

IES INDOOR REPORT**PHOTOMETRIC FILENAME : ALX16LX-100L35KEX-AL16-CFG.IES****DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002

[TESTLAB] Photopia 2018.1.0 see: www.ltioptics.com/ies

[ISSUE DATE]

[TEST DATE] 7/27/2018

[UPDATE] 8/3/2018

[TEST] SP-00467_19_M-100L

[MANUFAC] Spectrum Lighting

[LUMCAT] ALX16LX-100L-35K-EX-AL16-CFG-xx

[LUMINAIRE] 16" Diam. Alum. Reflector LED Tech Pendant w/ Center Frosted Glass Disc

[OTHER] 22" Diam. Sodalime Glass disc, w/ 16" Diam. Frosted Center Pattern

[OTHER] Matte white, inside reflector finish

[OTHER] 75.5 Deg. Beam Angle

[OTHER] 97.8% Downlight, 2.2% Uplight

[LAMP] N/A

[LAMPCAT] N/A

[OTHER] Total Luminaire Watts is approximate

[OTHER] CCT Output Multipliers: 40K x 1.03, 30K x 0.979, 27K x 0.959

[OTHER] Adapted from Intertek LX-AL16 test luminaire ref. CRT1709151315-001-006

[OTHER] This report updated by Spectrum Lighting

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	6632
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	82
Total Luminaire Watts	81.06
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.06
Spacing Criterion (90-270)	1.06
Spacing Criterion (Diagonal)	1.10
Basic Luminous Shape	Circular w/ Sides
Luminous Length (0-180)	1.33 ft (Diameter)
Luminous Width (90-270)	1.33 ft (Diameter)
Luminous Height	0.92 ft

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LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	7501	7559	7552
55	4512	4450	4443
65	2610	2638	2699
75	1418	1415	1448
85	639	630	650

