

IES INDOOR REPORT**PHOTOMETRIC FILENAME : ALXXX16LX-130L35KEX-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-130L-35K

[MANUFAC] SPECTRUM

[LUMCAT] ALxxx16LX-130L-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	10844
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	104
Total Luminaire Watts	103.89
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	14489	14451	14425
55	13998	13983	14001
65	12967	12967	13007
75	11333	11326	11411
85	6820	6840	7131

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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	7092.968	7092.968	7092.968	7092.968	7092.968	7092.968	7092.968	7092.968	7092.968	7092.968
2.5	7098.114	7092.763	7092.351	7085.765	7103.465	7085.765	7092.351	7092.763	7098.114	7092.763
5.0	7092.763	7104.700	7088.440	7105.523	7104.289	7105.523	7088.440	7104.700	7092.763	7104.700
7.5	7057.773	7060.655	7070.534	7059.214	7067.447	7059.214	7070.534	7060.655	7057.773	7060.655
10.0	6983.678	6986.148	6980.797	6969.888	6977.915	6969.888	6980.797	6986.148	6983.678	6986.148
12.5	6855.246	6859.774	6850.101	6837.957	6851.542	6837.957	6850.101	6859.774	6855.246	6859.774
15.0	6665.069	6662.599	6657.453	6640.370	6657.042	6640.370	6657.453	6662.599	6665.069	6662.599
17.5	6403.677	6409.646	6395.444	6392.769	6403.471	6392.769	6395.444	6409.646	6403.677	6409.646
20.0	6129.525	6137.964	6124.174	6130.966	6133.230	6130.966	6124.174	6137.964	6129.525	6137.964
22.5	5881.306	5888.510	5885.423	5885.834	5887.275	5885.834	5885.423	5888.510	5881.306	5888.510
25.0	5674.663	5678.368	5680.014	5683.925	5681.043	5683.925	5680.014	5678.368	5674.663	5678.368
27.5	5523.179	5525.238	5517.828	5528.942	5524.208	5528.942	5517.828	5525.238	5523.179	5525.238
30.0	5375.606	5376.636	5377.253	5377.253	5376.224	5377.253	5377.253	5376.636	5375.606	5376.636
32.5	5005.130	5044.648	5035.386	5035.180	5016.862	5035.180	5035.386	5044.648	5005.130	5044.648
35.0	4221.985	4255.328	4244.420	4261.914	4257.181	4261.914	4244.420	4255.328	4221.985	4255.328
37.5	3282.417	3330.579	3320.288	3331.402	3348.897	3331.402	3320.288	3330.579	3282.417	3330.579
40.0	2400.684	2445.759	2454.403	2469.017	2481.983	2469.017	2454.403	2445.759	2400.684	2445.759
42.5	1588.930	1629.271	1618.568	1645.737	1653.352	1645.737	1618.568	1629.271	1588.930	1629.271
45.0	1245.211	1245.417	1241.918	1238.625	1239.654	1238.625	1241.918	1245.417	1245.211	1245.417
47.5	1187.376	1187.993	1184.082	1179.966	1181.818	1179.966	1184.082	1187.993	1187.376	1187.993
50.0	1123.983	1125.424	1121.719	1118.837	1120.278	1118.837	1121.719	1125.424	1123.983	1125.424
52.5	1052.152	1053.593	1050.711	1049.270	1050.299	1049.270	1050.711	1053.593	1052.152	1053.593
55.0	975.793	977.645	974.763	973.940	975.998	973.940	974.763	977.645	975.793	977.645
57.5	898.816	901.080	897.787	896.964	899.639	896.964	897.787	901.080	898.816	901.080
60.0	822.251	824.927	821.633	820.604	823.897	820.604	821.633	824.927	822.251	824.927
62.5	745.274	745.686	744.451	743.216	746.509	743.216	744.451	745.686	745.274	745.686
65.0	666.033	667.474	666.033	665.210	668.092	665.210	666.033	667.474	666.033	667.474
