

IES INDOOR REPORT**PHOTOMETRIC FILENAME : SGE5LEDOS-20L35KE1-AR5224OSMWSO.IES****DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002
[TEST]20141006_M-20L-Gen3
[TESTLAB]OSRAM SYLVANIA
[TESTDATE]8/12/2014
[ISSUEDATE]8/12/2014
[UPDATE]1/4/2017
[MANUFAC]Spectrum Lighting
[LUMCAT]SGE5LEDOS-20L-35K-EX-AR5224OS-MW-SO
[LUMINAIRE]5" DIAM., OPEN APERTURE LED DOWNLIGHT
[OTHER]DEEP PROFILE, MATTE WHITE LOWER CONE
[OTHER]INTEGRAL, REGRESSED SOLITE GLASS LENS
[OTHER]56.2 DEGREE BEAM ANGLE
[LAMP]N/A
[LAMPCAT]N/A
[OTHER]TOTAL LUMINAIRE WATTS IS APPROXIMATE
[OTHER]PHOTOMETRIC MEASUREMENTS TAKEN AT 120VAC
[OTHER]CCT OUTPUT MULTIPLIERS: 40K x 1.0, 30K x 1.0, 27K x 0.945
[OTHER]CATALOG NUMBER DESIGNATION UPDATE: 25W NOW CALLED 20L
[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	1668
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	82
Total Luminaire Watts	20.24
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.88
Spacing Criterion (90-270)	0.88
Spacing Criterion (Diagonal)	0.86
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.42 ft (Diameter)
Luminous Width (90-270)	0.42 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	20851	20848	20819
55	15625	15685	15715
65	13641	13792	13954
75	11976	12117	12234
85	9101	9455	9390

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PHOTOMETRIC FILENAME : SGE5LEDOS-20L35KE1-AR5224OSMWSO.IES

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	1684.766	1684.766	1684.766	1684.766	1684.766	1684.766	1684.766	1684.766	1684.766	1684.766
2.5	1677.804	1675.908	1677.826	1679.353	1680.569	1679.353	1677.826	1675.908	1677.804	1675.908
5.0	1652.620	1650.738	1651.910	1650.058	1649.537	1650.058	1651.910	1650.738	1652.620	1650.738
7.5	1606.086	1604.530	1602.764	1599.167	1601.577	1599.167	1602.764	1604.530	1606.086	1604.530
10.0	1536.914	1535.959	1533.788	1534.150	1535.880	1534.150	1533.788	1535.959	1536.914	1535.959
12.5	1456.367	1455.332	1455.853	1455.093	1453.095	1455.093	1455.853	1455.332	1456.367	1455.332
15.0	1375.841	1375.247	1373.452	1373.322	1374.567	1373.322	1373.452	1375.247	1375.841	1375.247
17.5	1293.230	1293.853	1290.806	1292.239	1291.443	1292.239	1290.806	1293.853	1293.230	1293.853
20.0	1216.033	1215.729	1217.227	1216.446	1216.807	1216.446	1217.227	1215.729	1216.033	1215.729
22.5	1134.783	1136.665	1136.014	1135.123	1135.521	1135.123	1136.014	1136.665	1134.783	1136.665
25.0	1022.639	1022.429	1019.331	1019.151	1021.568	1019.151	1019.331	1022.429	1022.639	1022.429
27.5	881.930	884.050	879.701	878.022	877.855	878.022	879.701	884.050	881.930	884.050
30.0	729.005	730.047	727.557	725.676	725.328	725.676	727.557	730.047	729.005	730.047
32.5	578.106	578.461	576.999	575.139	575.725	575.139	576.999	578.461	578.106	578.461
35.0	441.710	444.359	442.644	440.212	441.001	440.212	442.644	444.359	441.710	444.359
37.5	338.641	339.408	337.447	337.563	339.669	337.563	337.447	339.408	338.641	339.408
40.0	269.405	269.528	268.297	268.073	269.101	268.073	268.297	269.528	269.405	269.528
42.5	223.363	224.144	223.102	222.473	222.393	222.473	223.102	224.144	223.363	224.144
45.0	189.950	190.557	189.921	189.363	189.660	189.363	189.921	190.557	189.950	190.557
47.5	166.075	166.082	165.792	165.626	165.952	165.626	165.792	166.082	166.075	166.082
50.0	147.903	147.975	147.852	147.490	147.613	147.490	147.852	147.975	147.903	147.975
52.5	130.823	130.968	130.939	130.613	130.679	130.613	130.939	130.968	130.823	130.968
55.0	115.459	115.676	115.901	115.987	116.125	115.987	115.901	115.676	115.459	115.676
57.5	103.721	104.126	104.611	105.002	105.067	105.002	104.611	104.126	103.721	104.126
60.0	92.815	93.249	93.849	94.515	94.624	94.515	93.849	93.249	92.815	93.249
62.5	83.472	83.761	84.326	84.955	85.259	84.955	84.326	83.761	83.472	83.761
65.0	74.273	74.541	75.091	75.612	75.974	75.612	75.091	74.541	74.273	74.541
67.5	65.350	65.640	66.103	66.472	66.732	66.472	66.103	65.640	65.350	65.640
70.0	56.847	56.962	57.303	57.715	57.882	57.715	57.303	56.962	56.847	56.962
72.5	48.321	48.437	48.748	49.190	49.291	49.190	48.748	48.437	48.321	48.437
75.0	39.934	40.223	40.404	40.773	40.795	40.773	40.404	40.223	39.934	40.223
77.5	32.082	32.357	32.458	32.690	32.668	32.690	32.458	32.357	32.082	32.357
80.0	24.613	24.888	24.931	25.018	25.018	25.018	24.931	24.888	24.613	24.888
82.5	17.318	17.629	17.781	17.673	17.622	17.673	17.781	17.629	17.318	17.629
85.0	10.219	10.544	10.617	10.559	10.544	10.559	10.617	10.544	10.219	10.544
87.5	3.611	3.908	3.922	3.915	3.843	3.915	3.922	3.908	3.611	3.908
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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PHOTOMETRIC FILENAME : SGE5LEDOS-20L35KE1-AR5224OSMWSO.IES

