

IES INDOOR REPORT**PHOTOMETRIC FILENAME : SGE4LEDOS-30L35KE1-AR4224OSMWSO.IES****DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002
[TEST]201410982_M-30L-Gen3
[TESTLAB] OSRAM SYLVANIA
[TESTDATE] 8/11/2014
[ISSUEDATE]8/11/2014
[UPDATE]11/14/2016
[MANUFAC]Spectrum Lighting
[LUMCAT]SGE4LEDOS-30L-35K-E1-AR4224OS-MW-SO
[LUMINAIRE]4" Diam., Open Aperture LED Downlight
[OTHER]Deep Profile, Matte White Lower Cone
[OTHER]Integral, Regressed Solite Lens
[OTHER]54.7 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]Catalog number designation update: 35W is now called 30L
[OTHER]This report updated by Spectrum Lighting, scaled from Gen2

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2156
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	78
Total Luminaire Watts	27.6
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.86
Spacing Criterion (90-270)	0.86
Spacing Criterion (Diagonal)	0.84
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	49688	49461	49445
55	41099	40944	41014
65	36261	36341	36515
75	32925	32958	33152
85	24369	25286	24928

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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	2032.655	2032.655	2032.655	2032.655	2032.655	2032.655	2032.655	2032.655	2032.655	2032.655
2.5	2024.358	2022.647	2022.777	2024.627	2027.581	2024.627	2022.777	2022.647	2024.358	2022.647
5.0	2000.045	1997.101	1996.961	1997.817	2001.299	1997.817	1996.961	1997.101	2000.045	1997.101
7.5	1953.419	1953.091	1952.464	1950.693	1955.220	1950.693	1952.464	1953.091	1953.419	1953.091
10.0	1883.584	1885.206	1886.350	1887.295	1891.413	1887.295	1886.350	1885.206	1883.584	1885.206
12.5	1803.642	1805.980	1805.035	1806.985	1809.830	1806.985	1805.035	1805.980	1803.642	1805.980
15.0	1721.412	1721.133	1722.476	1722.944	1725.063	1722.944	1722.476	1721.133	1721.412	1721.133
17.5	1634.596	1631.492	1632.606	1632.696	1631.114	1632.696	1632.606	1631.492	1634.596	1631.492
20.0	1509.888	1509.400	1506.833	1509.370	1511.280	1509.370	1506.833	1509.400	1509.888	1509.400
22.5	1360.210	1359.185	1352.868	1353.933	1356.211	1353.933	1352.868	1359.185	1360.210	1359.185
25.0	1187.801	1184.081	1182.250	1182.300	1181.822	1182.300	1182.250	1184.081	1187.801	1184.081
27.5	1007.285	1001.654	1002.559	1003.743	1001.724	1003.743	1002.559	1001.654	1007.285	1001.654
30.0	826.679	824.162	825.087	828.131	828.310	828.131	825.087	824.162	826.679	824.162
32.5	661.761	661.622	663.114	666.874	665.531	666.874	663.114	661.622	661.761	661.622
35.0	527.552	525.483	527.642	530.537	530.288	530.537	527.642	525.483	527.552	525.483
37.5	428.072	427.883	428.421	429.405	430.211	429.405	428.421	427.883	428.072	427.883
40.0	360.635	360.844	360.555	361.888	362.227	361.888	360.555	360.844	360.635	360.844
42.5	314.655	314.128	313.461	314.198	313.919	314.198	313.461	314.128	314.655	314.128
45.0	279.439	278.703	278.166	278.196	278.076	278.196	278.166	278.703	279.439	278.703
47.5	250.998	250.680	250.302	250.272	250.292	250.272	250.302	250.680	250.998	250.680
50.0	228.724	228.545	228.108	228.217	228.287	228.217	228.108	228.545	228.724	228.545
52.5	208.281	207.993	207.286	207.515	207.416	207.515	207.286	207.993	208.281	207.993
55.0	187.490	187.062	186.784	187.132	187.102	187.132	186.784	187.062	187.490	187.062
57.5	168.758	168.718	168.678	169.096	169.166	169.096	168.678	168.718	168.758	168.718
60.0	151.170	151.409	151.448	152.015	152.065	152.015	151.448	151.409	151.170	151.409
