SORAA brilliant™ HL

MR16 GU10 7.5W 120V

Output Range	575 - 630 lumen
Beam Angle Range	10˚, 25°, 36°, 60°
Color Metrics	CCT: 2700K, 3000K Color Rendering CIE Metrics: CRI 90, R9 50
Application	**This lamp is suitable for use in fully enclosed fixtures, subject to the maximum heatsink temperature limits stated in this data sheet.** Halogen replacement for indoor applications.

T20 · 120V AC · GU10

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 10 to 60 degrees, in form factors as challenging as the compact GU10 resulting in smooth uniform beams and crisp shadows

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

ACCESSORIES

Narrow spot compatible with the Soraa SNAP System™

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

Works with trailing edge and leading edge phase cut dimmers (see 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

CERTIFICATIONS

Title 20 compliant, UL/CUL, FCC Title 47 Part 15B, RoHS

c UL us · RoHS · TITLE 20 COMPLIANT

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

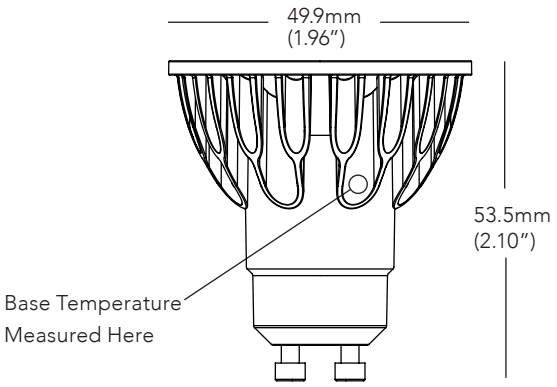
Frequency: 50/60Hz

Dimming and Flicker

T24/JA8 compliant.

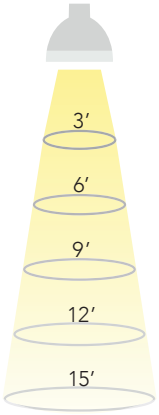
Please reference our compatibility chart for dimmer and transformer information.

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%

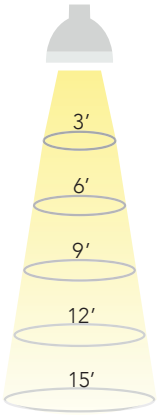


25 DEGREE BEAM

Beam Dia at 50% CBCP (ft)	Field Dia at 10% CBCP (ft)	Foot-candles (% of CBCP)
1.3	2.1	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%

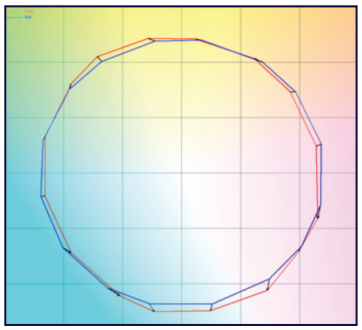
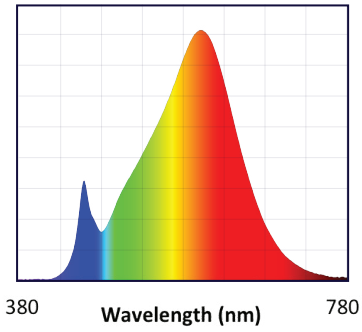
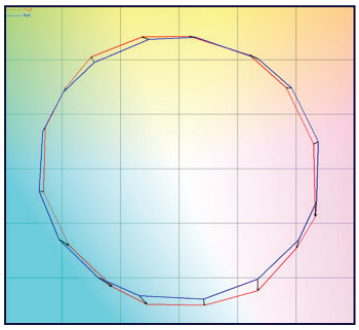
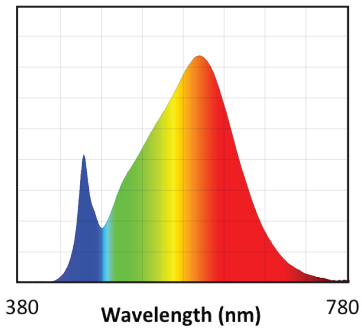
Note: Footcandles may be calculated by multiplying the CBCP of the desired model number by the percentage in the tables above

SPECIFICATIONS BY MODEL NUMBER* SORAA LED MR16-GU10 7.5W 120V

Model #	Product Code	CCT (K)	Beam Angle	Field Angle	CBCP (Cd)	Halogen Equiv	Total Flux (Lm)	Efficacy (Lm/W)	CRI	McA	SNAP	Title 20
BRILLIANT HL SERIES												
SM16GA-07-10D-827-H1	08742	2700	10	20	8000	75	575	77	90	3	Yes	Compliant
SM16GA-07-25D-827-H1	08744	2700	25	40	3170	75	600	80	90	3	–	Compliant
SM16GA-07-36D-827-H1	08746	2700	36	57	1550	75	600	80	90	3	–	Compliant
SM16GA-07-60D-827-H1	08748	2700	60	84	610	75	600	80	90	3	–	Compliant
SM16GA-07-10D-830-H1	08750	3000	10	20	8400	75	600	80	90	3	Yes	Compliant
SM16GA-07-25D-830-H1	08752	3000	25	40	3300	75	630	84	90	3	–	Compliant
SM16GA-07-36D-830-H1	08754	3000	36	57	1650	75	630	84	90	3	–	Compliant
SM16GA-07-60D-830-H1	08756	3000	60	84	650	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
BRILLIANT HL 2700K	 Rf: 90, Rg: 98, Rfh1: 85	 380 Wavelength (nm) 780 CRI: 90, R9: 50
BRILLIANT HL 3000K	 Rf: 90, Rg: 98, Rfh1: 85	 380 Wavelength (nm) 780 CRI: 90, R9: 50

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.