

IES INDOOR REPORT**PHOTOMETRIC FILENAME : ALXXX16LX-140L35KEX-AL16.IES****DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002

[TEST]

[TESTLAB] Intertek

[ISSUE DATE] 10/18/2017

[UPDATE] 2/15/2018

[LAB-REF LUMCAT] CRT1709151315-001-006-NL_M-140L-35K

[MANUFAC] SPECTRUM

[LUMCAT] ALxxx16LX-140L-35K-EX-AL16

[LUMINAIRE] 16" Diam. LED Low Bay: Spun Aluminum Reflector

[OTHER] Matte white, inside reflector finish

[OTHER] Open aperture; No Lens

[OTHER] 73 Deg. Beam Angle

[LAMP] N/A

[LAMPCAT] N/A

[OTHER] Tested as ALDDH16LX, data applicable to ALEXT16LX & ALEXL16LX

[OTHER] Total Luminaire Watts is approximate

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

[OTHER] This report updated by Spectrum Lighting, scaled from 65K-27L

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	11677
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	104
Total Luminaire Watts	111.89
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.14
Spacing Criterion (90-270)	1.14
Spacing Criterion (Diagonal)	1.08
Basic Luminous Shape	Circular
Luminous Length (0-180)	1.29 ft (Diameter)
Luminous Width (90-270)	1.29 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	15602	15561	15533
55	15073	15057	15076
65	13963	13963	14006
75	12203	12196	12288
85	7344	7365	7679

