

IES INDOOR REPORT**PHOTOMETRIC FILENAME : SGE4LEDOS-20L35KEX-AR4224OSSGSO.IES****DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002
[TEST] 102560753CRT-005_M-20L
[TESTLAB] Intertek
[ISSUE DATE] 09/19/2016
[UPDATE] 1/4/2017
[LAB-REF LUMCAT] CRT1609071034-002-2_M-20L
[MANUFAC] Spectrum Lighting
[LUMCAT] SGE4LEDOS-20L-35K-EX-AR4224OS-SG-SO
[LUMINAIRE] 4" DIAM. LED DOWNLIGHT SEMI-DIFFUSE CLEAR ANODIZED CONE
[OTHER] DEEP PROFILE
[OTHER] REGRESSED, INTEGRAL SOLITE GLASS LENS
[OTHER] 51.1 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	1660
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)	0.82
Spacing Criterion (90-270)	0.82
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	29390	28963	29106
55	10015	9728	9648
65	1688	1537	1558
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	2187.374	2187.374	2187.374	2187.374	2187.374	2187.374	2187.374	2187.374	2187.374	2187.374
2.5	2175.662	2178.499	2174.643	2175.662	2174.716	2175.662	2174.643	2178.499	2175.662	2178.499
5.0	2147.289	2142.051	2141.251	2156.092	2151.800	2156.092	2141.251	2142.051	2147.289	2142.051
7.5	2086.397	2089.089	2094.182	2096.728	2085.815	2096.728	2094.182	2089.089	2086.397	2089.089
10.0	1999.970	2006.227	1996.624	2006.372	2013.284	2006.372	1996.624	2006.227	1999.970	2006.227
12.5	1893.392	1892.373	1891.136	1886.917	1890.773	1886.917	1891.136	1892.373	1893.392	1892.373
15.0	1785.794	1776.919	1769.862	1765.133	1782.666	1765.133	1769.862	1776.919	1785.794	1776.919
17.5	1642.331	1648.442	1637.457	1649.388	1651.789	1649.388	1637.457	1648.442	1642.331	1648.442
20.0	1502.724	1508.035	1488.320	1502.870	1500.251	1502.870	1488.320	1508.035	1502.724	1508.035
22.5	1334.235	1333.726	1315.684	1324.414	1325.723	1324.414	1315.684	1333.726	1334.235	1333.726
25.0	1140.211	1139.120	1134.464	1130.171	1136.937	1130.171	1134.464	1139.120	1140.211	1139.120
27.5	933.455	939.494	933.092	932.000	934.401	932.000	933.092	939.494	933.455	939.494
30.0	744.960	745.833	742.268	740.013	736.376	740.013	742.268	745.833	744.960	745.833
32.5	568.760	568.541	568.760	563.740	563.231	563.740	568.760	568.541	568.760	568.541
35.0	425.515	423.987	419.549	419.622	423.332	419.622	419.549	423.987	425.515	423.987
37.5	321.628	319.955	315.662	316.899	320.537	316.899	315.662	319.955	321.628	319.955
40.0	252.661	253.025	250.769	250.478	252.443	250.478	250.769	253.025	252.661	253.025
42.5	204.282	203.700	202.245	202.391	203.336	202.391	202.245	203.700	204.282	203.700
45.0	165.288	164.051	162.887	162.669	163.688	162.669	162.887	164.051	165.288	164.051
47.5	130.295	128.913	127.676	127.531	128.695	127.531	127.676	128.913	130.295	128.913
50.0	98.867	97.631	96.467	95.957	96.903	95.957	96.467	97.631	98.867	97.631
52.5	69.913	69.549	68.603	67.585	68.458	67.585	68.603	69.549	69.913	69.549
55.0	45.687	45.105	44.378	43.941	44.014	43.941	44.378	45.105	45.687	45.105
57.5	26.845	26.190	25.463	25.390	25.463	25.390	25.463	26.190	26.845	26.190
60.0	14.914	14.477	13.968	13.750	13.677	13.750	13.968	14.477	14.914	14.477
62.5	9.458	9.312	8.948	8.366	8.585	8.366	8.948	9.312	9.458	9.312
65.0	5.675	5.602	5.165	5.020	5.238	5.020	5.165	5.602	5.675	5.602
67.5	3.128	2.910	2.837	2.401	2.474	2.401	2.837	2.910	3.128	2.910
70.0	1.019	1.164	0.946	0.655	0.655	0.655	0.946	1.164	1.019	1.164
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	2187.374	2187.374	2187.374	2187.374	2187.374	2187.374	2187.374
2.5	2174.643	2175.662	2174.716	2175.662	2174.643	2178.499	2175.662
5.0	2141.251	2156.092	2151.800	2156.092	2141.251	2142.051	2147.289
7.5	2094.182	2096.728	2085.815	2096.728	2094.182	2089.089	2086.397
10.0	1996.624	2006.372	2013.284	2006.372	1996.624	2006.227	1999.970
12.5	1891.136	1886.917	1890.773	1886.917	1891.136	1892.373	1893.392
15.0	1769.862	1765.133	1782.666	1765.133	1769.862	1776.919	1785.794
17.5	1637.457	1649.388	1651.789	1649.388	1637.457	1648.442	1642.331
20.0	1488.320	1502.870	1500.251	1502.870	1488.320	1508.035	1502.724
22.5	1315.684	1324.414	1325.723	1324.414	1315.684	1333.726	1334.235
25.0	1134.464	1130.171	1136.937	1130.171	1134.464	1139.120	1140.211
27.5	933.092	932.000	934.401	932.000	933.092	939.494	933.455
30.0	742.268	740.013	736.376	740.013	742.268	745.833	744.960

