

IES INDOOR REPORT**PHOTOMETRIC FILENAME : SGE4LEDOS-10L35KE1-AR4224OSMWSO.IES****DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002
[TEST]201410982_M-10L-Gen3
[TESTLAB] OSRAM SYLVANIA
[TESTDATE] 8/11/2014
[ISSUEDATE]8/11/2014
[UPDATE]11/14/2016
[MANUFAC]Spectrum Lighting
[LUMCAT]SGE4LEDOS-10L-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: 14W is now called 10L
[OTHER]This report updated by Spectrum Lighting, scaled from 30L, Gen2

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	739
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	71
Total Luminaire Watts	10.46
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	17022	16944	16939
55	14080	14027	14051
65	12422	12450	12510
75	11280	11291	11357
85	8348	8663	8540

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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	696.350	696.350	696.350	696.350	696.350	696.350	696.350	696.350	696.350	696.350
2.5	693.508	692.921	692.966	693.600	694.612	693.600	692.966	692.921	693.508	692.921
5.0	685.178	684.170	684.122	684.415	685.608	684.415	684.122	684.170	685.178	684.170
7.5	669.205	669.093	668.878	668.271	669.822	668.271	668.878	669.093	669.205	669.093
10.0	645.281	645.836	646.228	646.552	647.963	646.552	646.228	645.836	645.281	645.836
12.5	617.894	618.695	618.371	619.039	620.014	619.039	618.371	618.695	617.894	618.695
15.0	589.724	589.628	590.088	590.249	590.974	590.249	590.088	589.628	589.724	589.628
17.5	559.982	558.919	559.300	559.331	558.789	559.331	559.300	558.919	559.982	558.919
20.0	517.259	517.092	516.213	517.082	517.737	517.082	516.213	517.092	517.259	517.092
22.5	465.983	465.632	463.468	463.832	464.613	463.832	463.468	465.632	465.983	465.632
25.0	406.919	405.644	405.017	405.034	404.870	405.034	405.017	405.644	406.919	405.644
27.5	345.077	343.148	343.458	343.864	343.172	343.864	343.458	343.148	345.077	343.148
30.0	283.205	282.343	282.660	283.702	283.764	283.702	282.660	282.343	283.205	282.343
32.5	226.707	226.659	227.170	228.459	227.999	228.459	227.170	226.659	226.707	226.659
35.0	180.730	180.021	180.760	181.752	181.667	181.752	180.760	180.021	180.730	180.021
37.5	146.650	146.585	146.769	147.106	147.382	147.106	146.769	146.585	146.650	146.585
40.0	123.547	123.618	123.520	123.976	124.092	123.976	123.520	123.618	123.547	123.618
42.5	107.795	107.614	107.386	107.638	107.543	107.638	107.386	107.614	107.795	107.614
45.0	95.731	95.479	95.294	95.305	95.264	95.305	95.294	95.479	95.731	95.479
47.5	85.987	85.878	85.749	85.738	85.745	85.738	85.749	85.878	85.987	85.878
50.0	78.357	78.295	78.145	78.183	78.207	78.183	78.145	78.295	78.357	78.295
52.5	71.353	71.254	71.012	71.091	71.057	71.091	71.012	71.254	71.353	71.254
55.0	64.231	64.084	63.989	64.108	64.098	64.108	63.989	64.084	64.231	64.084
57.5	57.813	57.800	57.786	57.929	57.953	57.929	57.786	57.800	57.813	57.800
60.0	51.788	51.870	51.883	52.078	52.095	52.078	51.883	51.870	51.788	51.870
62.5	46.584	46.601	46.604	46.717	46.751	46.717	46.604	46.601	46.584	46.601
65.0	41.755	41.785	41.847	41.993	42.048	41.993	41.847	41.785	41.755	41.785
67.5	37.001	37.059	37.113	37.246	37.345	37.246	37.113	37.059	37.001	37.059
70.0	32.393	32.431	32.485	32.580	32.662	32.580	32.485	32.431	32.393	32.431
72.5	27.867	27.823	27.884	27.969	28.000	27.969	27.884	27.823	27.867	27.823
75.0	23.219	23.191	23.243	23.454	23.379	23.454	23.243	23.191	23.219	23.191
77.5	18.686	18.737	18.799	19.017	18.931	19.017	18.799	18.737	18.686	18.737
80.0	14.392	14.409	14.447	14.596	14.535	14.596	14.447	14.409	14.392	14.409
82.5	10.115	10.169	10.163	10.255	10.163	10.255	10.163	10.169	10.115	10.169
85.0	5.787	5.991	6.005	6.039	5.920	6.039	6.005	5.991	5.787	5.991
87.5	1.772	2.028	2.093	2.086	2.031	2.086	2.093	2.028	1.772	2.028
90.0	0.099	0.286	0.334	0.283	0.222	0.283	0.334	0.286	0.099	0.286
92.5	0.102	0.225	0.266	0.211	0.150	0.211	0.266	0.225	0.102	0.225
95.0	0.112	0.225	0.279	0.222	0.147	0.222	0.279	0.225	0.112	0.225
97.5	0.164	0.232	0.279	0.235	0.164	0.235	0.279	0.232	0.164	0.232
100.0	0.218	0.249	0.307	0.269	0.208	0.269	0.307	0.249	0.218	0.249
102.5	0.269	0.262	0.331	0.303	0.228	0.303	0.331	0.262	0.269	0.262
105.0	0.283	0.259	0.331	0.337	0.228	0.337	0.331	0.259	0.283	0.259
107.5	0.201	0.249	0.269	0.371	0.249	0.371	0.269	0.249	0.201	0.249
110.0	0.130	0.232	0.215	0.382	0.273	0.382	0.215	0.232	0.130	0.232
112.5	0.123	0.225	0.204	0.324	0.303	0.324	0.204	0.225	0.123	0.225
115.0	0.119	0.204	0.218	0.307	0.337	0.307	0.218	0.204	0.119	0.204
117.5	0.119	0.198	0.232	0.331	0.371	0.331	0.232	0.198	0.119	0.198
120.0	0.119	0.208	0.235	0.351	0.399	0.351	0.235	0.208	0.119	0.208
122.5	0.116	0.187	0.239	0.334	0.378	0.334	0.239	0.187	0.116	0.187
125.0	0.119	0.181	0.259	0.327	0.314	0.327	0.259	0.181	0.119	0.181
127.5	0.130	0.170	0.276	0.327	0.290	0.327	0.276	0.170	0.130	0.170
130.0	0.140	0.177	0.286	0.334	0.300	0.334	0.286	0.177	0.140	0.177
132.5	0.153	0.191	0.296	0.351	0.320	0.351	0.296	0.191	0.153	0.191

