

IES INDOOR REPORT**PHOTOMETRIC FILENAME : SGE4LEDOS-45L35KE1-AR4223OSMWSO.IES****DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002
[TEST]20141005_M-45L-Gen3
[TESTLAB]OSRAM SYLVANIA
[TESTDATE]8/11/2014
[ISSUEDATE]8/11/2014
[UPDATE]1/3/2017
[MANUFAC]Spectrum Lighting
[LUMCAT]SGE4LEDOS-45L-35K-E1-AR4223OS-MW-SO
[LUMINAIRE]4" Diam., Open Aperture LED Downlight
[OTHER]Shallow Profile, Matte White Lower Cone
[OTHER]Integral, Regressed Solite Lens
[OTHER]62.4 Degree Beam Angle
[LAMP]N/A
[LAMPCAT]N/A
[OTHER]Total Luminaire Watts is approximate
[OTHER]Photometric measurements taken at 120VAC
[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	3507
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	85
Total Luminaire Watts	41.1
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.96
Spacing Criterion (90-270)	0.96
Spacing Criterion (Diagonal)	0.94
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.33 ft (Diameter)
Luminous Width (90-270)	0.33 ft (Diameter)
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	88152	87888	87626
55	60893	61076	60744
65	48286	48758	47875
75	37905	38433	38491
85	27483	28735	28947

