

**IES INDOOR REPORT**
**PHOTOMETRIC FILENAME : SP-00660\_2 ~ CP0608XT-20L35K-OSD-EX-FASAL-PT.IES**
**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
 [TEST] SP-00661\_2  
 [TESTLAB] Spectrum Lighting Photometric Lab, VLS-245-981  
 [MANUFAC] Spectrum Lighting  
 [ISSUEDATE] 7/9/2018  
 [LUMCAT] CP0608XT-20L35K-OSD-EX-FASAL-PT  
 [LUMINAIRE] Nom 6" diam x 8.2" H, Carli Pendant decorative luminaire  
 [LAMPCAT] N/A  
 [LAMP] N/A, 19mm LES  
 [OTHER] Open Spherical Diffuser at LED  
 [OTHER] Frosted Acrylic Upper Lens  
 [OTHER] Aluminum Shade  
 [OTHER] 83.1% Downlight  
 [OTHER] 16.9% Uplight  
 [OTHER] Luminaire tested with Platinum painted finish  
 [OTHER] Total Luminaire watts is approximate  
 [OTHER] This report prepared by Spectrum Lighting  
 [\_CCTMULT] same for all available CCT's  
 [\_CRI] 83  
 [\_LAMPMULT] 10L x 0.48, 13L x 0.65

**CHARACTERISTICS**

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1051
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	48
Total Luminaire Watts	21.7
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	0.62
Spacing Criterion (90-270)	0.64
Spacing Criterion (Diagonal)	0.66
Basic Luminous Shape	Circular w/ Sides
Luminous Length (0-180)	0.50 ft (Diameter)
Luminous Width (90-270)	0.50 ft (Diameter)
Luminous Height	0.12 ft

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : SP-00660\_2 ~ CP0608XT-20L35K-OSD-EX-FASAL-PT.IES****LUMINANCE DATA (cd/sq.m)**

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	7384	7179	7533
55	5314	5046	5185
65	6129	5978	5578
75	6893	7022	6599
85	9529	9366	8833

