

Indoor Distribution Test Report

Spectrum Lighting Inc.

994 Jefferson Street
Fall River, MA 02721
+1.508.678.2303

Spectrum Lighting Photometric Lab

Luminaire

SGES6GK 100L 35K AR6GK SG

Nom 6" diam round recessed open high output luminaire

Test Number

SP-00927

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
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Lumen Output

Output Lumens	8044
Efficacy	97.62 lm/W

Luminous Dimensions

0° - 180° Size	-0.48
90° - 270° Size	-0.48
Height	0

Spacing Criterion

Two luminaires, plane 0°	1.13
Two luminaires, plane 90°	1.13
Four luminaires	1.15

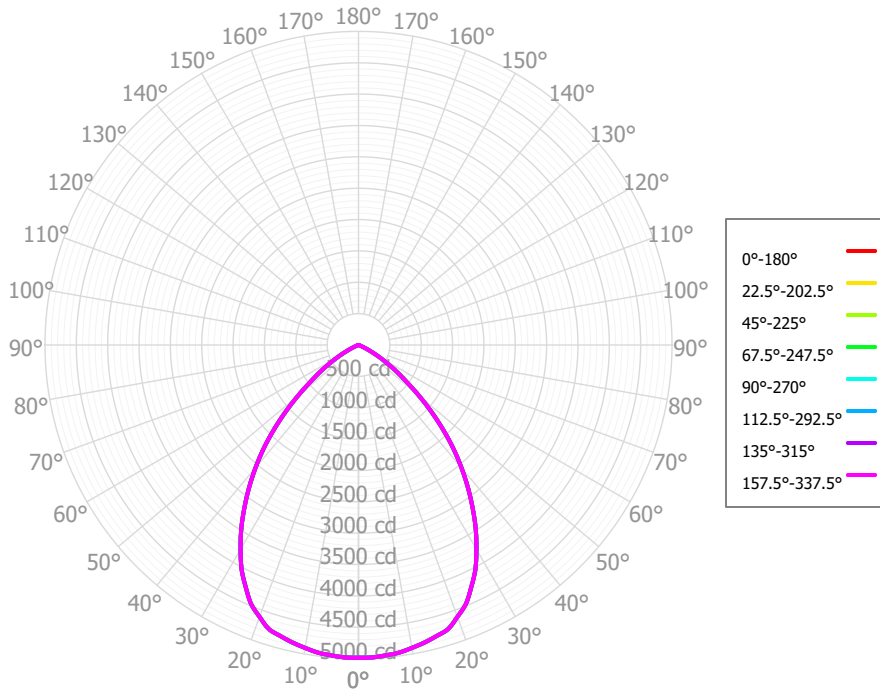
Full Beam Angle

0° - 180°	81°
90° - 270°	81°

IES File Header Contents

Keyword	Value
TEST	SP-00927
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	8/19/2019
ISSUEDATE	8/28/2019
LUMCAT	SGES6GK 100L 35K AR6GK SG
LUMINAIRE	Nom 6" diam round recessed open high output luminaire
OTHER	Trim: Soft Glow (semi-diffuse aluminum)
OTHER	Beam Angle: 80.9 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°	479.65	5.96%	90.00° - 100.00°	0.13	0.00%
10.00° - 20.00°	1,354.08	16.83%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	1,947.60	24.21%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	1,972.63	24.52%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	1,459.84	18.15%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	679.04	8.44%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	141.51	1.76%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	7.81	0.10%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	1.68	0.02%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	8,043.85	100.00%	0.00° - 180.00°	8,043.97	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	9,576	9,576	9,576	9,576	9,353	9,353	9,353	9,353	8,938	8,938	8,938	8,557	8,557	8,557	8,208	8,208	8,044
	1	9,034	8,771	8,535	8,322	8,831	8,595	8,382	8,189	8,265	8,093	7,935	7,962	7,825	7,697	7,683	7,575	7,421
	2	8,461	7,987	7,596	7,267	8,273	7,845	7,487	7,184	7,577	7,280	7,023	7,330	7,085	6,870	7,101	6,901	6,724
	3	7,906	7,276	6,790	6,402	7,732	7,159	6,710	6,348	6,938	6,557	6,243	6,734	6,412	6,142	6,544	6,275	6,044
	4	7,383	6,643	6,101	5,686	7,223	6,545	6,041	5,650	6,361	5,925	5,580	6,190	5,815	5,511	6,031	5,710	5,445
	5	6,899	6,082	5,511	5,089	6,753	6,000	5,465	5,064	5,845	5,376	5,016	5,701	5,290	4,968	5,566	5,209	4,921
	6	6,455	5,587	5,004	4,586	6,321	5,517	4,968	4,568	5,386	4,898	4,534	5,263	4,830	4,500	5,149	4,766	4,467
	7	6,049	5,150	4,566	4,158	5,927	5,091	4,538	4,145	4,978	4,482	4,120	4,873	4,428	4,095	4,775	4,376	4,071
	8	5,680	4,763	4,187	3,791	5,568	4,713	4,164	3,782	4,616	4,118	3,763	4,526	4,074	3,745	4,440	4,032	3,726
	9	5,344	4,421	3,856	3,475	5,243	4,378	3,837	3,467	4,294	3,800	3,453	4,215	3,764	3,439	4,141	3,728	3,425
	10	5,038	4,118	3,566	3,200	4,946	4,080	3,551	3,194	4,007	3,519	3,183	3,938	3,489	3,172	3,873	3,460	3,162

