

IES INDOOR REPORT**PHOTOMETRIC FILENAME : ALX16LX-140L35KEX-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

[MANUFAC] Spectrum Lighting

[LUMCAT] ALX16LX-140L-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	11488
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	103
Total Luminaire Watts	111.89
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	7775	7844	7889
55	5762	5834	5822
65	4056	4091	4082
75	2243	2211	2204
85	353	341	360

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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	7573.79	7573.79	7573.79	7573.79	7573.79	7573.79	7573.79	7573.79	7573.79	7573.79
2.5	7592.51	7570.02	7572.17	7578.62	7603.46	7578.62	7572.17	7570.02	7592.51	7570.02
5.0	7611.22	7566.24	7570.54	7583.45	7633.12	7583.45	7570.54	7566.24	7611.22	7566.24
7.5	7515.82	7487.05	7499.21	7502.53	7539.93	7502.53	7499.21	7487.05	7515.82	7487.05
10.0	7420.42	7407.86	7427.88	7421.60	7446.73	7421.60	7427.88	7407.86	7420.42	7407.86
12.5	7223.41	7221.61	7247.68	7199.44	7271.20	7199.44	7247.68	7221.61	7223.41	7221.61
15.0	7026.39	7035.35	7067.48	6977.27	7095.66	6977.27	7067.48	7035.35	7026.39	7035.35
17.5	6716.30	6758.00	6780.94	6705.14	6802.85	6705.14	6780.94	6758.00	6716.30	6758.00
20.0	6406.20	6480.64	6494.39	6433.00	6510.04	6433.00	6494.39	6480.64	6406.20	6480.64
22.5	6168.10	6217.46	6231.63	6194.36	6242.12	6194.36	6231.63	6217.46	6168.10	6217.46
25.0	5929.99	5954.27	5968.86	5955.72	5974.19	5955.72	5968.86	5954.27	5929.99	5954.27
27.5	5739.03	5765.45	5758.06	5738.23	5752.47	5738.23	5758.06	5765.45	5739.03	5765.45
30.0	5548.06	5576.63	5547.25	5520.73	5530.75	5520.73	5547.25	5576.63	5548.06	5576.63
32.5	4926.59	4946.22	4949.81	4953.63	4955.55	4953.63	4949.81	4946.22	4926.59	4946.22
35.0	4305.12	4315.81	4352.36	4386.53	4380.35	4386.53	4352.36	4315.81	4305.12	4315.81
37.5	3393.81	3407.08	3444.50	3462.89	3450.30	3462.89	3444.50	3407.08	3393.81	3407.08
40.0	2482.50	2498.35	2536.64	2539.24	2520.25	2539.24	2536.64	2498.35	2482.50	2498.35
42.5	1909.16	1930.19	1942.18	1943.89	1937.82	1943.89	1942.18	1930.19	1909.16	1930.19
45.0	1335.81	1362.03	1347.72	1348.54	1355.38	1348.54	1347.72	1362.03	1335.81	1362.03
47.5	1239.00	1250.64	1243.77	1235.44	1236.46	1235.44	1243.77	1250.64	1239.00	1250.64
50.0	1142.18	1139.24	1139.82	1122.33	1117.53	1122.33	1139.82	1139.24	1142.18	1139.24
52.5	1053.10	1058.89	1057.96	1049.27	1045.81	1049.27	1057.96	1058.89	1053.10	1058.89
55.0	964.02	978.54	976.09	976.21	974.09	976.21	976.09	978.54	964.02	978.54
57.5	885.86	894.00	894.37	892.43	895.14	892.43	894.37	894.00	885.86	894.00
60.0	807.70	809.47	812.66	808.65	816.20	808.65	812.66	809.47	807.70	809.47
62.5	723.68	727.81	728.94	725.62	729.99	725.62	728.94	727.81	723.68	727.81
65.0	639.65	646.15	645.21	642.58	643.78	642.58	645.21	646.15	639.65	646.15
67.5	557.33	563.64	562.40	558.87	559.80	558.87	562.40	563.64	557.33	563.64
70.0	475.00	481.12	479.59	475.16	475.82	475.16	479.59	481.12	475.00	481.12
72.5	398.23	397.09	398.28	395.61	395.86	395.61	398.28	397.09	398.23	397.09
75.0	321.46	313.05	316.96	316.05	315.89	316.05	316.96	313.05	321.46	313.05
77.5	245.80	240.59	242.63	240.74	242.91	240.74	242.63	240.59	245.80	240.59
80.0	170.14	168.13	168.30	165.43	169.93	165.43	168.30	168.13	170.14	168.13
82.5	107.08	105.74	105.42	104.54	107.41	104.54	105.42	105.74	107.08	105.74
85.0	44.02	43.34	42.54	43.65	44.89	43.65	42.54	43.34	44.02	43.34
87.5	22.52	22.17	21.78	22.50	23.21	22.50	21.78	22.17	22.52	22.17
90.0	1.02	1.00	1.01	1.34	1.53	1.34	1.01	1.00	1.02	1.00
92.5	2.55	2.19	2.42	2.70	2.61	2.70	2.42	2.19	2.55	2.19
95.0	4.08	3.38	3.82	4.05	3.68	4.05	3.82	3.38	4.08	3.38
97.5	5.89	5.72	5.90	5.94	5.95	5.94	5.90	5.72	5.89	5.72
100.0	7.70	8.05	7.98	7.82	8.21	7.82	7.98	8.05	7.70	8.05
102.5	12.30	12.41	13.04	12.92	13.44	12.92	13.04	12.41	12.30	12.41
105.0	16.89	16.76	18.10	18.01	18.66	18.01	18.10	16.76	16.89	16.76
107.5	26.06	25.38	25.76	26.27	25.74	26.27	25.76	25.38	26.06	25.38
110.0	35.23	34.00	33.42	34.52	32.81	34.52	33.42	34.00	35.23	34.00
112.5	41.10	39.62	39.22	39.86	40.55	39.86	39.22	39.62	41.10	39.62
115.0	46.97	45.24	45.02	45.20	48.28	45.20	45.02	45.24	46.97	45.24
117.5	52.04	50.60	48.67	49.91	50.08	49.91	48.67	50.60	52.04	50.60
120.0	57.11	55.95	52.32	54.62	51.87	54.62	52.32	55.95	57.11	55.95
122.5	55.04	58.84	56.16	56.28	54.63	56.28	56.16	58.84	55.04	58.84
125.0	52.97	61.72	59.99	57.93	57.38	57.93	59.99	61.72	52.97	61.72
127.5	60.43	65.77	62.39	61.22	61.90	61.22	62.39	65.77	60.43	65.77
130.0	67.88	69.82	64.78	64.50	66.42	64.50	64.78	69.82	67.88	69.82
132.5	70.70	72.43	69.25	69.37	69.03	69.37	69.25	72.43	70.70	72.43