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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>
<b>0.0</b>	829.648	829.648	829.648	829.648	829.648	829.648	829.648	829.648	829.648	829.648
<b>2.5</b>	828.211	831.532	827.097	830.260	828.024	828.660	830.899	827.190	830.589	828.306
<b>5.0</b>	825.912	819.857	821.488	818.685	824.942	819.317	819.448	827.524	823.927	824.911
<b>7.5</b>	792.795	805.237	790.345	797.306	790.364	791.194	799.408	798.701	808.598	807.641
<b>10.0</b>	741.991	738.315	728.049	737.980	732.156	723.611	743.308	748.633	763.376	755.883
<b>12.5</b>	658.699	662.886	647.683	656.944	652.409	646.707	665.609	671.119	689.618	689.803
<b>15.0</b>	560.587	566.032	549.377	566.349	559.415	553.708	576.344	576.976	600.568	594.790
<b>17.5</b>	465.407	467.096	456.427	471.337	469.771	463.573	481.373	482.341	499.298	499.275
<b>20.0</b>	371.288	381.132	367.929	387.575	381.802	377.426	396.311	387.468	408.515	402.949
<b>22.5</b>	305.894	296.056	301.377	307.864	314.100	307.836	315.084	318.082	324.514	323.650
<b>25.0</b>	248.494	258.243	249.615	262.348	254.346	256.962	266.707	258.516	271.172	266.892
<b>27.5</b>	226.016	222.051	223.411	226.504	229.903	227.244	228.010	231.997	233.723	230.487
<b>30.0</b>	210.506	211.972	211.042	213.709	216.240	217.556	214.719	215.366	215.359	216.297
<b>32.5</b>	198.127	201.314	197.558	205.606	204.115	205.889	207.132	202.370	205.062	203.527
<b>35.0</b>	186.184	185.787	183.580	189.853	192.341	192.698	192.010	190.165	190.867	192.018
<b>37.5</b>	170.479	170.331	168.303	173.080	176.612	177.553	175.743	173.674	175.402	176.830
<b>40.0</b>	154.488	155.262	152.581	156.673	160.268	161.174	159.573	156.536	159.702	158.909
<b>42.5</b>	139.445	140.322	136.801	140.295	143.636	144.178	143.412	140.214	143.943	142.949
<b>45.0</b>	124.465	125.883	121.005	125.207	126.975	126.864	128.327	123.966	129.062	128.166
<b>47.5</b>	111.064	111.795	108.323	110.192	113.846	112.944	113.324	112.332	114.336	114.774
<b>50.0</b>	97.960	98.763	96.233	96.848	100.878	100.396	101.010	100.857	101.494	102.048
<b>52.5</b>	88.457	87.826	85.962	84.035	89.189	89.215	89.006	89.851	88.859	90.960
<b>55.0</b>	79.941	81.751	75.913	77.931	78.005	78.467	81.921	79.498	84.027	80.508
<b>57.5</b>	78.393	78.053	75.228	72.734	75.253	75.437	75.558	78.749	79.614	78.173
<b>60.0</b>	77.249	78.722	75.188	73.899	72.719	74.246	75.007	78.085	78.977	78.235
<b>62.5</b>	78.049	79.039	75.808	74.684	71.989	73.459	74.601	78.079	78.316	77.169
<b>65.0</b>	78.291	78.821	76.363	73.596	71.251	72.738	74.948	77.843	76.924	75.861
<b>67.5</b>	76.589	78.141	75.075	72.515	70.463	71.420	74.624	76.395	75.470	74.388
<b>70.0</b>	74.650	76.891	73.780	71.462	69.564	70.037	71.720	74.776	73.401	72.889
<b>72.5</b>	72.065	75.410	72.405	70.370	68.230	68.452	69.281	72.517	71.453	71.746
<b>75.0</b>	69.722	73.693	71.032	69.173	66.749	66.856	68.184	70.469	70.226	70.634
<b>77.5</b>	67.896	72.561	69.674	68.168	64.839	65.131	66.693	69.026	69.094	68.595
<b>80.0</b>	67.060	71.918	68.396	67.576	63.480	63.500	64.307	68.029	68.353	66.541
<b>82.5</b>	67.906	71.303	67.474	66.979	63.389	63.631	63.102	68.042	67.735	65.620
<b>85.0</b>	68.127	70.706	66.962	66.376	63.149	63.785	64.061	67.370	67.512	64.770
<b>87.5</b>	67.464	70.163	67.821	65.994	62.630	64.156	64.601	65.468	67.260	64.921
<b>90.0</b>	66.985	69.650	68.549	65.924	62.094	64.390	64.524	64.400	66.938	64.976
<b>92.5</b>	66.719	69.255	68.938	65.859	61.533	63.840	64.214	64.556	66.672	64.258
<b>95.0</b>	65.678	68.913	68.787	65.798	61.301	62.978	63.623	64.610	66.516	63.582
<b>97.5</b>	63.904	67.840	67.536	65.313	61.479	60.843	62.893	64.539	65.670	63.126
<b>100.0</b>	62.893	66.513	66.117	64.428	61.340	59.083	62.026	64.433	63.729	62.614
<b>102.5</b>	62.477	65.422	64.422	63.133	60.881	58.460	61.319	64.290	62.251	61.894
<b>105.0</b>	60.155	64.395	62.712	61.519	58.830	57.809	60.742	57.322	61.368	59.382
<b>107.5</b>	56.629	56.382	60.981	59.640	55.469	57.092	58.621	44.743	52.859	51.695
<b>110.0</b>	40.525	47.015	58.891	57.591	45.590	55.442	55.451	29.173	36.272	39.926
<b>112.5</b>	17.959	27.127	56.398	55.328	31.240	52.014	50.886	11.612	21.688	19.011
<b>115.0</b>	8.126	5.924	48.288	52.957	23.789	48.947	45.561	4.237	8.857	5.004
<b>117.5</b>	3.533	3.105	35.066	50.660	20.145	46.434	31.341	2.312	2.861	3.474
<b>120.0</b>	1.916	1.604	21.997	48.395	18.150	41.747	13.281	1.544	1.720	2.300
<b>122.5</b>	1.239	1.408	9.042	40.555	16.889	34.290	6.168	1.282	1.129	1.651
<b>125.0</b>	1.035	1.235	3.242	30.925	13.239	24.605	2.845	1.300	0.862	1.258

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## CANDELA TABULATION - (Cont.)

