

IES INDOOR REPORT**PHOTOMETRIC FILENAME : SGE4--SQLEDOS-45L35KE1--OSMWSO.IES****DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002
[TEST]20141022_M-45L-Gen3
[TESTLAB]OSRAM SYLVANIA
[TESTDATE]8/13/2014
[ISSUE DATE]8/13/2014
[UPDATE]1/3/2017
[MANUFAC]Spectrum Lighting
[LUMCAT]SGE4SQLEDOS-45L-35K-E1-CA0244OS-MW-SO
[LUMINAIRE]4" Square, LED recessed downlight
[TRIM]Cast Alum, Matte White finish, regressed Solite lens
[OTHER]59.6 Degree Beam Angle
[LAMP]N/A
[LAMPCAT]N/A
[OTHER]Total Luminaire Watts is approximate
[OTHER]Photometric measurements taken at 120VAC
[OTHER]Data applicable for Housing: SGE4PZSQLEDOS
[OTHER]Data applicable for Trims: SD4NOS-MS-SO and TP0244OS-MW-SO
[OTHER]Output Multipliers: 40K x 1.0, 30K x 1.0, 27K x 0.946
[OTHER]This report updated by Spectrum Lighting, scaled from Gen2, 30L

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3464
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	84
Total Luminaire Watts	41.1
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.96
Spacing Criterion (90-270)	0.94
Spacing Criterion (Diagonal)	0.98
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	0.31 ft
Luminous Width (90-270)	0.31 ft
Luminous Height	0.00 ft

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LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	78807	83180	78179
55	66917	62804	66808
65	53885	52286	53523
75	44191	43899	44089
85	36483	37503	36728

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CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>	<u>112.5</u>	<u>135.0</u>	<u>157.5</u>	<u>180.0</u>	<u>202.5</u>
0.0	2604.208	2604.208	2604.208	2604.208	2604.208	2604.208	2604.208	2604.208	2604.208	2604.208
2.5	2604.090	2605.766	2604.473	2602.223	2596.314	2602.223	2604.473	2605.766	2604.090	2605.766
5.0	2587.009	2585.848	2586.465	2588.450	2582.334	2588.450	2586.465	2585.848	2587.009	2585.848
7.5	2573.309	2569.913	2567.370	2567.914	2567.855	2567.914	2567.370	2569.913	2573.309	2569.913
10.0	2551.097	2545.408	2539.969	2544.555	2548.083	2544.555	2539.969	2545.408	2551.097	2545.408
12.5	2518.713	2518.904	2515.934	2515.582	2519.301	2515.582	2515.934	2518.904	2518.713	2518.904
15.0	2467.792	2477.038	2488.916	2475.215	2463.558	2475.215	2488.916	2477.038	2467.792	2477.038
17.5	2368.714	2405.332	2448.814	2390.764	2362.217	2390.764	2448.814	2405.332	2368.714	2405.332
20.0	2220.112	2294.788	2382.973	2263.139	2209.880	2263.139	2382.973	2294.788	2220.112	2294.788
22.5	2014.973	2132.926	2262.830	2094.559	2003.051	2094.559	2262.830	2132.926	2014.973	2132.926
25.0	1775.187	1927.405	2086.871	1881.541	1764.015	1881.541	2086.871	1927.405	1775.187	1927.405
27.5	1518.525	1688.119	1861.446	1636.169	1505.354	1636.169	1861.446	1688.119	1518.525	1688.119
30.0	1260.290	1439.145	1600.845	1389.532	1250.382	1389.532	1600.845	1439.145	1260.290	1439.145
32.5	1030.264	1194.978	1347.828	1152.348	1026.619	1152.348	1347.828	1194.978	1030.264	1194.978
35.0	850.454	979.035	1108.792	945.886	845.794	945.886	1108.792	979.035	850.454	979.035
37.5	714.317	809.720	904.256	784.069	709.113	784.069	904.256	809.720	714.317	809.720
40.0	613.754	679.890	740.777	661.265	608.668	661.265	740.777	679.890	613.754	679.890
42.5	546.605	583.105	616.489	571.139	541.078	571.139	616.489	583.105	546.605	583.105
45.0	497.977	511.736	525.613	507.576	494.008	507.576	525.613	511.736	497.977	511.736
47.5	458.228	458.993	458.478	460.301	456.170	460.301	458.478	458.993	458.228	458.993
50.0	421.405	414.790	404.662	419.141	420.494	419.141	404.662	414.790	421.405	414.790
52.5	383.082	373.409	359.797	378.554	382.141	378.554	359.797	373.409	383.082	373.409
55.0	342.995	334.763	321.915	339.070	342.437	339.070	321.915	334.763	342.995	334.763
57.5	303.188	297.734	287.517	299.704	302.438	299.704	287.517	297.734	303.188	297.734
60.0	266.276	263.012	255.177	262.748	264.644	262.748	255.177	263.012	266.276	263.012
62.5	232.730	230.952	225.263	229.129	230.761	229.129	225.263	230.952	232.730	230.952
65.0	203.507	201.199	197.465	199.229	202.140	199.229	197.465	201.199	203.507	201.199
67.5	175.180	173.695	171.226	173.519	174.386	173.519	171.226	173.695	175.180	173.695
70.0	149.602	147.867	146.633	148.176	148.793	148.176	146.633	147.867	149.602	147.867
72.5	125.362	124.097	123.407	124.289	124.553	124.289	123.407	124.097	125.362	124.097
75.0	102.209	101.562	101.533	101.783	101.974	101.783	101.533	101.562	102.209	101.562
77.5	81.159	80.968	81.320	81.276	81.100	81.276	81.320	80.968	81.159	80.968
80.0	62.240	61.931	62.181	62.402	61.990	62.402	62.181	61.931	62.240	61.931
82.5	44.585	44.585	44.938	44.982	44.409	44.982	44.938	44.585	44.585	44.585
85.0	28.415	28.503	29.209	29.194	28.606	29.194	29.209	28.503	28.415	28.503
87.5	13.936	13.950	14.803	14.832	14.538	14.832	14.803	13.950	13.936	13.950
90.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
92.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
95.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
97.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
100.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
102.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
105.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
107.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
112.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
115.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
117.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
120.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
122.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
125.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
127.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
132.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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CANDELA TABULATION - (Cont.)