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135.0	0.174	0.215	0.324	0.378	0.344	0.378	0.324	0.215	0.174	0.215
137.5	0.222	0.245	0.358	0.392	0.371	0.392	0.358	0.245	0.222	0.245
140.0	0.276	0.296	0.395	0.429	0.409	0.429	0.395	0.296	0.276	0.296
142.5	0.351	0.368	0.446	0.477	0.460	0.477	0.446	0.368	0.351	0.368
145.0	0.460	0.467	0.518	0.559	0.542	0.559	0.518	0.467	0.460	0.467
147.5	0.576	0.583	0.620	0.665	0.648	0.665	0.620	0.583	0.576	0.583
150.0	0.716	0.729	0.757	0.784	0.777	0.784	0.757	0.729	0.716	0.729
152.5	0.869	0.886	0.910	0.927	0.930	0.927	0.910	0.886	0.869	0.886
155.0	1.060	1.074	1.080	1.108	1.114	1.108	1.080	1.074	1.060	1.074
157.5	1.295	1.305	1.298	1.343	1.346	1.343	1.298	1.305	1.295	1.305
160.0	1.667	1.667	1.670	1.701	1.711	1.701	1.670	1.667	1.667	1.667
162.5	2.171	2.188	2.167	2.188	2.215	2.188	2.167	2.188	2.171	2.188
165.0	2.788	2.767	2.767	2.784	2.788	2.784	2.767	2.767	2.788	2.767
167.5	3.534	3.551	3.551	3.551	3.531	3.551	3.551	3.551	3.534	3.551
170.0	4.396	4.413	4.403	4.386	4.390	4.386	4.403	4.413	4.396	4.413
172.5	5.180	5.197	5.197	5.173	5.173	5.173	5.197	5.197	5.180	5.197
175.0	5.749	5.708	5.579	5.565	5.613	5.565	5.579	5.708	5.749	5.708
177.5	5.719	5.715	5.705	5.671	5.647	5.671	5.705	5.715	5.719	5.715
180.0	5.763	5.763	5.763	5.763	5.763	5.763	5.763	5.763	5.763	5.763

