

MR16-GU10 7.5W



OUTPUT RANGE: VIVID SERIES 390 - 455 lumen

OUTPUT RANGE: BRILLIANT SERIES 475 - 525 lumen

BEAM ANGLE RANGE 10°, 25°, 36°, 60°

COLOR TEMPERATURE RANGE 2700K, 3000K, 4000K, 5000K

APPLICATION Halogen replacement for indoor & outdoor applications



POINT SOURCE OPTICS

Exceptional beam control enables unique 10° narrow spot and smooth uniform beams

Single light source, single crisp shadow

VP₃ VIVID COLOR & VP₃ NATURAL WHITE

VIVID series provides accurate color rendering across the visible spectrum from 400nm to 700nm, with CRI/95*, R9/95*, Rf/90, Rg/100

Whiteness rendering matches or exceeds that of halogen and incandescent sources at 2700K and 3000K

ENERGY EFFICIENCY & LONG LIFE

85% more energy efficient than standard halogen lamps

Typical payback of one year or less

Rated lifetime of 35,000 hours. 3 year warranty

CERTIFICATIONS

RoHS, CE



HIGHLY COMPATIBLE

Narrow spot compatible with Soraa SNAP System accessories

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.

Compatible with trailing edge phase cut dimmers only. Not for use with leading edge 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

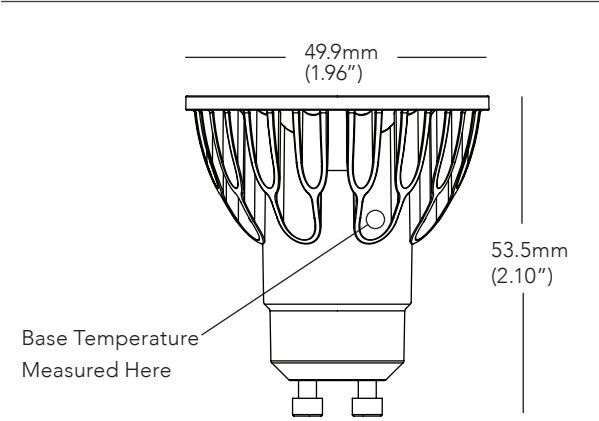
Soraa lamps are designed to safely turn down in any thermal environment not conducive to minimum airflow or proper ventilation

GENERAL SPECIFICATIONS

Form Factor	Operating Temperature	Electrical	Dimming and Flicker
Width: 49.9mm (1.96")	Minimum: -40°C (ambient)	Wattage: 7.5W	Dimmable to <20%
Height: 53.5mm (2.10")	Typical: 85°C - 95°C (base)	Power factor: 0.80	Flicker Index: 0.12
Weight: 61g	Maximum: 100°C (base)	Voltage: 230V +/- 23V	Percent Flicker: 40%
		Frequency: 50/60Hz	

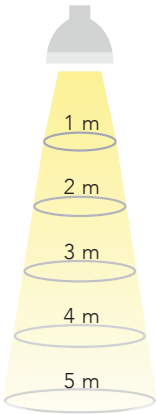
*Metrics apply to 2700K, 3000K, 4000K. 5000K color metrics are CRI/90, R9/95

DIMENSIONS

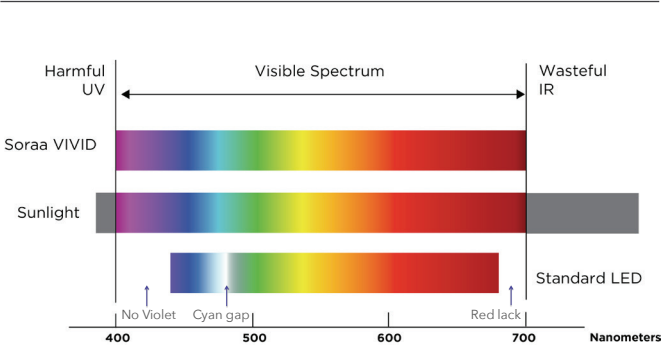


10 DEGREE BEAM

Beam Dia at 50% Intensity (m)	Field Dia at 10% Intensity (m)	Lux (% of Intensity)
0.2	0.4	100%
0.3	0.7	25%
0.5	1.1	11%
0.7	1.4	6%
0.9	1.8	4%