135.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
137.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
140.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
142.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
145.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
147.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
152.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
155.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
157.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
160.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
162.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
165.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
167.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
172.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
175.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
177.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
180.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Vert. Angles **Horizontal Angles**

	<u>225.0</u>	<u>247.5</u>	<u>270.0</u>	<u>292.5</u>	<u>315.0</u>	<u>337.5</u>	<u>360.0</u>
0.0	2604.208	2604.208	2604.208	2604.208	2604.208	2604.208	2604.208
2.5	2604.473	2602.223	2596.314	2602.223	2604.473	2605.766	2604.090
5.0	2586.465	2588.450	2582.334	2588.450	2586.465	2585.848	2587.009
7.5	2567.370	2567.914	2567.855	2567.914	2567.370	2569.913	2573.309
10.0	2539.969	2544.555	2548.083	2544.555	2539.969	2545.408	2551.097
12.5	2515.934	2515.582	2519.301	2515.582	2515.934	2518.904	2518.713
15.0	2488.916	2475.215	2463.558	2475.215	2488.916	2477.038	2467.792
17.5	2448.814	2390.764	2362.217	2390.764	2448.814	2405.332	2368.714
20.0	2382.973	2263.139	2209.880	2263.139	2382.973	2294.788	2220.112
22.5	2262.830	2094.559	2003.051	2094.559	2262.830	2132.926	2014.973
25.0	2086.871	1881.541	1764.015	1881.541	2086.871	1927.405	1775.187
27.5	1861.446	1636.169	1505.354	1636.169	1861.446	1688.119	1518.525
30.0	1600.845	1389.532	1250.382	1389.532	1600.845	1439.145	1260.290
32.5	1347.828	1152.348	1026.619	1152.348	1347.828	1194.978	1030.264
35.0	1108.792	945.886	845.794	945.886	1108.792	979.035	850.454
37.5	904.256	784.069	709.113	784.069	904.256	809.720	714.317
40.0	740.777	661.265	608.668	661.265	740.777	679.890	613.754
42.5	616.489	571.139	541.078	571.139	616.489	583.105	546.605
45.0	525.613	507.576	494.008	507.576	525.613	511.736	497.977
47.5	458.478	460.301	456.170	460.301	458.478	458.993	458.228
50.0	404.662	419.141	420.494	419.141	404.662	414.790	421.405
52.5	359.797	378.554	382.141	378.554	359.797	373.409	383.082
55.0	321.915	339.070	342.437	339.070	321.915	334.763	342.995
57.5	287.517	299.704	302.438	299.704	287.517	297.734	303.188
60.0	255.177	262.748	264.644	262.748	255.177	263.012	266.276
62.5	225.263	229.129	230.761	229.129	225.263	230.952	232.730
65.0	197.465	199.229	202.140	199.229	197.465	201.199	203.507
67.5	171.226	173.519	174.386	173.519	171.226	173.695	175.180
70.0	146.633	148.176	148.793	148.176	146.633	147.867	149.602
72.5	123.407	124.289	124.553	124.289	123.407	124.097	125.362
75.0	101.533	101.783	101.974	101.783	101.533	101.562	102.209
77.5	81.320	81.276	81.100	81.276	81.320	80.968	81.159
80.0	62.181	62.402	61.990	62.402	62.181	61.931	62.240