62.5	135.979	136.029	136.039	136.367	136.467	136.367	136.039	136.029	135.979	136.029
65.0	121.883	121.972	122.151	122.579	122.738	122.579	122.151	121.972	121.883	121.972
67.5	108.005	108.175	108.334	108.722	109.010	108.722	108.334	108.175	108.005	108.175
70.0	94.556	94.665	94.824	95.103	95.342	95.103	94.824	94.665	94.556	94.665
72.5	81.345	81.215	81.395	81.643	81.733	81.643	81.395	81.215	81.345	81.215
75.0	67.776	67.696	67.845	68.462	68.243	68.462	67.845	67.696	67.776	67.696
77.5	54.545	54.694	54.873	55.510	55.261	55.510	54.873	54.694	54.545	54.694
80.0	42.010	42.060	42.170	42.607	42.428	42.607	42.170	42.060	42.010	42.060
82.5	29.526	29.685	29.665	29.934	29.665	29.934	29.665	29.685	29.526	29.685
85.0	16.892	17.489	17.528	17.628	17.280	17.628	17.528	17.489	16.892	17.489
87.5	5.173	5.919	6.108	6.088	5.929	6.088	6.108	5.919	5.173	5.919
90.0	0.288	0.836	0.975	0.826	0.647	0.826	0.975	0.836	0.288	0.836
92.5	0.298	0.657	0.776	0.617	0.438	0.617	0.776	0.657	0.298	0.657
95.0	0.328	0.657	0.816	0.647	0.428	0.647	0.816	0.657	0.328	0.657
97.5	0.478	0.676	0.816	0.686	0.478	0.686	0.816	0.676	0.478	0.676
100.0	0.637	0.726	0.895	0.786	0.607	0.786	0.895	0.726	0.637	0.726
102.5	0.786	0.766	0.965	0.885	0.667	0.885	0.965	0.766	0.786	0.766
105.0	0.826	0.756	0.965	0.985	0.667	0.985	0.965	0.756	0.826	0.756
107.5	0.587	0.726	0.786	1.084	0.726	1.084	0.786	0.726	0.587	0.726
110.0	0.378	0.676	0.627	1.114	0.796	1.114	0.627	0.676	0.378	0.676
112.5	0.358	0.657	0.597	0.945	0.885	0.945	0.597	0.657	0.358	0.657
115.0	0.348	0.597	0.637	0.895	0.985	0.895	0.637	0.597	0.348	0.597
117.5	0.348	0.577	0.676	0.965	1.084	0.965	0.676	0.577	0.348	0.577
120.0	0.348	0.607	0.686	1.025	1.164	1.025	0.686	0.607	0.348	0.607
122.5	0.338	0.547	0.696	0.975	1.104	0.975	0.696	0.547	0.338	0.547
125.0	0.348	0.527	0.756	0.955	0.915	0.955	0.756	0.527	0.348	0.527
127.5	0.378	0.497	0.806	0.955	0.846	0.955	0.806	0.497	0.378	0.497
130.0	0.408	0.517	0.836	0.975	0.875	0.975	0.836	0.517	0.408	0.517
132.5	0.448	0.557	0.865	1.025	0.935	1.025	0.865	0.557	0.448	0.557

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CANDELA TABULATION - (Cont.)

135.0	0.507	0.627	0.945	1.104	1.005	1.104	0.945	0.627	0.507	0.627
137.5	0.647	0.716	1.045	1.144	1.084	1.144	1.045	0.716	0.647	0.716
140.0	0.806	0.865	1.154	1.253	1.194	1.253	1.154	0.865	0.806	0.865
142.5	1.025	1.074	1.303	1.393	1.343	1.393	1.303	1.074	1.025	1.074
145.0	1.343	1.363	1.512	1.631	1.582	1.631	1.512	1.363	1.343	1.363
147.5	1.681	1.701	1.811	1.940	1.890	1.940	1.811	1.701	1.681	1.701
150.0	2.089	2.129	2.208	2.288	2.268	2.288	2.208	2.129	2.089	2.129
152.5	2.537	2.586	2.656	2.706	2.716	2.706	2.656	2.586	2.537	2.586
155.0	3.094	3.134	3.154	3.233	3.253	3.233	3.154	3.134	3.094	3.134
157.5	3.780	3.810	3.790	3.920	3.929	3.920	3.790	3.810	3.780	3.810
160.0	4.865	4.865	4.875	4.964	4.994	4.964	4.875	4.865	4.865	4.865
162.5	6.337	6.387	6.327	6.387	6.466	6.387	6.327	6.387	6.337	6.387
165.0	8.137	8.078	8.078	8.128	8.137	8.128	8.078	8.078	8.137	8.078
167.5	10.316	10.366	10.366	10.366	10.306	10.366	10.366	10.366	10.316	10.366
170.0	12.833	12.883	12.853	12.803	12.813	12.803	12.853	12.883	12.833	12.883
172.5	15.121	15.171	15.171	15.101	15.101	15.101	15.171	15.171	15.121	15.171
175.0	16.782	16.663	16.285	16.245	16.384	16.245	16.285	16.663	16.782	16.663
177.5	16.693	16.683	16.653	16.553	16.484	16.553	16.653	16.683	16.693	16.683
180.0	16.822	16.822	16.822	16.822	16.822	16.822	16.822	16.822	16.822	16.822

