



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 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

CERTIFICATIONS

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



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 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.



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

INTENDED USE AND APPLICATIONS

Intended for use in MR16 compatible recessed downlights, track lighting and other indoor and outdoor applications

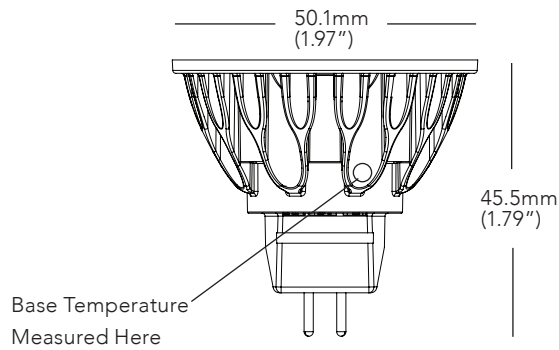
Soraa lamps are designed to safely turn down in any thermal environment not conducive to minimum airflow or proper ventilation

ACCESSORIES

Narrow spot compatible with the Soraa SNAP System™

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

DIMENSIONS

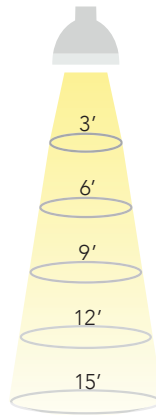


10 DEGREE BEAM

| 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

| 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 | | | | | | | | | | | | |
| SM16-07-10D-827-H1 | 08722 | 2700 | 10 | 20 | 8000 | 75 | 575 | 77 | 90 | 3 | Yes | pending |
| SM16-07-25D-827-H1 | 08724 | 2700 | 25 | 40 | 3170 | 75 | 600 | 80 | 90 | 3 | - | pending |
| SM16-07-36D-827-H1 | 08726 | 2700 | 36 | 57 | 1550 | 75 | 600 | 80 | 90 | 3 | - | pending |
| SM16-07-10D-830-H1 | 08728 | 3000 | 10 | 20 | 8400 | 75 | 600 | 80 | 90 | 3 | Yes | pending |
| SM16-07-25D-830-H1 | 08730 | 3000 | 25 | 40 | 3300 | 75 | 630 | 84 | 90 | 3 | - | pending |
| SM16-07-36D-830-H1 | 08732 | 3000 | 36 | 57 | 1650 | 75 | 630 | 84 | 90 | 3 | - | pending |

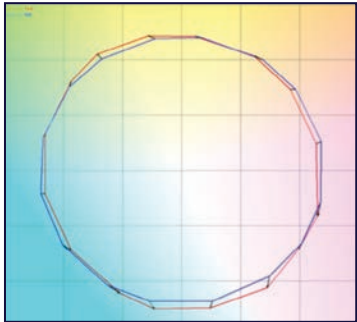
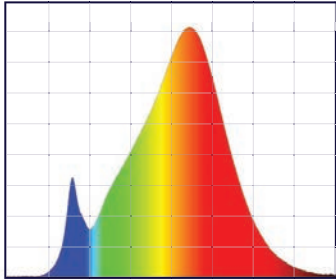
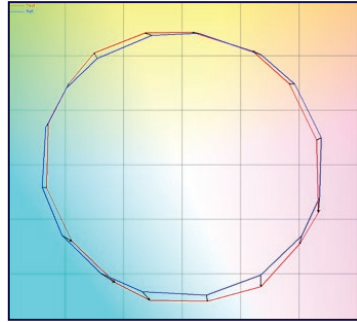
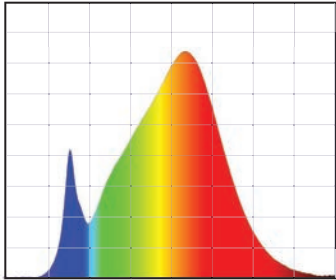
CCT: Correlated Color Temperature **McA**: White Point Accuracy in McA step

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

SERIES/CCT

COLOR ACCURACY

SPECTRAL POWER DISTRIBUTION

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