SORAA
SIMPLY PERFECT LIGHT

PAR38 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

230V E27 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 AND 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 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

RoHS, CE

RoHS CE

HIGHLY COMPATIBLE

Narrow spot compatible with Soraa SNAP System accessories

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

Works with trailing edge and leading edge phase cut dimmers (see www.soraa.com/resources)

INTENDED USE AND APPLICATIONS

Intended for use in PAR38 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: 122mm (4.80")

Height: 125mm (4.92")

Weight: 305g

Operating Temperature

Minimum: -40°C (ambient)

Typical: 70°C - 80°C (base)

Maximum: 90°C (base)

Electrical

Wattage: 18.5W

Power factor: 0.95

Voltage: 230V +/- 23V

Frequency: 50/60Hz

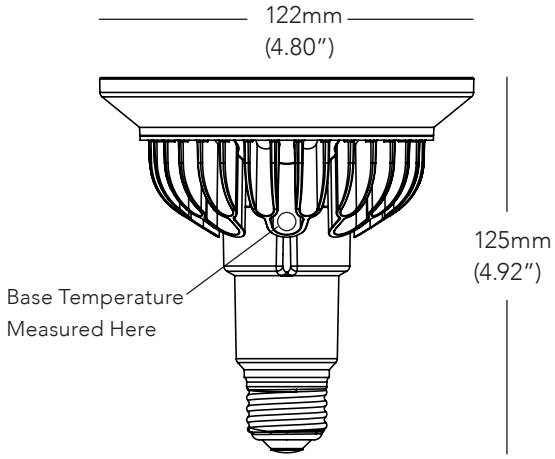
Dimming and Flicker

Dimmable to <20%

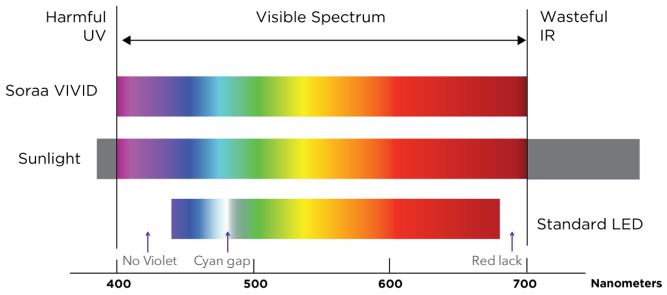
Flicker Index: <0.1

Percent Flicker: 29%

DIMENSIONS

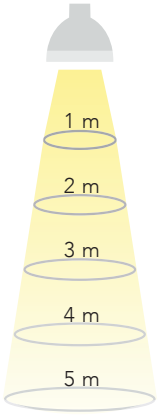


COLOR RENDERING



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%

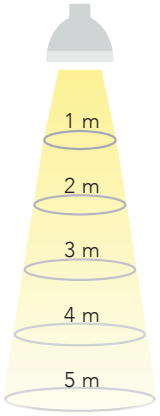


25 DEGREE BEAM

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%



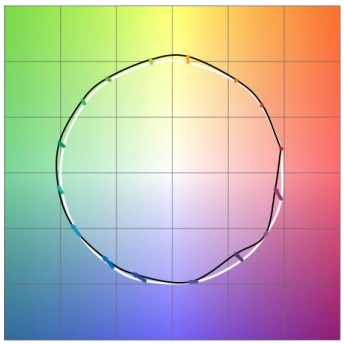
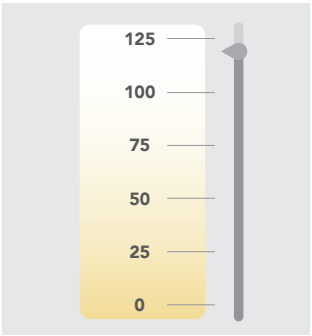
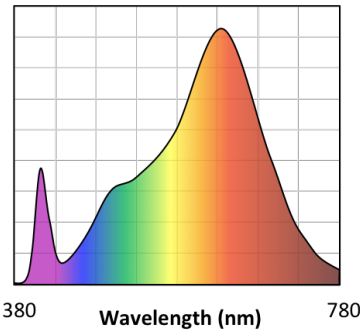
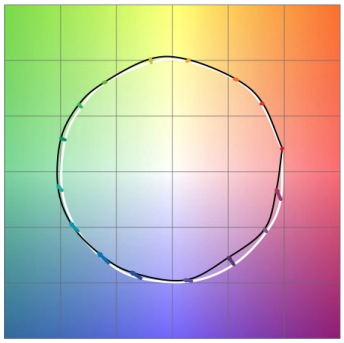
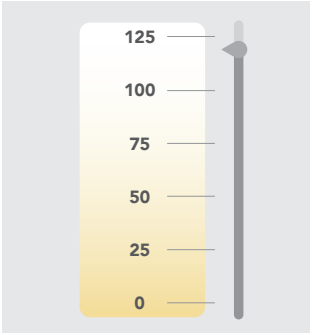
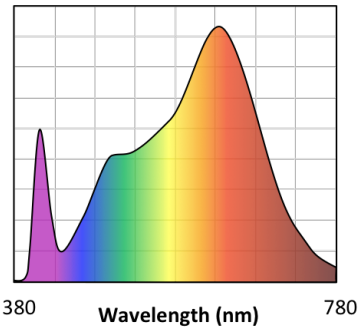
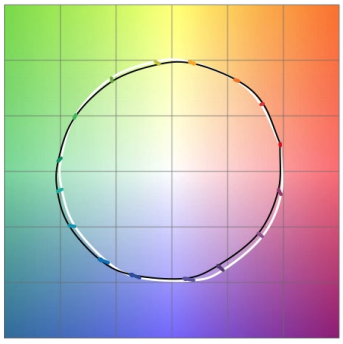
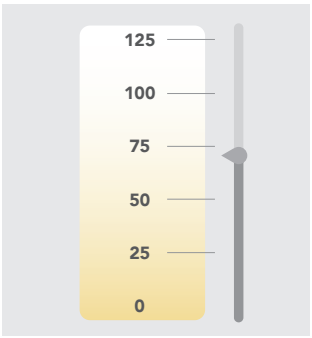
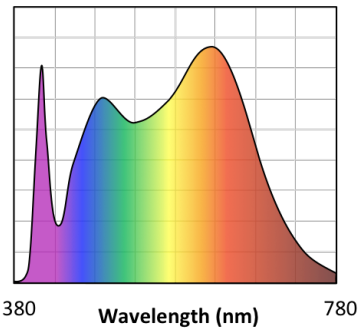
Note: Lux may be calculated by multiplying the peak Intensity of the desired model number by the percentage in the tables above

