

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

SGES8GK 65L 35K AR8GK MW

Nom 8" diam round recessed open high output luminaire

Test Number

SP-00926_M-65L

Test Date

8/19/2019

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

Summary of Results

Power

Input Watts	53 W
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Lumen Output

Output Lumens	5446
Efficacy	102.75 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

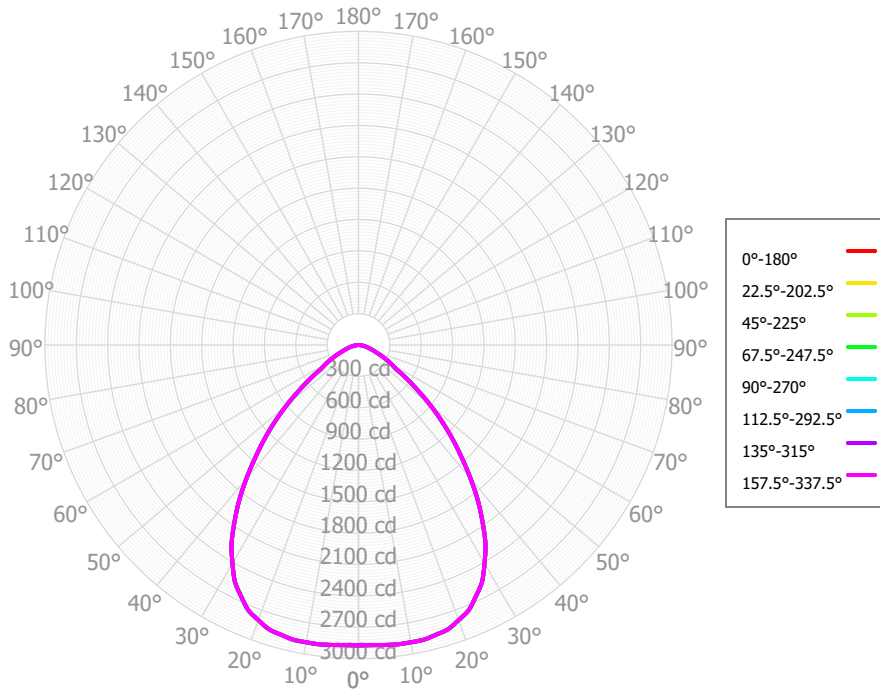
Full Beam Angle

0° - 180°	85°
90° - 270°	85°

IES File Header Contents

Keyword	Value
TEST	SP-00926_M-65L
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	8/19/2019
ISSUEDATE	8/28/2019
LUMCAT	SGES8GK 65L 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	CCT Output Multipliers: 27K x 0.95, 30K x 0.98, 40K x 1.00
OTHER	Total luminaire wattages is approximate
OTHER	This report prepared by Spectrum Lighting, scaled from 100L

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	279.64	5.13%	90.00° - 100.00°	0.17	0.00%
10.00° - 20.00°	810.11	14.88%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	1,216.66	22.34%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	1,283.95	23.58%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	977.78	17.95%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	519.52	9.54%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	238.13	4.37%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	98.94	1.82%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	21.08	0.39%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	5,445.81	100.00%	0.00° - 180.00°	5,445.97	100.00%

Coefficients of Utilization – Zonal Cavity Method

Values are lumens delivered to the workplane.

