

IES INDOOR REPORT**PHOTOMETRIC FILENAME : SGE5LEDOS-20L35KE1-AR5223OSMWSO.IES****DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002
[TEST]20141007_M-20L-Gen3
[TESTLAB]OSRAM SYLVANIA
[TESTDATE]8/12/2014
[ISSUEDATE]8/12/2014
[UPDATE]11/14/2016
[MANUFAC]Spectrum Lighting
[LUMCAT]SGE5LEDOS-20L-35K-EX-AR5223OS-MW-SO
[LUMINAIRE]5" DIAM., OPEN APERTURE LED DOWNLIGHT
[OTHER]SHALLOW PROFILE, MATTE WHITE LOWER CONE
[OTHER]INTEGRAL, REGRESSED SOLITE GLASS LENS
[OTHER]70.2 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	1780
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	88
Total Luminaire Watts	20.24
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.10
Spacing Criterion (90-270)	1.10
Spacing Criterion (Diagonal)	1.04
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	27256	27359	27303
55	15477	15537	15538
65	10115	10163	10194
75	7655	7670	7707
85	6117	6213	6284

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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	1309.969	1309.969	1309.969	1309.969	1309.969	1309.969	1309.969	1309.969	1309.969	1309.969
2.5	1315.310	1311.511	1311.308	1309.600	1308.602	1309.600	1311.308	1311.511	1315.310	1311.511
5.0	1312.531	1306.908	1307.509	1306.546	1304.578	1306.546	1307.509	1306.908	1312.531	1306.908
7.5	1307.096	1301.531	1303.651	1301.748	1299.838	1301.748	1303.651	1301.531	1307.096	1301.531
10.0	1296.863	1294.243	1291.935	1290.357	1290.762	1290.357	1291.935	1294.243	1296.863	1294.243
12.5	1282.693	1277.439	1279.473	1277.063	1274.371	1277.063	1279.473	1277.439	1282.693	1277.439
15.0	1264.919	1260.627	1258.970	1256.481	1257.161	1256.481	1258.970	1260.627	1264.919	1260.627
17.5	1240.205	1237.180	1234.357	1232.374	1231.484	1232.374	1234.357	1237.180	1240.205	1237.180
20.0	1207.891	1203.433	1203.882	1201.740	1199.851	1201.740	1203.882	1203.433	1207.891	1203.433
22.5	1160.735	1155.286	1155.995	1153.252	1154.504	1153.252	1155.995	1155.286	1160.735	1155.286
25.0	1094.799	1092.932	1089.827	1091.173	1088.937	1091.173	1089.827	1092.932	1094.799	1092.932
27.5	1015.148	1011.964	1008.534	1008.606	1009.858	1008.606	1008.534	1011.964	1015.148	1011.964
30.0	917.420	915.401	912.897	910.726	909.959	910.726	912.897	915.401	917.420	915.401
32.5	795.766	791.612	790.736	789.065	789.752	789.065	790.736	791.612	795.766	791.612
35.0	661.512	659.913	659.964	657.966	660.014	657.966	659.964	659.913	661.512	659.913
37.5	530.559	529.698	528.294	529.748	528.771	529.748	528.294	529.698	530.559	529.698
40.0	412.328	412.335	410.852	411.655	412.248	411.655	410.852	412.335	412.328	412.335
42.5	317.473	318.797	318.334	317.321	318.110	317.321	318.334	318.797	317.473	318.797
45.0	248.294	249.517	249.235	248.772	248.728	248.772	249.235	249.517	248.294	249.517
47.5	199.054	199.104	198.721	199.618	199.025	199.618	198.721	199.104	199.054	199.104
50.0	162.427	162.695	162.659	163.216	162.956	163.216	162.659	162.695	162.427	162.695
52.5	135.614	136.157	136.128	135.853	135.976	135.853	136.128	136.157	135.614	136.157
55.0	114.366	115.090	114.808	114.779	114.815	114.779	114.808	115.090	114.366	115.090