COLOR RENDERING

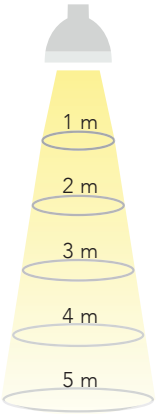


25 DEGREE BEAM

Beam Dia at 50% Intensity (m)	Field Dia at 10% Intensity (m)	Lux (% of Intensity)
0.4	0.7	100%
0.9	1.5	25%
1.3	2.2	11%
1.8	2.9	6%
2.2	3.6	4%

36 DEGREE BEAM

Beam Dia at 50% Intensity (m)	Field Dia at 10% Intensity (m)	Lux (% of Intensity)
0.6	1.1	100%
1.3	2.2	25%
1.9	3.3	11%
2.6	4.3	6%
3.2	5.4	4%



60 DEGREE BEAM

Beam Dia at 50% Intensity (m)	Field Dia at 10% Intensity (m)	Lux (% of Intensity)
1.2	1.8	100%
2.3	3.6	25%
3.5	5.4	11%
4.6	7.2	6%
5.8	9.0	4%

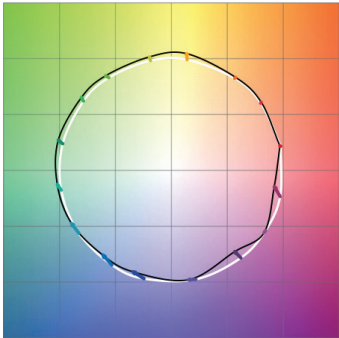
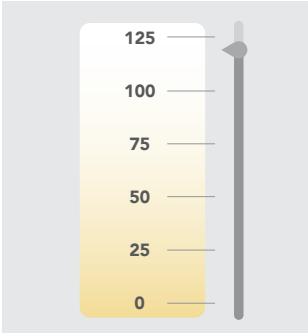
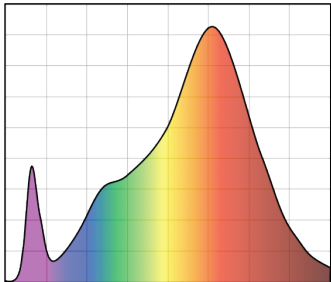
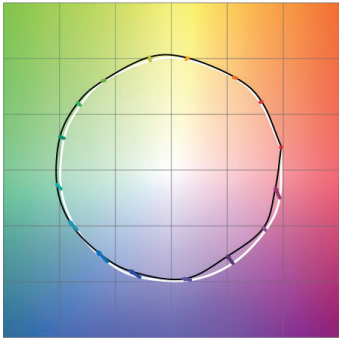
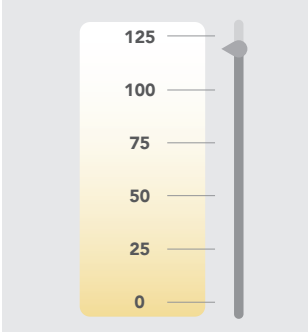
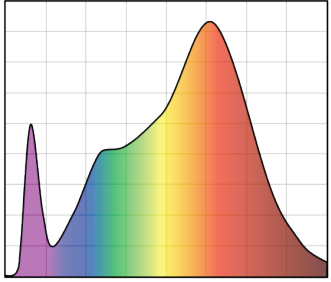
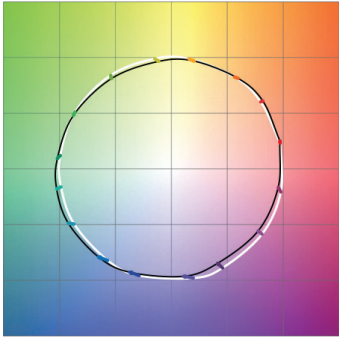
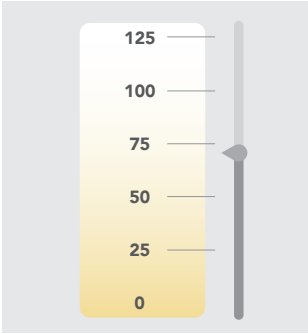
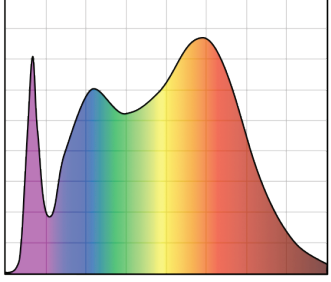
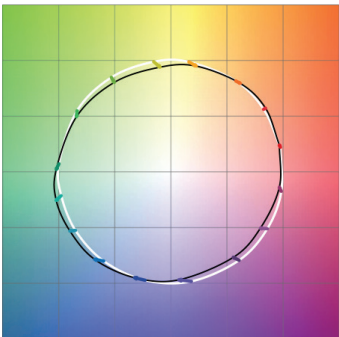
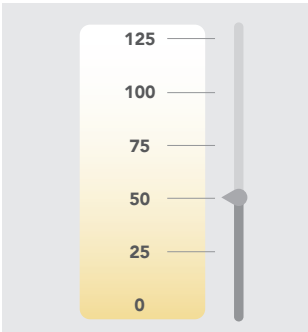
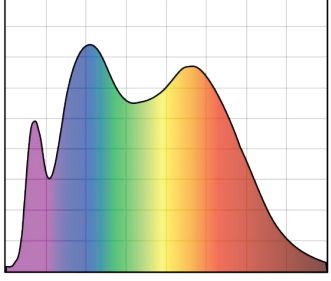
Note: Lux may be calculated by multiplying the peak Intensity of the desired model number by the percentage in the tables above