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	2032.655	2032.655	2032.655	2032.655	2032.655	2032.655	2032.655
2.5	2022.777	2024.627	2027.581	2024.627	2022.777	2022.647	2024.358
5.0	1996.961	1997.817	2001.299	1997.817	1996.961	1997.101	2000.045
7.5	1952.464	1950.693	1955.220	1950.693	1952.464	1953.091	1953.419
10.0	1886.350	1887.295	1891.413	1887.295	1886.350	1885.206	1883.584
12.5	1805.035	1806.985	1809.830	1806.985	1805.035	1805.980	1803.642
15.0	1722.476	1722.944	1725.063	1722.944	1722.476	1721.133	1721.412
17.5	1632.606	1632.696	1631.114	1632.696	1632.606	1631.492	1634.596
20.0	1506.833	1509.370	1511.280	1509.370	1506.833	1509.400	1509.888
22.5	1352.868	1353.933	1356.211	1353.933	1352.868	1359.185	1360.210
25.0	1182.250	1182.300	1181.822	1182.300	1182.250	1184.081	1187.801
27.5	1002.559	1003.743	1001.724	1003.743	1002.559	1001.654	1007.285
30.0	825.087	828.131	828.310	828.131	825.087	824.162	826.679
32.5	663.114	666.874	665.531	666.874	663.114	661.622	661.761
35.0	527.642	530.537	530.288	530.537	527.642	525.483	527.552
37.5	428.421	429.405	430.211	429.405	428.421	427.883	428.072
40.0	360.555	361.888	362.227	361.888	360.555	360.844	360.635
42.5	313.461	314.198	313.919	314.198	313.461	314.128	314.655
45.0	278.166	278.196	278.076	278.196	278.166	278.703	279.439
47.5	250.302	250.272	250.292	250.272	250.302	250.680	250.998
50.0	228.108	228.217	228.287	228.217	228.108	228.545	228.724
52.5	207.286	207.515	207.416	207.515	207.286	207.993	208.281
55.0	186.784	187.132	187.102	187.132	186.784	187.062	187.490
57.5	168.678	169.096	169.166	169.096	168.678	168.718	168.758
60.0	151.448	152.015	152.065	152.015	151.448	151.409	151.170
62.5	136.039	136.367	136.467	136.367	136.039	136.029	135.979
65.0	122.151	122.579	122.738	122.579	122.151	121.972	121.883
67.5	108.334	108.722	109.010	108.722	108.334	108.175	108.005
70.0	94.824	95.103	95.342	95.103	94.824	94.665	94.556
72.5	81.395	81.643	81.733	81.643	81.395	81.215	81.345
75.0	67.845	68.462	68.243	68.462	67.845	67.696	67.776
77.5	54.873	55.510	55.261	55.510	54.873	54.694	54.545
80.0	42.170	42.607	42.428	42.607	42.170	42.060	42.010

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CANDELA TABULATION - (Cont.)