127.5	0.946	1.156	1.843	19.028	8.751	12.613	1.856	1.413	0.814	1.172
130.0	0.876	1.093	1.349	6.594	5.345	5.653	1.472	1.224	0.868	1.017
132.5	0.810	1.221	1.300	3.531	2.224	2.937	1.133	0.957	1.038	0.795
135.0	0.701	1.342	1.188	2.088	1.852	1.614	0.803	0.854	1.250	0.712
137.5	0.587	1.412	1.051	1.605	2.022	1.273	1.028	0.783	1.186	0.742
140.0	0.756	1.423	1.142	1.224	1.333	0.948	1.323	0.728	1.042	0.725
142.5	0.940	1.166	1.304	0.997	0.534	0.633	1.135	0.675	0.943	0.677
145.0	0.915	0.982	1.473	0.777	0.566	0.841	0.917	0.972	0.854	0.783
147.5	0.889	1.051	1.644	1.144	0.652	1.289	0.936	1.290	0.841	0.973
150.0	0.821	1.038	1.393	1.487	0.846	1.260	0.956	1.071	0.840	1.222
152.5	0.803	0.810	1.077	1.365	1.038	1.056	0.916	0.866	0.869	1.498
155.0	1.239	0.665	0.926	1.226	1.134	1.083	0.873	1.109	0.901	1.307
157.5	1.525	0.686	0.803	0.954	1.206	1.172	0.801	1.299	1.206	0.962
160.0	1.224	0.723	1.106	0.864	1.128	1.054	0.733	1.172	1.416	0.961
162.5	0.954	0.778	1.303	1.239	1.078	0.959	0.676	1.142	1.162	1.019
165.0	0.723	1.143	1.250	1.196	1.071	1.046	0.898	1.255	1.041	1.116
167.5	0.895	1.373	1.169	0.985	0.804	1.153	1.189	1.451	1.039	1.079
170.0	0.963	1.178	1.153	1.145	0.845	1.142	0.954	1.166	1.091	0.996
172.5	0.924	0.816	1.136	1.194	1.042	0.887	1.081	0.761	1.364	1.009
175.0	1.044	0.875	0.887	1.072	0.776	0.973	0.943	1.075	1.408	1.228
177.5	0.884	0.965	0.993	1.022	1.085	1.024	1.159	0.857	1.051	1.198
180.0	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

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	829.648	829.648	829.648	829.648	829.648	829.648	829.648
2.5	829.507	827.070	829.336	832.144	829.726	830.152	828.211
5.0	823.725	828.253	821.611	825.136	827.644	822.262	825.912
7.5	814.711	804.256	807.055	815.954	800.530	805.150	792.795
10.0	765.009	756.154	758.468	760.472	750.453	753.145	741.991
12.5	697.580	683.158	684.792	695.138	676.874	674.658	658.699
15.0	608.693	590.500	598.120	606.425	585.776	584.149	560.587
17.5	512.436	498.388	503.716	514.400	492.982	486.269	465.407
20.0	421.756	406.625	416.986	425.626	399.153	398.672	371.288
22.5	332.540	331.178	334.014	337.121	324.744	316.194	305.894
25.0	278.859	264.351	277.912	281.856	259.962	265.980	248.494
27.5	231.772	231.394	232.125	228.492	230.454	228.595	226.016
30.0	216.931	212.564	212.192	214.678	214.671	212.557	210.506
32.5	206.167	198.387	199.962	200.781	199.918	203.010	198.127
35.0	191.229	185.704	185.222	185.747	185.484	189.064	186.184
37.5	176.020	169.294	169.923	170.693	169.683	174.094	170.479
40.0	159.008	151.960	154.644	155.498	153.573	157.569	154.488
42.5	142.093	137.299	139.367	140.460	138.841	140.795	139.445
45.0	128.381	123.101	125.674	126.190	124.320	127.797	124.465
47.5	114.756	110.598	112.124	112.342	111.699	115.154	111.064
50.0	102.054	98.283	99.050	100.044	99.264	102.356	97.960
52.5	90.003	88.609	86.148	89.748	89.531	89.616	88.457
55.0	82.157	79.079	82.469	84.994	79.992	83.649	79.941
57.5	75.692	78.512	79.026	81.466	79.073	78.021	78.393
60.0	75.448	77.925	79.218	80.625	78.181	77.985	77.249
62.5	74.927	76.843	79.379	79.692	77.737	77.907	78.049
65.0	73.499	75.717	79.279	78.597	77.110	77.476	78.291