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CANDELA TABULATION - (Cont.)

135.0	73.52	75.03	73.71	74.23	71.64	74.23	73.71	75.03	73.52	75.03
137.5	77.19	79.53	76.20	76.91	75.49	76.91	76.20	79.53	77.19	79.53
140.0	80.86	84.02	78.69	79.59	79.33	79.59	78.69	84.02	80.86	84.02
142.5	84.96	86.39	83.23	84.10	85.61	84.10	83.23	86.39	84.96	86.39
145.0	89.05	88.76	87.76	88.61	91.89	88.61	87.76	88.76	89.05	88.76
147.5	93.23	90.98	90.67	89.73	91.01	89.73	90.67	90.98	93.23	90.98
150.0	97.41	93.20	93.57	90.85	90.12	90.85	93.57	93.20	97.41	93.20
152.5	95.44	92.82	96.15	93.95	93.85	93.95	96.15	92.82	95.44	92.82
155.0	93.47	92.44	98.73	97.05	97.58	97.05	98.73	92.44	93.47	92.44
157.5	97.49	100.48	102.50	100.10	99.03	100.10	102.50	100.48	97.49	100.48
160.0	101.51	108.52	106.27	103.15	100.47	103.15	106.27	108.52	101.51	108.52
162.5	102.87	107.44	105.77	106.45	105.50	106.45	105.77	107.44	102.87	107.44
165.0	104.23	106.35	105.27	109.75	110.52	109.75	105.27	106.35	104.23	106.35
167.5	112.25	114.11	111.63	113.04	109.17	113.04	111.63	114.11	112.25	114.11
170.0	120.27	121.86	117.99	116.33	107.82	116.33	117.99	121.86	120.27	121.86
172.5	118.10	113.32	110.42	118.25	107.68	118.25	110.42	113.32	118.10	113.32
175.0	115.93	104.78	102.85	120.16	107.53	120.16	102.85	104.78	115.93	104.78
177.5	114.72	109.14	108.18	116.83	110.52	116.83	108.18	109.14	114.72	109.14
180.0	113.00	113.00	113.00	113.00	113.00	113.00	113.00	113.00	113.00	113.00