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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	3847.416	3847.416	3847.416	3847.416	3847.416	3847.416	3847.416	3847.416	3847.416	3847.416
2.5	3850.487	3845.341	3807.088	3819.096	3825.060	3819.096	3807.088	3845.341	3850.487	3845.341
5.0	3853.551	3843.259	3766.760	3790.775	3802.697	3790.775	3766.760	3843.259	3853.551	3843.259
7.5	3804.067	3772.570	3742.336	3764.953	3764.565	3764.953	3742.336	3772.570	3804.067	3772.570
10.0	3754.583	3701.881	3717.905	3739.131	3726.432	3739.131	3717.905	3701.881	3754.583	3701.881
12.5	3646.291	3608.187	3616.975	3635.547	3610.206	3635.547	3616.975	3608.187	3646.291	3608.187
15.0	3537.999	3514.493	3516.039	3531.957	3493.972	3531.957	3516.039	3514.493	3537.999	3514.493
17.5	3411.622	3396.410	3394.793	3407.570	3372.077	3407.570	3394.793	3396.410	3411.622	3396.410
20.0	3285.245	3278.327	3273.541	3283.183	3250.175	3283.183	3273.541	3278.327	3285.245	3278.327
22.5	3148.738	3117.198	3127.130	3119.760	3121.320	3119.760	3127.130	3117.198	3148.738	3117.198
25.0	3012.231	2956.062	2980.719	2956.330	2992.458	2956.330	2980.719	2956.062	3012.231	2956.062
27.5	2804.633	2785.001	2799.077	2784.041	2804.131	2784.041	2799.077	2785.001	2804.633	2785.001
30.0	2597.034	2613.934	2617.428	2611.752	2615.797	2611.752	2617.428	2613.934	2597.034	2613.934
32.5	2403.639	2398.126	2397.674	2402.227	2393.806	2402.227	2397.674	2398.126	2403.639	2398.126
35.0	2210.244	2182.311	2177.920	2192.702	2171.807	2192.702	2177.920	2182.311	2210.244	2182.311
37.5	1970.661	1941.246	1954.327	1955.378	1952.788	1955.378	1954.327	1941.246	1970.661	1941.246
40.0	1731.072	1700.181	1730.733	1718.048	1733.761	1718.048	1730.733	1700.181	1731.072	1700.181
42.5	1509.906	1490.028	1514.713	1502.981	1515.596	1502.981	1514.713	1490.028	1509.906	1490.028
45.0	1288.740	1279.867	1298.687	1287.908	1297.423	1287.908	1298.687	1279.867	1288.740	1279.867
47.5	1132.701	1129.871	1137.276	1131.882	1140.600	1131.882	1137.276	1129.871	1132.701	1129.871
50.0	976.662	979.874	975.864	975.857	983.778	975.857	975.864	979.874	976.662	979.874
52.5	865.808	864.883	860.153	866.365	863.591	866.365	860.153	864.883	865.808	864.883
55.0	754.946	749.892	744.442	756.873	743.397	756.873	744.442	749.892	754.946	749.892
57.5	659.988	660.772	654.348	665.868	656.275	665.868	654.348	660.772	659.988	660.772
60.0	565.031	571.652	564.261	574.871	569.153	574.871	564.261	571.652	565.031	571.652
62.5	488.349	495.436	490.170	497.102	497.412	497.102	490.170	495.436	488.349	495.436
65.0	411.660	419.220	416.072	419.333	425.665	419.333	416.072	419.220	411.660	419.220
67.5	353.098	360.503	359.818	359.776	365.706	359.776	359.818	360.503	353.098	360.503
70.0	294.537	301.779	303.558	300.219	305.739	300.219	303.558	301.779	294.537	301.779
72.5	248.886	253.976	253.228	252.776	256.644	252.776	253.228	253.976	248.886	253.976
75.0	203.229	206.172	202.890	205.332	207.542	205.332	202.890	206.172	203.229	206.172
77.5	169.557	169.628	168.844	170.235	173.249	170.235	168.844	169.628	169.557	169.628
80.0	135.879	133.076	134.799	135.130	138.949	135.130	134.799	133.076	135.879	133.076
82.5	107.777	105.518	106.640	106.513	109.958	106.513	106.640	105.518	107.777	105.518
85.0	79.668	77.953	78.482	77.896	80.967	77.896	78.482	77.953	79.668	77.953
87.5	46.491	46.272	46.236	45.361	47.472	45.361	46.236	46.272	46.491	46.272
90.0	13.313	14.584	13.991	12.826	13.977	12.826	13.991	14.584	13.313	14.584
92.5	20.612	21.128	20.436	20.379	20.852	20.379	20.436	21.128	20.612	21.128
95.0	27.911	27.664	26.881	27.925	27.728	27.925	26.881	27.664	27.911	27.664
97.5	35.189	35.231	34.716	35.690	35.641	35.690	34.716	35.231	35.189	35.231
100.0	42.460	42.792	42.552	43.455	43.547	43.455	42.552	42.792	42.460	42.792
102.5	41.429	40.632	42.029	41.719	41.295	41.719	42.029	40.632	41.429	40.632
105.0	40.392	38.464	41.507	39.975	39.036	39.975	41.507	38.464	40.392	38.464
107.5	37.879	37.123	37.702	36.629	36.904	36.629	37.702	37.123	37.879	37.123
110.0	35.366	35.775	33.890	33.276	34.773	33.276	33.890	35.775	35.366	35.775
112.5	30.693	31.504	29.909	30.234	29.761	30.234	29.909	31.504	30.693	31.504
115.0	26.012	27.227	25.928	27.191	24.749	27.191	25.928	27.227	26.012	27.227
117.5	23.521	25.208	23.634	24.276	23.288	24.276	23.634	25.208	23.521	25.208
120.0	21.029	23.182	21.332	21.353	21.819	21.353	21.332	23.182	21.029	23.182
122.5	20.224	19.568	19.476	19.370	20.083	19.370	19.476	19.568	20.224	19.568
125.0	19.419	15.953	17.619	17.386	18.346	17.386	17.619	15.953	19.419	15.953
127.5	16.582	14.499	15.262	15.975	15.403	15.975	15.262	14.499	16.582	14.499
130.0	13.744	13.038	12.904	14.563	12.452	14.563	12.904	13.038	13.744	13.038
132.5	12.692	12.523	12.607	12.953	12.989	12.953	12.607	12.523	12.692	12.523

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CANDELA TABULATION - (Cont.)