67.5	587.410	588.439	587.410	586.381	589.057	586.381	587.410	588.439	587.410	588.439
70.0	509.816	511.668	509.199	508.993	511.257	508.993	509.199	511.668	509.816	511.668
72.5	433.457	433.251	431.605	431.193	434.692	431.193	431.605	433.251	433.457	433.251
75.0	356.480	357.921	356.274	355.657	358.950	355.657	356.274	357.921	356.480	357.921
77.5	283.208	283.414	282.797	281.973	285.061	281.973	282.797	283.414	283.208	283.414
80.0	209.936	211.583	210.142	209.525	212.612	209.525	210.142	211.583	209.936	211.583
82.5	140.781	140.987	139.958	139.546	142.222	139.546	139.958	140.987	140.781	140.987
85.0	72.243	74.301	72.449	72.654	75.536	72.654	72.449	74.301	72.243	74.301
87.5	12.555	13.378	12.761	12.967	15.642	12.967	12.761	13.378	12.555	13.378
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. 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	7092.968	7092.968	7092.968	7092.968	7092.968	7092.968	7092.968
2.5	7092.351	7085.765	7103.465	7085.765	7092.351	7092.763	7098.114
5.0	7088.440	7105.523	7104.289	7105.523	7088.440	7104.700	7092.763
7.5	7070.534	7059.214	7067.447	7059.214	7070.534	7060.655	7057.773
10.0	6980.797	6969.888	6977.915	6969.888	6980.797	6986.148	6983.678
12.5	6850.101	6837.957	6851.542	6837.957	6850.101	6859.774	6855.246
15.0	6657.453	6640.370	6657.042	6640.370	6657.453	6662.599	6665.069
17.5	6395.444	6392.769	6403.471	6392.769	6395.444	6409.646	6403.677
20.0	6124.174	6130.966	6133.230	6130.966	6124.174	6137.964	6129.525
22.5	5885.423	5885.834	5887.275	5885.834	5885.423	5888.510	5881.306
25.0	5680.014	5683.925	5681.043	5683.925	5680.014	5678.368	5674.663
27.5	5517.828	5528.942	5524.208	5528.942	5517.828	5525.238	5523.179
30.0	5377.253	5377.253	5376.224	5377.253	5377.253	5376.636	5375.606
32.5	5035.386	5035.180	5016.862	5035.180	5035.386	5044.648	5005.130
35.0	4244.420	4261.914	4257.181	4261.914	4244.420	4255.328	4221.985
37.5	3320.288	3331.402	3348.897	3331.402	3320.288	3330.579	3282.417
40.0	2454.403	2469.017	2481.983	2469.017	2454.403	2445.759	2400.684
42.5	1618.568	1645.737	1653.352	1645.737	1618.568	1629.271	1588.930
45.0	1241.918	1238.625	1239.654	1238.625	1241.918	1245.417	1245.211
47.5	1184.082	1179.966	1181.818	1179.966	1184.082	1187.993	1187.376
50.0	1121.719	1118.837	1120.278	1118.837	1121.719	1125.424	1123.983
52.5	1050.711	1049.270	1050.299	1049.270	1050.711	1053.593	1052.152
55.0	974.763	973.940	975.998	973.940	974.763	977.645	975.793
57.5	897.787	896.964	899.639	896.964	897.787	901.080	898.816
60.0	821.633	820.604	823.897	820.604	821.633	824.927	822.251
62.5	744.451	743.216	746.509	743.216	744.451	745.686	745.274
65.0	666.033	665.210	668.092	665.210	666.033	667.474	666.033
67.5	587.410	586.381	589.057	586.381	587.410	588.439	587.410
70.0	509.199	508.993	511.257	508.993	509.199	511.668	509.816
72.5	431.605	431.193	434.692	431.193	431.605	433.251	433.457
75.0	356.274	355.657	358.950	355.657	356.274	357.921	356.480
77.5	282.797	281.973	285.061	281.973	282.797	283.414	283.208
80.0	210.142	209.525	212.612	209.525	210.142	211.583	209.936