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CANDELA TABULATION - (Cont.)

82.5	44.938	44.982	44.409	44.982	44.938	44.585	44.585
85.0	29.209	29.194	28.606	29.194	29.209	28.503	28.415
87.5	14.803	14.832	14.538	14.832	14.803	13.950	13.936
90.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
92.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
95.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
97.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
100.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
102.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
105.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
107.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
112.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
115.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
117.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
120.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
122.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
125.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
127.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
132.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
135.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
137.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
140.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
142.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
145.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
147.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
152.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
155.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
157.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
160.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
162.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
165.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
167.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
172.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
175.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
177.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
180.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	937.57	N.A.	27.10
0-30	1801.7	N.A.	52.00
0-40	2420.85	N.A.	69.90
0-60	3123.17	N.A.	90.20
0-80	3431.52	N.A.	99.10
0-90	3463.94	N.A.	100.00
10-90	3218.29	N.A.	92.90
20-40	1483.28	N.A.	42.80
20-50	1885.6	N.A.	54.40
40-70	901.99	N.A.	26.00
60-80	308.36	N.A.	8.90
70-80	108.68	N.A.	3.10
80-90	32.42	N.A.	0.90
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.00	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	3463.94	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	245.65
10-20	691.92
20-30	864.13
30-40	619.15
40-50	402.32
50-60	300.00
60-70	199.68
70-80	108.68
80-90	32.42
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