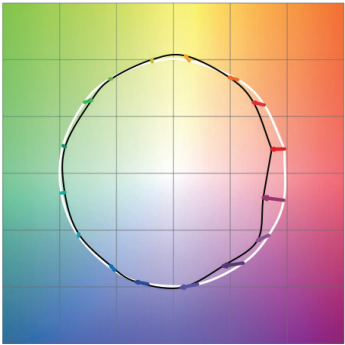
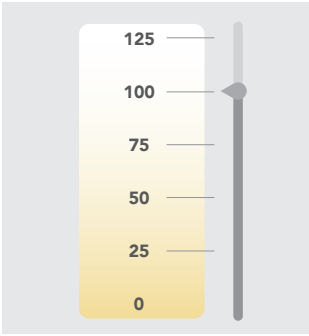
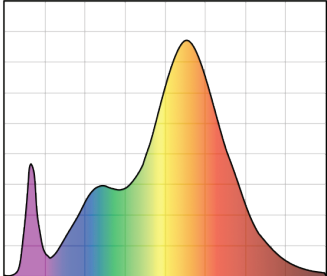
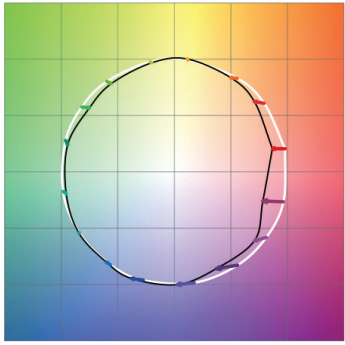
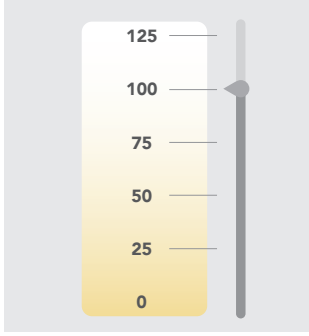
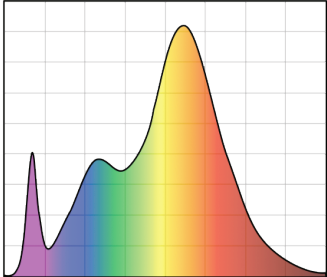
SPECIFICATIONS BY MODEL NUMBER* SORAA LED MR16-GU10 7.5W