57.5	97.135	97.345	97.482	97.880	97.721	97.880	97.482	97.345	97.135	97.345
60.0	81.626	81.887	81.945	82.191	82.125	82.191	81.945	81.887	81.626	81.887
62.5	66.949	67.123	67.348	67.282	67.601	67.282	67.348	67.123	66.949	67.123
65.0	55.074	55.254	55.334	55.421	55.501	55.421	55.334	55.254	55.074	55.254
67.5	43.024	43.111	43.060	43.263	43.321	43.263	43.060	43.111	43.024	43.111
70.0	36.670	36.735	36.677	36.815	36.887	36.815	36.677	36.735	36.670	36.735
72.5	31.011	31.025	31.011	31.083	31.184	31.083	31.011	31.025	31.011	31.025
75.0	25.525	25.576	25.576	25.728	25.699	25.728	25.576	25.576	25.525	25.576
77.5	20.408	20.517	20.473	20.727	20.589	20.727	20.473	20.517	20.408	20.517
80.0	15.668	15.712	15.755	15.979	15.835	15.979	15.755	15.712	15.668	15.712
82.5	11.138	11.181	11.326	11.463	11.319	11.463	11.326	11.181	11.138	11.181
85.0	6.868	7.005	6.976	7.157	7.056	7.157	6.976	7.005	6.868	7.005
87.5	2.931	3.271	3.228	3.184	3.061	3.184	3.228	3.271	2.931	3.271
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-AR5223OSMWSO.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	1309.969	1309.969	1309.969	1309.969	1309.969	1309.969	1309.969
2.5	1311.308	1309.600	1308.602	1309.600	1311.308	1311.511	1315.310
5.0	1307.509	1306.546	1304.578	1306.546	1307.509	1306.908	1312.531
7.5	1303.651	1301.748	1299.838	1301.748	1303.651	1301.531	1307.096
10.0	1291.935	1290.357	1290.762	1290.357	1291.935	1294.243	1296.863
12.5	1279.473	1277.063	1274.371	1277.063	1279.473	1277.439	1282.693
15.0	1258.970	1256.481	1257.161	1256.481	1258.970	1260.627	1264.919
17.5	1234.357	1232.374	1231.484	1232.374	1234.357	1237.180	1240.205
20.0	1203.882	1201.740	1199.851	1201.740	1203.882	1203.433	1207.891
22.5	1155.995	1153.252	1154.504	1153.252	1155.995	1155.286	1160.735
25.0	1089.827	1091.173	1088.937	1091.173	1089.827	1092.932	1094.799
27.5	1008.534	1008.606	1009.858	1008.606	1008.534	1011.964	1015.148
30.0	912.897	910.726	909.959	910.726	912.897	915.401	917.420
32.5	790.736	789.065	789.752	789.065	790.736	791.612	795.766
35.0	659.964	657.966	660.014	657.966	659.964	659.913	661.512
37.5	528.294	529.748	528.771	529.748	528.294	529.698	530.559
40.0	410.852	411.655	412.248	411.655	410.852	412.335	412.328
42.5	318.334	317.321	318.110	317.321	318.334	318.797	317.473
45.0	249.235	248.772	248.728	248.772	249.235	249.517	248.294
47.5	198.721	199.618	199.025	199.618	198.721	199.104	199.054
50.0	162.659	163.216	162.956	163.216	162.659	162.695	162.427
52.5	136.128	135.853	135.976	135.853	136.128	136.157	135.614
55.0	114.808	114.779	114.815	114.779	114.808	115.090	114.366
57.5	97.482	97.880	97.721	97.880	97.482	97.345	97.135
60.0	81.945	82.191	82.125	82.191	81.945	81.887	81.626
62.5	67.348	67.282	67.601	67.282	67.348	67.123	66.949
65.0	55.334	55.421	55.501	55.421	55.334	55.254	55.074
67.5	43.060	43.263	43.321	43.263	43.060	43.111	43.024
70.0	36.677	36.815	36.887	36.815	36.677	36.735	36.670
72.5	31.011	31.083	31.184	31.083	31.011	31.025	31.011
75.0	25.576	25.728	25.699	25.728	25.576	25.576	25.525
77.5	20.473	20.727	20.589	20.727	20.473	20.517	20.408
80.0	15.755	15.979	15.835	15.979	15.755	15.712	15.668

