

IES INDOOR REPORT**PHOTOMETRIC FILENAME : SGE4LEDOS-45L35KEX-AR4223OSSGSO.IES****DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002
[TEST] 102560753CRT-004_M-45L
[TESTLAB] Intertek
[ISSUE DATE] 09/19/2016
[UPDATE] 1/3/2017
[LAB-REF LUMCAT] CRT1609071034-002_M-45L
[MANUFAC] Spectrum Lighting
[LUMCAT] SGE4LEDOS-45L-35K-EX-AR4223OS-SG-SO
[LUMINAIRE] 4" DIAM. LED DOWNLIGHT SEMI-DIFFUSE CLEAR ANODIZED CONE
[OTHER] SHALLOW PROFILE
[OTHER] REGRESSED, INTEGRAL SOLITE GLASS LENS
[OTHER] 48.5 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] THIS REPORT UPDATED BY SPECTRUM LIGHTING, SCALED FROM 30L

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3502
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)	0.74
Spacing Criterion (90-270)	0.74
Spacing Criterion (Diagonal)	0.80
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	59238	58922	59448
55	25273	25046	25662
65	4755	4755	5020
75	0	0	0
85	0	0	0

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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	4702.404	4702.404	4702.404	4702.404	4702.404	4702.404	4702.404	4702.404	4702.404	4702.404
2.5	4680.796	4685.236	4691.304	4676.060	4682.868	4676.060	4691.304	4685.236	4680.796	4685.236
5.0	4571.424	4580.156	4578.380	4573.348	4562.100	4573.348	4578.380	4580.156	4571.424	4580.156
7.5	4377.692	4367.480	4389.088	4379.468	4386.424	4379.468	4389.088	4367.480	4377.692	4367.480
10.0	4117.508	4099.008	4105.224	4110.108	4105.816	4110.108	4105.224	4099.008	4117.508	4099.008
12.5	3787.764	3780.364	3770.448	3747.360	3780.808	3747.360	3770.448	3780.364	3787.764	3780.364
15.0	3448.104	3437.744	3429.900	3448.548	3461.276	3448.548	3429.900	3437.744	3448.104	3437.744
17.5	3093.792	3109.184	3103.412	3140.264	3122.652	3140.264	3103.412	3109.184	3093.792	3109.184
20.0	2816.292	2825.172	2828.724	2814.220	2819.992	2814.220	2828.724	2825.172	2816.292	2825.172
22.5	2530.356	2522.364	2550.928	2548.412	2562.768	2548.412	2550.928	2522.364	2530.356	2522.364
25.0	2286.304	2272.540	2286.156	2263.512	2244.864	2263.512	2286.156	2272.540	2286.304	2272.540
27.5	1989.120	1976.244	1969.140	1979.056	1991.636	1979.056	1969.140	1976.244	1989.120	1976.244
30.0	1689.864	1679.800	1673.436	1681.428	1700.520	1681.428	1673.436	1679.800	1689.864	1679.800
32.5	1388.240	1387.056	1391.348	1386.908	1383.060	1386.908	1391.348	1387.056	1388.240	1387.056
35.0	1099.196	1101.564	1108.372	1102.452	1097.124	1102.452	1108.372	1101.564	1099.196	1101.564
37.5	834.424	836.348	841.232	837.828	835.164	837.828	841.232	836.348	834.424	836.348
40.0	613.756	613.608	612.276	615.532	615.680	615.532	612.276	613.608	613.756	613.608
42.5	447.256	446.220	442.224	449.180	450.512	449.180	442.224	446.220	447.256	446.220
45.0	333.148	333.296	331.372	333.148	334.332	333.148	331.372	333.296	333.148	333.296
47.5	253.228	252.932	251.748	253.080	253.672	253.080	251.748	252.932	253.228	252.932
50.0	196.396	194.916	194.324	195.952	196.692	195.952	194.324	194.916	196.396	194.916
52.5	151.996	150.368	149.480	152.440	152.884	152.440	149.480	150.368	151.996	150.368
55.0	115.292	114.404	114.256	116.328	117.068	116.328	114.256	114.404	115.292	114.404
57.5	85.544	85.544	85.248	87.024	86.728	87.024	85.248	85.544	85.544	85.544
60.0	59.644	60.532	60.384	61.124	61.420	61.124	60.384	60.532	59.644	60.532
62.5	37.148	37.000	36.852	37.740	37.740	37.740	36.852	37.000	37.148	37.000
65.0	15.984	16.132	15.984	16.280	16.872	16.280	15.984	16.132	15.984	16.132
67.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
70.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
72.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
75.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
77.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
80.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
82.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
85.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
87.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
90.0	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	4702.404	4702.404	4702.404	4702.404	4702.404	4702.404	4702.404
2.5	4691.304	4676.060	4682.868	4676.060	4691.304	4685.236	4680.796
5.0	4578.380	4573.348	4562.100	4573.348	4578.380	4580.156	4571.424
7.5	4389.088	4379.468	4386.424	4379.468	4389.088	4367.480	4377.692
10.0	4105.224	4110.108	4105.816	4110.108	4105.224	4099.008	4117.508
12.5	3770.448	3747.360	3780.808	3747.360	3770.448	3780.364	3787.764
15.0	3429.900	3448.548	3461.276	3448.548	3429.900	3437.744	3448.104
17.5	3103.412	3140.264	3122.652	3140.264	3103.412	3109.184	3093.792
20.0	2828.724	2814.220	2819.992	2814.220	2828.724	2825.172	2816.292
22.5	2550.928	2548.412	2562.768	2548.412	2550.928	2522.364	2530.356
25.0	2286.156	2263.512	2244.864	2263.512	2286.156	2272.540	2286.304
27.5	1969.140	1979.056	1991.636	1979.056	1969.140	1976.244	1989.120
30.0	1673.436	1681.428	1700.520	1681.428	1673.436	1679.800	1689.864