Model #	Product Code	CCT (K)	Beam Angle	Field Angle	Peak Intensity	Total Flux (Lm)	Efficacy (Lm/W)	90° Lumens	McA	EEI	SNAP
VIVID SERIES											
SM16GW-07-10D-927-03-S3	01075	2700	10	17	5710	390	52	345	3	A	YES
SM16GW-07-25D-927-03-S3	01087	2700	25	38	2260	410	55	385	3	A	-
SM16GW-07-36D-927-03-S3	01099	2700	36	54	1070	410	55	375	3	A	-
SM16GW-07-60D-927-03-S3	01585	2700	60	84	440	410	55	375	3	A	-
SM16GW-07-10D-930-03-S3	01079	3000	10	17	6000	410	55	360	3	A	YES
SM16GW-07-25D-930-03-S3	01091	3000	25	38	2400	435	58	410	3	A	-
SM16GW-07-36D-930-03-S3	01103	3000	36	54	1130	435	58	400	3	A	-
SM16GW-07-60D-930-03-S3	01589	3000	60	84	460	435	58	400	3	A	-
SM16GW-07-10D-940-03-S3	01081	4000	10	17	6290	430	57	380	4	A	YES
SM16GW-07-25D-940-03-S3	01093	4000	25	38	2510	455	61	430	4	A	-
SM16GW-07-36D-940-03-S3	01105	4000	36	54	1190	455	61	415	4	A	-
SM16GW-07-60D-940-03-S3	01591	4000	60	84	490	455	61	415	4	A	-
SM16GW-07-10D-950-03-S3	01083	5000	10	17	6290	430	57	380	5	A	YES
SM16GW-07-25D-950-03-S3	01095	5000	25	38	2510	455	61	430	5	A	-
SM16GW-07-36D-950-03-S3	01107	5000	36	54	1190	455	61	415	5	A	-
SM16GW-07-60D-950-03-S3	01593	5000	60	84	490	455	61	415	5	A	-
BRILLIANT SERIES											
SM16GW-07-10D-827-03-S3	01073	2700	10	17	6950	475	63	420	3	A	YES
SM16GW-07-25D-827-03-S3	01085	2700	25	38	2760	500	67	475	3	A	-
SM16GW-07-36D-827-03-S3	01097	2700	36	54	1310	500	67	460	3	A	-
SM16GW-07-60D-827-03-S3	01583	2700	60	84	540	500	67	460	3	A	-
SM16GW-07-10D-830-03-S3	01077	3000	10	17	7320	500	67	445	3	A	YES
SM16GW-07-25D-830-03-S3	01089	3000	25	38	2900	525	70	495	3	A	-
SM16GW-07-36D-830-03-S3	01101	3000	36	54	1370	525	70	480	3	A	-
SM16GW-07-60D-830-03-S3	01587	3000	60	84	560	525	70	480	3	A	-

CCT: Correlated Color Temperature McA: White Point Accuracy in McA step SNAP: SORAA SNAP System Compatible EEI: Energy Efficiency Index

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

SERIES/CCT	COLOR ACCURACY	WHITENESS INDEX	SPECTRAL POWER DISTRIBUTION
VIVID 2700K	 <p>Rf: 90, Rg: 100, Rfh1: 95</p>	 <p>Rw: 120</p>	 <p>380 Wavelength (nm) 780</p> <p>CRI: 95, R9: 95</p>
VIVID 3000K	 <p>Rf: 90, Rg: 100, Rfh1: 95</p>	 <p>Rw: 120</p>	 <p>380 Wavelength (nm) 780</p> <p>CRI: 95, R9: 95</p>
VIVID 4000K	 <p>Rf: 90, Rg: 100, Rfh1: 95</p>	 <p>Rw: 70</p>	 <p>380 Wavelength (nm) 780</p> <p>CRI: 92, R9: 95</p>
VIVID 5000K	 <p>Rf: 90, Rg: 100, Rfh1: 95</p>	 <p>Rw: 50</p>	 <p>380 Wavelength (nm) 780</p> <p>CRI: 90, R9: 95</p>

SERIES/CCT	COLOR ACCURACY	WHITENESS INDEX	SPECTRAL POWER DISTRIBUTION
BRILLIANT 2700K	 <p>Rf: 85, Rg: 92, Rfh1: 77</p>	 <p>Rw: 100</p>	 <p>380 Wavelength (nm) 780</p> <p>CRI: 85, R9: >0</p>
BRILLIANT 3000K	 <p>Rf: 85, Rg: 92, Rfh1: 77</p>	 <p>Rw: 100</p>	 <p>380 Wavelength (nm) 780</p> <p>CRI: 85, R9: >0</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.