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	696.350	696.350	696.350	696.350	696.350	696.350	696.350
2.5	692.966	693.600	694.612	693.600	692.966	692.921	693.508
5.0	684.122	684.415	685.608	684.415	684.122	684.170	685.178
7.5	668.878	668.271	669.822	668.271	668.878	669.093	669.205
10.0	646.228	646.552	647.963	646.552	646.228	645.836	645.281
12.5	618.371	619.039	620.014	619.039	618.371	618.695	617.894
15.0	590.088	590.249	590.974	590.249	590.088	589.628	589.724
17.5	559.300	559.331	558.789	559.331	559.300	558.919	559.982
20.0	516.213	517.082	517.737	517.082	516.213	517.092	517.259
22.5	463.468	463.832	464.613	463.832	463.468	465.632	465.983
25.0	405.017	405.034	404.870	405.034	405.017	405.644	406.919
27.5	343.458	343.864	343.172	343.864	343.458	343.148	345.077
30.0	282.660	283.702	283.764	283.702	282.660	282.343	283.205
32.5	227.170	228.459	227.999	228.459	227.170	226.659	226.707
35.0	180.760	181.752	181.667	181.752	180.760	180.021	180.730
37.5	146.769	147.106	147.382	147.106	146.769	146.585	146.650
40.0	123.520	123.976	124.092	123.976	123.520	123.618	123.547
42.5	107.386	107.638	107.543	107.638	107.386	107.614	107.795
45.0	95.294	95.305	95.264	95.305	95.294	95.479	95.731
47.5	85.749	85.738	85.745	85.738	85.749	85.878	85.987
50.0	78.145	78.183	78.207	78.183	78.145	78.295	78.357
52.5	71.012	71.091	71.057	71.091	71.012	71.254	71.353
55.0	63.989	64.108	64.098	64.108	63.989	64.084	64.231
57.5	57.786	57.929	57.953	57.929	57.786	57.800	57.813
60.0	51.883	52.078	52.095	52.078	51.883	51.870	51.788
62.5	46.604	46.717	46.751	46.717	46.604	46.601	46.584
65.0	41.847	41.993	42.048	41.993	41.847	41.785	41.755
67.5	37.113	37.246	37.345	37.246	37.113	37.059	37.001
70.0	32.485	32.580	32.662	32.580	32.485	32.431	32.393
72.5	27.884	27.969	28.000	27.969	27.884	27.823	27.867
75.0	23.243	23.454	23.379	23.454	23.243	23.191	23.219
77.5	18.799	19.017	18.931	19.017	18.799	18.737	18.686
80.0	14.447	14.596	14.535	14.596	14.447	14.409	14.392