135.0	11.633	12.007	12.304	11.337	13.525	11.337	12.304	12.007	11.633	12.007
137.5	13.652	13.462	13.518	13.631	13.857	13.631	13.518	13.462	13.652	13.462
140.0	15.671	14.916	14.732	15.918	14.182	15.918	14.732	14.916	15.671	14.916
142.5	15.798	16.320	16.102	16.137	15.727	16.137	16.102	16.320	15.798	16.320
145.0	15.925	17.718	17.464	16.349	17.266	16.349	17.464	17.718	15.925	17.718
147.5	15.967	16.737	16.137	16.772	15.826	16.772	16.137	16.737	15.967	16.737
150.0	16.003	15.756	14.803	17.196	14.379	17.196	14.803	15.756	16.003	15.756
152.5	13.843	14.344	13.553	14.894	13.426	14.894	13.553	14.344	13.843	14.344
155.0	11.683	12.925	12.304	12.586	12.473	12.586	12.304	12.925	11.683	12.925
157.5	10.398	11.019	11.132	10.850	11.774	10.850	11.132	11.019	10.398	11.019
160.0	9.113	9.113	9.960	9.106	11.069	9.106	9.960	9.113	9.113	9.113
162.5	8.358	8.591	7.715	8.075	9.897	8.075	7.715	8.591	8.358	8.591
165.0	7.603	8.061	5.464	7.045	8.718	7.045	5.464	8.061	7.603	8.061
167.5	5.739	6.035	5.428	5.252	6.163	5.252	5.428	6.035	5.739	6.035
170.0	3.875	4.010	5.393	3.459	3.600	3.459	5.393	4.010	3.875	4.010
172.5	2.767	2.831	3.664	2.146	2.626	2.146	3.664	2.831	2.767	2.831
175.0	1.652	1.652	1.927	0.826	1.652	0.826	1.927	1.652	1.652	1.652
177.5	0.826	0.826	0.967	0.416	0.826	0.416	0.967	0.826	0.826	0.826
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	3847.416	3847.416	3847.416	3847.416	3847.416	3847.416	3847.416
2.5	3807.088	3819.096	3825.060	3819.096	3807.088	3845.341	3850.487
5.0	3766.760	3790.775	3802.697	3790.775	3766.760	3843.259	3853.551
7.5	3742.336	3764.953	3764.565	3764.953	3742.336	3772.570	3804.067
10.0	3717.905	3739.131	3726.432	3739.131	3717.905	3701.881	3754.583
12.5	3616.975	3635.547	3610.206	3635.547	3616.975	3608.187	3646.291
15.0	3516.039	3531.957	3493.972	3531.957	3516.039	3514.493	3537.999
17.5	3394.793	3407.570	3372.077	3407.570	3394.793	3396.410	3411.622
20.0	3273.541	3283.183	3250.175	3283.183	3273.541	3278.327	3285.245
22.5	3127.130	3119.760	3121.320	3119.760	3127.130	3117.198	3148.738
25.0	2980.719	2956.330	2992.458	2956.330	2980.719	2956.062	3012.231
27.5	2799.077	2784.041	2804.131	2784.041	2799.077	2785.001	2804.633
30.0	2617.428	2611.752	2615.797	2611.752	2617.428	2613.934	2597.034
32.5	2397.674	2402.227	2393.806	2402.227	2397.674	2398.126	2403.639
35.0	2177.920	2192.702	2171.807	2192.702	2177.920	2182.311	2210.244
37.5	1954.327	1955.378	1952.788	1955.378	1954.327	1941.246	1970.661
40.0	1730.733	1718.048	1733.761	1718.048	1730.733	1700.181	1731.072
42.5	1514.713	1502.981	1515.596	1502.981	1514.713	1490.028	1509.906
45.0	1298.687	1287.908	1297.423	1287.908	1298.687	1279.867	1288.740
47.5	1137.276	1131.882	1140.600	1131.882	1137.276	1129.871	1132.701
50.0	975.864	975.857	983.778	975.857	975.864	979.874	976.662
52.5	860.153	866.365	863.591	866.365	860.153	864.883	865.808
55.0	744.442	756.873	743.397	756.873	744.442	749.892	754.946
57.5	654.348	665.868	656.275	665.868	654.348	660.772	659.988
60.0	564.261	574.871	569.153	574.871	564.261	571.652	565.031
62.5	490.170	497.102	497.412	497.102	490.170	495.436	488.349
65.0	416.072	419.333	425.665	419.333	416.072	419.220	411.660
67.5	359.818	359.776	365.706	359.776	359.818	360.503	353.098
70.0	303.558	300.219	305.739	300.219	303.558	301.779	294.537
72.5	253.228	252.776	256.644	252.776	253.228	253.976	248.886
75.0	202.890	205.332	207.542	205.332	202.890	206.172	203.229
77.5	168.844	170.235	173.249	170.235	168.844	169.628	169.557
80.0	134.799	135.130	138.949	135.130	134.799	133.076	135.879

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CANDELA TABULATION - (Cont.)

