

# PAR20 10.8W



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<b>OUTPUT RANGE: VIVID SERIES</b>	500 - 560 lumen
<b>OUTPUT RANGE: BRILLIANT SERIES</b>	640 - 690 lumen
<b>BEAM ANGLE RANGE</b>	10°, 25°, 36°
<b>COLOR TEMPERATURE RANGE</b>	2700K, 3000K, 4000K
<b>APPLICATION</b>	Halogen replacement for indoor & outdoor applications

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## POINT SOURCE OPTICS

Exceptional beam control enables unique 10° narrow spot and smooth uniform beams

Single light source, single crisp shadow

## VP<sub>3</sub> VIVID COLOR AND VP<sub>3</sub> 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](http://soraa.com/resources/legal)

## CERTIFICATIONS

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

## INTENDED USE AND APPLICATIONS

Intended for use in PAR20 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

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### Form Factor

Width: 64mm (2.52")

Height: 89mm (3.50")

Weight: 160g

### Operating Temperature

Minimum: -40°C (ambient)

Typical: 70°C - 80°C (base)

Maximum: 90°C (base)

### Electrical

Wattage: 10.8W

Power factor: 0.80

Voltage: 230V +/- 23V

Frequency: 50/60Hz

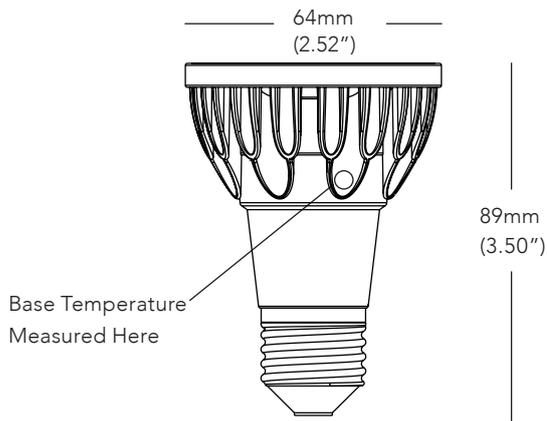
### Dimming and Flicker

Dimmable to <20%

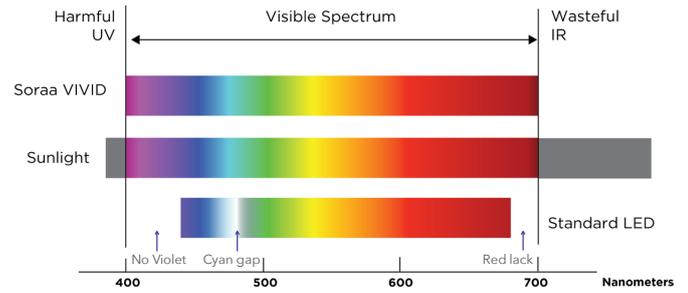
Flicker Index: <0.10

Percent Flicker: 50%

## DIMENSIONS

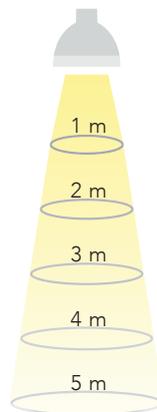


## COLOR RENDERING



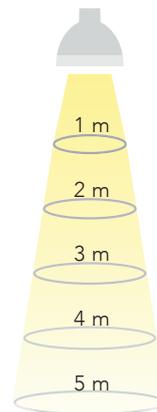
## 10 DEGREE BEAM

Beam Dia at 50% Intensity (m)	Field Dia at 10% Intensity (m)	Lux (% of Intensity)
0.2	0.4	100%
0.3	0.7	25%
0.5	1.1	11%
0.7	1.4	6%
0.9	1.8	4%



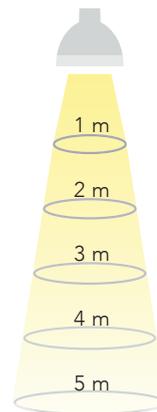
## 25 DEGREE BEAM

Beam Dia at 50% Intensity (m)	Field Dia at 10% Intensity (m)	Lux (% of Intensity)
0.4	0.7	100%
0.9	1.5	25%
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	100%
1.3	2.3	25%
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 PAR20 10.8W