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82.5	10.163	10.255	10.163	10.255	10.163	10.169	10.115
85.0	6.005	6.039	5.920	6.039	6.005	5.991	5.787
87.5	2.093	2.086	2.031	2.086	2.093	2.028	1.772
90.0	0.334	0.283	0.222	0.283	0.334	0.286	0.099
92.5	0.266	0.211	0.150	0.211	0.266	0.225	0.102
95.0	0.279	0.222	0.147	0.222	0.279	0.225	0.112
97.5	0.279	0.235	0.164	0.235	0.279	0.232	0.164
100.0	0.307	0.269	0.208	0.269	0.307	0.249	0.218
102.5	0.331	0.303	0.228	0.303	0.331	0.262	0.269
105.0	0.331	0.337	0.228	0.337	0.331	0.259	0.283
107.5	0.269	0.371	0.249	0.371	0.269	0.249	0.201
110.0	0.215	0.382	0.273	0.382	0.215	0.232	0.130
112.5	0.204	0.324	0.303	0.324	0.204	0.225	0.123
115.0	0.218	0.307	0.337	0.307	0.218	0.204	0.119
117.5	0.232	0.331	0.371	0.331	0.232	0.198	0.119
120.0	0.235	0.351	0.399	0.351	0.235	0.208	0.119
122.5	0.239	0.334	0.378	0.334	0.239	0.187	0.116
125.0	0.259	0.327	0.314	0.327	0.259	0.181	0.119
127.5	0.276	0.327	0.290	0.327	0.276	0.170	0.130
130.0	0.286	0.334	0.300	0.334	0.286	0.177	0.140
132.5	0.296	0.351	0.320	0.351	0.296	0.191	0.153
135.0	0.324	0.378	0.344	0.378	0.324	0.215	0.174
137.5	0.358	0.392	0.371	0.392	0.358	0.245	0.222
140.0	0.395	0.429	0.409	0.429	0.395	0.296	0.276
142.5	0.446	0.477	0.460	0.477	0.446	0.368	0.351
145.0	0.518	0.559	0.542	0.559	0.518	0.467	0.460
147.5	0.620	0.665	0.648	0.665	0.620	0.583	0.576
150.0	0.757	0.784	0.777	0.784	0.757	0.729	0.716
152.5	0.910	0.927	0.930	0.927	0.910	0.886	0.869
155.0	1.080	1.108	1.114	1.108	1.080	1.074	1.060
157.5	1.298	1.343	1.346	1.343	1.298	1.305	1.295
160.0	1.670	1.701	1.711	1.701	1.670	1.667	1.667
162.5	2.167	2.188	2.215	2.188	2.167	2.188	2.171
165.0	2.767	2.784	2.788	2.784	2.767	2.767	2.788
167.5	3.551	3.551	3.531	3.551	3.551	3.551	3.534
170.0	4.403	4.386	4.390	4.386	4.403	4.413	4.396
172.5	5.197	5.173	5.173	5.173	5.197	5.197	5.180
175.0	5.579	5.565	5.613	5.565	5.579	5.708	5.749
177.5	5.705	5.671	5.647	5.671	5.705	5.715	5.719
180.0	5.763	5.763	5.763	5.763	5.763	5.763	5.763

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	228.84	N.A.	31.00
0-30	412.35	N.A.	55.80
0-40	529.53	N.A.	71.70
0-60	662.19	N.A.	89.60
0-80	728.40	N.A.	98.60
0-90	735.35	N.A.	99.50
10-90	671.22	N.A.	90.90
20-40	300.69	N.A.	40.70
20-50	375.68	N.A.	50.90
40-70	174.21	N.A.	23.60
60-80	66.21	N.A.	9.00
70-80	24.67	N.A.	3.30
80-90	6.95	N.A.	0.90
90-110	0.54	N.A.	0.10
90-120	0.79	N.A.	0.10
90-130	1.02	N.A.	0.10
90-150	1.57	N.A.	0.20
90-180	3.36	N.A.	0.50
110-180	2.82	N.A.	0.40
0-180	738.71	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