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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	1684.766	1684.766	1684.766	1684.766	1684.766	1684.766	1684.766
2.5	1677.826	1679.353	1680.569	1679.353	1677.826	1675.908	1677.804
5.0	1651.910	1650.058	1649.537	1650.058	1651.910	1650.738	1652.620
7.5	1602.764	1599.167	1601.577	1599.167	1602.764	1604.530	1606.086
10.0	1533.788	1534.150	1535.880	1534.150	1533.788	1535.959	1536.914
12.5	1455.853	1455.093	1453.095	1455.093	1455.853	1455.332	1456.367
15.0	1373.452	1373.322	1374.567	1373.322	1373.452	1375.247	1375.841
17.5	1290.806	1292.239	1291.443	1292.239	1290.806	1293.853	1293.230
20.0	1217.227	1216.446	1216.807	1216.446	1217.227	1215.729	1216.033
22.5	1136.014	1135.123	1135.521	1135.123	1136.014	1136.665	1134.783
25.0	1019.331	1019.151	1021.568	1019.151	1019.331	1022.429	1022.639
27.5	879.701	878.022	877.855	878.022	879.701	884.050	881.930
30.0	727.557	725.676	725.328	725.676	727.557	730.047	729.005
32.5	576.999	575.139	575.725	575.139	576.999	578.461	578.106
35.0	442.644	440.212	441.001	440.212	442.644	444.359	441.710
37.5	337.447	337.563	339.669	337.563	337.447	339.408	338.641
40.0	268.297	268.073	269.101	268.073	268.297	269.528	269.405
42.5	223.102	222.473	222.393	222.473	223.102	224.144	223.363
45.0	189.921	189.363	189.660	189.363	189.921	190.557	189.950
47.5	165.792	165.626	165.952	165.626	165.792	166.082	166.075
50.0	147.852	147.490	147.613	147.490	147.852	147.975	147.903
52.5	130.939	130.613	130.679	130.613	130.939	130.968	130.823
55.0	115.901	115.987	116.125	115.987	115.901	115.676	115.459
57.5	104.611	105.002	105.067	105.002	104.611	104.126	103.721
60.0	93.849	94.515	94.624	94.515	93.849	93.249	92.815
62.5	84.326	84.955	85.259	84.955	84.326	83.761	83.472
65.0	75.091	75.612	75.974	75.612	75.091	74.541	74.273
67.5	66.103	66.472	66.732	66.472	66.103	65.640	65.350
70.0	57.303	57.715	57.882	57.715	57.303	56.962	56.847
72.5	48.748	49.190	49.291	49.190	48.748	48.437	48.321
75.0	40.404	40.773	40.795	40.773	40.404	40.223	39.934
77.5	32.458	32.690	32.668	32.690	32.458	32.357	32.082
80.0	24.931	25.018	25.018	25.018	24.931	24.888	24.613

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PHOTOMETRIC FILENAME : SGE5LEDOS-20L35KE1-AR5224OSMWSO.IES

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82.5	17.781	17.673	17.622	17.673	17.781	17.629	17.318
85.0	10.617	10.559	10.544	10.559	10.617	10.544	10.219
87.5	3.922	3.915	3.843	3.915	3.922	3.908	3.611
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	538.83	N.A.	32.30
0-30	996.00	N.A.	59.70
0-40	1281.71	N.A.	76.90
0-60	1538.27	N.A.	92.20
0-80	1655.7	N.A.	99.30
0-90	1667.8	N.A.	100.00
10-90	1513.93	N.A.	90.80
20-40	742.88	N.A.	44.50
20-50	894.04	N.A.	53.60
40-70	331.05	N.A.	19.80
60-80	117.43	N.A.	7.00
70-80	42.94	N.A.	2.60
80-90	12.10	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	1667.8	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	153.87
10-20	384.96
20-30	457.17
30-40	285.71
40-50	151.16
50-60	105.40
60-70	74.49
70-80	42.94
80-90	12.10
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	103	109	106	104	101	102	100	98	98	97	95	95	93	92	90
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	85	83	81
3	99	91	85	80	96	89	84	79	87	82	78	84	80	77	82	78	76	74
4	93	84	77	72	91	83	76	72	80	75	71	78	74	70	76	72	69	67
5	87	78	71	66	86	77	70	65	75	69	65	73	68	64	71	67	64	62
6	82	72	65	60	81	71	65	60	70	64	60	68	63	59	67	62	59	57
7	78	67	61	56	76	67	60	56	65	60	55	64	59	55	63	58	55	53
8	74	63	56	52	73	63	56	52	61	56	51	60	55	51	59	55	51	49
9	70	59	53	48	69	59	53	48	58	52	48	57	52	48	56	51	48	46
10	67	56	50	45	66	56	49	45	55	49	45	54	49	45	53	48	45	43

POLAR GRAPH



Maximum Candela = 1684.766 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)