

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

SGES8GK 100L 35K AR8GK SG

Nom 8" diam round recessed open high output luminaire

Test Number

SP-00928

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	8027
Efficacy	97.41 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	0.92
Two luminaires, plane 90°	0.92
Four luminaires	0.97

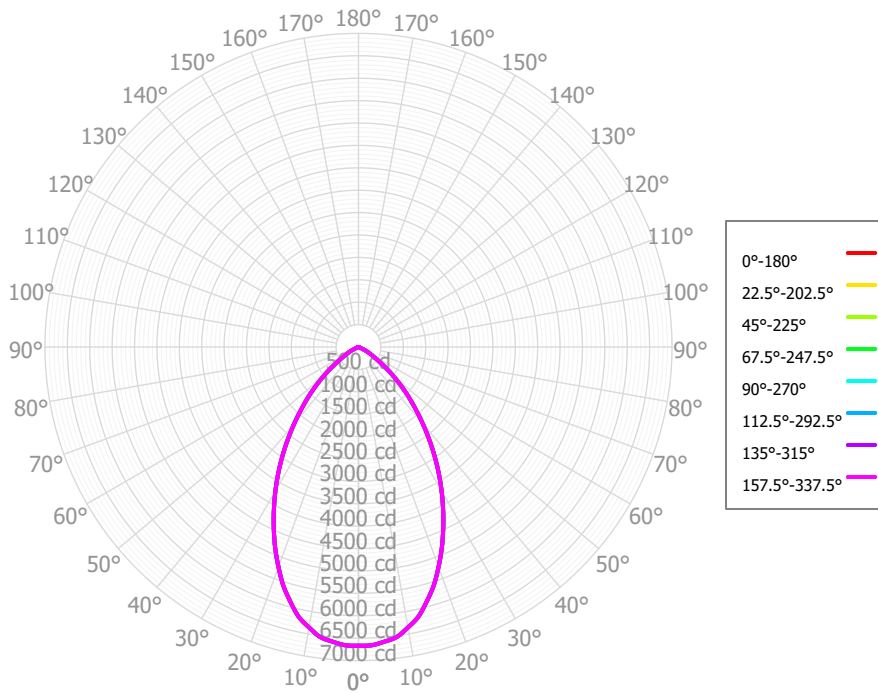
Full Beam Angle

0° - 180°	65°
90° - 270°	65°

IES File Header Contents

Keyword	Value
TEST	SP-00928
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	8/19/2019
ISSUEDATE	8/28/2019
LUMCAT	SGES8GK 100L 35K AR8GK SG
LUMINAIRE	Nom 8" diam round recessed open high output luminaire
OTHER	Trim: Soft glow (semi-diffuse aluminum)
OTHER	Beam Angle: 64.9 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°	632.60	7.88%	90.00° - 100.00°	0.16	0.00%
10.00° - 20.00°	1,640.30	20.44%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	2,045.14	25.48%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	1,836.48	22.88%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	1,228.26	15.30%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	528.40	6.58%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	110.94	1.38%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	2.98	0.04%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	1.67	0.02%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	8,026.77	100.00%	0.00° - 180.00°	8,026.93	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%	30%
	0	9,556	9,556	9,556	9,556	9,334	9,334	9,334	9,334	8,919	8,919	8,919	8,539	8,539	8,539	8,191	8,191	8,027
	1	9,044	8,794	8,569	8,367	8,843	8,618	8,416	8,233	8,291	8,128	7,978	7,990	7,860	7,740	7,712	7,610	7,457
	2	8,508	8,059	7,689	7,378	8,323	7,918	7,580	7,294	7,653	7,373	7,132	7,409	7,179	6,977	7,183	6,996	6,829
	3	7,988	7,394	6,934	6,567	7,819	7,278	6,854	6,513	7,061	6,702	6,406	6,859	6,557	6,303	6,673	6,420	6,293
	4	7,498	6,798	6,286	5,895	7,343	6,703	6,227	5,859	6,522	6,112	5,787	6,355	6,002	5,717	6,199	5,898	5,649
	5	7,041	6,269	5,730	5,331	6,900	6,189	5,684	5,306	6,038	5,595	5,256	5,897	5,511	5,207	5,765	5,429	5,160
	6	6,620	5,799	5,248	4,853	6,491	5,732	5,212	4,835	5,604	5,143	4,799	5,484	5,076	4,765	5,372	5,012	4,730
	7	6,233	5,382	4,830	4,443	6,116	5,325	4,801	4,430	5,216	4,746	4,404	5,113	4,693	4,379	5,017	4,641	4,354
	8	5,879	5,011	4,464	4,089	5,773	4,962	4,441	4,079	4,868	4,397	4,060	4,780	4,353	4,041	4,697	4,311	4,023
	9	5,556	4,680	4,143	3,781	5,458	4,638	4,125	3,774	4,557	4,088	3,759	4,480	4,052	3,745	4,408	4,018	3,731
	10	5,260	4,384	3,860	3,511	5,171	4,347	3,845	3,506	4,277	3,814	3,495	4,210	3,784	3,483	4,148	3,756	3,472