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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	2929.607	2929.607	2929.607	2929.607	2929.607	2929.607	2929.607	2929.607	2929.607	2929.607
2.5	2923.580	2921.228	2919.611	2920.390	2921.037	2920.390	2919.611	2921.228	2923.580	2921.228
5.0	2897.796	2892.490	2893.666	2891.034	2892.725	2891.034	2893.666	2892.490	2897.796	2892.490
7.5	2851.212	2841.936	2841.745	2837.982	2834.792	2837.982	2841.745	2841.936	2851.212	2841.936
10.0	2768.657	2766.040	2768.951	2766.687	2763.556	2766.687	2768.951	2766.040	2768.657	2766.040
12.5	2663.258	2663.684	2662.861	2662.449	2657.010	2662.449	2662.861	2663.684	2663.258	2663.684
15.0	2547.789	2544.791	2544.129	2542.468	2546.702	2542.468	2544.129	2544.791	2547.789	2544.791
17.5	2430.483	2421.472	2425.044	2420.531	2422.281	2420.531	2425.044	2421.472	2430.483	2421.472
20.0	2307.400	2303.519	2309.546	2309.591	2304.857	2309.591	2309.546	2303.519	2307.400	2303.519
22.5	2168.956	2169.382	2168.750	2170.470	2165.839	2170.470	2168.750	2169.382	2168.956	2169.382
25.0	1998.818	1995.246	1992.394	1997.010	1994.393	1997.010	1992.394	1995.246	1998.818	1995.246
27.5	1798.810	1791.857	1790.401	1785.903	1785.506	1785.903	1790.401	1791.857	1798.810	1791.857
30.0	1577.148	1573.929	1570.974	1567.917	1563.389	1567.917	1570.974	1573.929	1577.148	1573.929
32.5	1346.843	1346.108	1342.022	1343.859	1339.229	1343.859	1342.022	1346.108	1346.843	1346.108
35.0	1121.478	1119.846	1125.403	1124.065	1115.715	1124.065	1125.403	1119.846	1121.478	1119.846
37.5	913.811	913.884	919.338	913.679	909.974	913.679	919.338	913.884	913.811	913.884
40.0	732.810	736.808	736.308	734.324	733.118	734.324	736.308	736.808	732.810	736.808
42.5	596.982	596.747	593.351	593.204	594.395	593.204	593.351	596.747	596.982	596.747
45.0	495.758	495.272	494.273	492.097	492.803	492.097	494.273	495.272	495.758	495.272
47.5	420.302	420.376	421.287	419.288	418.289	419.288	421.287	420.376	420.302	420.376
50.0	362.193	362.399	362.237	361.017	360.179	361.017	362.237	362.399	362.193	362.399
52.5	316.315	316.667	315.874	314.845	314.168	314.845	315.874	316.667	316.315	316.667
55.0	277.786	278.653	278.624	277.257	277.110	277.257	278.624	278.653	277.786	278.653
57.5	245.196	246.519	246.769	245.505	245.093	245.505	246.769	246.519	245.196	246.519
60.0	216.472	217.692	217.722	216.943	215.384	216.943	217.722	217.692	216.472	217.692
62.5	188.601	190.042	190.247	188.880	187.028	188.880	190.247	190.042	188.601	190.042
65.0	162.303	163.464	163.890	162.200	160.921	162.200	163.890	163.464	162.303	163.464
67.5	137.327	139.062	140.517	139.283	137.298	139.283	140.517	139.062	137.327	139.062
70.0	114.689	114.498	114.572	114.763	115.366	114.763	114.572	114.498	114.689	114.498
72.5	95.256	95.726	96.167	96.447	96.388	96.447	96.167	95.726	95.256	95.726
75.0	78.028	78.469	79.115	79.307	79.233	79.307	79.115	78.469	78.028	78.469
77.5	61.872	62.137	62.901	63.166	63.195	63.166	62.901	62.137	61.872	62.137
80.0	46.775	46.908	47.422	48.172	47.951	48.172	47.422	46.908	46.775	46.908
82.5	32.369	32.619	33.119	33.810	33.531	33.810	33.119	32.619	32.369	32.619
85.0	19.051	19.184	19.919	20.242	20.066	20.242	19.919	19.184	19.051	19.184
87.5	7.365	7.291	7.571	7.997	7.938	7.997	7.571	7.291	7.365	7.291
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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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	2929.607	2929.607	2929.607	2929.607	2929.607	2929.607	2929.607
2.5	2919.611	2920.390	2921.037	2920.390	2919.611	2921.228	2923.580
5.0	2893.666	2891.034	2892.725	2891.034	2893.666	2892.490	2897.796
7.5	2841.745	2837.982	2834.792	2837.982	2841.745	2841.936	2851.212
10.0	2768.951	2766.687	2763.556	2766.687	2768.951	2766.040	2768.657
12.5	2662.861	2662.449	2657.010	2662.449	2662.861	2663.684	2663.258
15.0	2544.129	2542.468	2546.702	2542.468	2544.129	2544.791	2547.789
17.5	2425.044	2420.531	2422.281	2420.531	2425.044	2421.472	2430.483
20.0	2309.546	2309.591	2304.857	2309.591	2309.546	2303.519	2307.400
22.5	2168.750	2170.470	2165.839	2170.470	2168.750	2169.382	2168.956
25.0	1992.394	1997.010	1994.393	1997.010	1992.394	1995.246	1998.818
27.5	1790.401	1785.903	1785.506	1785.903	1790.401	1791.857	1798.810
30.0	1570.974	1567.917	1563.389	1567.917	1570.974	1573.929	1577.148
32.5	1342.022	1343.859	1339.229	1343.859	1342.022	1346.108	1346.843
35.0	1125.403	1124.065	1115.715	1124.065	1125.403	1119.846	1121.478
37.5	919.338	913.679	909.974	913.679	919.338	913.884	913.811
40.0	736.308	734.324	733.118	734.324	736.308	736.808	732.810
42.5	593.351	593.204	594.395	593.204	593.351	596.747	596.982
45.0	494.273	492.097	492.803	492.097	494.273	495.272	495.758
47.5	421.287	419.288	418.289	419.288	421.287	420.376	420.302
50.0	362.237	361.017	360.179	361.017	362.237	362.399	362.193
52.5	315.874	314.845	314.168	314.845	315.874	316.667	316.315
55.0	278.624	277.257	277.110	277.257	278.624	278.653	277.786
57.5	246.769	245.505	245.093	245.505	246.769	246.519	245.196
60.0	217.722	216.943	215.384	216.943	217.722	217.692	216.472
62.5	190.247	188.880	187.028	188.880	190.247	190.042	188.601
65.0	163.890	162.200	160.921	162.200	163.890	163.464	162.303
67.5	140.517	139.283	137.298	139.283	140.517	139.062	137.327
70.0	114.572	114.763	115.366	114.763	114.572	114.498	114.689
72.5	96.167	96.447	96.388	96.447	96.167	95.726	95.256
75.0	79.115	79.307	79.233	79.307	79.115	78.469	78.028
77.5	62.901	63.166	63.195	63.166	62.901	62.137	61.872
80.0	47.422	48.172	47.951	48.172	47.422	46.908	46.775

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82.5	33.119	33.810	33.531	33.810	33.119	32.619	32.369
85.0	19.919	20.242	20.066	20.242	19.919	19.184	19.051
87.5	7.571	7.997	7.938	7.997	7.571	7.291	7.365
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	985.90	N.A.	28.10
0-30	1889.21	N.A.	53.90
0-40	2590.84	N.A.	73.90
0-60	3237.28	N.A.	92.30
0-80	3483.7	N.A.	99.30
0-90	3506.61	N.A.	100.00
10-90	3234.49	N.A.	92.20
20-40	1604.93	N.A.	45.80
20-50	1999.37	N.A.	57.00
40-70	808.84	N.A.	23.10
60-80	246.42	N.A.	7.00
70-80	84.03	N.A.	2.40
80-90	22.91	N.A.	0.70
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	3506.61	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	272.12
10-20	713.79
20-30	903.31
30-40	701.62
40-50	394.44
50-60	252.01
60-70	162.39
70-80	84.03
80-90	22.91
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