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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	7637.813	7637.813	7637.813	7637.813	7637.813	7637.813	7637.813	7637.813	7637.813	7637.813
2.5	7643.354	7637.591	7637.148	7630.056	7649.116	7630.056	7637.148	7637.591	7643.354	7637.591
5.0	7637.591	7650.446	7632.937	7651.333	7650.003	7651.333	7632.937	7650.446	7637.591	7650.446
7.5	7599.914	7603.017	7613.655	7601.466	7610.331	7601.466	7613.655	7603.017	7599.914	7603.017
10.0	7520.128	7522.787	7517.025	7505.278	7513.922	7505.278	7517.025	7522.787	7520.128	7522.787
12.5	7381.830	7386.706	7376.290	7363.214	7377.841	7363.214	7376.290	7386.706	7381.830	7386.706
15.0	7177.044	7174.385	7168.844	7150.449	7168.401	7150.449	7168.844	7174.385	7177.044	7174.385
17.5	6895.574	6902.001	6886.709	6883.828	6895.353	6883.828	6886.709	6902.001	6895.574	6902.001
20.0	6600.363	6609.450	6594.601	6601.914	6604.352	6601.914	6594.601	6609.450	6600.363	6609.450
22.5	6333.077	6340.834	6337.510	6337.953	6339.505	6337.953	6337.510	6340.834	6333.077	6340.834
25.0	6110.561	6114.550	6116.323	6120.534	6117.431	6120.534	6116.323	6114.550	6110.561	6114.550
27.5	5947.441	5949.657	5941.679	5953.647	5948.549	5953.647	5941.679	5949.657	5947.441	5949.657
30.0	5788.532	5789.641	5790.305	5790.305	5789.197	5790.305	5790.305	5789.641	5788.532	5789.641
32.5	5389.598	5432.151	5422.178	5421.956	5402.231	5421.956	5422.178	5432.151	5389.598	5432.151
35.0	4546.296	4582.200	4570.454	4589.292	4584.195	4589.292	4570.454	4582.200	4546.296	4582.200
37.5	3534.555	3586.417	3575.335	3587.303	3606.142	3587.303	3575.335	3586.417	3534.555	3586.417
40.0	2585.092	2633.629	2642.938	2658.673	2672.636	2658.673	2642.938	2633.629	2585.092	2633.629
42.5	1710.984	1754.423	1742.898	1772.153	1780.354	1772.153	1742.898	1754.423	1710.984	1754.423
45.0	1340.862	1341.083	1337.315	1333.769	1334.877	1333.769	1337.315	1341.083	1340.862	1341.083
47.5	1278.583	1279.248	1275.037	1270.605	1272.599	1270.605	1275.037	1279.248	1278.583	1279.248
50.0	1210.321	1211.873	1207.884	1204.781	1206.332	1204.781	1207.884	1211.873	1210.321	1211.873
52.5	1132.973	1134.524	1131.421	1129.870	1130.978	1129.870	1131.421	1134.524	1132.973	1134.524
55.0	1050.748	1052.743	1049.640	1048.753	1050.969	1048.753	1049.640	1052.743	1050.748	1052.743
57.5	967.858	970.296	966.750	965.864	968.745	965.864	966.750	970.296	967.858	970.296
60.0	885.412	888.293	884.747	883.639	887.185	883.639	884.747	888.293	885.412	888.293
62.5	802.522	802.965	801.636	800.306	803.852	800.306	801.636	802.965	802.522	802.965
65.0	717.195	718.746	717.195	716.308	719.411	716.308	717.195	718.746	717.195	718.746
67.5	632.532	633.640	632.532	631.424	634.305	631.424	632.532	633.640	632.532	633.640
70.0	548.978	550.972	548.313	548.091	550.529	548.091	548.313	550.972	548.978	550.972
72.5	466.753	466.531	464.758	464.315	468.083	464.315	464.758	466.531	466.753	466.531
75.0	383.863	385.415	383.642	382.977	386.523	382.977	383.642	385.415	383.863	385.415
77.5	304.963	305.185	304.520	303.633	306.958	303.633	304.520	305.185	304.963	305.185
80.0	226.063	227.836	226.284	225.619	228.944	225.619	226.284	227.836	226.063	227.836
82.5	151.595	151.817	150.708	150.265	153.146	150.265	150.708	151.817	151.595	151.817
85.0	77.792	80.008	78.014	78.235	81.338	78.235	78.014	80.008	77.792	80.008
87.5	13.519	14.406	13.741	13.963	16.844	13.963	13.741	14.406	13.519	14.406
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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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. 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	7637.813	7637.813	7637.813	7637.813	7637.813	7637.813	7637.813
2.5	7637.148	7630.056	7649.116	7630.056	7637.148	7637.591	7643.354
5.0	7632.937	7651.333	7650.003	7651.333	7632.937	7650.446	7637.591
7.5	7613.655	7601.466	7610.331	7601.466	7613.655	7603.017	7599.914
10.0	7517.025	7505.278	7513.922	7505.278	7517.025	7522.787	7520.128
12.5	7376.290	7363.214	7377.841	7363.214	7376.290	7386.706	7381.830
15.0	7168.844	7150.449	7168.401	7150.449	7168.844	7174.385	7177.044
17.5	6886.709	6883.828	6895.353	6883.828	6886.709	6902.001	6895.574
20.0	6594.601	6601.914	6604.352	6601.914	6594.601	6609.450	6600.363
22.5	6337.510	6337.953	6339.505	6337.953	6337.510	6340.834	6333.077
25.0	6116.323	6120.534	6117.431	6120.534	6116.323	6114.550	6110.561
27.5	5941.679	5953.647	5948.549	5953.647	5941.679	5949.657	5947.441
30.0	5790.305	5790.305	5789.197	5790.305	5790.305	5789.641	5788.532
32.5	5422.178	5421.956	5402.231	5421.956	5422.178	5432.151	5389.598
35.0	4570.454	4589.292	4584.195	4589.292	4570.454	4582.200	4546.296
37.5	3575.335	3587.303	3606.142	3587.303	3575.335	3586.417	3534.555
40.0	2642.938	2658.673	2672.636	2658.673	2642.938	2633.629	2585.092
42.5	1742.898	1772.153	1780.354	1772.153	1742.898	1754.423	1710.984
45.0	1337.315	1333.769	1334.877	1333.769	1337.315	1341.083	1340.862
47.5	1275.037	1270.605	1272.599	1270.605	1275.037	1279.248	1278.583
50.0	1207.884	1204.781	1206.332	1204.781	1207.884	1211.873	1210.321
52.5	1131.421	1129.870	1130.978	1129.870	1131.421	1134.524	1132.973
55.0	1049.640	1048.753	1050.969	1048.753	1049.640	1052.743	1050.748
57.5	966.750	965.864	968.745	965.864	966.750	970.296	967.858
60.0	884.747	883.639	887.185	883.639	884.747	888.293	885.412
62.5	801.636	800.306	803.852	800.306	801.636	802.965	802.522
65.0	717.195	716.308	719.411	716.308	717.195	718.746	717.195
67.5	632.532	631.424	634.305	631.424	632.532	633.640	632.532
70.0	548.313	548.091	550.529	548.091	548.313	550.972	548.978
72.5	464.758	464.315	468.083	464.315	464.758	466.531	466.753
75.0	383.642	382.977	386.523	382.977	383.642	385.415	383.863
77.5	304.520	303.633	306.958	303.633	304.520	305.185	304.963
80.0	226.284	225.619	228.944	225.619	226.284	227.836	226.063

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CANDELA TABULATION - (Cont.)

82.5	150.708	150.265	153.146	150.265	150.708	151.817	151.595
85.0	78.014	78.235	81.338	78.235	78.014	80.008	77.792
87.5	13.741	13.963	16.844	13.963	13.741	14.406	13.519
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	2731.31	N.A.	23.40
0-30	5566.94	N.A.	47.70
0-40	8319.81	N.A.	71.20
0-60	10463.2	N.A.	89.60
0-80	11580.08	N.A.	99.20
0-90	11677.39	N.A.	100.00
10-90	10951.85	N.A.	93.80
20-40	5588.49	N.A.	47.90
20-50	6793.27	N.A.	58.20
40-70	2853.45	N.A.	24.40
60-80	1116.88	N.A.	9.60
70-80	406.82	N.A.	3.50
80-90	97.31	N.A.	0.80
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	11677.39	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	725.54
10-20	2005.77
20-30	2835.63
30-40	2752.86
40-50	1204.78
50-60	938.61
60-70	710.05
70-80	406.83
80-90	97.31
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

