

Indoor Distribution Test Report

Spectrum Lighting Inc.

994 Jefferson Street
Fall River, MA 02721
+1.508.678.2303

Spectrum Lighting Photometric Lab

Luminaire

SGES8GK 100L 35K AR8GK MW

Nom 8" diam round recessed open high output luminaire

Test Number

SP-00926

Test Date

8/19/2019

The results contained in this report pertain only to this IES file.

Summary of Results

Power

Input Watts	82.4 W
-------------	--------

Lumen Output

Output Lumens	8509
Efficacy	103.27 lm/W

Luminous Dimensions

0° - 180° Size	-0.62
90° - 270° Size	-0.62
Height	0

Spacing Criterion

Two luminaires, plane 0°	1.23
Two luminaires, plane 90°	1.23
Four luminaires	1.2

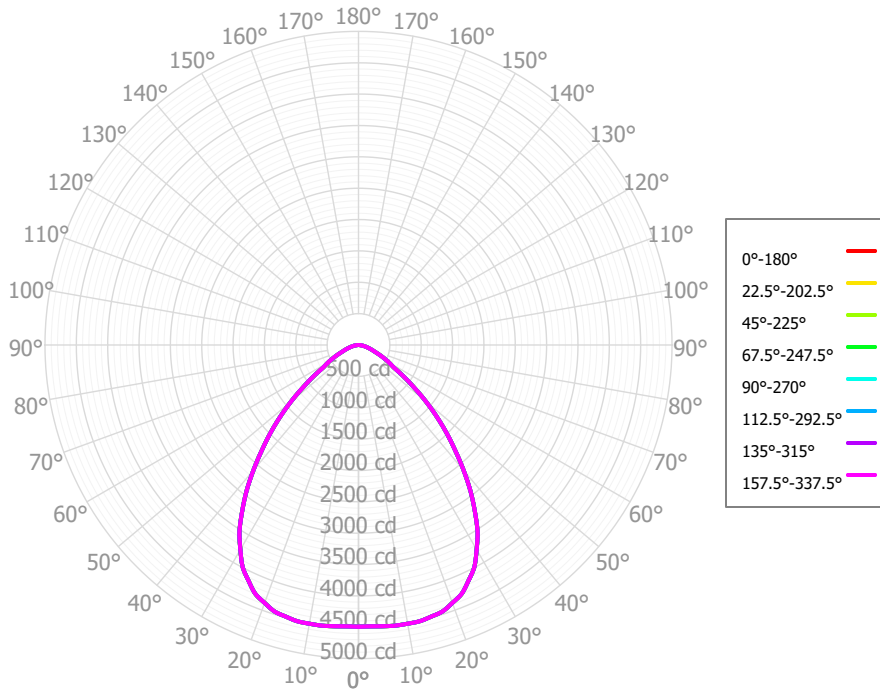
Full Beam Angle

0° - 180°	85°
90° - 270°	85°

IES File Header Contents

Keyword	Value
TEST	SP-00926
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	8/19/2019
ISSUEDATE	8/28/2019
LUMCAT	SGES8GK 100L 35K AR8GK MW
LUMINAIRE	Nom 8" diam round recessed open high output luminaire
OTHER	Trim: Matte white finish
OTHER	Beam Angle: 85.5 degrees
LAMPCAT	N/A
LAMP	N/A
OTHER	Total luminaire wattages is approximate
OTHER	This report prepared by Spectrum Lighting
_CRI	80+
_CCTMULT	27K x 0.95, 30K x 0.98, 40K x 1.00
_LAMPMULT	65L x 0.64

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	436.93	5.13%	90.00° - 100.00°	0.26	0.00%
10.00° - 20.00°	1,265.79	14.88%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	1,901.03	22.34%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	2,006.18	23.58%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	1,527.78	17.95%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	811.75	9.54%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	372.08	4.37%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	154.59	1.82%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	32.94	0.39%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	8,509.07	100.00%	0.00° - 180.00°	8,509.33	100.00%

Coefficients of Utilization – Zonal Cavity Method

Values are lumens delivered to the workplane.