	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%	30%
RCR	0	6,483	6,483	6,483	6,483	6,332	6,332	6,332	6,332	6,051	6,051	6,051	5,793	5,793	5,793	5,557	5,557	5,446
	1	6,071	5,873	5,696	5,537	5,931	5,753	5,593	5,448	5,528	5,398	5,278	5,321	5,216	5,119	5,130	5,047	4,944
	2	5,647	5,296	5,006	4,762	5,516	5,198	4,932	4,707	5,013	4,792	4,601	4,843	4,660	4,499	4,686	4,536	4,402
	3	5,248	4,786	4,430	4,145	5,126	4,705	4,376	4,110	4,553	4,272	4,041	4,411	4,174	3,974	4,280	4,081	3,910
	4	4,880	4,342	3,949	3,648	4,767	4,275	3,908	3,624	4,147	3,830	3,578	4,029	3,755	3,533	3,918	3,684	3,489
	5	4,544	3,956	3,545	3,241	4,441	3,899	3,513	3,225	3,791	3,452	3,193	3,691	3,394	3,162	3,598	3,339	3,131
	6	4,240	3,619	3,202	2,903	4,146	3,571	3,177	2,891	3,479	3,130	2,869	3,394	3,084	2,846	3,314	3,040	2,825
	7	3,964	3,324	2,909	2,619	3,878	3,283	2,890	2,610	3,205	2,852	2,594	3,132	2,815	2,578	3,064	2,779	2,562
	8	3,714	3,066	2,658	2,377	3,637	3,031	2,642	2,371	2,964	2,611	2,359	2,901	2,581	2,347	2,841	2,552	2,335
	9	3,489	2,838	2,440	2,171	3,418	2,808	2,427	2,166	2,750	2,401	2,157	2,695	2,376	2,148	2,644	2,352	2,138
	10	3,285	2,638	2,250	1,992	3,220	2,611	2,239	1,989	2,561	2,218	1,981	2,513	2,197	1,974	2,468	2,177	1,967

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	95.0 fc	10.2 ft
6.5 ft	68.0 fc	12.0 ft
7.5 ft	51.1 fc	13.9 ft
8.0 ft	44.9 fc	14.8 ft
10.0 ft	28.7 fc	18.5 ft
12.0 ft	20.0 fc	22.2 ft
14.0 ft	14.7 fc	25.9 ft
16.0 ft	11.2 fc	29.6 ft
20.0 ft	7.2 fc	37.0 ft
24.0 ft	5.0 fc	44.3 ft
28.0 ft	3.7 fc	51.7 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	102,495	102,495	102,495
45.00°	64,149	64,149	64,149
55.00°	35,177	35,177	35,177
65.00°	19,848	19,848	19,848
75.00°	12,559	12,559	12,559
85.00°	6,429	6,429	6,429

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	20.7	22.0	21.0	22.3	22.7	20.7	22.0	21.0	22.3	22.7
	3H	21.4	22.6	21.8	23.0	23.3	21.4	22.6	21.8	23.0	23.3
	4H	21.7	22.8	22.1	23.2	23.5	21.7	22.8	22.1	23.2	23.5
	6H	21.8	22.9	22.3	23.2	23.6	21.8	22.9	22.3	23.2	23.6
	8H	21.9	22.8	22.3	23.2	23.6	21.9	22.8	22.3	23.2	23.6
	12H	21.9	22.8	22.3	23.2	23.6	21.9	22.8	22.3	23.2	23.6
4H	2H	21.0	22.1	21.4	22.4	22.8	21.0	22.1	21.4	22.4	22.8
	3H	21.9	22.8	22.3	23.2	23.6	21.9	22.8	22.3	23.2	23.6
	4H	22.2	23.0	22.7	23.4	23.9	22.2	23.0	22.7	23.4	23.9
	6H	22.4	23.1	22.9	23.6	24.1	22.4	23.1	22.9	23.6	24.1
	8H	22.5	23.1	23.0	23.6	24.1	22.5	23.1	23.0	23.6	24.1
	12H	22.5	23.1	23.0	23.6	24.0	22.5	23.1	23.0	23.6	24.0
8H	4H	22.3	22.9	22.8	23.4	23.9	22.3	22.9	22.8	23.4	23.9
	6H	22.6	23.1	23.1	23.6	24.1	22.6	23.1	23.1	23.6	24.1
	8H	22.7	23.1	23.2	23.6	24.1	22.7	23.1	23.2	23.6	24.1
	12H	22.7	23.1	23.2	23.6	24.2	22.7	23.1	23.2	23.6	24.2
12H	4H	22.3	22.8	22.8	23.3	23.8	22.3	22.8	22.8	23.3	23.8
	6H	22.6	23.1	23.1	23.5	24.1	22.6	23.1	23.1	23.5	24.1
	8H	22.7	23.1	23.2	23.6	24.2	22.7	23.1	23.2	23.6	24.2

Corrected UGR values based on total output lumens

SHR = 1.0