82.5	29.665	29.934	29.665	29.934	29.665	29.685	29.526
85.0	17.528	17.628	17.280	17.628	17.528	17.489	16.892
87.5	6.108	6.088	5.929	6.088	6.108	5.919	5.173
90.0	0.975	0.826	0.647	0.826	0.975	0.836	0.288
92.5	0.776	0.617	0.438	0.617	0.776	0.657	0.298
95.0	0.816	0.647	0.428	0.647	0.816	0.657	0.328
97.5	0.816	0.686	0.478	0.686	0.816	0.676	0.478
100.0	0.895	0.786	0.607	0.786	0.895	0.726	0.637
102.5	0.965	0.885	0.667	0.885	0.965	0.766	0.786
105.0	0.965	0.985	0.667	0.985	0.965	0.756	0.826
107.5	0.786	1.084	0.726	1.084	0.786	0.726	0.587
110.0	0.627	1.114	0.796	1.114	0.627	0.676	0.378
112.5	0.597	0.945	0.885	0.945	0.597	0.657	0.358
115.0	0.637	0.895	0.985	0.895	0.637	0.597	0.348
117.5	0.676	0.965	1.084	0.965	0.676	0.577	0.348
120.0	0.686	1.025	1.164	1.025	0.686	0.607	0.348
122.5	0.696	0.975	1.104	0.975	0.696	0.547	0.338
125.0	0.756	0.955	0.915	0.955	0.756	0.527	0.348
127.5	0.806	0.955	0.846	0.955	0.806	0.497	0.378
130.0	0.836	0.975	0.875	0.975	0.836	0.517	0.408
132.5	0.865	1.025	0.935	1.025	0.865	0.557	0.448
135.0	0.945	1.104	1.005	1.104	0.945	0.627	0.507
137.5	1.045	1.144	1.084	1.144	1.045	0.716	0.647
140.0	1.154	1.253	1.194	1.253	1.154	0.865	0.806
142.5	1.303	1.393	1.343	1.393	1.303	1.074	1.025
145.0	1.512	1.631	1.582	1.631	1.512	1.363	1.343
147.5	1.811	1.940	1.890	1.940	1.811	1.701	1.681
150.0	2.208	2.288	2.268	2.288	2.208	2.129	2.089
152.5	2.656	2.706	2.716	2.706	2.656	2.586	2.537
155.0	3.154	3.233	3.253	3.233	3.154	3.134	3.094
157.5	3.790	3.920	3.929	3.920	3.790	3.810	3.780
160.0	4.875	4.964	4.994	4.964	4.875	4.865	4.865
162.5	6.327	6.387	6.466	6.387	6.327	6.387	6.337
165.0	8.078	8.128	8.137	8.128	8.078	8.078	8.137
167.5	10.366	10.366	10.306	10.366	10.366	10.366	10.316
170.0	12.853	12.803	12.813	12.803	12.853	12.883	12.833
172.5	15.171	15.101	15.101	15.101	15.171	15.171	15.121
175.0	16.285	16.245	16.384	16.245	16.285	16.663	16.782
177.5	16.653	16.553	16.484	16.553	16.653	16.683	16.693
180.0	16.822	16.822	16.822	16.822	16.822	16.822	16.822

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	667.98	N.A.	31.00
0-30	1203.65	N.A.	55.80
0-40	1545.69	N.A.	71.70
0-60	1932.94	N.A.	89.60
0-80	2126.21	N.A.	98.60
0-90	2146.5	N.A.	99.50
10-90	1959.31	N.A.	90.90
20-40	877.71	N.A.	40.70
20-50	1096.6	N.A.	50.90
40-70	508.52	N.A.	23.60
60-80	193.27	N.A.	9.00
70-80	72.00	N.A.	3.30
80-90	20.29	N.A.	0.90
90-110	1.59	N.A.	0.10
90-120	2.31	N.A.	0.10
90-130	2.96	N.A.	0.10
90-150	4.59	N.A.	0.20
90-180	9.81	N.A.	0.50
110-180	8.22	N.A.	0.40
0-180	2156.31	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	187.19
10-20	480.79
20-30	535.67
30-40	342.04
40-50	218.89
50-60	168.36
60-70	121.27
70-80	72.00
80-90	20.29
90-100	0.73
100-110	0.86
110-120	0.72
120-130	0.66
130-140	0.67
140-150	0.96
150-160	1.49
160-170	2.27
170-180	1.45

