



SORAA LED MR16 CONSTANT CURRENT LAMP

OUTPUT RANGE: VIVID SERIES	490-575 lumen; CRI-95, R9-95
BEAM ANGLE RANGE	10°, 25°, 36°
COLOR TEMPERATURE RANGE	2700K, 3000K, 4000K
APPLICATION	LED constant current lamp for indoor 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 AND VP₃ NATURAL WHITE

VIVID series provides accurate color rendering across the visible spectrum from 400nm to 700nm, CRI-95, R9-95

Accurate white rendering based on >70% excitation of Optical Brightening Agents with emission between 400nm & 440 nm

ENERGY EFFICIENCY AND LONG LIFE

Rated lifetime of 35,000 hours. Three year warranty

STORAGE CONDITIONS

Maximum storage temperature of 90°C

HIGHLY COMPATIBLE

Narrow spot compatible with Soraa SNAP System accessories

Thermally and geometrically compatible with standard MR16 fixtures

Suitable for fully enclosed fixtures per UL 1993. Can be used with front glass cover

Suitable for damp locations per UL

INTENDED USE AND APPLICATIONS

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

Designed to work with external constant current drive

CERTIFICATIONS

UL/CUL, FCC Title 47 Part 15B, RoHS, CE



GENERAL SPECIFICATIONS

Form Factor	Operating Temperature	Operating Current	Forward Voltage
Width: 50.1mm (1.97")	Minimum: -40°C (ambient)	Minimum: 20mA	Minimum: 26.6V
Height: 45.5mm (1.79")	Typical: 80°C - 90°C (base)	Typical: 300mA	Typical: 28.4V
Weight: 44g	Maximum: 95°C (base)	Maximum: 350mA	Maximum: 29.6V

SPECIFICATIONS BY MODEL NUMBER*

Model Number	Product Code	CCT (K)	Beam Angle (°)	Field Angle (°)	CBCP (Cd)	Total Flux (Lm)	Efficacy (Lm/W)	CRI/R9	White Point (McA)
SM16C-CC1-10D-927-03 ^{SNAP}	01331	2700	10	17	7120	485	57	95 / 95	3
SM16C-CC1-25D-927-03	01333	2700	25	39	2860	515	60	95 / 95	3
SM16C-CC1-36D-927-03	01335	2700	36	54	1360	515	60	95 / 95	3
SM16C-CC1-10D-930-03 ^{SNAP}	01337	3000	10	17	7700	525	62	95 / 95	3
SM16C-CC1-25D-930-03	01339	3000	25	39	3060	550	65	95 / 95	3
SM16C-CC1-36D-930-03	01341	3000	36	54	1460	550	65	95 / 95	3
SM16C-CC1-10D-940-03 ^{SNAP}	01343	4000	10	17	8060	550	65	95 / 95	4
SM16C-CC1-25D-940-03	01345	4000	25	39	3220	580	68	95 / 95	4
SM16C-CC1-36D-940-03	01347	4000	36	54	1520	580	68	95 / 95	4

*Specifications are at 300mA and 85°C body temperature

^{SNAP} SORAA SNAP System Compatible

CCT = Correlated Color Temperature

CRI = Color Rendering Index (Ra-8)

White Point = White Point Accuracy in McA step

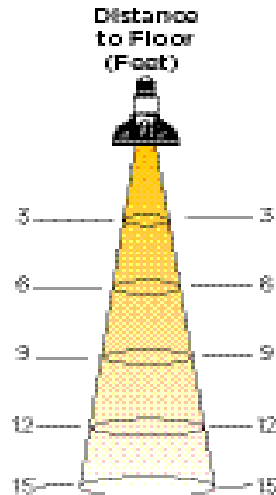


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PHOTOMETRICS: 95CRI, 3000K AT 300mA, 85C

Narrow Spot 10°

Beam Dia at 50% CBCP (ft)	Field Dia at 10% CBCP (ft)	Foot-candles
0.5	1.1	883
1.0	2.1	221
1.6	3.2	98
2.1	4.2	55
2.6	5.3	35



Narrow Flood 25°

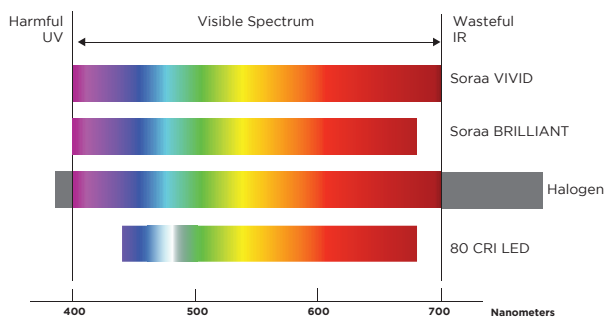
Beam Dia at 50% CBCP (ft)	Field Dia at 10% CBCP (ft)	Foot-candles
1.33	2.2	323
2.66	4.4	81
3.99	6.6	36
5.32	8.7	20
6.65	10.9	13

Flood 36°

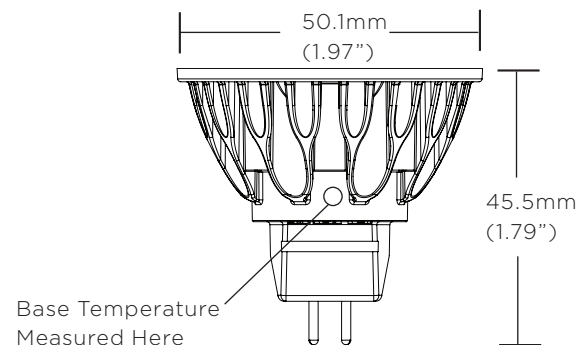
Beam Dia at 50% CBCP (ft)	Field Dia at 10% CBCP (ft)	Foot-candles
1.95	3.3	152
3.90	6.5	38
5.85	9.8	17
7.80	13.0	10
9.75	16.3	6

FOOTCANDLE MULTIPLICATION FACTORS FOR OTHER CCTS 2700K: 0.93 4000K: 1.04

COLOR RENDERING



DIMENSIONS



TYPICAL FORWARD VOLTAGE CHARACTERISTICS

Current	Body Temperature				
	25°C	45°C	65°C	85°C	105°C
50mA	27.7	27.3	26.9	26.6	26.3
150mA	28.7	28.2	27.8	27.5	27.2
200mA	29.0	28.5	28.2	27.8	27.6
250mA	29.3	28.8	28.5	28.2	27.9
300mA	29.6	29.1	28.8	28.4	28.2

LIGHT OUTPUT NORMALIZED TO 300mA, 85C OPERATION

Current	Body Temperature				
	25°C	45°C	65°C	85°C	105°C
50mA	0.19	0.19	0.19	0.18	0.18
150mA	0.55	0.55	0.54	0.53	0.59
200mA	0.72	0.71	0.70	0.69	0.67
250mA	0.89	0.88	0.86	0.85	0.82
300mA	1.04	1.04	1.02	1.00	0.97

SAFETY NOTE ON HEAT

Although Soraa's lamps operate at cooler temperatures than halogen lamps, it is recommended that gloves be worn when handling bare lamps that have been energized.

Information and specifications subject to change. SM16C Rev 1 9.30.14

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