IES INDOOR REPORT
PHOTOMETRIC FILENAME : SGE4LEDOS-20L35KEX-AR4224OSSGSO.IES

CANDELA TABULATION - (Cont.)

32.5	568.760	563.740	563.231	563.740	568.760	568.541	568.760
35.0	419.549	419.622	423.332	419.622	419.549	423.987	425.515
37.5	315.662	316.899	320.537	316.899	315.662	319.955	321.628
40.0	250.769	250.478	252.443	250.478	250.769	253.025	252.661
42.5	202.245	202.391	203.336	202.391	202.245	203.700	204.282
45.0	162.887	162.669	163.688	162.669	162.887	164.051	165.288
47.5	127.676	127.531	128.695	127.531	127.676	128.913	130.295
50.0	96.467	95.957	96.903	95.957	96.467	97.631	98.867
52.5	68.603	67.585	68.458	67.585	68.603	69.549	69.913
55.0	44.378	43.941	44.014	43.941	44.378	45.105	45.687
57.5	25.463	25.390	25.463	25.390	25.463	26.190	26.845
60.0	13.968	13.750	13.677	13.750	13.968	14.477	14.914
62.5	8.948	8.366	8.585	8.366	8.948	9.312	9.458
65.0	5.165	5.020	5.238	5.020	5.165	5.602	5.675
67.5	2.837	2.401	2.474	2.401	2.837	2.910	3.128
70.0	0.946	0.655	0.655	0.655	0.946	1.164	1.019
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	693.74	N.A.	41.80
0-30	1206.08	N.A.	72.60
0-40	1483.35	N.A.	89.30
0-60	1654.26	N.A.	99.60
0-80	1660.37	N.A.	100.00
0-90	1660.37	N.A.	100.00
10-90	1459.92	N.A.	87.90
20-40	789.61	N.A.	47.60
20-50	917.58	N.A.	55.30
40-70	176.90	N.A.	10.70
60-80	6.11	N.A.	0.40
70-80	0.12	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	1660.37	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	200.45
10-20	493.29
20-30	512.33
30-40	277.27
40-50	127.97
50-60	42.94
60-70	5.99
70-80	0.12
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

