



SORAA BRILLIANT HL™

The Soraa Brilliant HL single-source COB lamp combines Soraa’s world-class optics design and driver technology with a photopically efficacious LED

SORAA POINT SOURCE OPTICS™

With a point source and sophisticated folded optics, Soraa creates very controlled beam angles from 25 to 36 degrees, in form factors as challenging as the compact MR16 resulting in smooth uniform beams and crisp shadows

FLICKER

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

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
 Warranty information: soraa.com/resources/legal

GENERAL SPECIFICATIONS

Form Factor

Width: 50.1mm (1.97")
 Height: 45.5mm (1.79")
 Weight: 47g

Operating Temperature

Minimum: -40°C (ambient)
 Typical: 90°C - 95°C (base)
 Maximum: 100°C (base)

Electrical

Wattage: 9W
 Power factor: 0.92
 Voltage: 12V +/- 1.2V
 Frequency: 50/60Hz

Dimming

Dimmable to <20%

Output Range	690 - 725 lumen
Beam Angle Range	Flood 25°, 36°
Color Metrics	CCT: 2700K, 3000K Color Rendering CIE Metrics: CRI 90, R9 50
Application	Not suitable for enclosed, lensed, baffled, or deeply recessed fixtures. Halogen replacement for indoor applications.



HIGHLY COMPATIBLE

Geometrically compatible with standard fixtures

Not suitable for enclosed, lensed, baffled, or deeply recessed fixtures

Suitable for damp locations

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 MR16 compatible recessed downlights, track lighting and other indoor applications

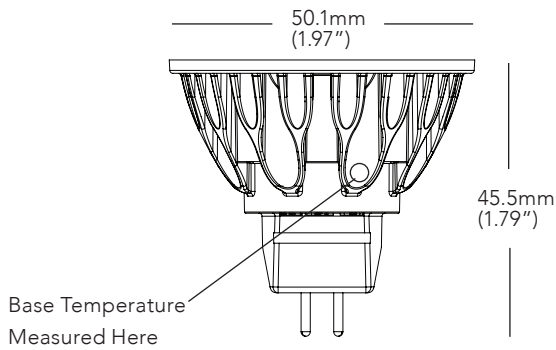
Soraa lamps are designed to safely turn down in high temperature environments to protect LED and components

CERTIFICATIONS

Title 20 compliant, UL/CUL Class 2 and non-Class 2, FCC Title 47 Part 15B, RoHS, CE

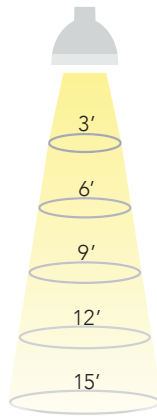


DIMENSIONS



25 DEGREE BEAM

Beam Dia at 50% CBCP (ft)	Field Dia at 10% CBCP (ft)	Foot-candles (% of CBCP)
1.3	2.2	11.1%
2.7	4.4	2.8%
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	3.3	11.1%
3.9	6.5	2.8%
5.8	9.8	1.2%
7.8	13.0	0.7%
9.7	16.3	0.4%

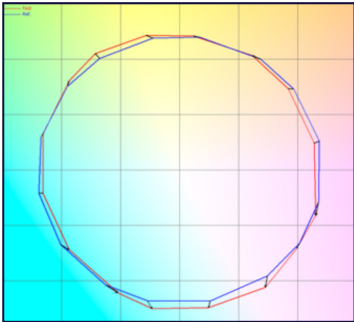
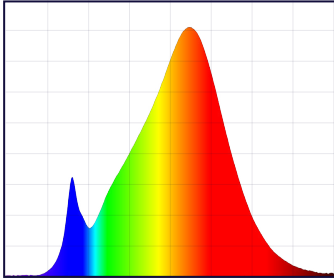
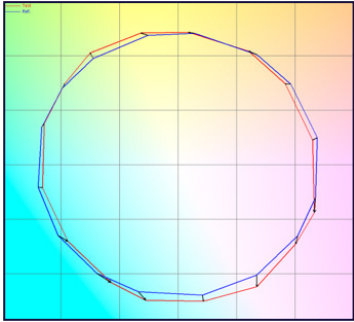
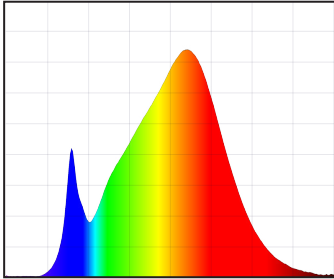
Note: Footcandles may be calculated by multiplying the CBCP of the desired model number by the percentage in the tables above

SPECIFICATIONS BY MODEL NUMBER* SORAA LED MR16 9W 12V

Model #	Product Code	CCT (K)	Beam Angle	Field Angle	CBCP (Cd)	Halogen Equiv	Total Flux (Lm)	Efficacy (Lm/W)	CRI	McA	Title 20
BRILLIANT HL SERIES											
SM16-09-25D-827-H1	08734	2700	25	40	3550	75	690	77	90	3	Compliant
SM16-09-36D-827-H1	08736	2700	36	57	1700	75	690	77	90	3	Compliant
SM16-09-25D-830-H1	08738	3000	25	40	3730	75	725	81	90	3	Compliant
SM16-09-36D-830-H1	08740	3000	36	57	1790	75	725	81	90	3	Compliant

CCT: Correlated Color Temperature **McA:** White Point Accuracy in McA step

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

SERIES/CCT	COLOR ACCURACY	SPECTRAL POWER DISTRIBUTION
BRILLIANT HL 2700K	 <p data-bbox="370 499 630 531">Rf: 90, Rg: 98, Rfh1: 85</p>	 <p data-bbox="727 447 1078 478">Wavelength (nm) 380 780</p> <p data-bbox="824 499 980 531">CRI: 90, R9: 50</p>
BRILLIANT HL 3000K	 <p data-bbox="370 930 630 961">Rf: 90, Rg: 98, Rfh1: 85</p>	 <p data-bbox="727 877 1078 909">Wavelength (nm) 380 780</p> <p data-bbox="824 930 980 961">CRI: 90, R9: 50</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.