82.5	106.640	106.513	109.958	106.513	106.640	105.518	107.777
85.0	78.482	77.896	80.967	77.896	78.482	77.953	79.668
87.5	46.236	45.361	47.472	45.361	46.236	46.272	46.491
90.0	13.991	12.826	13.977	12.826	13.991	14.584	13.313
92.5	20.436	20.379	20.852	20.379	20.436	21.128	20.612
95.0	26.881	27.925	27.728	27.925	26.881	27.664	27.911
97.5	34.716	35.690	35.641	35.690	34.716	35.231	35.189
100.0	42.552	43.455	43.547	43.455	42.552	42.792	42.460
102.5	42.029	41.719	41.295	41.719	42.029	40.632	41.429
105.0	41.507	39.975	39.036	39.975	41.507	38.464	40.392
107.5	37.702	36.629	36.904	36.629	37.702	37.123	37.879
110.0	33.890	33.276	34.773	33.276	33.890	35.775	35.366
112.5	29.909	30.234	29.761	30.234	29.909	31.504	30.693
115.0	25.928	27.191	24.749	27.191	25.928	27.227	26.012
117.5	23.634	24.276	23.288	24.276	23.634	25.208	23.521
120.0	21.332	21.353	21.819	21.353	21.332	23.182	21.029
122.5	19.476	19.370	20.083	19.370	19.476	19.568	20.224
125.0	17.619	17.386	18.346	17.386	17.619	15.953	19.419
127.5	15.262	15.975	15.403	15.975	15.262	14.499	16.582
130.0	12.904	14.563	12.452	14.563	12.904	13.038	13.744
132.5	12.607	12.953	12.989	12.953	12.607	12.523	12.692
135.0	12.304	11.337	13.525	11.337	12.304	12.007	11.633
137.5	13.518	13.631	13.857	13.631	13.518	13.462	13.652
140.0	14.732	15.918	14.182	15.918	14.732	14.916	15.671
142.5	16.102	16.137	15.727	16.137	16.102	16.320	15.798
145.0	17.464	16.349	17.266	16.349	17.464	17.718	15.925
147.5	16.137	16.772	15.826	16.772	16.137	16.737	15.967
150.0	14.803	17.196	14.379	17.196	14.803	15.756	16.003
152.5	13.553	14.894	13.426	14.894	13.553	14.344	13.843
155.0	12.304	12.586	12.473	12.586	12.304	12.925	11.683
157.5	11.132	10.850	11.774	10.850	11.132	11.019	10.398
160.0	9.960	9.106	11.069	9.106	9.960	9.113	9.113
162.5	7.715	8.075	9.897	8.075	7.715	8.591	8.358
165.0	5.464	7.045	8.718	7.045	5.464	8.061	7.603
167.5	5.428	5.252	6.163	5.252	5.428	6.035	5.739
170.0	5.393	3.459	3.600	3.459	5.393	4.010	3.875
172.5	3.664	2.146	2.626	2.146	3.664	2.831	2.767
175.0	1.927	0.826	1.652	0.826	1.927	1.652	1.652
177.5	0.967	0.416	0.826	0.416	0.967	0.826	0.826
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	1349.06	N.A.	20.30
0-30	2709.68	N.A.	40.90
0-40	4065.84	N.A.	61.30
0-60	5759.92	N.A.	86.80
0-80	6405.17	N.A.	96.60
0-90	6488.53	N.A.	97.80
10-90	6127.94	N.A.	92.40
20-40	2716.77	N.A.	41.00
20-50	3730.81	N.A.	56.30
40-70	2116.12	N.A.	31.90
60-80	645.25	N.A.	9.70
70-80	223.21	N.A.	3.40
80-90	83.36	N.A.	1.30
90-110	72.11	N.A.	1.10
90-120	99.28	N.A.	1.50
90-130	115.09	N.A.	1.70
90-150	135.45	N.A.	2.00
90-180	143.65	N.A.	2.20
110-180	71.54	N.A.	1.10
0-180	6632.18	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	360.59
10-20	988.47
20-30	1360.62
30-40	1356.16
40-50	1014.04
50-60	680.04
60-70	422.04
70-80	223.21
80-90	83.36
90-100	30.47
100-110	41.63
110-120	27.18
120-130	15.81
130-140	10.17
140-150	10.19
150-160	5.90
160-170	2.07
170-180	0.23

