



**SORAA BRILLIANT HL™**

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

**SORAA POINT SOURCE OPTICS™**

With a point source and sophisticated folded optics, Soraa creates very controlled beam angles from 10 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](http://soraa.com/resources/legal)

**ACCESSORIES**

Narrow spot compatible with the Soraa SNAP System™

**GENERAL SPECIFICATIONS**

**Form Factor**

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

**Operating Temperature**

Minimum: -40°C (ambient)  
 Typical: 85°C - 95°C (base)  
 Maximum: 100°C (base)

**Electrical**

Wattage: 7.5W  
 Power factor: 0.92  
 Voltage: 12V +/- 1.2V  
 Frequency: 50/60Hz

**Dimming**

Dimmable to <20%

Output Range	575 - 630 lumen
Beam Angle Range	10°, 25°, 36°
Color Metrics	CCT: 2700K, 3000K Color Rendering CIE Metrics: CRI 90, R9 50
Application	<b>This lamp is suitable for use in fully enclosed fixtures, subject to the maximum heatsink temperature limits stated in this data sheet.</b> Halogen replacement for indoor applications.



**HIGHLY COMPATIBLE**

Geometrically compatible with standard fixtures and suitable for damp locations

This lamp is suitable for use in fully enclosed fixtures, subject to the maximum heatsink temperature limits stated in this data sheet. A list of qualified enclosed fixtures can be found at [www.soraa.com/resources](http://www.soraa.com/resources)

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 MR16 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

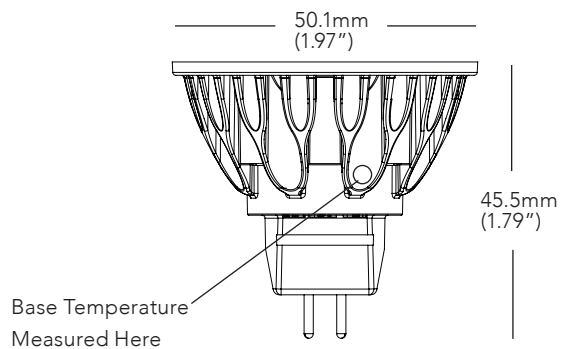
**CERTIFICATIONS**

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



\* These Soraa lamps are pending certification for California’s demanding Title 20 standard, which requires <30% flicker

## DIMENSIONS

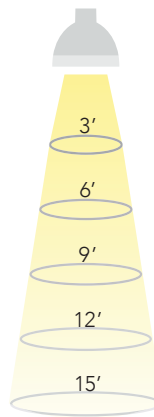


## 10 DEGREE BEAM

Beam Dia at 50% CBCP (ft)	Field Dia at 10% CBCP (ft)	Foot-candles (% of CBCP)
0.5	1.1	11.1%
1.0	2.1	2.8%
1.6	3.2	1.2%
2.1	4.2	0.7%
2.6	5.3	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	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 7.5W 12V

Model #	Product Code	CCT (K)	Beam Angle	Field Angle	CBCP (Cd)	Halogen Equiv	Total Flux (Lm)	Efficacy (Lm/W)	CRI	McA	SNAP	Title 20
<b>BRILLIANT HL SERIES</b>												
SM16-07-10D-827-H1	08722	2700	10	20	8000	75	575	77	90	3	Yes	Compliant
SM16-07-25D-827-H1	08724	2700	25	40	3170	75	600	80	90	3	-	Compliant
SM16-07-36D-827-H1	08726	2700	36	57	1550	75	600	80	90	3	-	Compliant
SM16-07-10D-830-H1	08728	3000	10	20	8400	75	600	80	90	3	Yes	Compliant
SM16-07-25D-830-H1	08730	3000	25	40	3300	75	630	84	90	3	-	Compliant
SM16-07-36D-830-H1	08732	3000	36	57	1650	75	630	84	90	3	-	Compliant

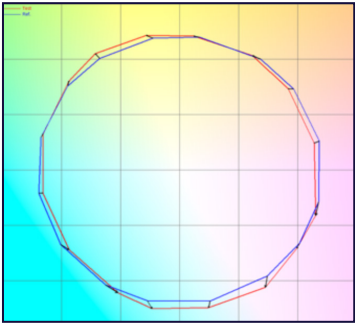
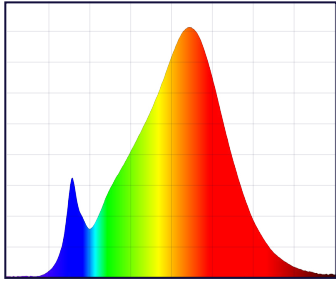
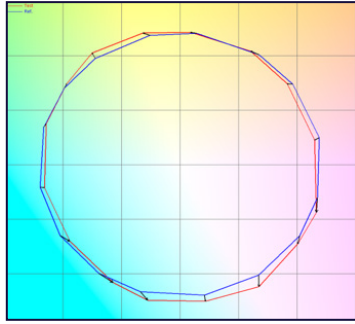
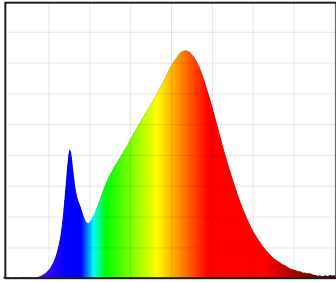
CCT: Correlated Color Temperature **McA**: White Point Accuracy in McA step

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

**SERIES/CCT**

**COLOR ACCURACY**

**SPECTRAL POWER DISTRIBUTION**

<p><b>BRILLIANT HL 2700K</b></p>	 <p><b>Rf: 90, Rg: 98, Rfh1: 85</b></p>	 <p><b>Wavelength (nm)</b> 380 780</p> <p><b>CRI: 90, R9: 50</b></p>
<p><b>BRILLIANT HL 3000K</b></p>	 <p><b>Rf: 90, Rg: 98, Rfh1: 85</b></p>	 <p><b>Wavelength (nm)</b> 380 780</p> <p><b>CRI: 90, R9: 50</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.