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PHOTOMETRIC FILENAME : SGE5LEDOS-20L35KE1-AR5223OSMWSO.IES

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82.5	11.326	11.463	11.319	11.463	11.326	11.181	11.138
85.0	6.976	7.157	7.056	7.157	6.976	7.005	6.868
87.5	3.228	3.184	3.061	3.184	3.228	3.271	2.931
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	478.87	N.A.	26.90
0-30	974.33	N.A.	54.70
0-40	1383.09	N.A.	77.70
0-60	1689.36	N.A.	94.90
0-80	1772.22	N.A.	99.60
0-90	1780.22	N.A.	100.00
10-90	1655.85	N.A.	93.00
20-40	904.22	N.A.	50.80
20-50	1105.6	N.A.	62.10
40-70	361.84	N.A.	20.30
60-80	82.86	N.A.	4.70
70-80	27.29	N.A.	1.50
80-90	8.00	N.A.	0.40
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	1780.22	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

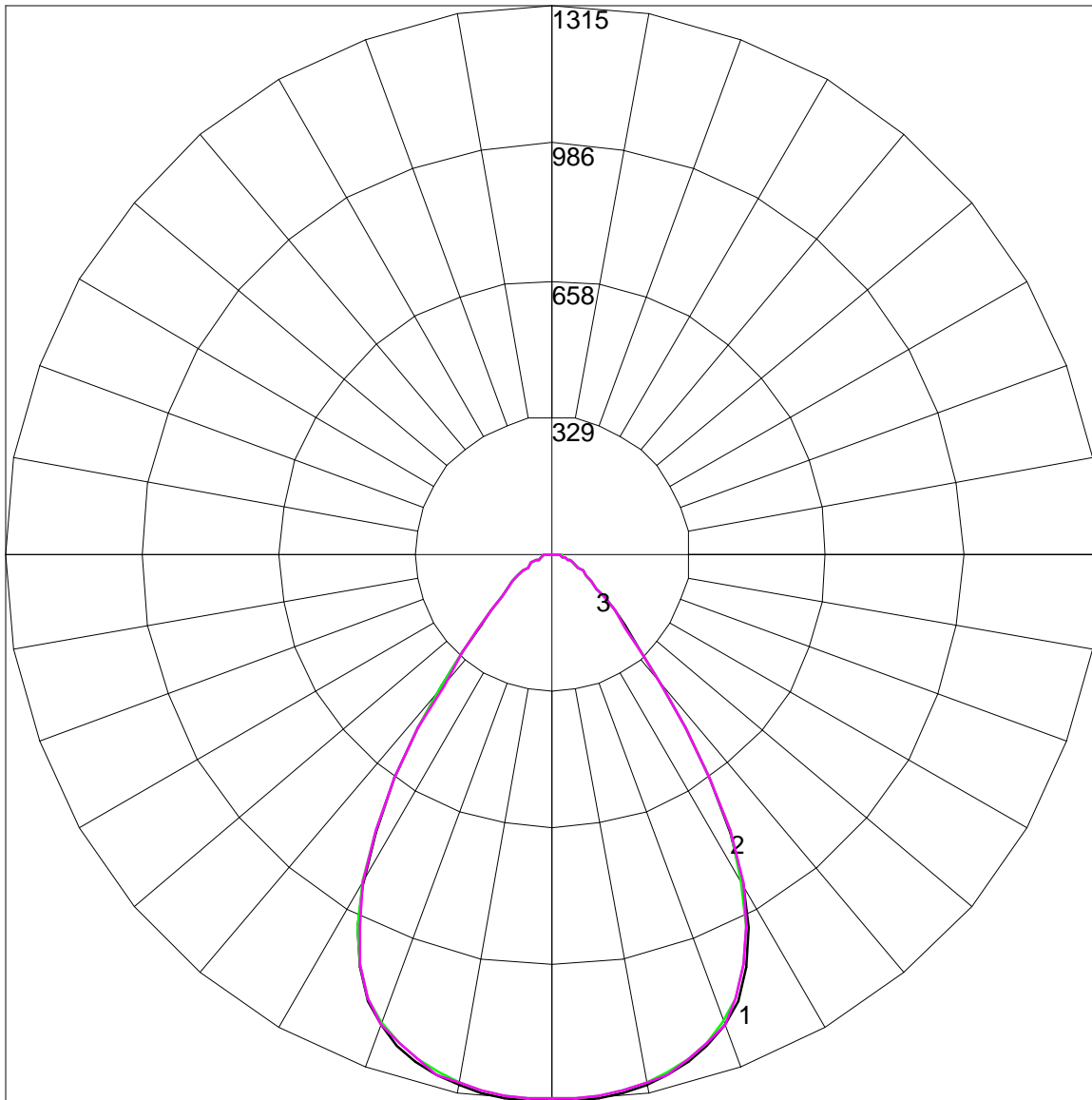
Zone	Lumens
0-10	124.37
10-20	354.50
20-30	495.46
30-40	408.76
40-50	201.38
50-60	104.90
60-70	55.56
70-80	27.29
80-90	8.00
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

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	109	106	103	110	107	104	101	103	100	98	99	97	95	95	94	93	91
2	105	99	94	90	103	98	93	89	94	91	87	91	88	85	88	86	84	82
3	99	91	85	80	97	90	84	80	87	82	78	84	80	77	82	79	76	74
4	93	84	77	72	91	82	76	72	80	75	71	78	73	70	76	72	69	67
5	87	77	70	65	85	76	70	65	74	69	64	72	67	64	71	66	63	61
6	82	71	64	59	80	70	64	59	69	63	59	67	62	58	66	61	58	56
7	77	66	59	54	76	66	59	54	64	58	54	63	58	54	62	57	53	52
8	73	62	55	50	71	61	55	50	60	54	50	59	53	49	58	53	49	48
9	69	58	51	46	67	57	51	46	56	50	46	55	50	46	54	49	46	44
10	65	54	47	43	64	54	47	43	53	47	43	52	46	43	51	46	43	41

POLAR GRAPH



Maximum Candela = 1315.31 Located At Horizontal Angle = 0, Vertical Angle = 2.5

1 - Vertical Plane Through Horizontal Angles (0 - 180)

2 - Vertical Plane Through Horizontal Angles (90 - 270)

3 - Vertical Plane Through Horizontal Angles (45 - 225)