

IES INDOOR REPORT**PHOTOMETRIC FILENAME : ALX16LX-130L35KEX-AL16-1MR.IES****DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002

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

[ISSUEDATE]

[TESTDATE] 7/27/2018

[UPDATE] 8/3/2018

[TEST] SP-00467_21_M-130L

[MANUFAC] Spectrum Lighting

[LUMCAT] ALX16LX-130L-35K-EX-AL16-1MR-xx

[LUMINAIRE] 16" Diam. Alum. Reflector LED Tech Pendant w/ Formed Metal Ring

[OTHER] 22" outside diam. metal ring, Matte White Finish, 16" diam. Open Center

[OTHER] Matte white, inside reflector finish

[OTHER] 72 Deg. Beam Angle

[OTHER] 97.2% Downlight, 2.8% 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	10669
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	103
Total Luminaire Watts	103.89
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.12
Spacing Criterion (90-270)	1.12
Spacing Criterion (Diagonal)	1.06
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	7221	7285	7326
55	5351	5418	5407
65	3766	3799	3791
75	2083	2054	2047
85	328	317	335

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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	7033.779	7033.779	7033.779	7033.779	7033.779	7033.779	7033.779	7033.779	7033.779	7033.779
2.5	7051.164	7030.277	7032.274	7038.264	7061.333	7038.264	7032.274	7030.277	7051.164	7030.277
5.0	7068.540	7026.767	7030.760	7042.750	7088.878	7042.750	7030.760	7026.767	7068.540	7026.767
7.5	6979.942	6953.223	6964.516	6967.599	7002.333	6967.599	6964.516	6953.223	6979.942	6953.223
10.0	6891.344	6879.679	6898.272	6892.440	6915.778	6892.440	6898.272	6879.679	6891.344	6879.679
12.5	6708.381	6706.709	6730.920	6686.120	6752.763	6686.120	6730.920	6706.709	6708.381	6706.709
15.0	6525.408	6533.729	6563.568	6479.790	6589.739	6479.790	6563.568	6533.729	6525.408	6533.729
17.5	6237.428	6276.154	6297.459	6227.063	6317.807	6227.063	6297.459	6276.154	6237.428	6276.154
20.0	5949.438	6018.570	6031.340	5974.327	6045.874	5974.327	6031.340	6018.570	5949.438	6018.570
22.5	5728.314	5774.155	5787.315	5752.702	5797.057	5752.702	5787.315	5774.155	5728.314	5774.155
25.0	5507.182	5529.730	5543.280	5531.077	5548.230	5531.077	5543.280	5529.730	5507.182	5529.730
27.5	5329.837	5354.373	5347.510	5329.094	5342.319	5329.094	5347.510	5354.373	5329.837	5354.373
30.0	5152.483	5179.016	5151.731	5127.102	5136.407	5127.102	5151.731	5179.016	5152.483	5179.016
32.5	4575.324	4593.554	4596.888	4600.436	4602.219	4600.436	4596.888	4593.554	4575.324	4593.554
35.0	3998.165	4008.093	4042.037	4073.770	4068.031	4073.770	4042.037	4008.093	3998.165	4008.093
37.5	3151.831	3164.155	3198.907	3215.986	3204.294	3215.986	3198.907	3164.155	3151.831	3164.155
40.0	2305.498	2320.218	2355.777	2358.192	2340.556	2358.192	2355.777	2320.218	2305.498	2320.218
42.5	1773.037	1792.567	1803.703	1805.291	1799.653	1805.291	1803.703	1792.567	1773.037	1792.567
45.0	1240.567	1264.917	1251.628	1252.389	1258.741	1252.389	1251.628	1264.917	1240.567	1264.917
47.5	1150.659	1161.469	1155.089	1147.353	1148.300	1147.353	1155.089	1161.469	1150.659	1161.469
50.0	1060.743	1058.012	1058.551	1042.308	1037.850	1042.308	1058.551	1058.012	1060.743	1058.012
52.5	978.014	983.391	982.527	974.457	971.244	974.457	982.527	983.391	978.014	983.391
55.0	895.285	908.770	906.495	906.606	904.637	906.606	906.495	908.770	895.285	908.770
57.5	822.698	830.258	830.601	828.800	831.316	828.800	830.601	830.258	822.698	830.258
60.0	750.111	751.755	754.717	750.993	758.005	750.993	754.717	751.755	750.111	751.755
62.5	672.082	675.917	676.967	673.883	677.942	673.883	676.967	675.917	672.082	675.917
65.0	594.043	600.079	599.207	596.764	597.878	596.764	599.207	600.079	594.043	600.079
67.5	517.592	523.452	522.301	519.023	519.886	519.023	522.301	523.452	517.592	523.452
70.0	441.132	446.816	445.395	441.281	441.894	441.281	445.395	446.816	441.132	446.816
72.5	369.836	368.777	369.883	367.403	367.635	367.403	369.883	368.777	369.836	368.777
75.0	298.540	290.730	294.361	293.516	293.367	293.516	294.361	290.730	298.540	290.730
77.5	228.274	223.436	225.330	223.575	225.591	223.575	225.330	223.436	228.274	223.436
80.0	158.009	156.142	156.300	153.635	157.814	153.635	156.300	156.142	158.009	156.142
82.5	99.445	98.201	97.904	97.086	99.752	97.086	97.904	98.201	99.445	98.201
85.0	40.881	40.250	39.507	40.538	41.689	40.538	39.507	40.250	40.881	40.250
87.5	20.914	20.589	20.227	20.896	21.555	20.896	20.227	20.589	20.914	20.589
90.0	0.947	0.929	0.938	1.244	1.421	1.244	0.938	0.929	0.947	0.929
92.5	2.368	2.034	2.247	2.507	2.424	2.507	2.247	2.034	2.368	2.034
95.0	3.789	3.139	3.548	3.761	3.418	3.761	3.548	3.139	3.789	3.139
97.5	5.470	5.312	5.479	5.516	5.526	5.516	5.479	5.312	5.470	5.312
100.0	7.151	7.476	7.411	7.262	7.625	7.262	7.411	7.476	7.151	7.476
102.5	11.423	11.525	12.110	11.999	12.482	11.999	12.110	11.525	11.423	11.525
105.0	15.686	15.565	16.809	16.726	17.330	16.726	16.809	15.565	15.686	15.565
107.5	24.202	23.570	23.923	24.397	23.905	24.397	23.923	23.570	24.202	23.570
110.0	32.718	31.576	31.037	32.059	30.471	32.059	31.037	31.576	32.718	31.576
112.5	38.170	36.795	36.424	37.018	37.659	37.018	36.424	36.795	38.170	36.795
115.0	43.621	42.014	41.810	41.977	44.838	41.977	41.810	42.014	43.621	42.014
117.5	48.330	46.992	45.200	46.351	46.509	46.351	45.200	46.992	48.330	46.992
120.0	53.038	51.961	48.590	50.726	48.172	50.726	48.590	51.961	53.038	51.961
122.5	51.116	54.645	52.156	52.267	50.735	52.267	52.156	54.645	51.116	54.645
125.0	49.193	57.319	55.713	53.800	53.289	53.800	55.713	57.319	49.193	57.319
127.5	56.121	61.081	57.942	56.855	57.487	56.855	57.942	61.081	56.121	61.081
130.0	63.040	64.842	60.161	59.901	61.684	59.901	60.161	64.842	63.040	64.842
132.5	65.659	67.266	64.312	64.424	64.108	64.424	64.312	67.266	65.659	67.266