Model #	Product Code	CCT (K)	Beam Angle	Field Angle	Peak Intensity	Total Flux (Lm)	Efficacy (Lm/W)	90° Lumens	McA	EEl	SNAP
<b>VIVID SERIES</b>											
SP20W-11-10D-927-03-S3	02679	2700	10	20	8000	500	46	465	3	A	YES
SP20W-11-25D-927-03-S3	02681	2700	25	40	2640	500	46	480	3	A	-
SP20W-11-36D-927-03-S3	02683	2700	36	60	1240	500	46	480	3	A	-
SP20W-11-10D-930-03-S3	02695	3000	10	20	8640	540	50	500	3	A	YES
SP20W-11-25D-930-03-S3	02697	3000	25	40	2860	540	50	515	3	A	-
SP20W-11-36D-930-03-S3	02699	3000	36	60	1340	540	50	515	3	A	-
SP20W-11-10D-940-03-S3	02711	4000	10	20	8960	560	52	520	4	A	-
SP20W-11-25D-940-03-S3	02713	4000	25	40	2960	560	52	535	4	A	-
SP20W-11-36D-940-03-S3	02715	4000	36	60	1400	560	52	535	4	A	-
<b>BRILLIANT SERIES</b>											
SP20W-11-10D-827-03-S3	02687	2700	10	20	10240	640	59	595	3	A	YES
SP20W-11-25D-827-03-S3	02689	2700	25	40	3380	640	59	610	3	A	-
SP20W-11-36D-827-03-S3	02691	2700	36	60	1600	640	59	610	3	A	-
SP20W-11-10D-830-03-S3	02703	3000	10	20	11040	690	64	640	3	A	YES
SP20W-11-25D-830-03-S3	02705	3000	25	40	3640	690	64	660	3	A	-
SP20W-11-36D-830-03-S3	02707	3000	36	60	1720	690	64	660	3	A	-

**CCT:** Correlated Color Temperature **McA:** White Point Accuracy in McA step **SNAP:** SORAA SNAP System Compatible **EEl:** Energy Efficiency Index

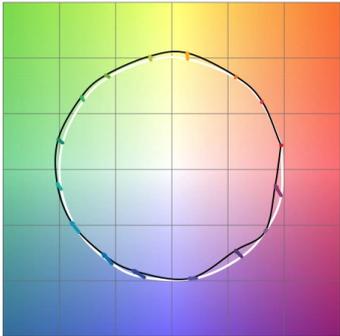
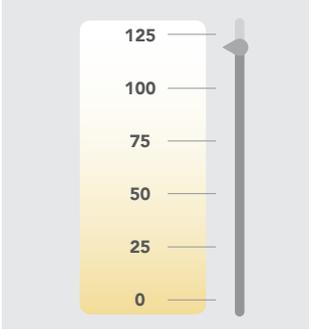
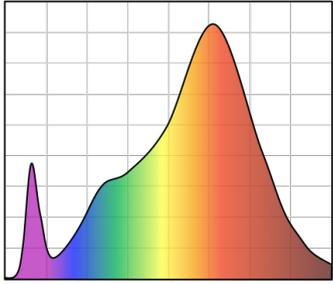
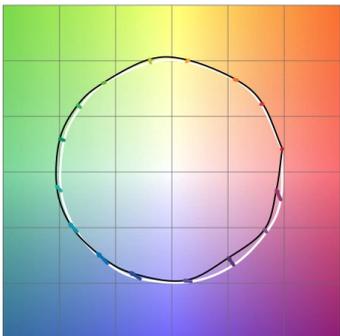
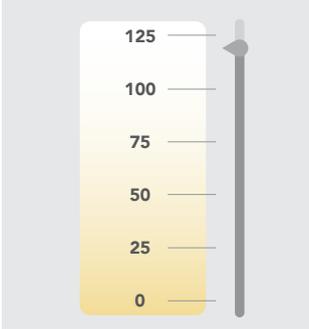
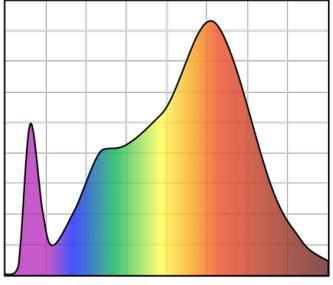
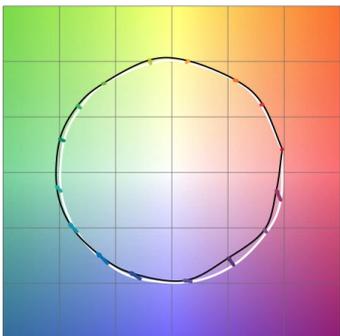
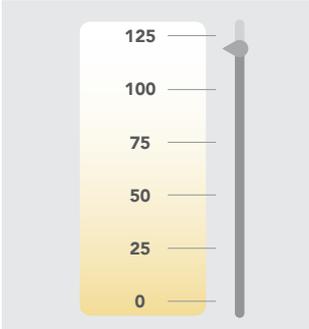
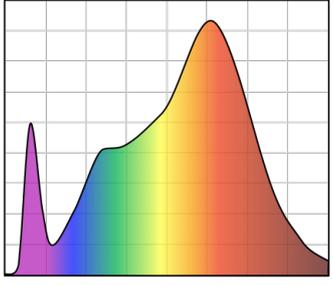
\*Specifications are at stable warm operating conditions (25°C ambient)