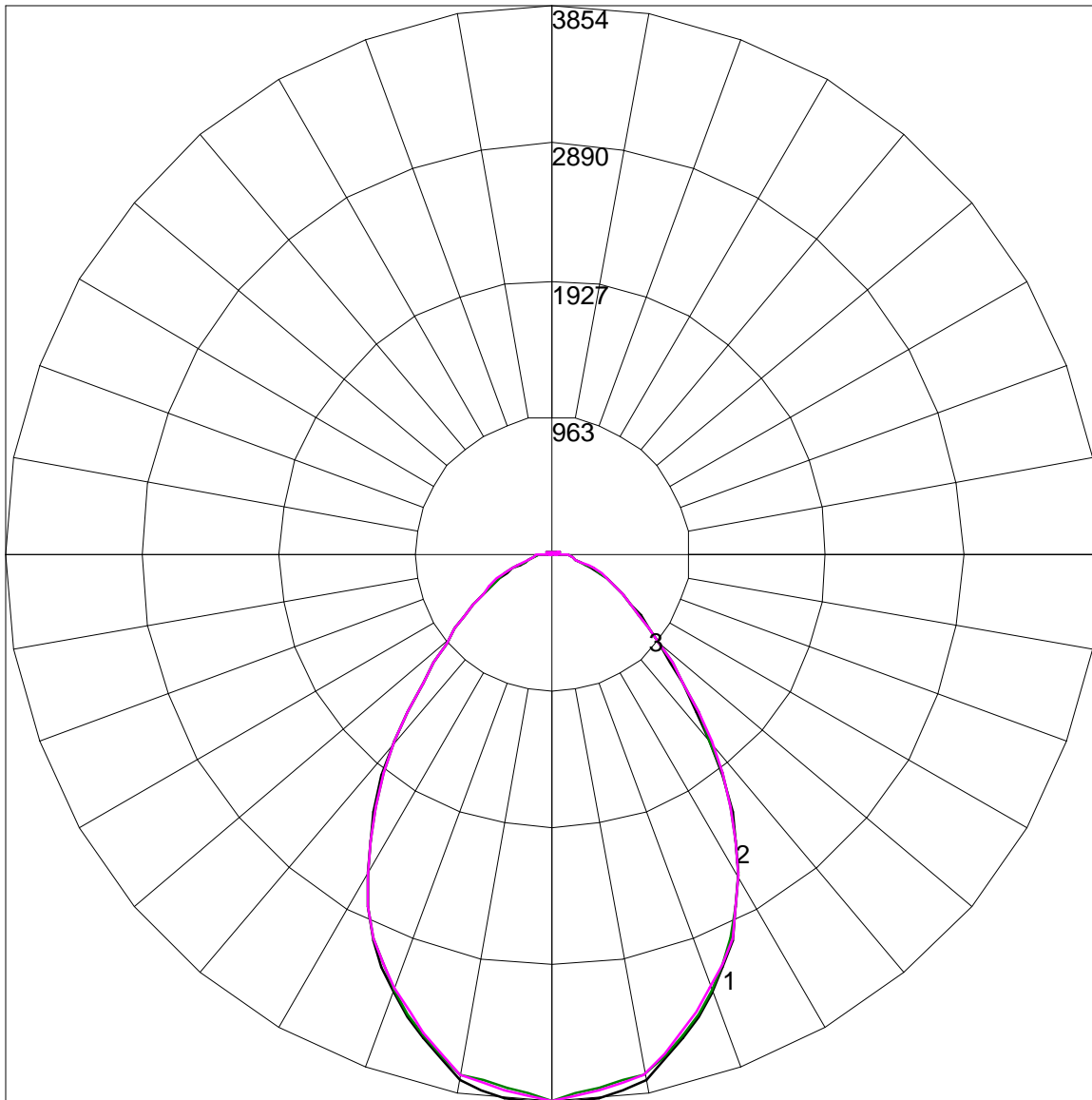
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	110	110	110	105	105	105	100	100	100	98
1	110	106	103	99	107	104	101	98	99	97	94	95	93	91	91	89	88	86
2	102	95	89	85	99	93	88	83	89	85	81	86	82	79	83	80	77	75
3	94	86	79	73	92	84	77	72	81	75	71	78	73	69	75	71	68	66
4	88	77	70	64	85	76	69	64	73	67	63	71	66	61	69	64	61	59
5	82	70	63	57	80	69	62	56	67	61	56	65	59	55	63	58	54	52
6	76	64	57	51	74	63	56	51	62	55	50	60	54	50	58	53	49	47
7	71	59	51	46	69	58	51	46	57	50	45	55	49	45	54	48	44	43
8	67	55	47	42	65	54	47	42	53	46	41	51	45	41	50	45	41	39
9	63	51	43	38	61	50	43	38	49	42	38	48	42	38	47	41	37	36
10	59	47	40	35	58	47	40	35	46	39	35	45	39	35	44	38	34	33

POLAR GRAPH



Maximum Candela = 3853.551 Located At Horizontal Angle = 0, Vertical Angle = 5

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

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

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