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CANDELA TABULATION - (Cont.)

135.0	68.278	69.680	68.454	68.937	66.532	68.937	68.454	69.680	68.278	69.680
137.5	71.686	73.860	70.767	71.426	70.108	71.426	70.767	73.860	71.686	73.860
140.0	75.095	78.029	73.079	73.915	73.674	73.915	73.079	78.029	75.095	78.029
142.5	78.902	80.230	77.296	78.104	79.506	78.104	77.296	80.230	78.902	80.230
145.0	82.701	82.431	81.503	82.292	85.338	82.292	81.503	82.431	82.701	82.431
147.5	86.583	84.493	84.205	83.332	84.521	83.332	84.205	84.493	86.583	84.493
150.0	90.465	86.555	86.898	84.372	83.694	84.372	86.898	86.555	90.465	86.555
152.5	88.635	86.202	89.295	87.251	87.158	87.251	89.295	86.202	88.635	86.202
155.0	86.806	85.849	91.691	90.130	90.623	90.130	91.691	85.849	86.806	85.849
157.5	90.539	93.316	95.192	92.963	91.969	92.963	95.192	93.316	90.539	93.316
160.0	94.272	100.783	98.693	95.795	93.306	95.795	98.693	100.783	94.272	100.783
162.5	95.535	99.780	98.229	98.860	97.978	98.860	98.229	99.780	95.535	99.780
165.0	96.798	98.767	97.764	101.925	102.640	101.925	97.764	98.767	96.798	98.767
167.5	104.247	105.974	103.671	104.980	101.386	104.980	103.671	105.974	104.247	105.974
170.0	111.695	113.171	109.577	108.036	100.132	108.036	109.577	113.171	111.695	113.171
172.5	109.679	105.240	102.547	109.819	100.002	109.819	102.547	105.240	109.679	105.240
175.0	107.664	97.309	95.517	111.593	99.863	111.593	95.517	97.309	107.664	97.309
177.5	106.540	101.358	100.467	108.500	102.640	108.500	100.467	101.358	106.540	101.358
180.0	104.943	104.943	104.943	104.943	104.943	104.943	104.943	104.943	104.943	104.943