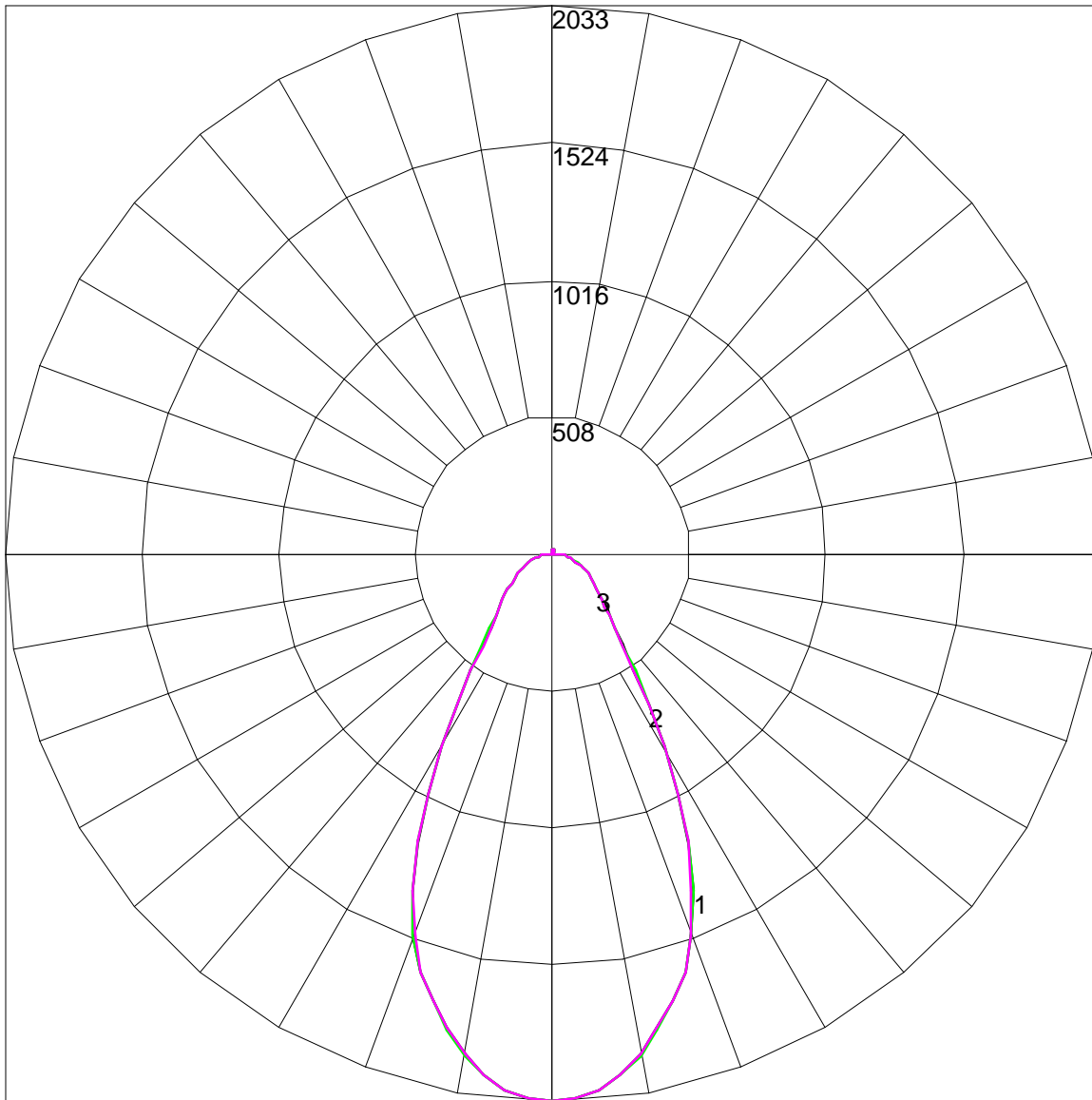
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	102	109	105	103	100	101	99	97	97	95	94	94	92	91	89
2	104	98	93	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	76	73	71
4	91	82	75	70	89	81	74	69	78	73	68	76	71	68	74	70	67	65
5	86	76	68	63	84	75	68	63	73	67	62	71	66	62	69	65	61	59
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	56	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	51	46	67	57	50	46	56	50	46	55	49	46	54	49	45	44
10	65	54	47	43	64	54	47	43	53	47	43	52	46	43	51	46	43	41

POLAR GRAPH



Maximum Candela = 2032.655 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)