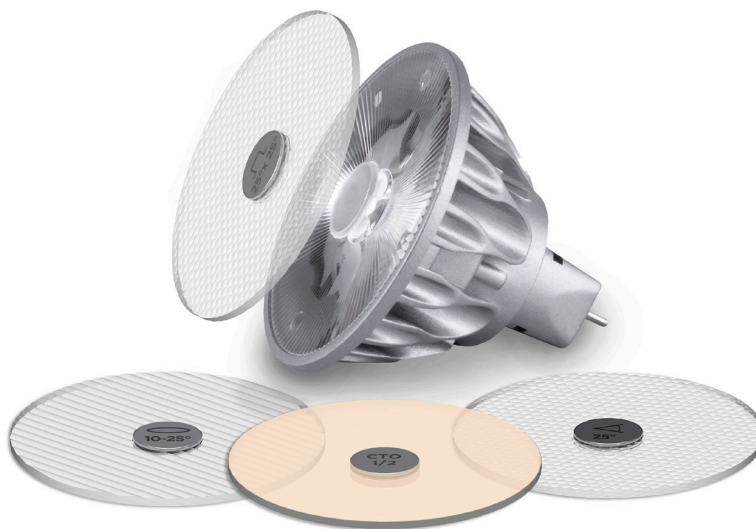
Rg: TM-30 metric measuring color gamut (whether colors are more saturated than under natural light). Rg is 100 for natural light.

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.

Rw: Soraa-developed metric to measure white fidelity. Rw measures the magnitude of excitation of whitening agents within whites. Rw is about 100 for natural light.

SNAP SYSTEM ACCESSORIES

SMALL (2")



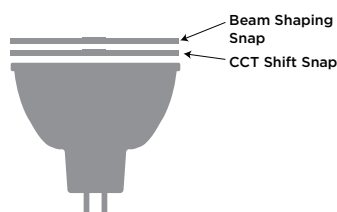
DESCRIPTION

The award winning Soraa SNAP SYSTEM™ is the first LED lamp/accessory solution that is optimized to work as an integrated system. Based on high brightness single source GaN on GaN™ LED technology, it completely redefines accessory application. The effects that can be achieved are similar to what can be done with halogen sources, but are enabled by a relatively low operating temperature and ground-breaking optical design, materials, and methods of attachment.

The SNAP SYSTEM was designed around the idea of ease and simplicity while delivering maximum versatility for the user. Because of its thin and simple magnetic attachment the use of bulky and costly fixture and adaptors are a thing of the past. Now it is possible to have both an affordable yet sophisticated system that provides ultimate design possibilities.

STACKING ACCESSORIES

SNAP SYSTEM accessories can be stacked in combination. For example, a beam spreader can be used in combination with CCT shifter. When combining the beam shaping Snap accessory with CCT shifting Snap Accessory, for best results always place CCT shifting Snap on the lamp first, as shown in diagram below.



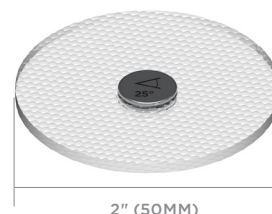
ATTACHMENT

The SNAP SYSTEM's self-centering magnetic interconnect system makes using accessories completely user friendly. Simply attached the SNAP SYSTEM accessory directly to any Narrow Spot Soraa lamp, the magnetic force from both the accessory and lamp will securely attached to one another and center itself.

COMPATIBILITY

The SNAP SYSTEM accessories Small (2") are compatible with the lamps and Optical Light Engines outlined below. The SNAP SYSTEM are only compatible with SORAA Narrow Spot lamps and Optical Light Engines. See each accessory data for exact diameter.

