

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : SGE4LEDOS-10L35KE1-AR4223OSMWSO.IES****DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST]20141005\_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-AR4223OS-MW-SO  
[LUMINAIRE]4" Diam., Open Aperture LED Downlight  
[OTHER]Shallow Profile, Matte White Lower Cone  
[OTHER]Integral, Regressed Solite Lens  
[OTHER]62.4 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	813
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	78
Total Luminaire Watts	10.46
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.96
Spacing Criterion (90-270)	0.96
Spacing Criterion (Diagonal)	0.94
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	20437	20376	20315
55	14117	14160	14083
65	11195	11304	11099
75	8788	8910	8923
85	6372	6662	6711

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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>
<b>0.0</b>	679.191	679.191	679.191	679.191	679.191	679.191	679.191	679.191	679.191	679.191
<b>2.5</b>	677.793	677.248	676.873	677.054	677.204	677.054	676.873	677.248	677.793	677.248
<b>5.0</b>	671.816	670.585	670.858	670.248	670.640	670.248	670.858	670.585	671.816	670.585
<b>7.5</b>	661.016	658.865	658.821	657.948	657.209	657.948	658.821	658.865	661.016	658.865
<b>10.0</b>	641.876	641.270	641.944	641.420	640.694	641.420	641.944	641.270	641.876	641.270
<b>12.5</b>	617.441	617.540	617.349	617.254	615.993	617.254	617.349	617.540	617.441	617.540
<b>15.0</b>	590.671	589.976	589.823	589.437	590.419	589.437	589.823	589.976	590.671	589.976
<b>17.5</b>	563.475	561.386	562.214	561.168	561.574	561.168	562.214	561.386	563.475	561.386
<b>20.0</b>	534.940	534.040	535.438	535.448	534.351	535.448	535.438	534.040	534.940	534.040
<b>22.5</b>	502.844	502.942	502.796	503.195	502.121	503.195	502.796	502.942	502.844	502.942
<b>25.0</b>	463.399	462.571	461.910	462.980	462.374	462.980	461.910	462.571	463.399	462.571
<b>27.5</b>	417.030	415.418	415.081	414.038	413.946	414.038	415.081	415.418	417.030	415.418
<b>30.0</b>	365.641	364.895	364.210	363.501	362.451	363.501	364.210	364.895	365.641	364.895
<b>32.5</b>	312.248	312.077	311.130	311.556	310.482	311.556	311.130	312.077	312.248	312.077
<b>35.0</b>	260.000	259.621	260.910	260.600	258.664	260.600	260.910	259.621	260.000	259.621
<b>37.5</b>	211.855	211.872	213.136	211.824	210.965	211.824	213.136	211.872	211.855	211.872
<b>40.0</b>	169.892	170.819	170.703	170.243	169.964	170.243	170.703	170.819	169.892	170.819
<b>42.5</b>	138.402	138.348	137.561	137.526	137.802	137.526	137.561	138.348	138.402	138.348
<b>45.0</b>	114.935	114.822	114.591	114.086	114.250	114.086	114.591	114.822	114.935	114.822
<b>47.5</b>	97.442	97.459	97.670	97.206	96.975	97.206	97.670	97.459	97.442	97.459
<b>50.0</b>	83.970	84.017	83.980	83.697	83.503	83.697	83.980	84.017	83.970	84.017
<b>52.5</b>	73.333	73.415	73.231	72.993	72.836	72.993	73.231	73.415	73.333	73.415
<b>55.0</b>	64.401	64.602	64.595	64.278	64.244	64.278	64.595	64.602	64.401	64.602
<b>57.5</b>	56.845	57.152	57.210	56.917	56.822	56.917	57.210	57.152	56.845	57.152
<b>60.0</b>	50.186	50.469	50.476	50.295	49.934	50.295	50.476	50.469	50.186	50.469
<b>62.5</b>	43.725	44.059	44.106	43.789	43.360	43.789	44.106	44.059	43.725	44.059
<b>65.0</b>	37.628	37.897	37.996	37.604	37.307	37.604	37.996	37.897	37.628	37.897
<b>67.5</b>	31.838	32.240	32.577	32.291	31.831	32.291	32.577	32.240	31.838	32.240
<b>70.0</b>	26.589	26.545	26.562	26.606	26.746	26.606	26.562	26.545	26.589	26.545
<b>72.5</b>	22.084	22.193	22.295	22.360	22.346	22.360	22.295	22.193	22.084	22.193
<b>75.0</b>	18.090	18.192	18.342	18.386	18.369	18.386	18.342	18.192	18.090	18.192
<b>77.5</b>	14.344	14.406	14.583	14.644	14.651	14.644	14.583	14.406	14.344	14.406
<b>80.0</b>	10.844	10.875	10.994	11.168	11.117	11.168	10.994	10.875	10.844	10.875
<b>82.5</b>	7.504	7.562	7.678	7.838	7.774	7.838	7.678	7.562	7.504	7.562
<b>85.0</b>	4.417	4.447	4.618	4.693	4.652	4.693	4.618	4.447	4.417	4.447
<b>87.5</b>	1.707	1.690	1.755	1.854	1.840	1.854	1.755	1.690	1.707	1.690
<b>90.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>92.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>95.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>97.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>100.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>102.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>105.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>107.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>110.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>112.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>115.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>117.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>120.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>122.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>125.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>127.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>130.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>132.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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**CANDELA TABULATION - (Cont.)**

