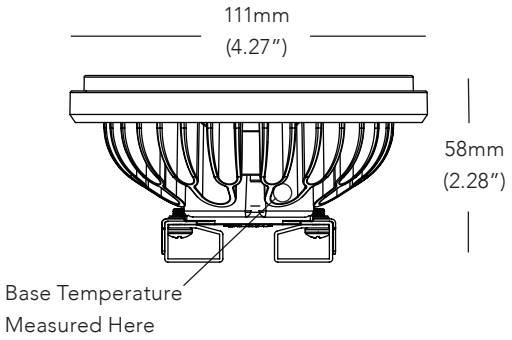
Soraa lamps are designed to safely turn down in any thermal environment not conducive to minimum airflow or proper ventilation

GENERAL SPECIFICATIONS

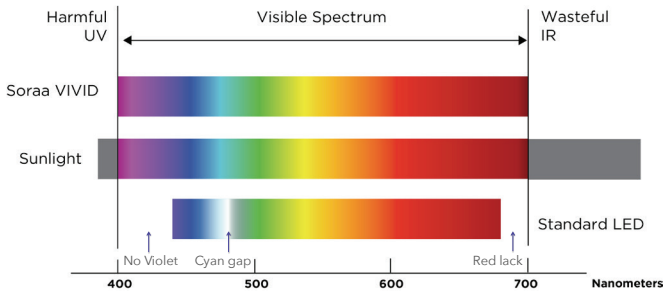
Form Factor	Operating Temperature	Electrical	Dimming and Flicker
Width: 111mm (4.37”)	Minimum: -40°C (ambient)	Wattage: 18.5W	Dimmable to <20%
Height: 57mm (2.24”)	Typical: 70°C - 80°C (base)	Power factor: 0.92	Flicker Index < 0.1
Weight: 280g	Maximum: 90°C (base)	Voltage: 12V +/- 1.2V	Percent Flicker: 28%
		Frequency: 50/60Hz	

*Metrics apply to 2700K, 3000K, 4000K. 5000K color metrics are CRI/90, R9/95

DIMENSIONS

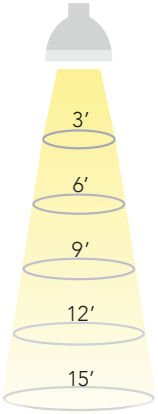


COLOR RENDERING



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%

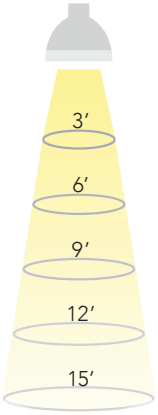


25 DEGREE BEAM

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%



60 DEGREE BEAM

Beam Dia at 50% CBCP (ft)	Field Dia at 10% CBCP (ft)	Foot-candles (% of CBCP)
3.5	6.0	8.6%
6.9	12.0	2.5%
10.4	18.0	1.2%
13.9	24.0	0.7%
17.3	30.0	0.4%