Small (2")
MR16
GU10
PAR20
OLE/C 16



PHOTOMETRICS

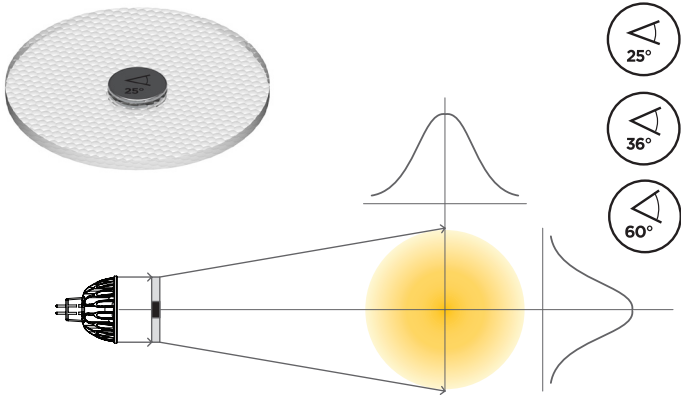
IES files and photometric data of accessories is available for download at www.soraa.com

BEAM SPREADER SNAP

Use in any application where reducing the number of beam angle SKUs is required. Reduces inventory costs. Shortens specification, design, sales cycles. Provides maximum flexibility up to the time of installation.

Beam	Part Number	Product Code	CBCP of 10° Lamp	Field Angle
25°	AC-GC-2525-00	00325	29%	40°
36°	AC-GC-3636-00	00327	14%	55°
60°	AC-GC-6060-00	00329	5%	103°

Lumen Transmissivity: 90%
Diameter: 50.0 mm Thickness: 2 mm
Magnetic Attach Force: 0.45 lb-F

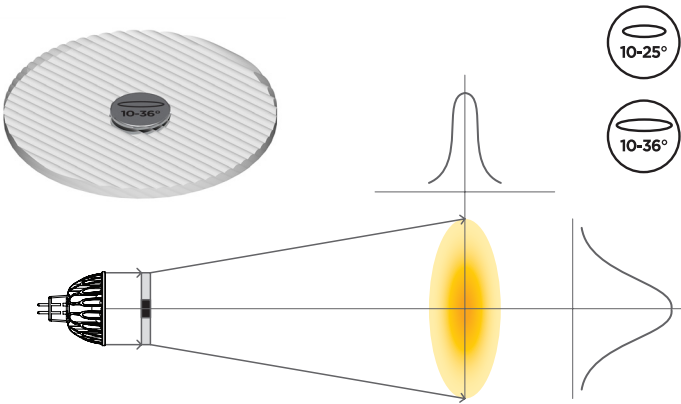


LINEAR SNAP

Use in wall washes and illuminating asymmetric objects. Reduces required number of light fixtures and spill illumination of target objects.

Beam	Part Number	Product Code	CBCP of 10° Lamp	Field Angle Horiz.	Field Angle Vert.
10° - 25°	AC-GE-1025-00	00331	52%	27°	35°
10° - 36°	AC-GE-1036-00	00333	38%	27°	43°

Lumen Transmissivity: 90%
Diameter: 50.0 mm Thickness: 2 mm
Magnetic Attach Force: 0.45 lb-F

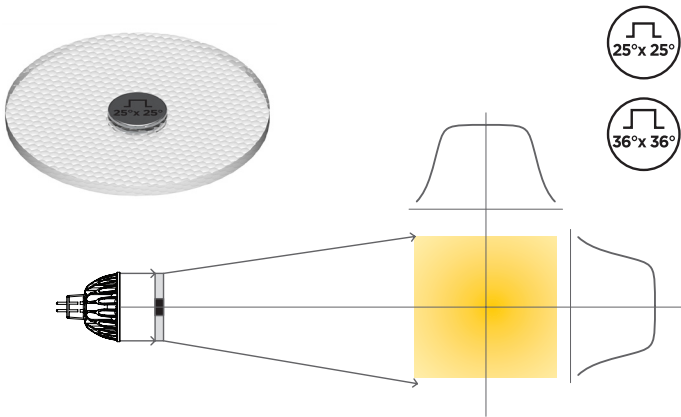


FLAT TOP SNAP

Provides even illumination center to edge. Eliminates video camera saturation, for use in applications such as critical video surveillance.