**SERIES/CCT**

**COLOR ACCURACY**

**WHITENESS INDEX**

**SPECTRAL POWER DISTRIBUTION**

<p><b>VIVID 2700K</b></p>	 <p><b>Rf: 90, Rg: 100, Rfh1: 95</b></p>	 <p><b>Rw: 120</b></p>	 <p><b>Wavelength (nm)</b> 380 780</p> <p><b>CRI: 95, R9: 95</b></p>
<p><b>VIVID 3000K</b></p>	 <p><b>Rf: 90, Rg: 100, Rfh1: 95</b></p>	 <p><b>Rw: 120</b></p>	 <p><b>Wavelength (nm)</b> 380 780</p> <p><b>CRI: 95, R9: 95</b></p>
<p><b>VIVID 4000K</b></p>	 <p><b>Rf: 90, Rg: 100, Rfh1: 95</b></p>	 <p><b>Rw: 120</b></p>	 <p><b>Wavelength (nm)</b> 380 780</p> <p><b>CRI: 95, R9: 95</b></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.

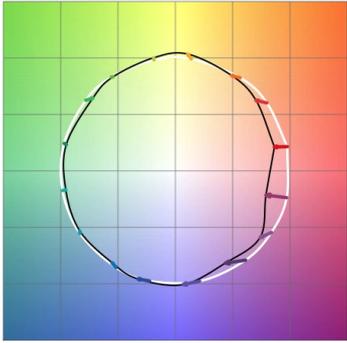
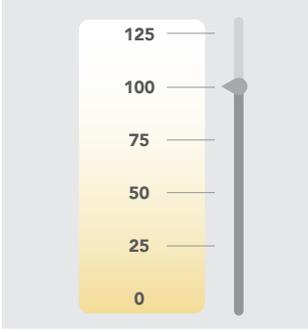
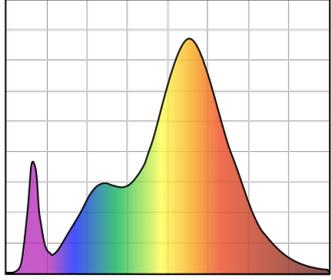
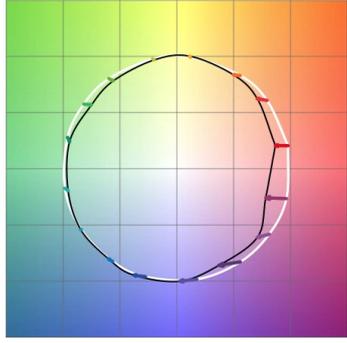
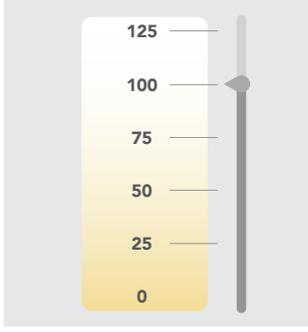
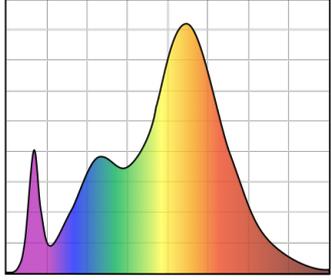
Rw: Soraa-developed metric to measure white fidelity. Rw measures the magnitude of excitation of whitening agents within whites. Rw is about 100 for natural light.

**SERIES/CCT**

**COLOR ACCURACY**

**WHITENESS INDEX**

**SPECTRAL POWER DISTRIBUTION**

<p><b>BRILLIANT 2700K</b></p>	 <p><b>Rf: 85, Rg: 92, Rfh1: 77</b></p>	 <p><b>Rw: 100</b></p>	 <p><b>Wavelength (nm)</b> 380 780</p> <p><b>CRI: 85, R9: &gt;0</b></p>
<p><b>BRILLIANT 3000K</b></p>	 <p><b>Rf: 85, Rg: 92, Rfh1: 77</b></p>	 <p><b>Rw: 100</b></p>	 <p><b>Wavelength (nm)</b> 380 780</p> <p><b>CRI: 85, R9: &gt;0</b></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.