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	7573.79	7573.79	7573.79	7573.79	7573.79	7573.79	7573.79
2.5	7572.17	7578.62	7603.46	7578.62	7572.17	7570.02	7592.51
5.0	7570.54	7583.45	7633.12	7583.45	7570.54	7566.24	7611.22
7.5	7499.21	7502.53	7539.93	7502.53	7499.21	7487.05	7515.82
10.0	7427.88	7421.60	7446.73	7421.60	7427.88	7407.86	7420.42
12.5	7247.68	7199.44	7271.20	7199.44	7247.68	7221.61	7223.41
15.0	7067.48	6977.27	7095.66	6977.27	7067.48	7035.35	7026.39
17.5	6780.94	6705.14	6802.85	6705.14	6780.94	6758.00	6716.30
20.0	6494.39	6433.00	6510.04	6433.00	6494.39	6480.64	6406.20
22.5	6231.63	6194.36	6242.12	6194.36	6231.63	6217.46	6168.10
25.0	5968.86	5955.72	5974.19	5955.72	5968.86	5954.27	5929.99
27.5	5758.06	5738.23	5752.47	5738.23	5758.06	5765.45	5739.03
30.0	5547.25	5520.73	5530.75	5520.73	5547.25	5576.63	5548.06
32.5	4949.81	4953.63	4955.55	4953.63	4949.81	4946.22	4926.59
35.0	4352.36	4386.53	4380.35	4386.53	4352.36	4315.81	4305.12
37.5	3444.50	3462.89	3450.30	3462.89	3444.50	3407.08	3393.81
40.0	2536.64	2539.24	2520.25	2539.24	2536.64	2498.35	2482.50
42.5	1942.18	1943.89	1937.82	1943.89	1942.18	1930.19	1909.16
45.0	1347.72	1348.54	1355.38	1348.54	1347.72	1362.03	1335.81
47.5	1243.77	1235.44	1236.46	1235.44	1243.77	1250.64	1239.00
50.0	1139.82	1122.33	1117.53	1122.33	1139.82	1139.24	1142.18
52.5	1057.96	1049.27	1045.81	1049.27	1057.96	1058.89	1053.10
55.0	976.09	976.21	974.09	976.21	976.09	978.54	964.02
57.5	894.37	892.43	895.14	892.43	894.37	894.00	885.86
60.0	812.66	808.65	816.20	808.65	812.66	809.47	807.70
62.5	728.94	725.62	729.99	725.62	728.94	727.81	723.68
65.0	645.21	642.58	643.78	642.58	645.21	646.15	639.65
67.5	562.40	558.87	559.80	558.87	562.40	563.64	557.33
70.0	479.59	475.16	475.82	475.16	479.59	481.12	475.00
72.5	398.28	395.61	395.86	395.61	398.28	397.09	398.23
75.0	316.96	316.05	315.89	316.05	316.96	313.05	321.46
77.5	242.63	240.74	242.91	240.74	242.63	240.59	245.80
80.0	168.30	165.43	169.93	165.43	168.30	168.13	170.14

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CANDELA TABULATION - (Cont.)