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	679.191	679.191	679.191	679.191	679.191	679.191	679.191
2.5	676.873	677.054	677.204	677.054	676.873	677.248	677.793
5.0	670.858	670.248	670.640	670.248	670.858	670.585	671.816
7.5	658.821	657.948	657.209	657.948	658.821	658.865	661.016
10.0	641.944	641.420	640.694	641.420	641.944	641.270	641.876
12.5	617.349	617.254	615.993	617.254	617.349	617.540	617.441
15.0	589.823	589.437	590.419	589.437	589.823	589.976	590.671
17.5	562.214	561.168	561.574	561.168	562.214	561.386	563.475
20.0	535.438	535.448	534.351	535.448	535.438	534.040	534.940
22.5	502.796	503.195	502.121	503.195	502.796	502.942	502.844
25.0	461.910	462.980	462.374	462.980	461.910	462.571	463.399
27.5	415.081	414.038	413.946	414.038	415.081	415.418	417.030
30.0	364.210	363.501	362.451	363.501	364.210	364.895	365.641
32.5	311.130	311.556	310.482	311.556	311.130	312.077	312.248
35.0	260.910	260.600	258.664	260.600	260.910	259.621	260.000
37.5	213.136	211.824	210.965	211.824	213.136	211.872	211.855
40.0	170.703	170.243	169.964	170.243	170.703	170.819	169.892
42.5	137.561	137.526	137.802	137.526	137.561	138.348	138.402
45.0	114.591	114.086	114.250	114.086	114.591	114.822	114.935
47.5	97.670	97.206	96.975	97.206	97.670	97.459	97.442
50.0	83.980	83.697	83.503	83.697	83.980	84.017	83.970
52.5	73.231	72.993	72.836	72.993	73.231	73.415	73.333
55.0	64.595	64.278	64.244	64.278	64.595	64.602	64.401
57.5	57.210	56.917	56.822	56.917	57.210	57.152	56.845
60.0	50.476	50.295	49.934	50.295	50.476	50.469	50.186
62.5	44.106	43.789	43.360	43.789	44.106	44.059	43.725
65.0	37.996	37.604	37.307	37.604	37.996	37.897	37.628
67.5	32.577	32.291	31.831	32.291	32.577	32.240	31.838
70.0	26.562	26.606	26.746	26.606	26.562	26.545	26.589
72.5	22.295	22.360	22.346	22.360	22.295	22.193	22.084
75.0	18.342	18.386	18.369	18.386	18.342	18.192	18.090
77.5	14.583	14.644	14.651	14.644	14.583	14.406	14.344
80.0	10.994	11.168	11.117	11.168	10.994	10.875	10.844

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**CANDELA TABULATION - (Cont.)**

82.5	7.678	7.838	7.774	7.838	7.678	7.562	7.504
85.0	4.618	4.693	4.652	4.693	4.618	4.447	4.417
87.5	1.755	1.854	1.840	1.854	1.755	1.690	1.707
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	228.57	N.A.	28.10
0-30	437.99	N.A.	53.90
0-40	600.65	N.A.	73.90
0-60	750.52	N.A.	92.30
0-80	807.65	N.A.	99.30
0-90	812.96	N.A.	100.00
10-90	749.87	N.A.	92.20
20-40	372.08	N.A.	45.80
20-50	463.53	N.A.	57.00
40-70	187.52	N.A.	23.10
60-80	57.13	N.A.	7.00
70-80	19.48	N.A.	2.40
80-90	5.31	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	812.96	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	63.09
10-20	165.48
20-30	209.42
30-40	162.66
40-50	91.45
50-60	58.42
60-70	37.65
70-80	19.48
80-90	5.31
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