Beam Angle	Part Number	Product Code	CBCP of 10° Lamp	Field Angle Horiz.	Field Angle Vert.
25° x 25°	AC-FR-2525-00	00335	19%	44°	44°
36° x 36°	AC-FR-3636-00	00337	14%	46°	46°

Lumen Transmissivity: 90%
Diameter: 50.0 mm Thickness: 2 mm

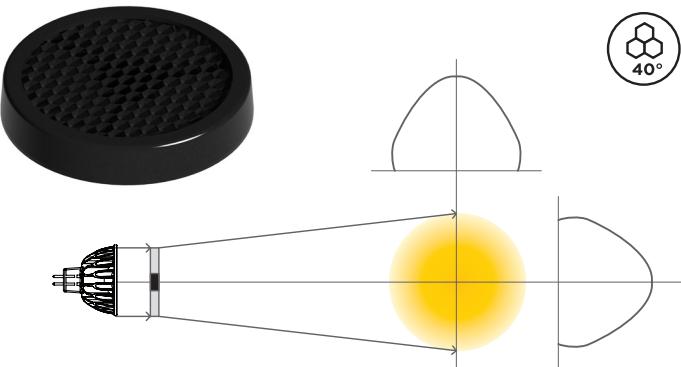


LOUVER SNAP

Eliminates high angle glare, making light beams disappear in downlight applications.

Cutoff Angle	Part Number	Product Code	CBCP of 10° Lamp
40°	AC-LU-4040-00	00339	63%

Diameter: 51.1 mm Thickness: 9.0 mm
Magnetic Attach Force: 0.45 lb-F
Reduces angular intensity to 0.1% of peak at 40° full angle.
Fits around lamp face. Can be used in combination with gimbal ring fixtures.

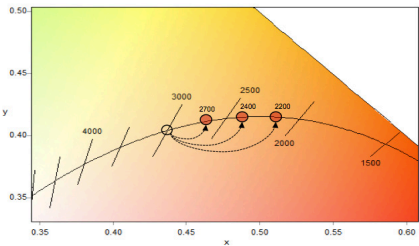


CCT SHIFTER SNAP

Use in hospitality and restaurant applications to simulate warm dimming. Create custom colors for festive occasions or brand identity. Single Lamp SKU can be used for multiple color temperatures

CTO*	Part Number	Product Code	Lumen Transmissivity	Mired Shift
1/4	AC-CC-0001-00	00323	90%	37
1/2	AC-CC-0002-00	00321	75%	83
3/4	AC-CC-0003-00	00319	60%	120

*Color Temperature Orange
Diameter: 50.0 mm Thickness: 2 mm
Magnetic Attach Force: 0.45 lb-F



CCT SHIFT EFFECT

Starting Lamp CCT	1/4 CTO	1/2 CTO	3/4 CTO
2,700K	2,450K	2,200K	2,000K
3,000K	2,700K	2,400K	2,200K
4,000K	3,500K	3,000K	2,700K
5,000K	4,250K	3,550K	3,125K

CLEAR SNAP

Use together with gel and dichroic filters for total color freedom. Produce the exact mood and effect for any environment with the Clear SNAP accessory,

Clear Snap are sold in quantities of ten.

Part Number Code	Product	Lumen Transmissivity (1 Snap)	Lumen Transmissivity (2 Snaps)
AC-CL-0000-00	02183	93%	87%

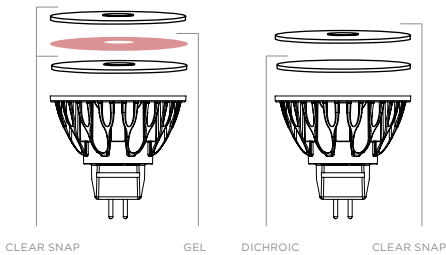
Diameter: 50.0 mm Thickness: 2 mm
Magnetic Attach Force: 0.45 lb-F



Suggested way of use for:

Gel Filter

Dichroic Filter



10 PACK COMBO

Get unlimited design possibilities with the 10 Pack Como which includes each of Soraa's awards winning Snap lenses. Contains 1 each of the following accessories:

- 25° Beam Spreader
- 36° Beam Spreader
- 60° Beam Spreader
- 10° x 25° Linear Lens
- 10° x 36° Linear Lens
- 25° x 25° Flat Top
- 36° x 36° Flat Top
- 1/4 CTO CCT Shifter
- 1/2 CTO CCT shifter
- 3/4 CTO CCT Shifter

Part Number	Product Code
AC-AA-COMB-00	00341