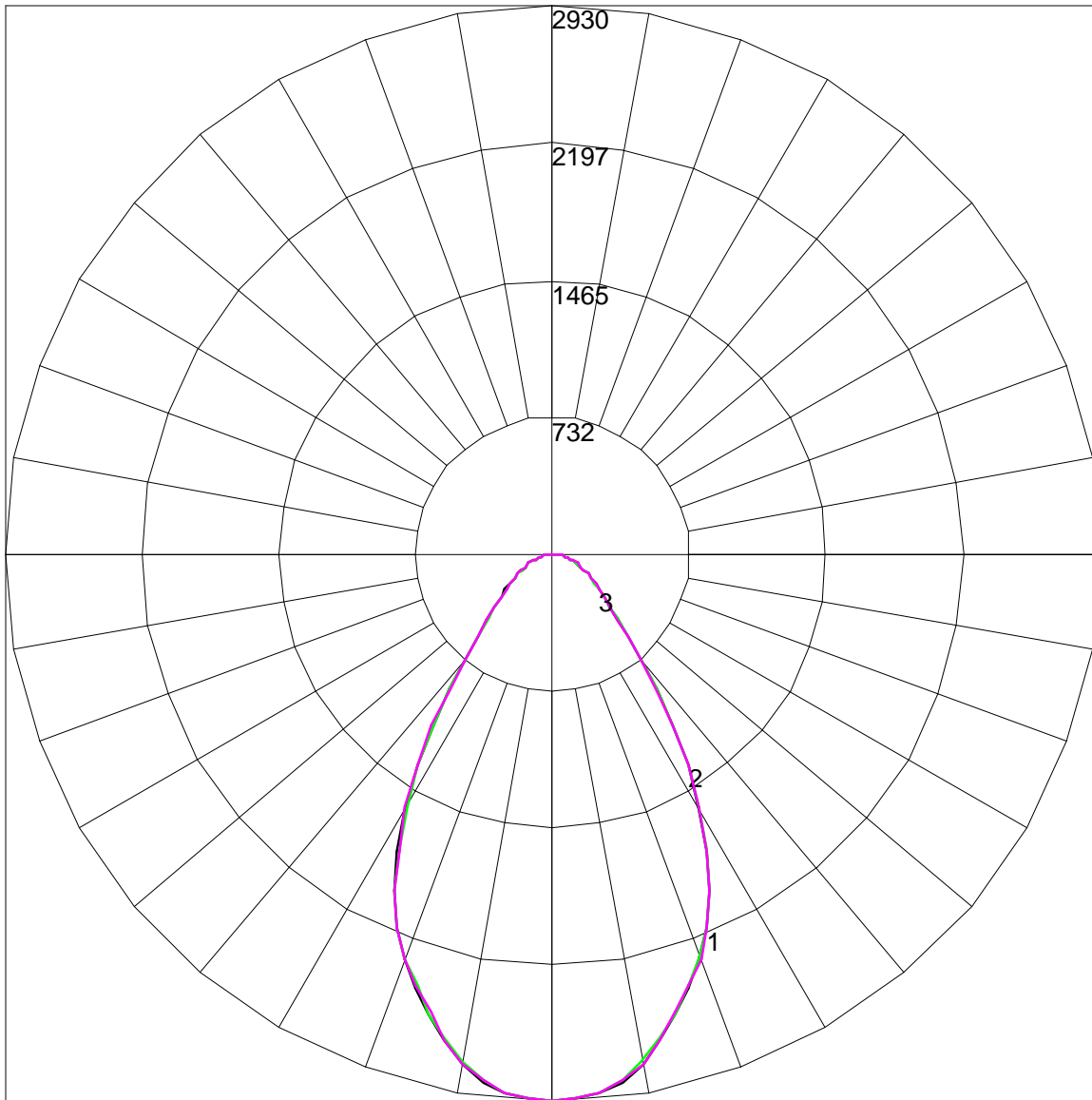
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	81
3	98	90	84	79	96	88	83	78	86	81	77	83	79	75	81	77	74	72
4	92	82	76	70	90	81	75	70	79	73	69	77	72	68	75	71	67	66
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55
7	76	65	58	53	75	65	58	53	63	57	53	62	56	52	61	56	52	50
8	72	61	54	49	71	60	54	49	59	53	49	58	53	49	57	52	48	47
9	68	57	50	46	67	56	50	45	55	49	45	54	49	45	54	49	45	43
10	65	53	47	42	63	53	47	42	52	46	42	51	46	42	50	46	42	40

POLAR GRAPH



Maximum Candela = 2929.607 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (0 - 180)
2 - Vertical Plane Through Horizontal Angles (90 - 270)
3 - Vertical Plane Through Horizontal Angles (45 - 225)