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CANDELA TABULATION - (Cont.)

32.5	1391.348	1386.908	1383.060	1386.908	1391.348	1387.056	1388.240
35.0	1108.372	1102.452	1097.124	1102.452	1108.372	1101.564	1099.196
37.5	841.232	837.828	835.164	837.828	841.232	836.348	834.424
40.0	612.276	615.532	615.680	615.532	612.276	613.608	613.756
42.5	442.224	449.180	450.512	449.180	442.224	446.220	447.256
45.0	331.372	333.148	334.332	333.148	331.372	333.296	333.148
47.5	251.748	253.080	253.672	253.080	251.748	252.932	253.228
50.0	194.324	195.952	196.692	195.952	194.324	194.916	196.396
52.5	149.480	152.440	152.884	152.440	149.480	150.368	151.996
55.0	114.256	116.328	117.068	116.328	114.256	114.404	115.292
57.5	85.248	87.024	86.728	87.024	85.248	85.544	85.544
60.0	60.384	61.124	61.420	61.124	60.384	60.532	59.644
62.5	36.852	37.740	37.740	37.740	36.852	37.000	37.148
65.0	15.984	16.280	16.872	16.280	15.984	16.132	15.984
67.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
70.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
72.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
75.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
77.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
80.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
82.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
85.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
87.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
90.0	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	1380.36	N.A.	39.40
0-30	2411.63	N.A.	68.90
0-40	3101.37	N.A.	88.60
0-60	3481.92	N.A.	99.40
0-80	3502.29	N.A.	100.00
0-90	3502.29	N.A.	100.00
10-90	3080.67	N.A.	88.00
20-40	1721.01	N.A.	49.10
20-50	1994.93	N.A.	57.00
40-70	400.92	N.A.	11.40
60-80	20.37	N.A.	0.60
70-80	0.00	N.A.	0.00
80-90	0.00	N.A.	0.00
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	3502.29	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	421.62
10-20	958.74
20-30	1031.27
30-40	689.74
40-50	273.92
50-60	106.63
60-70	20.37
70-80	0.00
80-90	0.00
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