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	7033.779	7033.779	7033.779	7033.779	7033.779	7033.779	7033.779
2.5	7032.274	7038.264	7061.333	7038.264	7032.274	7030.277	7051.164
5.0	7030.760	7042.750	7088.878	7042.750	7030.760	7026.767	7068.540
7.5	6964.516	6967.599	7002.333	6967.599	6964.516	6953.223	6979.942
10.0	6898.272	6892.440	6915.778	6892.440	6898.272	6879.679	6891.344
12.5	6730.920	6686.120	6752.763	6686.120	6730.920	6706.709	6708.381
15.0	6563.568	6479.790	6589.739	6479.790	6563.568	6533.729	6525.408
17.5	6297.459	6227.063	6317.807	6227.063	6297.459	6276.154	6237.428
20.0	6031.340	5974.327	6045.874	5974.327	6031.340	6018.570	5949.438
22.5	5787.315	5752.702	5797.057	5752.702	5787.315	5774.155	5728.314
25.0	5543.280	5531.077	5548.230	5531.077	5543.280	5529.730	5507.182
27.5	5347.510	5329.094	5342.319	5329.094	5347.510	5354.373	5329.837
30.0	5151.731	5127.102	5136.407	5127.102	5151.731	5179.016	5152.483
32.5	4596.888	4600.436	4602.219	4600.436	4596.888	4593.554	4575.324
35.0	4042.037	4073.770	4068.031	4073.770	4042.037	4008.093	3998.165
37.5	3198.907	3215.986	3204.294	3215.986	3198.907	3164.155	3151.831
40.0	2355.777	2358.192	2340.556	2358.192	2355.777	2320.218	2305.498
42.5	1803.703	1805.291	1799.653	1805.291	1803.703	1792.567	1773.037
45.0	1251.628	1252.389	1258.741	1252.389	1251.628	1264.917	1240.567
47.5	1155.089	1147.353	1148.300	1147.353	1155.089	1161.469	1150.659
50.0	1058.551	1042.308	1037.850	1042.308	1058.551	1058.012	1060.743
52.5	982.527	974.457	971.244	974.457	982.527	983.391	978.014
55.0	906.495	906.606	904.637	906.606	906.495	908.770	895.285
57.5	830.601	828.800	831.316	828.800	830.601	830.258	822.698
60.0	754.717	750.993	758.005	750.993	754.717	751.755	750.111
62.5	676.967	673.883	677.942	673.883	676.967	675.917	672.082
65.0	599.207	596.764	597.878	596.764	599.207	600.079	594.043
67.5	522.301	519.023	519.886	519.023	522.301	523.452	517.592
70.0	445.395	441.281	441.894	441.281	445.395	446.816	441.132
72.5	369.883	367.403	367.635	367.403	369.883	368.777	369.836
75.0	294.361	293.516	293.367	293.516	294.361	290.730	298.540
77.5	225.330	223.575	225.591	223.575	225.330	223.436	228.274
80.0	156.300	153.635	157.814	153.635	156.300	156.142	158.009