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	220.5 fc	7.0 ft
6.5 ft	157.9 fc	8.3 ft
7.5 ft	118.6 fc	9.5 ft
8.0 ft	104.2 fc	10.2 ft
10.0 ft	66.7 fc	12.7 ft
12.0 ft	46.3 fc	15.3 ft
14.0 ft	34.0 fc	17.8 ft
16.0 ft	26.1 fc	20.4 ft
20.0 ft	16.7 fc	25.4 ft
24.0 ft	11.6 fc	30.5 ft
28.0 ft	8.5 fc	35.6 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	237,849	237,849	237,849
45.00°	80,389	80,389	80,389
55.00°	34,645	34,645	34,645
65.00°	7,208	7,208	7,208
75.00°	256	256	256
85.00°	638	638	638

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	18.9	20.1	19.2	20.4	20.7	18.9	20.1	19.2	20.4	20.7
	3H	18.7	19.8	19.1	20.1	20.5	18.7	19.8	19.1	20.1	20.5
	4H	18.6	19.6	19.0	20.0	20.3	18.6	19.6	19.0	20.0	20.3
	6H	18.5	19.4	19.0	19.8	20.2	18.5	19.4	19.0	19.8	20.2
	8H	18.5	19.3	18.9	19.7	20.1	18.5	19.3	18.9	19.7	20.1
	12H	18.4	19.2	18.9	19.6	20.1	18.4	19.2	18.9	19.6	20.1
4H	2H	18.7	19.7	19.1	20.0	20.4	18.7	19.7	19.1	20.0	20.4
	3H	18.6	19.4	19.0	19.8	20.2	18.6	19.4	19.0	19.8	20.2
	4H	18.5	19.2	18.9	19.6	20.0	18.5	19.2	18.9	19.6	20.0
	6H	18.4	19.0	18.8	19.4	19.9	18.4	19.0	18.8	19.4	19.9
	8H	18.3	18.9	18.8	19.3	19.8	18.3	18.9	18.8	19.3	19.8
	12H	18.3	18.7	18.7	19.2	19.7	18.3	18.7	18.7	19.2	19.7
8H	4H	18.3	18.9	18.8	19.3	19.8	18.3	18.9	18.8	19.3	19.8
	6H	18.2	18.6	18.7	19.1	19.6	18.2	18.6	18.7	19.1	19.6
	8H	18.1	18.5	18.7	19.0	19.5	18.1	18.5	18.7	19.0	19.5
	12H	18.1	18.4	18.6	18.9	19.5	18.1	18.4	18.6	18.9	19.5
12H	4H	18.3	18.7	18.7	19.2	19.7	18.3	18.7	18.7	19.2	19.7
	6H	18.1	18.5	18.7	19.0	19.6	18.1	18.5	18.7	19.0	19.6
	8H	18.1	18.4	18.6	18.9	19.5	18.1	18.4	18.6	18.9	19.5

Corrected UGR values based on total output lumens

SHR = 1.0