



SORAA VIVID™

Soraa VIVID lamps offer beautiful and accurate color and white rendering across the entire visible spectrum, mimicking the natural range of sunlight to deliver unmatched quality of light for color critical applications.

POINT SOURCE OPTICS™

Point Source Optics deliver exceptional beam quality with crisp shadows, perfect uniformity and precisely controlled beam distributions from 9° to 60°.

SORAA VIVID COLOR™

Soraa VIVID lamps utilize full spectrum light to provide industry-leading color rendition of CRI/95, R9/95, Rf/90, Rg/100 for precise color reproduction.

SORAA NATURAL WHITE™

Soraa VIVID lamps are engineered to deliver outstanding whiteness rendering for true-to-life whites, which matches or exceeds incandescent sources at 2700K and 3000K.

FLICKER

Soraa lamps demonstrate low levels of flicker in both dimmed and undimmed states.

ACCESSORIES

Narrow spot compatible with the Soraa SNAP SYSTEM™

GENERAL SPECIFICATIONS

Output	930 - 1000 lumen
Beam Angle	9°, 25°, 36°, 60°
Color Temperature	2700K, 3000K
Color Metrics	CIE Metrics: CRI 95, R9 95 TM30 Metrics: Rf 90, Rg 100 Whiteness Index: Rw 100
Applications	Hotels & Hospitality Galleries & Museums High-End Retail



ENERGY EFFICIENCY

85% more energy efficient than standard halogen lamps, with typical payback of one year or less.

THERMAL COMPATIBILITY

Suitable for use with standard fixtures, subject to the maximum heatsink temperature limits stated in this data sheet. Designed to safely turn down in high temperature environments to protect LED and components.

ELECTRICAL COMPATIBILITY

Works with trailing edge and leading edge phase cut dimmers. Check individual lamp website pages for compatibility data. For more information visit: www.soraa.com.

INTENDED USE & LOCATION RATING

Intended for use in PAR38 compatible recessed downlights, track lighting and other indoor and outdoor applications. Suitable for damp locations, not rated for use in wet locations.