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82.5	97.904	97.086	99.752	97.086	97.904	98.201	99.445
85.0	39.507	40.538	41.689	40.538	39.507	40.250	40.881
87.5	20.227	20.896	21.555	20.896	20.227	20.589	20.914
90.0	0.938	1.244	1.421	1.244	0.938	0.929	0.947
92.5	2.247	2.507	2.424	2.507	2.247	2.034	2.368
95.0	3.548	3.761	3.418	3.761	3.548	3.139	3.789
97.5	5.479	5.516	5.526	5.516	5.479	5.312	5.470
100.0	7.411	7.262	7.625	7.262	7.411	7.476	7.151
102.5	12.110	11.999	12.482	11.999	12.110	11.525	11.423
105.0	16.809	16.726	17.330	16.726	16.809	15.565	15.686
107.5	23.923	24.397	23.905	24.397	23.923	23.570	24.202
110.0	31.037	32.059	30.471	32.059	31.037	31.576	32.718
112.5	36.424	37.018	37.659	37.018	36.424	36.795	38.170
115.0	41.810	41.977	44.838	41.977	41.810	42.014	43.621
117.5	45.200	46.351	46.509	46.351	45.200	46.992	48.330
120.0	48.590	50.726	48.172	50.726	48.590	51.961	53.038
122.5	52.156	52.267	50.735	52.267	52.156	54.645	51.116
125.0	55.713	53.800	53.289	53.800	55.713	57.319	49.193
127.5	57.942	56.855	57.487	56.855	57.942	61.081	56.121
130.0	60.161	59.901	61.684	59.901	60.161	64.842	63.040
132.5	64.312	64.424	64.108	64.424	64.312	67.266	65.659
135.0	68.454	68.937	66.532	68.937	68.454	69.680	68.278
137.5	70.767	71.426	70.108	71.426	70.767	73.860	71.686
140.0	73.079	73.915	73.674	73.915	73.079	78.029	75.095
142.5	77.296	78.104	79.506	78.104	77.296	80.230	78.902
145.0	81.503	82.292	85.338	82.292	81.503	82.431	82.701
147.5	84.205	83.332	84.521	83.332	84.205	84.493	86.583
150.0	86.898	84.372	83.694	84.372	86.898	86.555	90.465
152.5	89.295	87.251	87.158	87.251	89.295	86.202	88.635
155.0	91.691	90.130	90.623	90.130	91.691	85.849	86.806
157.5	95.192	92.963	91.969	92.963	95.192	93.316	90.539
160.0	98.693	95.795	93.306	95.795	98.693	100.783	94.272
162.5	98.229	98.860	97.978	98.860	98.229	99.780	95.535
165.0	97.764	101.925	102.640	101.925	97.764	98.767	96.798
167.5	103.671	104.980	101.386	104.980	103.671	105.974	104.247
170.0	109.577	108.036	100.132	108.036	109.577	113.171	111.695
172.5	102.547	109.819	100.002	109.819	102.547	105.240	109.679
175.0	95.517	111.593	99.863	111.593	95.517	97.309	107.664
177.5	100.467	108.500	102.640	108.500	100.467	101.358	106.540
180.0	104.943	104.943	104.943	104.943	104.943	104.943	104.943

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	2493.84	N.A.	23.40
0-30	5053.7	N.A.	47.40
0-40	7464.34	N.A.	70.00
0-60	9401.52	N.A.	88.10
0-80	10306.14	N.A.	96.60
0-90	10370.82	N.A.	97.20
10-90	9704.3	N.A.	91.00
20-40	4970.5	N.A.	46.60
20-50	6099.25	N.A.	57.20
40-70	2528.98	N.A.	23.70
60-80	904.62	N.A.	8.50
70-80	312.83	N.A.	2.90
80-90	64.67	N.A.	0.60
90-110	23.10	N.A.	0.20
90-120	64.44	N.A.	0.60
90-130	113.98	N.A.	1.10
90-150	217.97	N.A.	2.00
90-180	298.28	N.A.	2.80
110-180	275.18	N.A.	2.60
0-180	10669.1	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	666.50
10-20	1827.33
20-30	2559.86
30-40	2410.64
40-50	1128.75
50-60	808.43
60-70	591.79
70-80	312.83
80-90	64.67
90-100	4.22
100-110	18.88
110-120	41.34
120-130	49.54
130-140	52.89
140-150	51.09
150-160	41.70
160-170	28.57
170-180	10.05