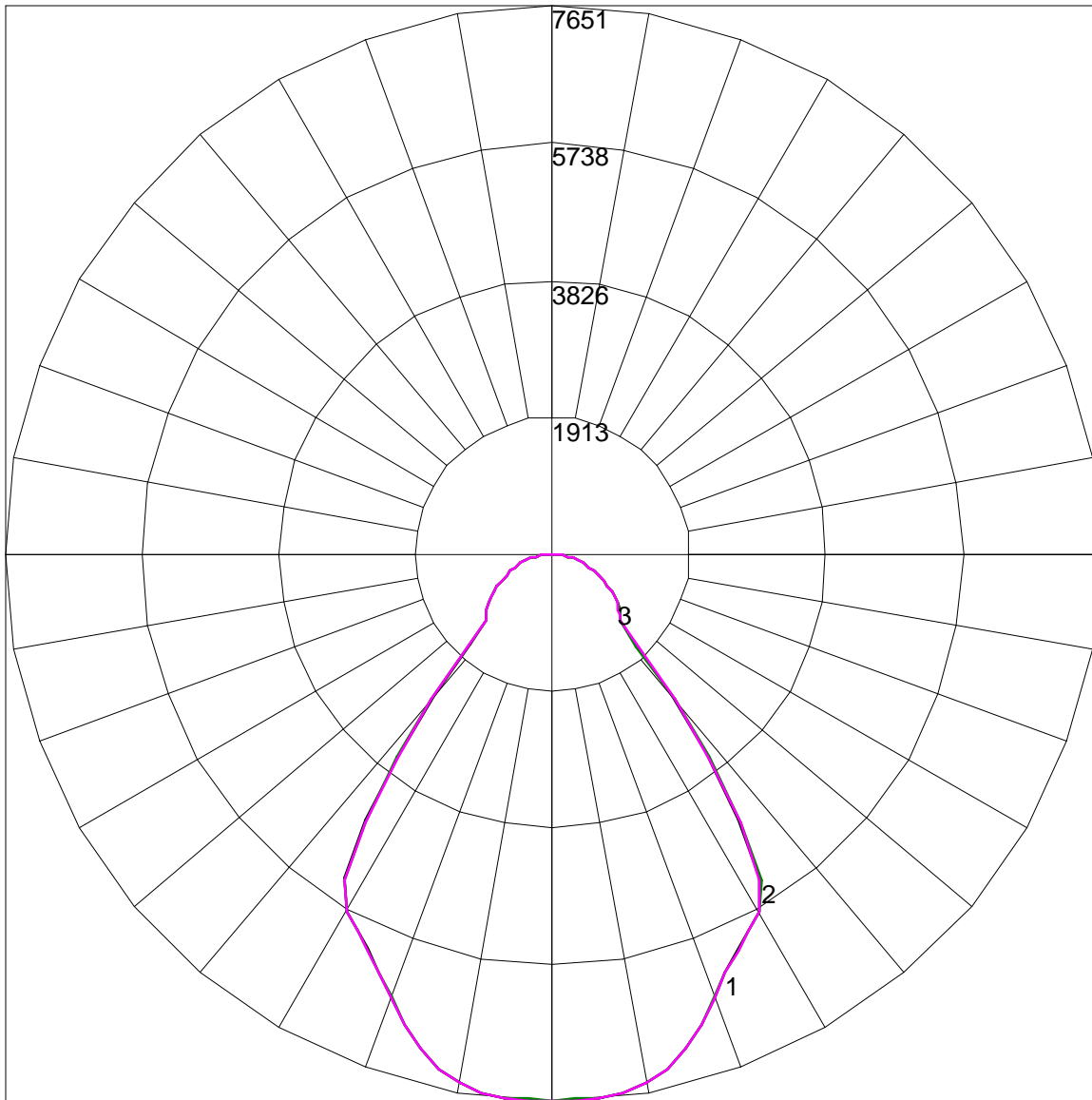
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	111	107	104	101	109	105	102	99	101	99	96	97	95	93	94	92	91	89
2	103	97	91	87	101	95	90	86	92	88	84	89	85	82	86	83	80	78
3	96	88	81	76	94	86	80	75	84	78	74	81	77	73	79	75	72	70
4	90	80	73	67	88	79	72	67	76	71	66	74	69	65	72	68	64	63
5	84	73	66	60	82	72	65	60	70	64	60	69	63	59	67	62	58	57
6	79	68	60	55	77	67	60	54	65	59	54	63	58	54	62	57	53	51
7	74	62	55	50	72	62	55	50	60	54	49	59	53	49	58	53	49	47
8	70	58	51	46	68	57	50	46	56	50	45	55	49	45	54	49	45	43
9	66	54	47	42	64	53	47	42	52	46	42	51	46	42	50	45	41	40
10	62	50	44	39	61	50	43	39	49	43	39	48	43	39	47	42	38	37

POLAR GRAPH



Maximum Candela = 7651.333 Located At Horizontal Angle = 67.5, 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)