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	164.9 fc	9.4 ft
6.5 ft	118.1 fc	11.1 ft
7.5 ft	88.7 fc	12.8 ft
8.0 ft	77.9 fc	13.7 ft
10.0 ft	49.9 fc	17.1 ft
12.0 ft	34.6 fc	20.5 ft
14.0 ft	25.4 fc	23.9 ft
16.0 ft	19.5 fc	27.3 ft
20.0 ft	12.5 fc	34.1 ft
24.0 ft	8.7 fc	41.0 ft
28.0 ft	6.4 fc	47.8 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	296,687	296,687	296,687
45.00°	160,336	160,336	160,336
55.00°	77,434	77,434	77,434
65.00°	16,578	16,578	16,578
75.00°	1,067	1,067	1,067
85.00°	1,024	1,024	1,024

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	22.8	24.1	23.2	24.4	24.7	22.8	24.1	23.2	24.4	24.7
	3H	22.7	23.8	23.1	24.1	24.5	22.7	23.8	23.1	24.1	24.5
	4H	22.6	23.6	23.0	24.0	24.4	22.6	23.6	23.0	24.0	24.4
	6H	22.5	23.4	22.9	23.8	24.2	22.5	23.4	22.9	23.8	24.2
	8H	22.5	23.3	22.9	23.7	24.1	22.5	23.3	22.9	23.7	24.1
	12H	22.4	23.3	22.9	23.6	24.1	22.4	23.3	22.9	23.6	24.1
4H	2H	22.7	23.7	23.1	24.0	24.4	22.7	23.7	23.1	24.0	24.4
	3H	22.5	23.4	23.0	23.8	24.2	22.5	23.4	23.0	23.8	24.2
	4H	22.4	23.2	22.9	23.6	24.0	22.4	23.2	22.9	23.6	24.0
	6H	22.4	23.0	22.8	23.4	23.9	22.4	23.0	22.8	23.4	23.9
	8H	22.3	22.9	22.8	23.3	23.8	22.3	22.9	22.8	23.3	23.8
	12H	22.2	22.8	22.7	23.2	23.7	22.2	22.8	22.7	23.2	23.7
8H	4H	22.3	22.9	22.8	23.3	23.8	22.3	22.9	22.8	23.3	23.8
	6H	22.2	22.7	22.7	23.2	23.6	22.2	22.7	22.7	23.2	23.6
	8H	22.1	22.5	22.6	23.1	23.6	22.1	22.5	22.6	23.1	23.6
	12H	22.1	22.4	22.6	22.9	23.5	22.1	22.4	22.6	22.9	23.5
12H	4H	22.2	22.8	22.7	23.2	23.7	22.2	22.8	22.7	23.2	23.7
	6H	22.1	22.6	22.7	23.0	23.6	22.1	22.6	22.7	23.0	23.6
	8H	22.1	22.4	22.6	22.9	23.5	22.1	22.4	22.6	22.9	23.5

Corrected UGR values based on total output lumens

SHR = 1.0