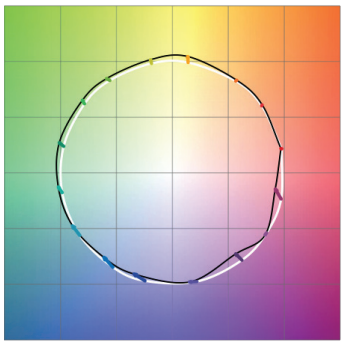
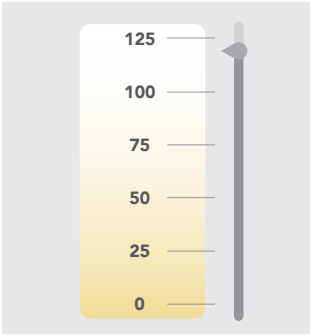
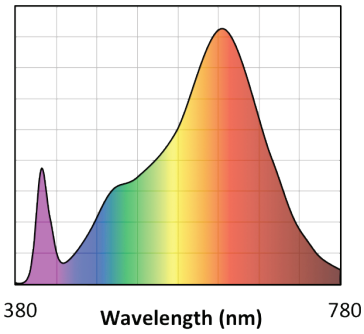
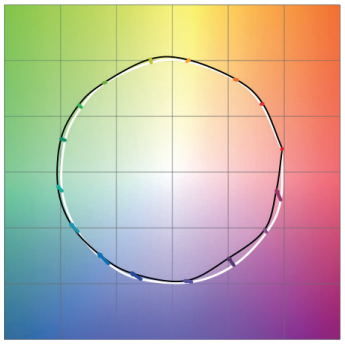
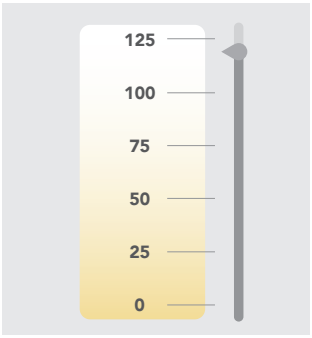
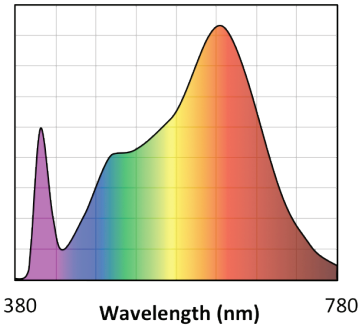
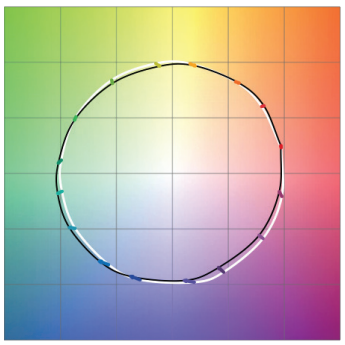
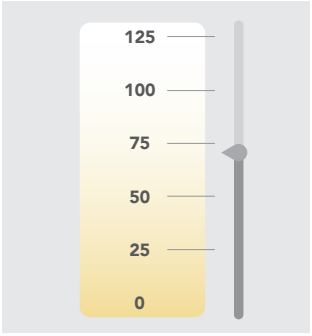
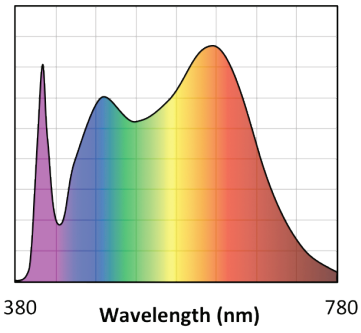
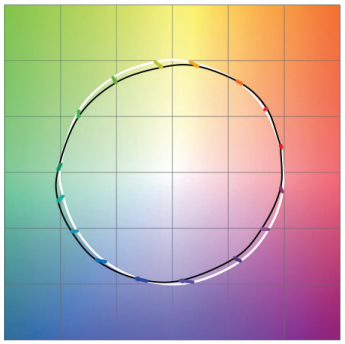
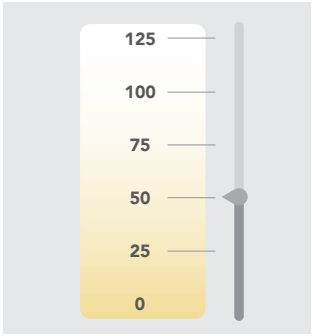
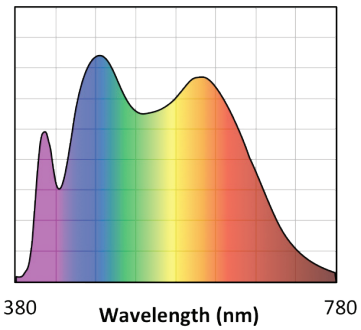
Note: Footcandles may be calculated by multiplying the CBCP of the desired model number by the percentage in the tables above

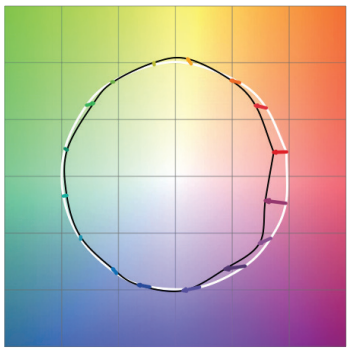
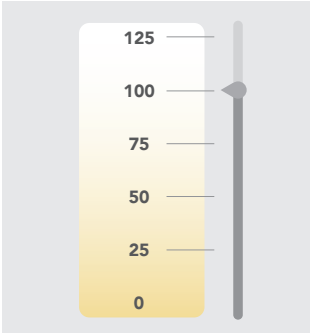
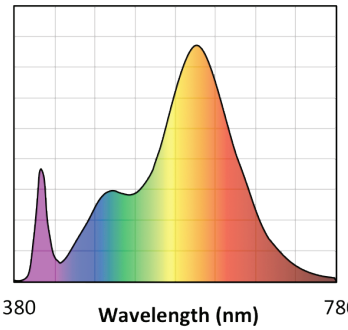
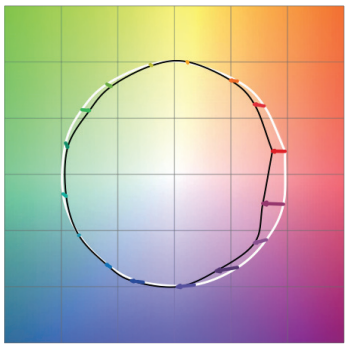
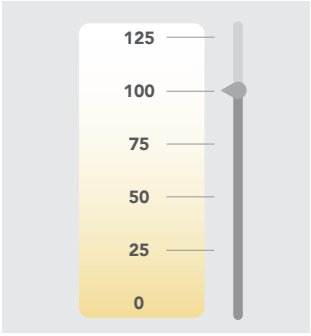
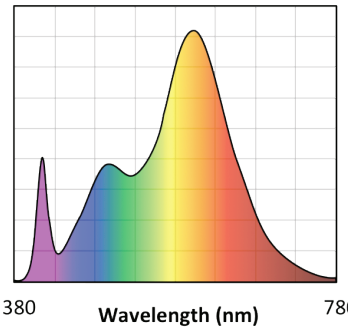
SPECIFICATIONS BY MODEL NUMBER* SORAA LED PAR36 18.5W