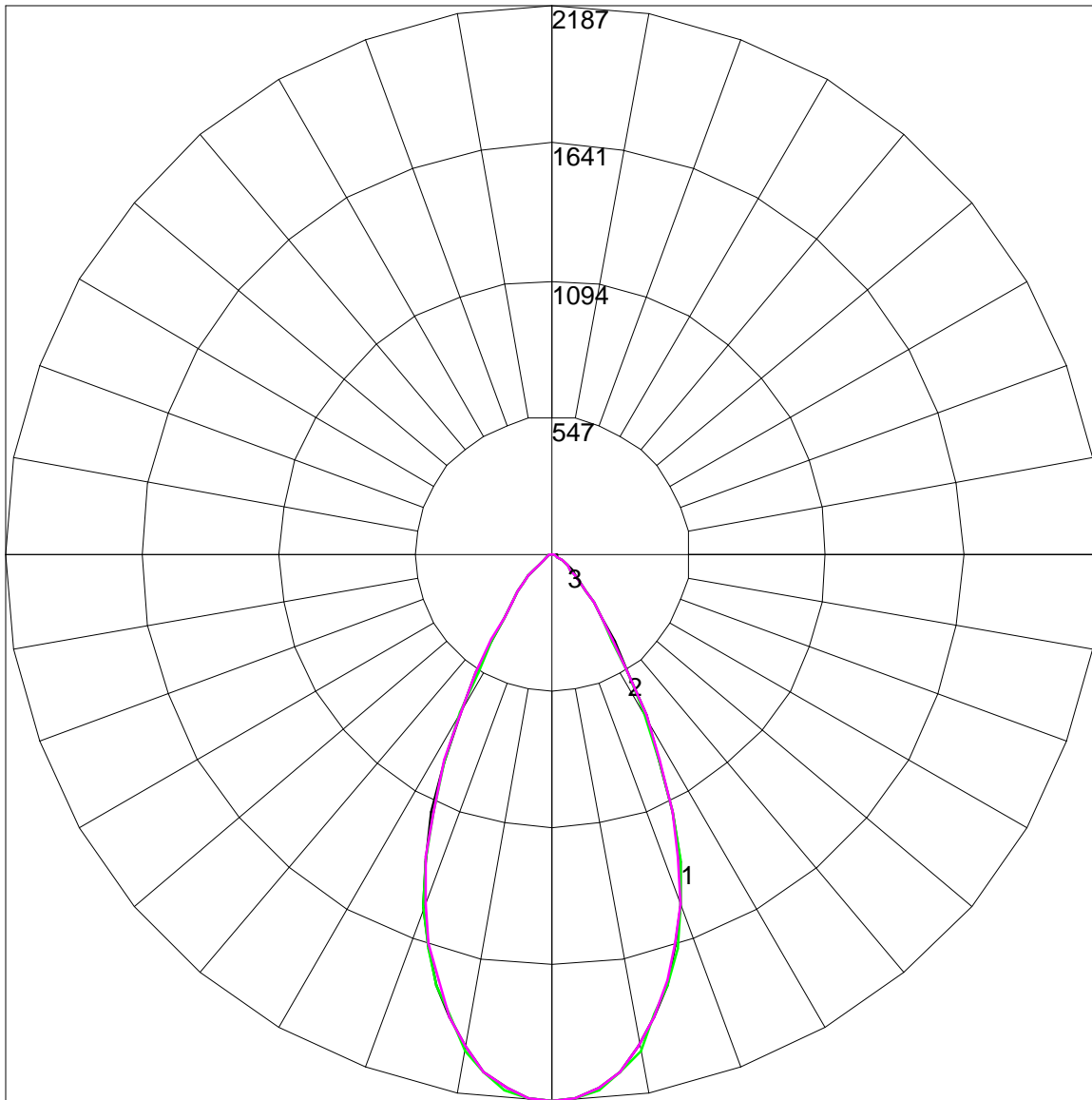
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PHOTOMETRIC FILENAME : SGE4LEDOS-20L35KEX-AR4224OSSGSO.IES

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	114	111	108	106	111	109	106	104	105	103	101	101	100	98	97	96	95	94
2	108	103	99	96	106	101	98	95	98	95	93	95	93	91	92	91	89	87
3	103	96	91	87	101	95	90	87	92	88	85	90	87	84	88	85	83	81
4	97	90	84	80	96	89	84	80	87	82	79	85	81	78	83	80	77	76
5	93	84	79	74	91	83	78	74	82	77	73	80	76	73	78	75	72	71
6	88	79	73	69	87	78	73	69	77	72	68	76	71	68	74	70	67	66
7	84	75	69	65	82	74	68	64	73	68	64	71	67	64	70	66	63	62
8	80	70	65	60	79	70	64	60	69	64	60	68	63	60	67	63	60	58
9	76	67	61	57	75	66	61	57	65	60	57	64	60	56	63	59	56	55
10	73	63	57	54	72	63	57	54	62	57	53	61	57	53	60	56	53	52

POLAR GRAPH



Maximum Candela = 2187.374 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)