82.5	105.42	104.54	107.41	104.54	105.42	105.74	107.08
85.0	42.54	43.65	44.89	43.65	42.54	43.34	44.02
87.5	21.78	22.50	23.21	22.50	21.78	22.17	22.52
90.0	1.01	1.34	1.53	1.34	1.01	1.00	1.02
92.5	2.42	2.70	2.61	2.70	2.42	2.19	2.55
95.0	3.82	4.05	3.68	4.05	3.82	3.38	4.08
97.5	5.90	5.94	5.95	5.94	5.90	5.72	5.89
100.0	7.98	7.82	8.21	7.82	7.98	8.05	7.70
102.5	13.04	12.92	13.44	12.92	13.04	12.41	12.30
105.0	18.10	18.01	18.66	18.01	18.10	16.76	16.89
107.5	25.76	26.27	25.74	26.27	25.76	25.38	26.06
110.0	33.42	34.52	32.81	34.52	33.42	34.00	35.23
112.5	39.22	39.86	40.55	39.86	39.22	39.62	41.10
115.0	45.02	45.20	48.28	45.20	45.02	45.24	46.97
117.5	48.67	49.91	50.08	49.91	48.67	50.60	52.04
120.0	52.32	54.62	51.87	54.62	52.32	55.95	57.11
122.5	56.16	56.28	54.63	56.28	56.16	58.84	55.04
125.0	59.99	57.93	57.38	57.93	59.99	61.72	52.97
127.5	62.39	61.22	61.90	61.22	62.39	65.77	60.43
130.0	64.78	64.50	66.42	64.50	64.78	69.82	67.88
132.5	69.25	69.37	69.03	69.37	69.25	72.43	70.70
135.0	73.71	74.23	71.64	74.23	73.71	75.03	73.52
137.5	76.20	76.91	75.49	76.91	76.20	79.53	77.19
140.0	78.69	79.59	79.33	79.59	78.69	84.02	80.86
142.5	83.23	84.10	85.61	84.10	83.23	86.39	84.96
145.0	87.76	88.61	91.89	88.61	87.76	88.76	89.05
147.5	90.67	89.73	91.01	89.73	90.67	90.98	93.23
150.0	93.57	90.85	90.12	90.85	93.57	93.20	97.41
152.5	96.15	93.95	93.85	93.95	96.15	92.82	95.44
155.0	98.73	97.05	97.58	97.05	98.73	92.44	93.47
157.5	102.50	100.10	99.03	100.10	102.50	100.48	97.49
160.0	106.27	103.15	100.47	103.15	106.27	108.52	101.51
162.5	105.77	106.45	105.50	106.45	105.77	107.44	102.87
165.0	105.27	109.75	110.52	109.75	105.27	106.35	104.23
167.5	111.63	113.04	109.17	113.04	111.63	114.11	112.25
170.0	117.99	116.33	107.82	116.33	117.99	121.86	120.27
172.5	110.42	118.25	107.68	118.25	110.42	113.32	118.10
175.0	102.85	120.16	107.53	120.16	102.85	104.78	115.93
177.5	108.18	116.83	110.52	116.83	108.18	109.14	114.72
180.0	113.00	113.00	113.00	113.00	113.00	113.00	113.00

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	2685.3	N.A.	23.40
0-30	5441.69	N.A.	47.40
0-40	8037.41	N.A.	70.00
0-60	10123.32	N.A.	88.10
0-80	11097.39	N.A.	96.60
0-90	11167.02	N.A.	97.20
10-90	10449.36	N.A.	91.00
20-40	5352.11	N.A.	46.60
20-50	6567.52	N.A.	57.20
40-70	2723.13	N.A.	23.70
60-80	974.07	N.A.	8.50
70-80	336.85	N.A.	2.90
80-90	69.63	N.A.	0.60
90-110	24.87	N.A.	0.20
90-120	69.38	N.A.	0.60
90-130	122.73	N.A.	1.10
90-150	234.70	N.A.	2.00
90-180	321.18	N.A.	2.80
110-180	296.31	N.A.	2.60
0-180	11488.21	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	717.67
10-20	1967.63
20-30	2756.39
30-40	2595.72
40-50	1215.41
50-60	870.50
60-70	637.23
70-80	336.85
80-90	69.63
90-100	4.54
100-110	20.33
110-120	44.51
120-130	53.35
130-140	56.96
140-150	55.01
150-160	44.90
160-170	30.76
170-180	10.82

