



**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 25 to 60 degrees, in form factors as challenging as the compact GU10 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)

**CERTIFICATIONS**

Title 20 certification **pending**, UL/CUL, FCC Title 47 Part 15B, RoHS



**RoHS**



**GENERAL SPECIFICATIONS**

**Form Factor**

Width: 49.9mm (1.96")

Height: 53.5mm (2.10")

Weight: 61g

**Operating Temperature**

Minimum: -40°C (ambient)

Typical: 85°C - 95°C (base)

Maximum: 100°C (base)

**Electrical**

Wattage: 7.5W

Power factor: 0.93

Voltage: 120V +/- 12V

Frequency: 50/60Hz

**Dimming**

Dimmable to <20%

Output Range	600 - 630 lumen
Beam Angle Range	Flood 25°, 36°, 60°
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)

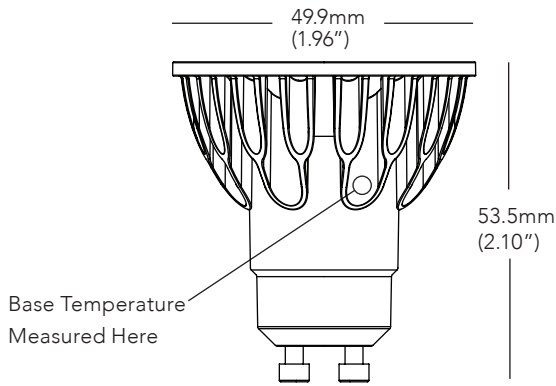
Works with trailing edge and leading edge phase cut dimmers (see [www.soraa.com/resources](http://www.soraa.com/resources))

**INTENDED USE AND APPLICATIONS**

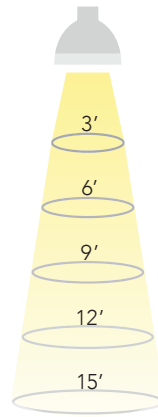
Intended for use in GU10 compatible recessed downlights, track lighting and other indoor and outdoor applications

Soraa lamps are designed to safely turn down in any thermal environment not conducive to minimum airflow or proper ventilation

## DIMENSIONS



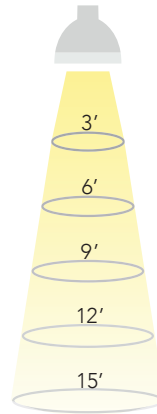
## 25 DEGREE BEAM



Beam Dia at 50% CBCP (ft)	Field Dia at 10% CBCP (ft)	Foot-candles (% of CBCP)
1.3	2.1	11.1%
2.7	4.1	2.8%
4.0	6.2	1.2%
5.3	8.3	0.7%
6.7	10.3	0.4%

## 36 DEGREE BEAM

Beam Dia at 50% CBCP (ft)	Field Dia at 10% CBCP (ft)	Foot-candles (% of CBCP)
1.9	3.1	11.1%
3.9	6.1	2.8%
5.8	9.2	1.2%
7.8	12.2	0.7%
9.7	15.3	0.4%



## 60 DEGREE BEAM

Beam Dia at 50% CBCP (ft)	Field Dia at 10% CBCP (ft)	Foot-candles (% of CBCP)
3.5	5.4	11.1%
6.9	10.8	2.8%
10.4	16.2	1.2%
13.9	21.6	0.7%
17.3	27.0	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-GU10 7.5W

Model #	Product Code	CCT (K)	Beam Angle	Field Angle	CBCP (Cd)	Halogen Equiv	Total Flux (Lm)	Efficacy (Lm/W)	CRI	McA	Title 20
<b>BRILLIANT HL SERIES</b>											
SM16GA-07-25D-827-H1	08744	2700	25	40	3170	65	600	80	90	3	pending
SM16GA-07-36D-827-H1	08746	2700	36	57	1550	65	600	80	90	3	pending
SM16GA-07-60D-827-H1	08748	2700	60	84	610	65	600	80	90	3	pending
SM16GA-07-25D-830-H1	08752	3000	25	40	3300	65	630	84	90	3	pending
SM16GA-07-36D-830-H1	08754	3000	36	57	1650	65	630	84	90	3	pending
SM16GA-07-60D-830-H1	08756	3000	60	84	650	65	630	84	90	3	pending

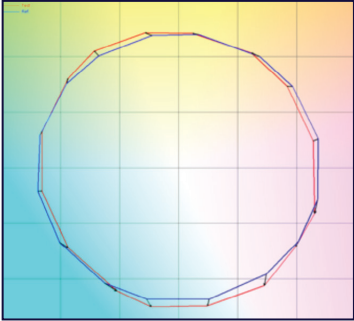
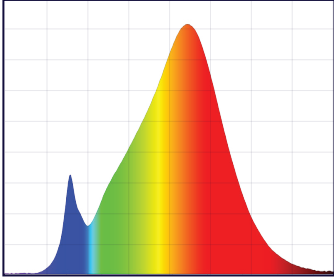
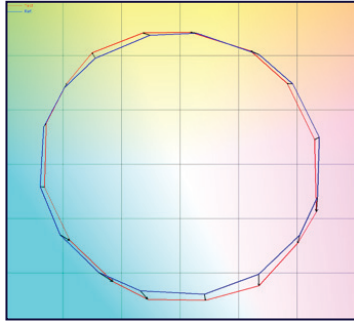
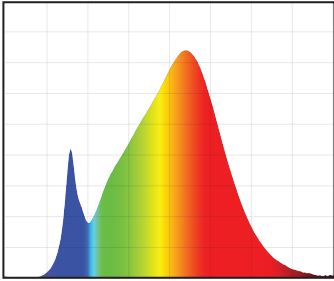
CCT: Correlated Color Temperature **McA**: White Point Accuracy in McA step

\*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>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>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.