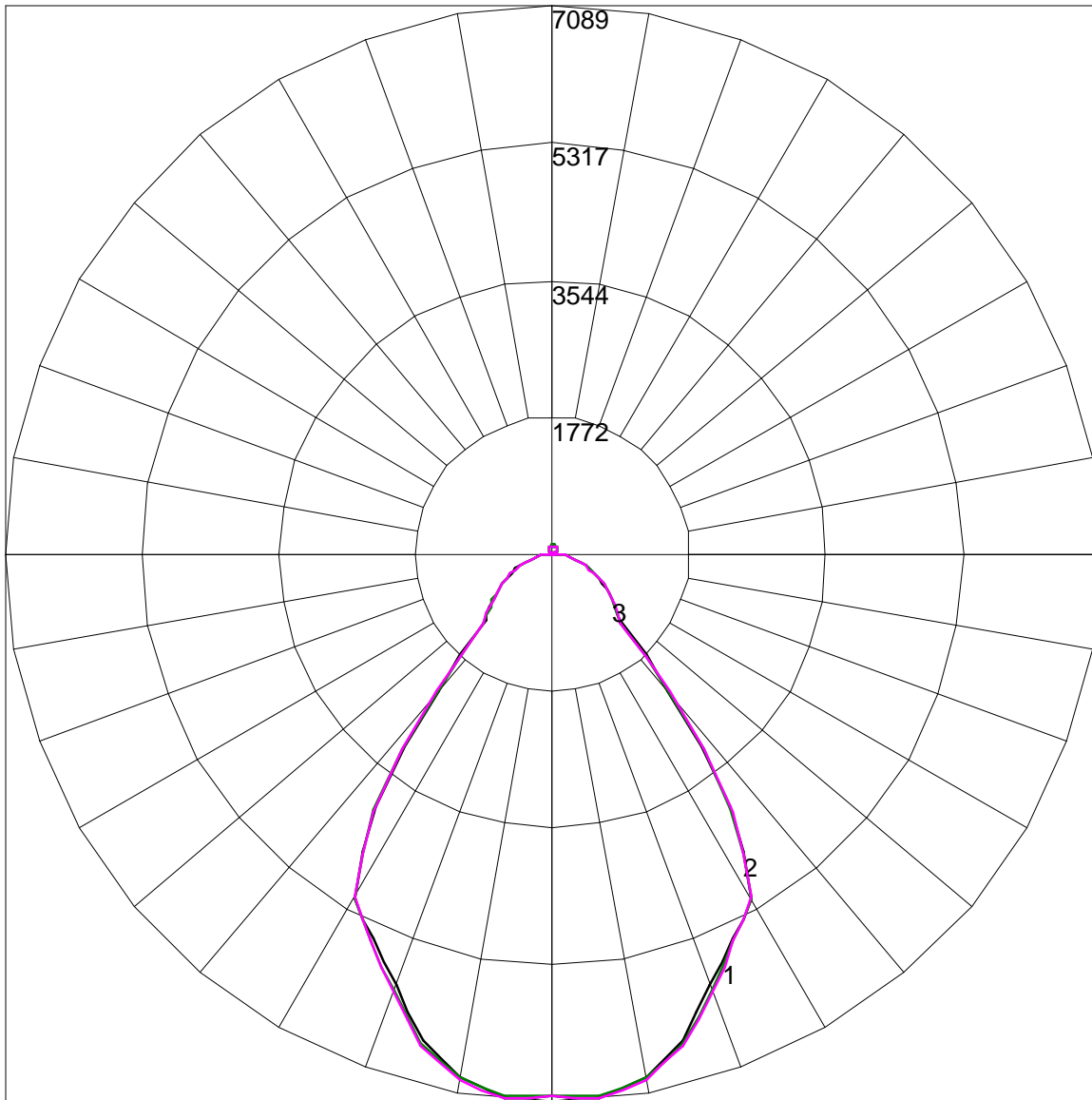
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	118	118	118	118	115	115	115	115	110	110	110	104	104	104	99	99	99	97
1	111	107	104	101	108	105	102	99	100	98	95	96	94	92	92	90	89	87
2	103	97	91	87	100	95	90	86	91	87	83	87	84	81	84	81	79	77
3	96	88	81	76	94	86	80	75	83	78	74	80	76	72	77	74	71	69
4	90	80	73	68	87	79	72	67	76	70	66	73	69	65	71	67	64	62
5	84	73	66	61	82	72	65	60	70	64	59	68	63	58	66	61	58	56
6	79	68	60	55	77	66	60	54	65	58	54	63	57	53	61	56	53	51
7	74	62	55	50	72	62	55	50	60	54	49	58	53	49	57	52	48	46
8	69	58	51	46	68	57	50	46	56	50	45	54	49	45	53	48	44	43
9	65	54	47	42	64	53	47	42	52	46	42	51	45	41	50	45	41	39
10	62	50	44	39	61	50	43	39	49	43	39	48	42	38	47	42	38	37

POLAR GRAPH



Maximum Candela = 7088.878 Located At Horizontal Angle = 90, 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)