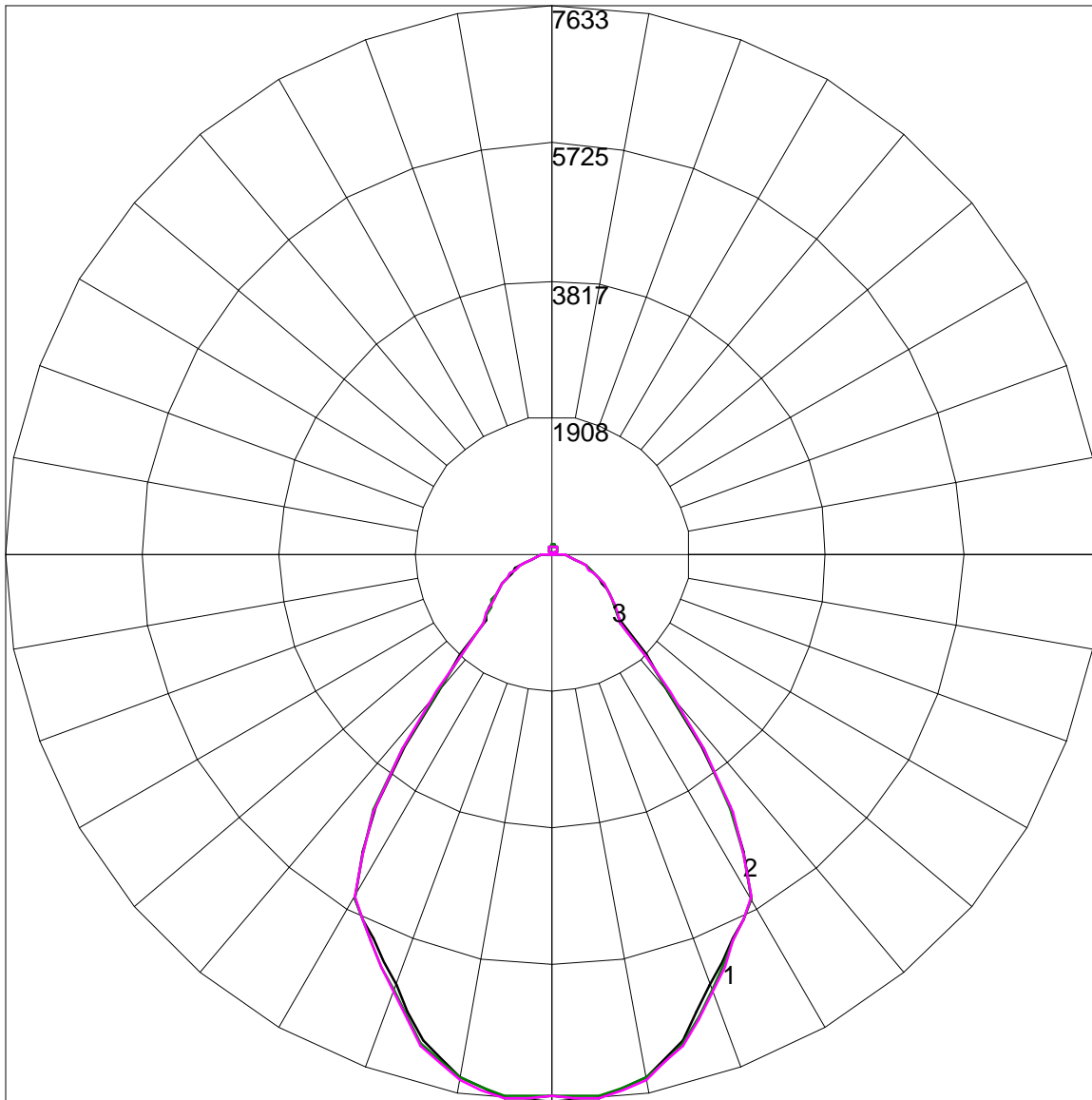
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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 = 7633.12 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)