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CANDELA TABULATION - (Cont.)

82.5	139.958	139.546	142.222	139.546	139.958	140.987	140.781
85.0	72.449	72.654	75.536	72.654	72.449	74.301	72.243
87.5	12.761	12.967	15.642	12.967	12.761	13.378	12.555
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	2536.47	N.A.	23.40
0-30	5169.83	N.A.	47.70
0-40	7726.31	N.A.	71.20
0-60	9716.81	N.A.	89.60
0-80	10754.01	N.A.	99.20
0-90	10844.39	N.A.	100.00
10-90	10170.6	N.A.	93.80
20-40	5189.84	N.A.	47.90
20-50	6308.67	N.A.	58.20
40-70	2649.9	N.A.	24.40
60-80	1037.21	N.A.	9.60
70-80	377.80	N.A.	3.50
80-90	90.37	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	10844.39	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	673.78
10-20	1862.69
20-30	2633.35
30-40	2556.49
40-50	1118.84
50-60	871.66
60-70	659.40
70-80	377.80
80-90	90.37
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

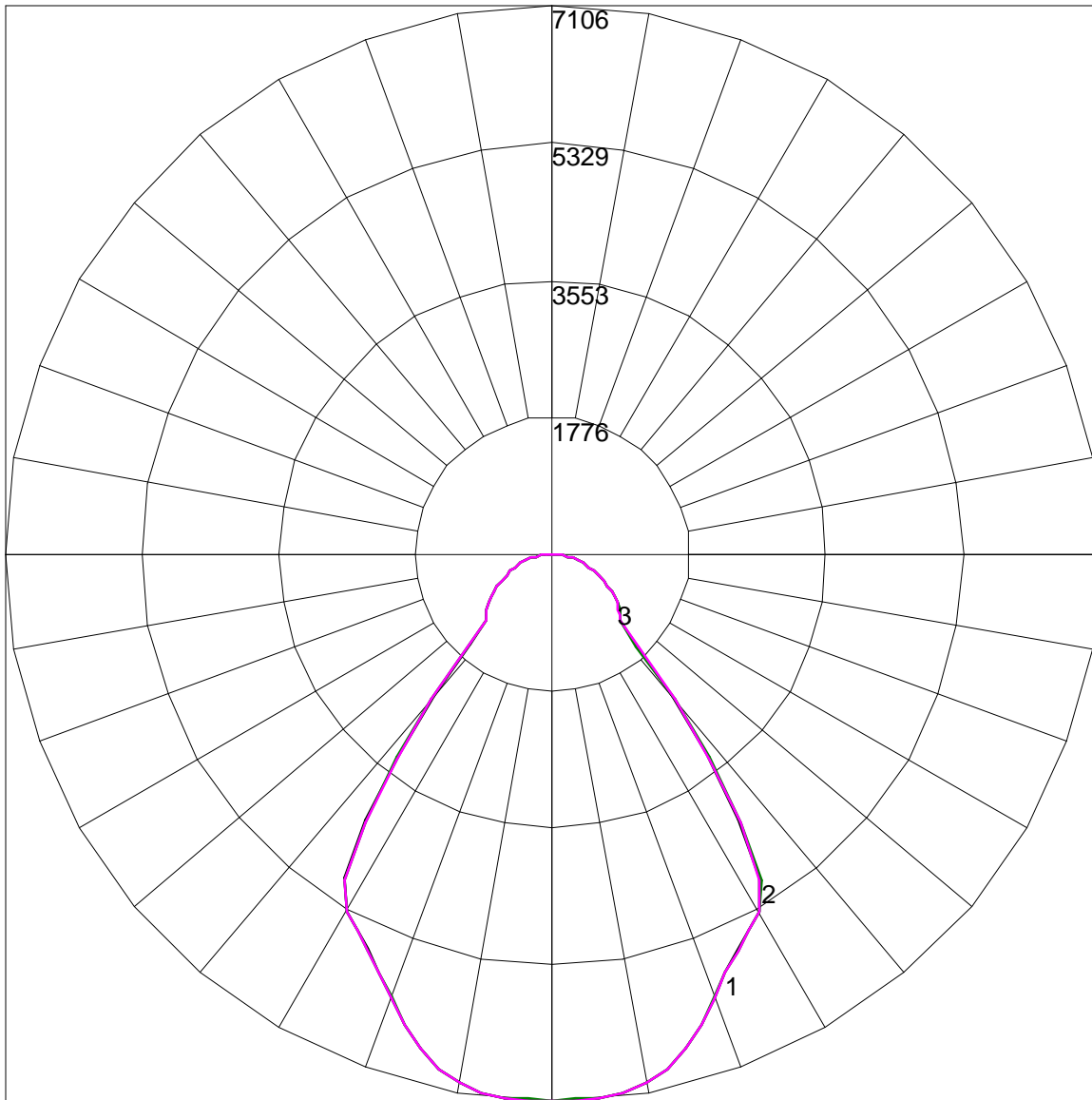
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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 = 7105.523 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)