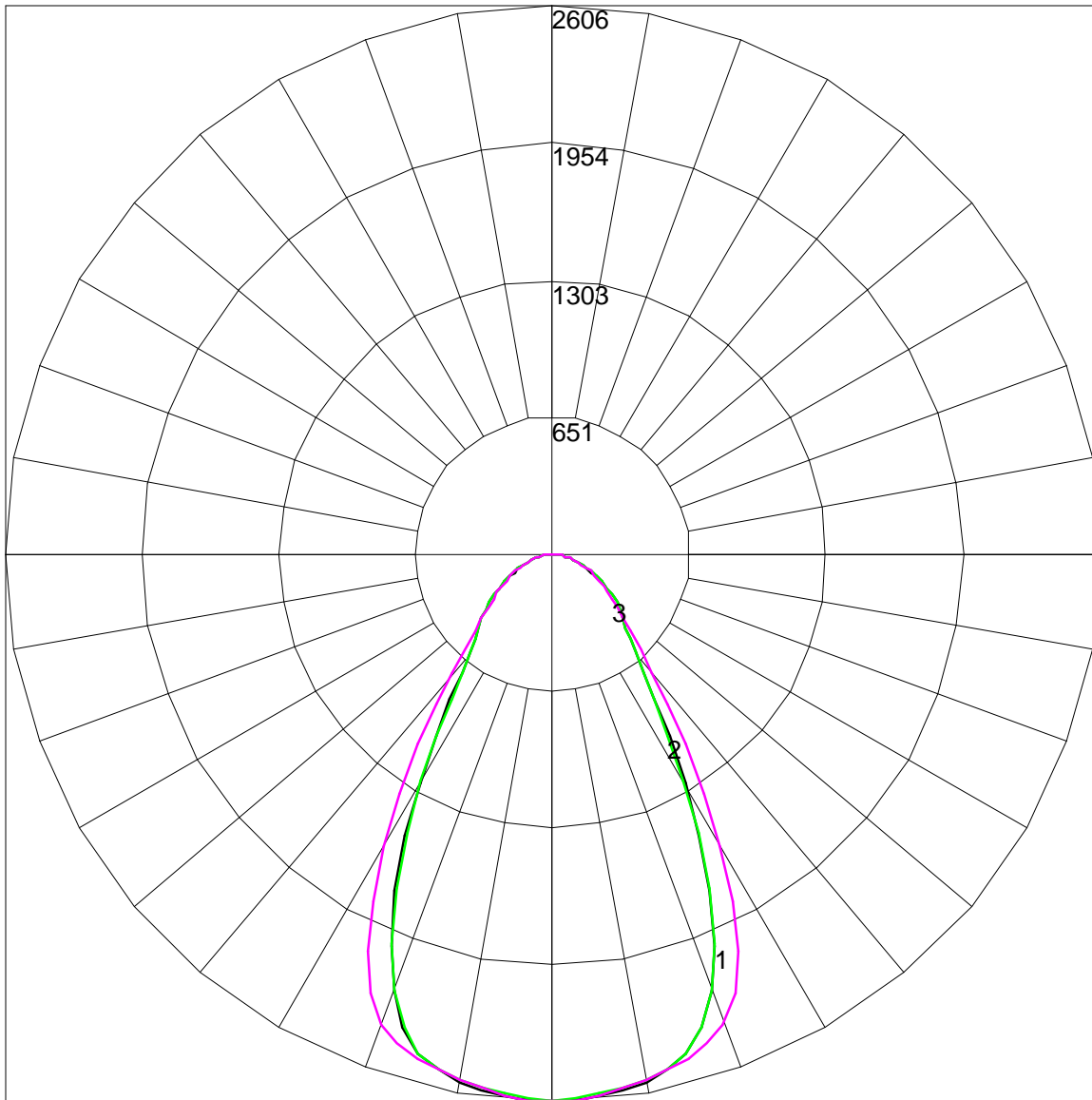
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	108	104	101	109	105	102	100	101	99	97	97	95	94	94	92	91	89
2	104	97	92	87	101	95	91	86	92	88	85	89	86	83	86	83	81	79
3	97	88	82	77	95	87	81	76	84	79	75	82	77	74	79	76	72	71
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	65	64
5	85	74	67	62	83	73	66	61	71	65	61	70	64	60	68	63	60	58
6	80	69	61	56	78	68	61	56	66	60	55	65	59	55	63	58	55	53
7	75	64	56	51	73	63	56	51	62	55	51	60	55	50	59	54	50	48
8	71	59	52	47	69	59	52	47	57	51	47	56	51	47	55	50	46	45
9	67	55	48	44	66	55	48	44	54	48	43	53	47	43	52	47	43	42
10	63	52	45	41	62	51	45	41	51	45	40	50	44	40	49	44	40	39

POLAR GRAPH



Maximum Candela = 2605.766 Located At Horizontal Angle = 22.5, Vertical Angle = 2.5

- # 1 - Vertical Plane Through Horizontal Angles (0 - 180)
- # 2 - Vertical Plane Through Horizontal Angles (90 - 270)
- # 3 - Vertical Plane Through Horizontal Angles (45 - 225)