Model #	Product Code	CCT (K)	Beam Angle	Field Angle	CBCP (Cd)	Halogen Equivalent	Total Flux (Lm)	Efficacy (Lm/W)	McA	Energy Star	SNAP
VIVID SERIES											
SP36-18-09D-927-03	03357	2700	9	16	22400	75	930	50	3	-	YES
SP36-18-25D-927-03	03359	2700	25	40	5020	75	930	50	3	-	-
SP36-18-36D-927-03	03361	2700	36	60	2320	75	930	50	3	-	-
SP36-18-60D-927-03	03363	2700	60	90	1020	75	930	50	3	-	-
SP36-18-09D-930-03	03373	3000	9	16	24100	75	1000	54	3	-	YES
SP36-18-25D-930-03	03375	3000	25	40	5400	75	1000	54	3	-	-
SP36-18-36D-930-03	03377	3000	36	60	2500	75	1000	54	3	-	-
SP36-18-60D-930-03	03379	3000	60	90	1100	75	1000	54	3	-	-
SP36-18-09D-940-03	03389	4000	9	16	25060	75	1040	56	4	-	YES
SP36-18-25D-940-03	03391	4000	25	40	5600	75	1040	56	4	-	-
SP36-18-36D-940-03	03393	4000	36	60	2600	75	1040	56	4	-	-
SP36-18-60D-940-03	03395	4000	60	90	1140	75	1040	56	4	-	-
SP36-18-09D-950-03	03397	5000	9	16	25300	75	1050	57	5	-	YES
SP36-18-25D-950-03	03399	5000	25	40	5660	75	1050	57	5	-	-
SP36-18-36D-950-03	03401	5000	36	60	2620	75	1050	57	5	-	-
SP36-18-60D-950-03	03403	5000	60	90	1140	75	1050	57	5	-	-
BRILLIANT SERIES											
SP36-18-09D-827-03	03365	2700	9	16	28660	100	1190	64	3	-	YES
SP36-18-25D-827-03	03367	2700	25	40	6420	100	1190	64	3	-	-
SP36-18-36D-827-03	03369	2700	36	60	2960	100	1190	64	3	-	-
SP36-18-60D-827-03	03371	2700	60	90	1300	100	1190	64	3	-	-
SP36-18-09D-830-03	03381	3000	9	16	30840	100	1280	69	3	-	YES
SP36-18-25D-830-03	03383	3000	25	40	6900	100	1280	69	3	-	-
SP36-18-36D-830-03	03385	3000	36	60	3200	100	1280	69	3	-	-
SP36-18-60D-830-03	03387	3000	60	90	1400	100	1280	69	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	 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
VIVID 4000K	 Rf: 90, Rg: 100, Rfh1: 95	 Rw: 70	 CRI: 92, R9: 95
VIVID 5000K	 Rf: 90, Rg: 100, Rfh1: 95	 Rw: 50	 CRI: 90, R9: 95

SERIES/CCT	COLOR ACCURACY	WHITENESS INDEX	SPECTRAL POWER DISTRIBUTION
BRILLIANT 2700K	 Rf: 85, Rg: 92, Rfh1: 77	 Rw: 100	 CRI: 85, R9: >0
BRILLIANT 3000K	 Rf: 85, Rg: 92, Rfh1: 77	 Rw: 100	 CRI: 85, R9: >0

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.

Soraa Inc. 6500 Kaiser Drive, Suite 110, Fremont, CA 94555
855 GO-SORAA / 855 467-6722 | www.soraa.com