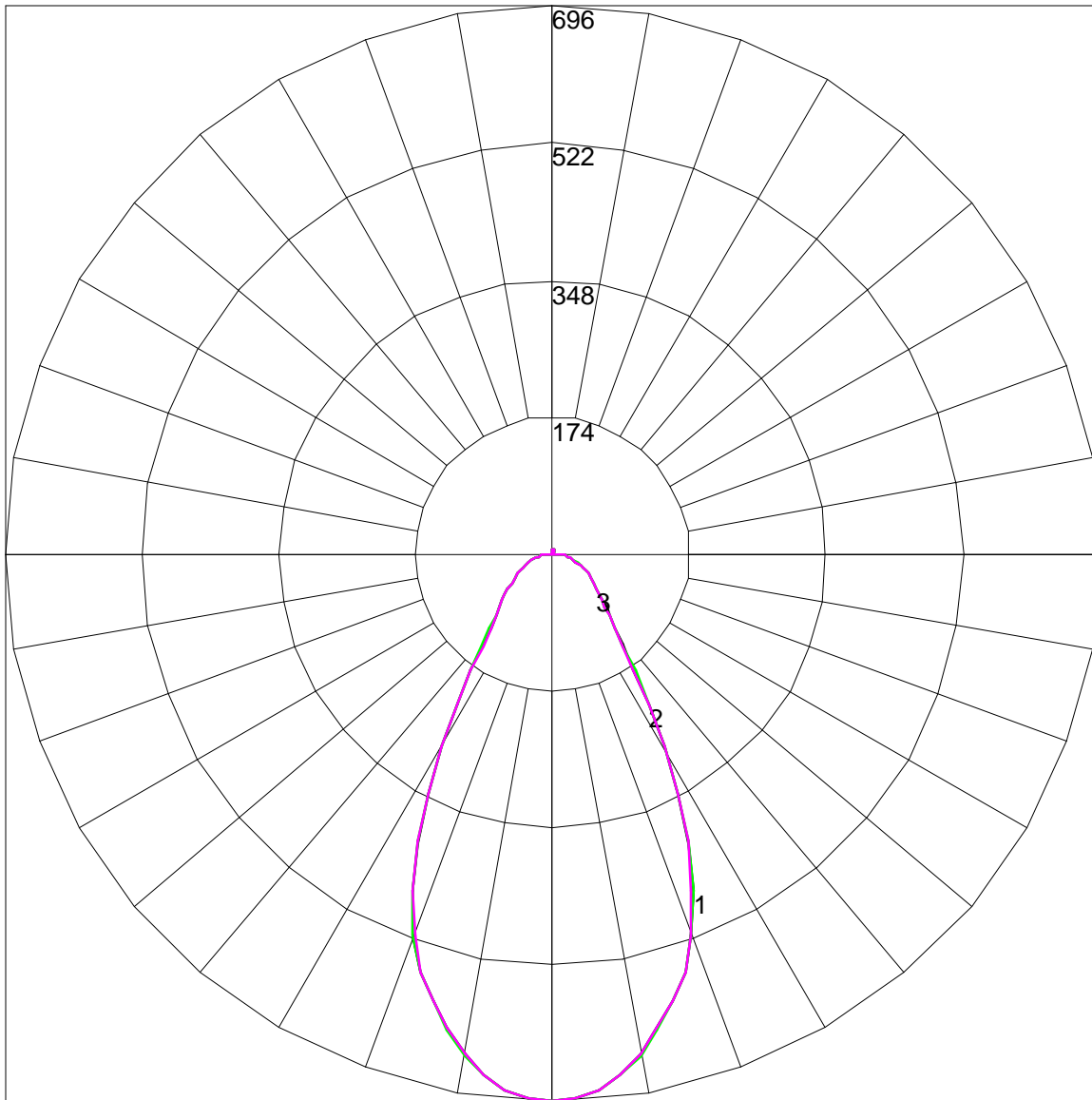
Zone	Lumens
0-10	64.13
10-20	164.71
20-30	183.51
30-40	117.18
40-50	74.99
50-60	57.68
60-70	41.54
70-80	24.67
80-90	6.95
90-100	0.25
100-110	0.30
110-120	0.25
120-130	0.22
130-140	0.23
140-150	0.33
150-160	0.51
160-170	0.78
170-180	0.50

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	98	92	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	67	74	70	67	65
5	86	76	68	63	84	74	68	63	73	67	62	71	66	62	69	65	61	59
6	81	70	63	58	79	69	62	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	45	54	49	45	44
10	65	54	47	43	64	53	47	43	53	47	43	52	46	43	51	46	42	41

POLAR GRAPH



Maximum Candela = 696.35 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)