

## **Indoor Distribution Test Report**

# **Spectrum Lighting Inc.**

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## **Spectrum Lighting Photometric Lab**

### **Luminaire**

SGES6GK 100L 35K AR6GK MW

Nom 6" diam round recessed open high output luminaire

### **Test Number**

SP-00925

### **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	7959
Efficacy	96.59 lm/W

#### Luminous Dimensions

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

#### Spacing Criterion

Two luminaires, plane 0°	1.04
Two luminaires, plane 90°	1.04
Four luminaires	1.09

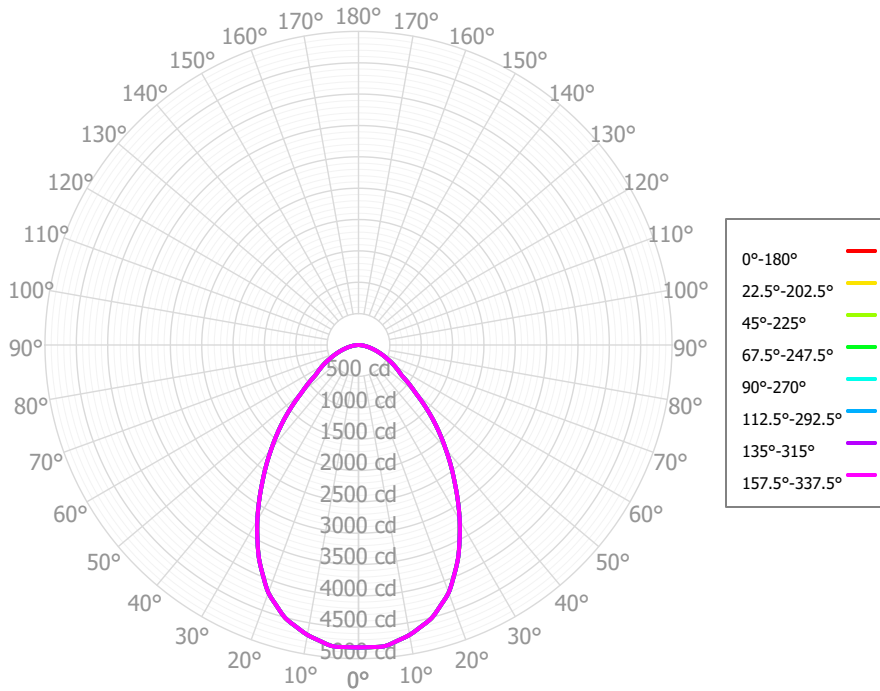
#### Full Beam Angle

0° - 180°	75°
90° - 270°	75°

### IES File Header Contents

Keyword	Value
TEST	SP-00925
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	8/19/2019
ISSUEDATE	8/28/2019
LUMCAT	SGES6GK 100L 35K AR6GK MW
LUMINAIRE	Nom 6" diam round recessed open high output luminaire
OTHER	Trim: Matte white finish
OTHER	Beam Angle: 75.1 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 1.0
_LAMPMULT	65L x 0.64

### Candela Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	462.02	5.80%	90.00° - 100.00°	0.16	0.00%
10.00° - 20.00°	1,260.70	15.84%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	1,712.74	21.52%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	1,669.91	20.98%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	1,284.74	16.14%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	783.51	9.84%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	488.90	6.14%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	241.25	3.03%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	55.22	0.69%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	7,958.98	100.00%	0.00° - 180.00°	7,959.14	100.00%



### Coefficients of Utilization – Zonal Cavity Method

Values are lumens delivered to the workplane.

	<b>pfc</b>	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	0%
	<b>pcc</b>	80%	80%	80%	80%	70%	70%	70%	70%	50%	50%	50%	30%	30%	30%	10%	10%	0%
	<b>pw</b>	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	30%
<b>RCR</b>	<b>0</b>	9,475	9,475	9,475	9,475	9,255	9,255	9,255	9,255	8,843	8,843	8,843	8,467	8,467	8,467	8,121	8,121	7,959
	<b>1</b>	8,839	8,535	8,264	8,019	8,632	8,359	8,113	7,890	8,028	7,827	7,643	7,724	7,562	7,412	7,444	7,315	7,164
	<b>2</b>	8,200	7,667	7,226	6,856	8,006	7,522	7,119	6,776	7,251	6,914	6,622	7,001	6,721	6,476	6,769	6,540	6,336
	<b>3</b>	7,610	6,916	6,379	5,951	7,429	6,796	6,300	5,900	6,571	6,148	5,800	6,363	6,005	5,704	6,170	5,869	5,611
	<b>4</b>	7,075	6,272	5,684	5,235	6,908	6,172	5,624	5,201	5,984	5,509	5,134	5,810	5,400	5,068	5,647	5,296	5,005
	<b>5</b>	6,591	5,718	5,107	4,656	6,439	5,634	5,061	4,633	5,476	4,972	4,586	5,328	4,887	4,541	5,191	4,806	4,497
	<b>6</b>	6,156	5,238	4,623	4,181	6,018	5,168	4,586	4,164	5,034	4,517	4,131	4,908	4,449	4,099	4,791	4,385	4,067
	<b>7</b>	5,763	4,822	4,211	3,783	5,638	4,762	4,183	3,771	4,647	4,127	3,747	4,540	4,073	3,724	4,440	4,021	3,700
	<b>8</b>	5,410	4,458	3,859	3,448	5,296	4,406	3,836	3,439	4,308	3,790	3,421	4,216	3,746	3,403	4,129	3,704	3,386
	<b>9</b>	5,090	4,138	3,555	3,161	4,987	4,094	3,535	3,154	4,009	3,498	3,140	3,929	3,462	3,127	3,854	3,427	3,113
	<b>10</b>	4,801	3,856	3,290	2,913	4,707	3,817	3,274	2,908	3,743	3,243	2,897	3,674	3,212	2,887	3,608	3,183	2,876

### Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	159.4 fc	8.5 ft
6.5 ft	114.2 fc	10.0 ft
7.5 ft	85.7 fc	11.5 ft
8.0 ft	75.4 fc	12.3 ft
10.0 ft	48.2 fc	15.4 ft
12.0 ft	33.5 fc	18.5 ft
14.0 ft	24.6 fc	21.5 ft
16.0 ft	18.8 fc	24.6 ft
20.0 ft	12.1 fc	30.8 ft
24.0 ft	8.4 fc	36.9 ft
28.0 ft	6.2 fc	43.1 ft

### Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
<b>0.00°</b>	286,891	286,891	286,891
<b>45.00°</b>	141,015	141,015	141,015
<b>55.00°</b>	86,872	86,872	86,872
<b>65.00°</b>	68,620	68,620	68,620
<b>75.00°</b>	51,457	51,457	51,457
<b>85.00°</b>	30,002	30,002	30,002

### UGR CIE 190:2010

<b>Ceiling reflectance</b>		<b>0.7</b>	<b>0.7</b>	<b>0.5</b>	<b>0.5</b>	<b>0.3</b>	<b>0.7</b>	<b>0.7</b>	<b>0.5</b>	<b>0.5</b>	<b>0.3</b>
<b>Wall reflectance</b>		<b>0.5</b>	<b>0.3</b>	<b>0.5</b>	<b>0.3</b>	<b>0.3</b>	<b>0.5</b>	<b>0.3</b>	<b>0.5</b>	<b>0.3</b>	<b>0.3</b>
<b>Plane reflectance</b>		<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>
<b>Room dimensions</b>		<b>Viewed crosswise</b>					<b>Viewed endwise</b>				
<b>2H</b>	<b>2H</b>	25.0	26.4	25.4	26.7	27.0	25.0	26.4	25.4	26.7	27.0
	<b>3H</b>	26.3	27.5	26.7	27.9	28.2	26.3	27.5	26.7	27.9	28.2
	<b>4H</b>	26.8	27.9	27.2	28.3	28.6	26.8	27.9	27.2	28.3	28.6
	<b>6H</b>	27.0	28.1	27.5	28.5	28.9	27.0	28.1	27.5	28.5	28.9
	<b>8H</b>	27.1	28.1	27.5	28.5	28.9	27.1	28.1	27.5	28.5	28.9
	<b>12H</b>	27.1	28.1	27.6	28.5	28.9	27.1	28.1	27.6	28.5	28.9
<b>4H</b>	<b>2H</b>	25.5	26.6	25.9	27.0	27.3	25.5	26.6	25.9	27.0	27.3
	<b>3H</b>	27.0	27.9	27.4	28.3	28.7	27.0	27.9	27.4	28.3	28.7
	<b>4H</b>	27.5	28.4	27.9	28.8	29.2	27.5	28.4	27.9	28.8	29.2
	<b>6H</b>	27.9	28.6	28.4	29.1	29.5	27.9	28.6	28.4	29.1	29.5
	<b>8H</b>	28.0	28.7	28.5	29.1	29.6	28.0	28.7	28.5	29.1	29.6
	<b>12H</b>	28.0	28.7	28.5	29.1	29.6	28.0	28.7	28.5	29.1	29.6
<b>8H</b>	<b>4H</b>	27.7	28.4	28.1	28.8	29.3	27.7	28.4	28.1	28.8	29.3
	<b>6H</b>	28.2	28.7	28.7	29.2	29.7	28.2	28.7	28.7	29.2	29.7
	<b>8H</b>	28.3	28.8	28.8	29.3	29.8	28.3	28.8	28.8	29.3	29.8
	<b>12H</b>	28.4	28.9	28.9	29.3	29.9	28.4	28.9	28.9	29.3	29.9
<b>12H</b>	<b>4H</b>	27.7	28.3	28.2	28.8	29.2	27.7	28.3	28.2	28.8	29.2
	<b>6H</b>	28.2	28.7	28.7	29.1	29.7	28.2	28.7	28.7	29.1	29.7
	<b>8H</b>	28.4	28.8	28.9	29.3	29.9	28.4	28.8	28.9	29.3	29.9

Corrected UGR values based on total output lumens

SHR = 1.0