RCR	pfc	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	0%
	pcc	80%	80%	80%	80%	70%	70%	70%	70%	50%	50%	50%	30%	30%	30%	10%	10%	0%
	pw	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	0%
	0	10,130	10,130	10,130	10,130	9,894	9,894	9,894	9,894	9,455	9,455	9,455	9,052	9,052	9,052	8,683	8,683	8,509
	1	9,486	9,177	8,901	8,651	9,267	8,989	8,739	8,512	8,637	8,434	8,247	8,314	8,150	7,999	8,016	7,886	7,724
	2	8,824	8,275	7,822	7,441	8,618	8,122	7,707	7,355	7,834	7,487	7,188	7,568	7,281	7,030	7,322	7,088	6,941
	3	8,200	7,479	6,921	6,477	8,009	7,352	6,837	6,422	7,114	6,675	6,314	6,893	6,521	6,210	6,688	6,376	6,245
	4	7,625	6,785	6,170	5,700	7,449	6,679	6,106	5,663	6,480	5,984	5,591	6,295	5,867	5,521	6,122	5,755	5,639
	5	7,100	6,181	5,538	5,064	6,939	6,092	5,489	5,039	5,924	5,395	4,989	5,767	5,304	4,940	5,621	5,217	5,114
	6	6,624	5,654	5,003	4,536	6,477	5,579	4,965	4,518	5,436	4,890	4,482	5,303	4,818	4,448	5,179	4,749	4,659
	7	6,193	5,194	4,546	4,092	6,060	5,130	4,515	4,079	5,008	4,455	4,053	4,894	4,398	4,028	4,787	4,342	4,263
	8	5,804	4,790	4,153	3,715	5,682	4,735	4,128	3,705	4,631	4,079	3,686	4,532	4,032	3,667	4,440	3,987	3,917
	9	5,451	4,435	3,812	3,392	5,341	4,388	3,792	3,384	4,297	3,752	3,370	4,212	3,713	3,355	4,131	3,676	3,614
	10	5,132	4,121	3,516	3,113	5,032	4,080	3,499	3,107	4,001	3,466	3,096	3,927	3,433	3,085	3,856	3,402	3,347

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	148.5 fc	10.2 ft
6.5 ft	106.3 fc	12.0 ft
7.5 ft	79.9 fc	13.9 ft
8.0 ft	70.2 fc	14.8 ft
10.0 ft	44.9 fc	18.5 ft
12.0 ft	31.2 fc	22.2 ft
14.0 ft	22.9 fc	25.9 ft
16.0 ft	17.5 fc	29.6 ft
20.0 ft	11.2 fc	37.0 ft
24.0 ft	7.8 fc	44.3 ft
28.0 ft	5.7 fc	51.7 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	160,149	160,149	160,149
45.00°	100,232	100,232	100,232
55.00°	54,964	54,964	54,964
65.00°	31,012	31,012	31,012
75.00°	19,624	19,624	19,624
85.00°	10,045	10,045	10,045

UGR CIE 190:2010

Ceiling reflectance		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall reflectance		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Plane reflectance		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
2H	2H	22.2	23.6	22.6	23.9	24.2	22.2	23.6	22.6	23.9	24.2
	3H	23.0	24.2	23.4	24.5	24.9	23.0	24.2	23.4	24.5	24.9
	4H	23.2	24.4	23.6	24.7	25.1	23.2	24.4	23.6	24.7	25.1
	6H	23.4	24.4	23.8	24.8	25.2	23.4	24.4	23.8	24.8	25.2
	8H	23.4	24.4	23.8	24.8	25.2	23.4	24.4	23.8	24.8	25.2
	12H	23.4	24.3	23.8	24.7	25.1	23.4	24.3	23.8	24.7	25.1
4H	2H	22.5	23.6	22.9	24.0	24.4	22.5	23.6	22.9	24.0	24.4
	3H	23.4	24.3	23.9	24.8	25.2	23.4	24.3	23.9	24.8	25.2
	4H	23.8	24.6	24.2	25.0	25.4	23.8	24.6	24.2	25.0	25.4
	6H	24.0	24.7	24.5	25.1	25.6	24.0	24.7	24.5	25.1	25.6
	8H	24.0	24.7	24.5	25.1	25.6	24.0	24.7	24.5	25.1	25.6
	12H	24.0	24.6	24.5	25.1	25.6	24.0	24.6	24.5	25.1	25.6
8H	4H	23.8	24.5	24.3	24.9	25.4	23.8	24.5	24.3	24.9	25.4
	6H	24.1	24.7	24.6	25.2	25.6	24.1	24.7	24.6	25.2	25.6
	8H	24.2	24.7	24.7	25.2	25.7	24.2	24.7	24.7	25.2	25.7
	12H	24.2	24.7	24.8	25.2	25.7	24.2	24.7	24.8	25.2	25.7
12H	4H	23.8	24.4	24.3	24.9	25.4	23.8	24.4	24.3	24.9	25.4
	6H	24.1	24.6	24.6	25.1	25.6	24.1	24.6	24.6	25.1	25.6
	8H	24.2	24.6	24.7	25.1	25.7	24.2	24.6	24.7	25.1	25.7

Corrected UGR values based on total output lumens

SHR = 1.0