LIFETIME & WARRANTY

Rated lifetime to L70: 35,000hrs

Warranty: 3yrs or 25,000hrs whichever comes first

For warranty information visit: www.soraa.com/resources/legal



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: 120V +/- 12V

Frequency: 50/60Hz

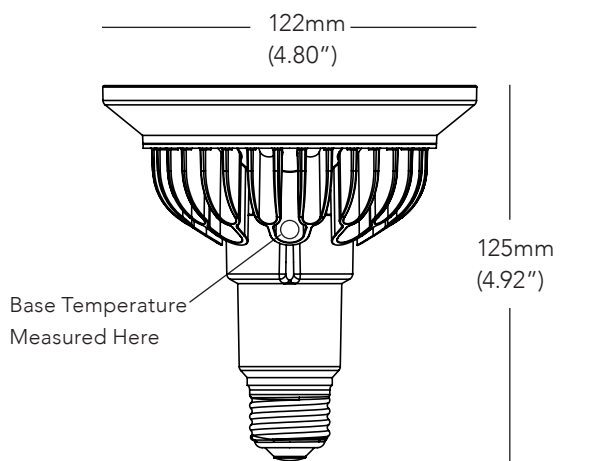
Dimming and Flicker

Dimmable to <10%

Flicker Index: <0.10

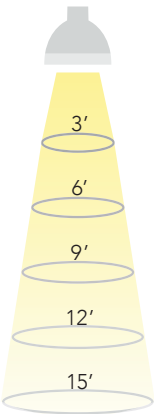
Percent Flicker: 28%

DIMENSIONS



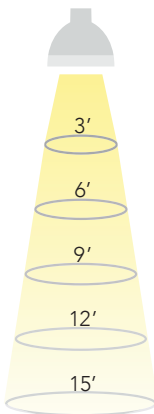
9 DEGREE BEAM

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%



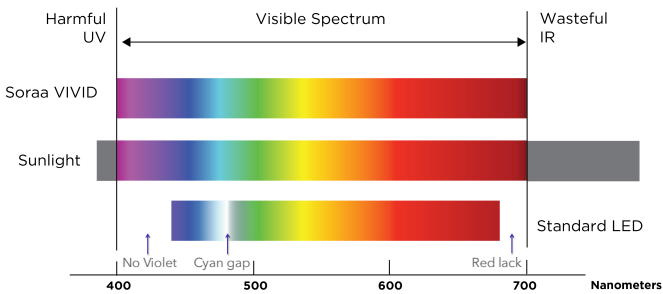
36 DEGREE BEAM

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

COLOR RENDERING



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%

60 DEGREE BEAM

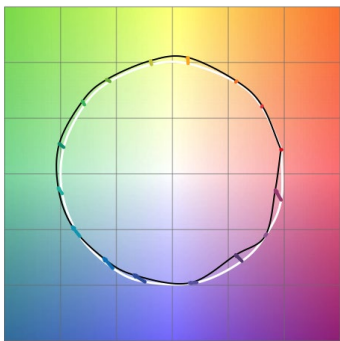
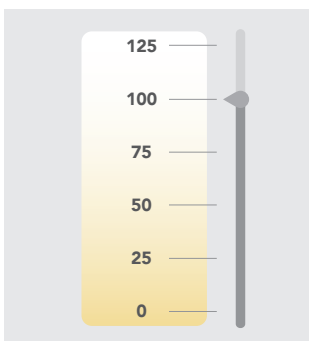
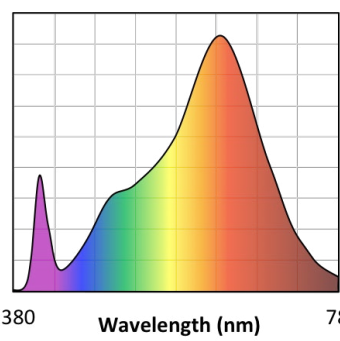
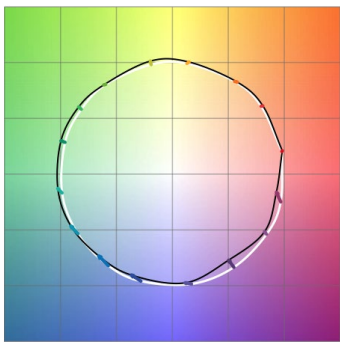
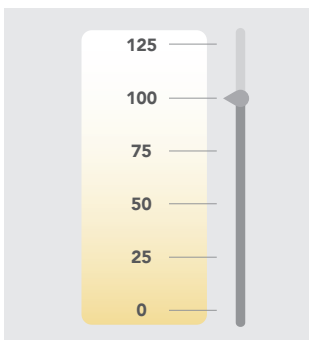
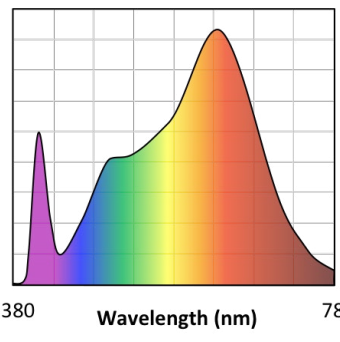
Beam Dia at 50% CBCP (ft)	Field Dia at 10% CBCP (ft)	Foot-candles (% of CBCP)
3.5	6.0	8.6%
6.9	12.0	2.5%
10.4	18.0	1.2%
13.9	24.0	0.7%
17.3	30.0	0.4%

SPECIFICATIONS BY MODEL NUMBER* SORAA LED PAR38 18.5W 120V

Model #	Product Code	CCT (K)	Beam Angle	Field Angle	CBCP (Cd)	Total Flux (Lm)	Efficacy (Lm/W)	McA	SNAP	Certification
VIVID SERIES										
SP38-18-09D-927-03	00977	2700	9	16	17200	930	50	3	YES	JA8
SP38-18-25D-927-03	00979	2700	25	40	5020	930	50	3	-	JA8
SP38-18-36D-927-03	00981	2700	36	60	2320	930	50	3	-	JA8
SP38-18-60D-927-03	00983	2700	60	90	1020	930	50	3	-	JA8
SP38-18-09D-930-03	00993	3000	9	16	18500	1000	54	3	YES	JA8
SP38-18-25D-930-03	00995	3000	25	40	5400	1000	54	3	-	JA8
SP38-18-36D-930-03	00997	3000	36	60	2500	1000	54	3	-	JA8
SP38-18-60D-930-03	00999	3000	60	90	1100	1000	54	3	-	JA8

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	 <p>Rf: 90, Rg: 100, Rfh1: 95</p>	 <p>Rw: 100</p>	 <p>CRI: 95, R9: 95</p>
VIVID 3000K	 <p>Rf: 90, Rg: 100, Rfh1: 95</p>	 <p>Rw: 100</p>	 <p>CRI: 95, R9: 95</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.