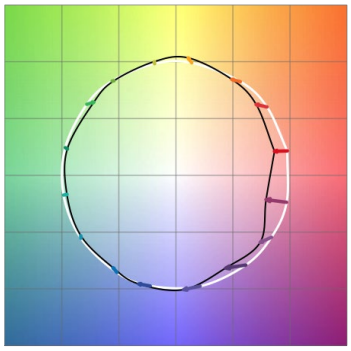
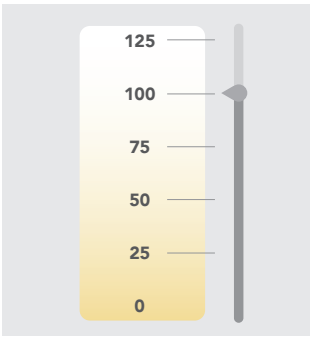
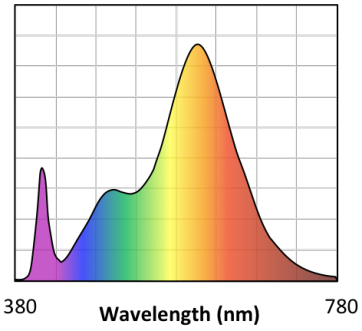
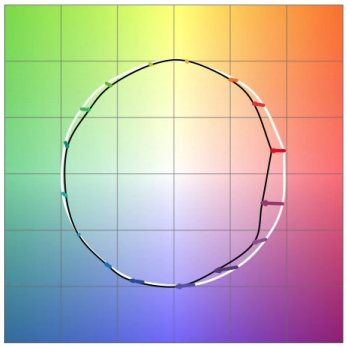
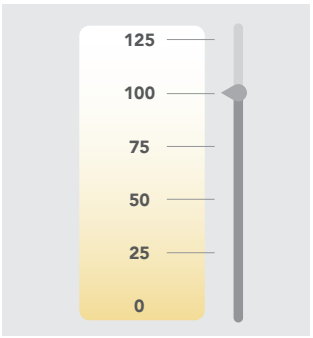
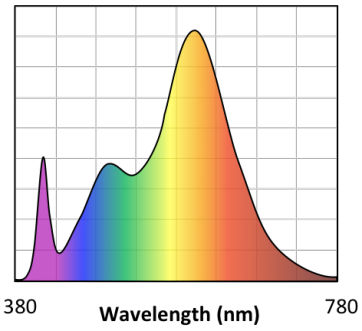
SPECIFICATIONS BY MODEL NUMBER* SORAA LED PAR38 18.5W

Model #	Product Code	CCT (K)	Beam Angle	Field Angle	Peak Intensity	Total Flux (Lm)	Efficacy (Lm/W)	90° Lumens	McA	EEI	SNAP
VIVID SERIES											
SP38W-18-09D-927-03-S3	02047	2700	9	16	17200	930	50	890	3	A	YES
SP38W-18-25D-927-03-S3	02049	2700	25	40	5020	930	50	890	3	A	-
SP38W-18-36D-927-03-S3	02051	2700	36	60	2320	930	50	900	3	A	-
SP38W-18-09D-930-03-S3	02063	3000	9	16	18500	1000	54	960	3	A	YES
SP38W-18-25D-930-03-S3	02065	3000	25	40	5400	1000	54	960	3	A	-
SP38W-18-36D-930-03-S3	02067	3000	36	60	2500	1000	54	970	3	A	-
SP38W-18-09D-940-03-S3	02079	4000	9	16	19240	1040	56	995	4	A	YES
SP38W-18-25D-940-03-S3	02081	4000	25	40	5600	1040	56	995	4	A	-
SP38W-18-36D-940-03-S3	02083	4000	36	60	2600	1040	56	1005	4	A	-
BRILLIANT SERIES											
SP38W-18-09D-827-03-S3	02055	2700	9	16	22000	1190	64	1140	3	A	YES
SP38W-18-25D-827-03-S3	02057	2700	25	40	6420	1190	64	1140	3	A	-
SP38W-18-36D-827-03-S3	02059	2700	36	60	2960	1190	64	1150	3	A	-
SP38W-18-09D-830-03-S3	02071	3000	9	16	23680	1280	69	1225	3	A	YES
SP38W-18-25D-830-03-S3	02073	3000	25	40	6900	1280	69	1225	3	A	-
SP38W-18-36D-830-03-S3	02075	3000	36	60	3200	1280	69	1240	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
VIVID 4000K	 Rf: 90, Rg: 100, Rfh1: 95	 Rw: 70	 CRI: 95, 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. Rf 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.

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