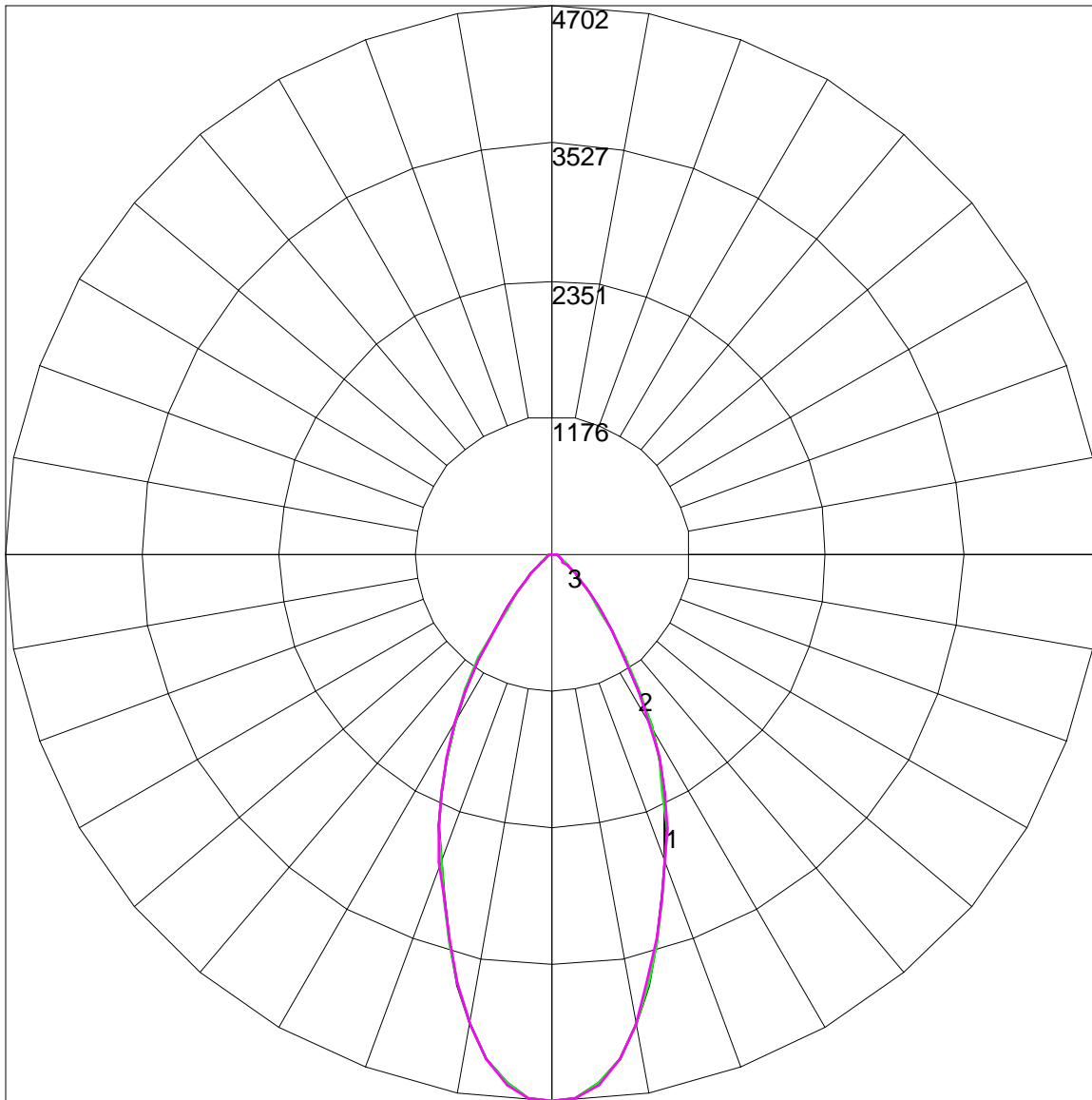
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	113	111	108	106	111	108	106	104	104	103	101	101	99	98	97	96	95	93
2	108	103	99	95	105	101	97	94	98	95	92	95	92	90	92	90	88	87
3	102	96	91	87	100	94	90	86	92	88	84	89	86	83	87	84	82	80
4	97	89	84	79	95	88	83	79	86	81	78	84	80	77	82	79	76	75
5	92	83	78	73	90	82	77	73	81	76	72	79	75	72	77	74	71	69
6	87	78	72	68	86	77	72	68	76	71	67	75	70	67	73	69	66	65
7	83	74	67	63	82	73	67	63	72	66	63	70	66	62	69	65	62	61
8	79	69	63	59	78	69	63	59	68	62	59	67	62	58	66	61	58	57
9	75	65	60	56	74	65	59	55	64	59	55	63	58	55	62	58	55	53
10	72	62	56	52	71	62	56	52	61	56	52	60	55	52	59	55	52	50

POLAR GRAPH



Maximum Candela = 4702.404 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)