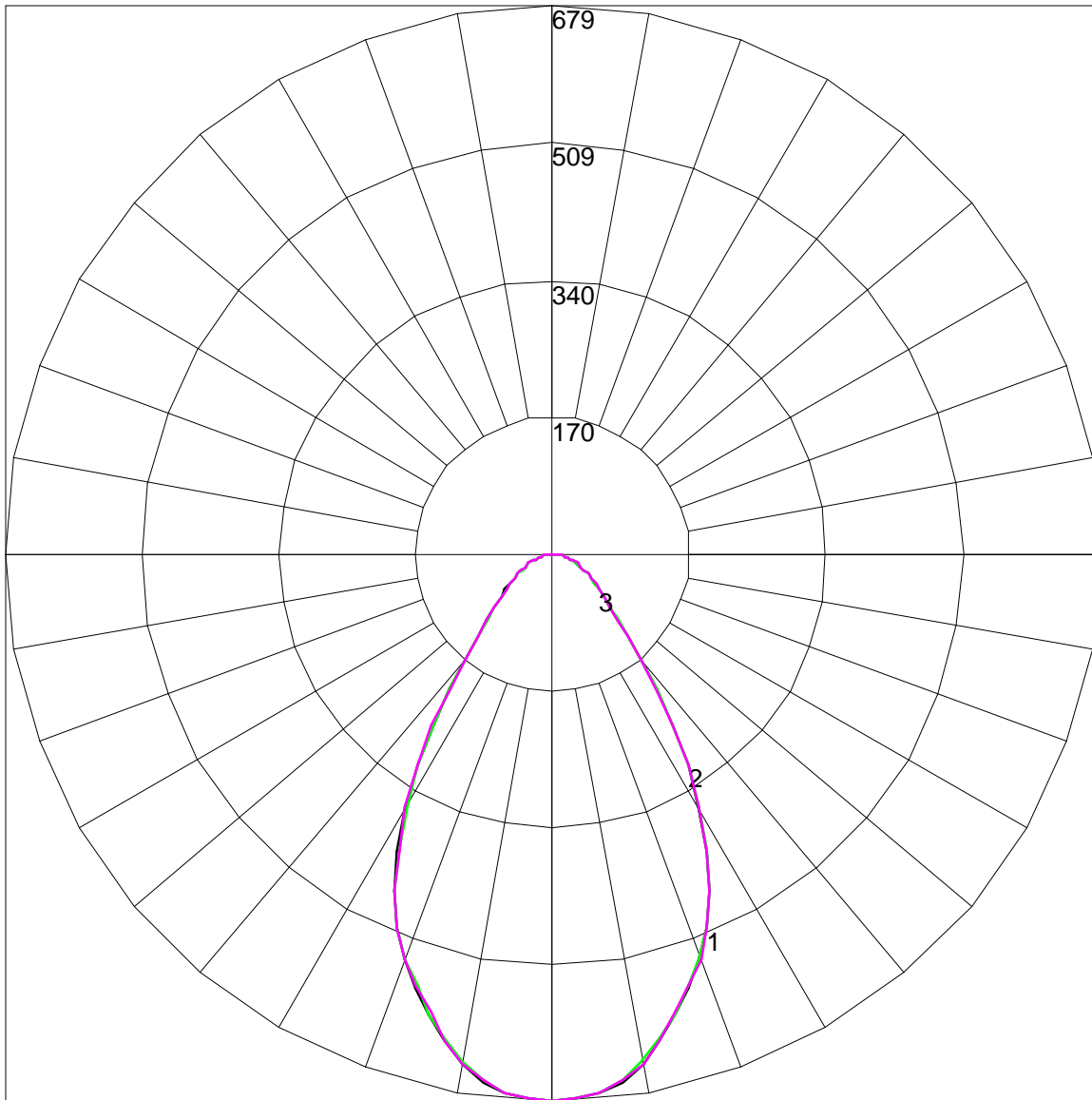
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	81
3	98	90	84	79	96	88	83	78	86	81	77	83	79	75	81	77	74	72
4	92	82	76	70	90	81	75	70	79	73	69	77	72	68	75	71	67	66
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55
7	76	65	58	53	75	65	58	53	63	57	53	62	56	52	61	56	52	51
8	72	61	54	49	71	60	54	49	59	53	49	58	53	49	57	52	48	47
9	68	57	50	46	67	56	50	45	55	49	45	54	49	45	54	49	45	43
10	65	53	47	42	63	53	47	42	52	46	42	51	46	42	50	46	42	40

POLAR GRAPH



Maximum Candela = 679.191 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)