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67.5	71.862	74.173	78.808	77.465	74.998	76.727	76.589
70.0	69.693	72.562	76.440	76.282	73.046	74.258	74.650
72.5	67.639	70.561	74.299	74.759	71.949	71.824	72.065
75.0	65.819	68.612	73.022	72.840	71.003	69.526	69.722
77.5	64.034	66.883	71.858	71.424	70.642	67.434	67.896
80.0	62.305	65.549	71.020	70.496	70.104	65.951	67.060
82.5	61.767	65.448	70.230	70.550	69.056	64.895	67.906
85.0	62.845	65.509	69.552	71.377	68.462	64.822	68.127
87.5	63.048	65.960	69.328	71.287	68.926	64.814	67.464
90.0	62.287	66.354	69.931	70.596	68.799	64.927	66.985
92.5	61.718	66.639	70.122	69.961	67.585	64.206	66.719
95.0	61.321	66.500	69.712	69.356	67.024	62.228	65.678
97.5	60.847	65.695	68.730	69.141	67.428	61.399	63.904
100.0	60.315	64.605	67.050	69.088	66.452	61.974	62.893
102.5	59.049	63.148	65.565	68.051	63.774	60.691	62.477
105.0	57.336	61.185	64.273	66.687	61.731	57.508	60.155
107.5	55.164	58.685	56.748	64.517	60.324	44.690	56.629
110.0	52.767	56.519	44.187	62.148	58.088	23.859	40.525
112.5	49.421	54.641	33.907	58.873	55.165	11.781	17.959
115.0	45.702	52.775	25.164	55.437	47.137	5.691	8.126
117.5	33.869	50.918	21.543	52.803	35.627	2.978	3.533
120.0	19.607	46.874	20.694	50.260	22.183	2.152	1.916
122.5	10.821	41.556	18.469	43.413	7.678	1.620	1.239
125.0	3.258	29.612	15.643	36.334	2.682	1.220	1.035
127.5	1.853	14.593	10.941	20.705	1.884	1.035	0.946
130.0	1.407	7.723	5.594	5.660	1.513	0.925	0.876
132.5	1.060	3.907	3.407	4.391	1.292	0.888	0.810
135.0	0.722	2.427	2.031	3.174	1.173	0.871	0.701
137.5	0.974	1.610	1.515	2.455	1.080	1.085	0.587
140.0	1.247	1.152	1.159	1.792	1.211	1.344	0.756
142.5	1.210	0.767	0.999	1.469	1.386	1.240	0.940
145.0	1.166	0.945	0.863	1.177	1.180	1.089	0.915
147.5	1.018	1.204	0.961	1.013	0.927	0.989	0.889
150.0	0.895	1.060	1.072	0.939	0.952	0.892	0.821
152.5	0.978	0.883	1.265	1.151	0.995	0.914	0.803
155.0	1.028	0.910	1.432	1.226	0.999	0.932	1.239
157.5	0.920	0.941	1.129	0.975	1.004	0.850	1.525
160.0	0.906	0.962	0.981	0.967	1.030	0.812	1.224
162.5	1.076	0.955	1.347	1.253	1.114	0.926	0.954
165.0	0.937	0.898	1.221	1.364	1.300	1.003	0.723
167.5	0.771	0.902	0.781	1.291	1.011	1.022	0.895
170.0	1.063	0.859	0.614	0.901	1.011	0.797	0.963
172.5	0.938	0.934	0.849	0.964	1.231	0.935	0.924
175.0	0.675	1.352	0.662	0.651	0.890	1.233	1.044
177.5	1.204	1.082	0.908	1.223	0.951	1.033	0.884
180.0	1.000	1.000	1.000	1.000	1.000	1.000	1.000

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Zone	Lumens	%Lamp	%Fixt
0-20	234.74	N.A.	22.30
0-30	361.41	N.A.	34.40
0-40	478.41	N.A.	45.50
0-60	651.04	N.A.	62.00
0-80	800.17	N.A.	76.20
0-90	872.87	N.A.	83.10
10-90	796.54	N.A.	75.80
20-40	243.67	N.A.	23.20
20-50	341.34	N.A.	32.50
40-70	247.78	N.A.	23.60
60-80	149.14	N.A.	14.20
70-80	73.99	N.A.	7.00
80-90	72.70	N.A.	6.90
90-110	133.60	N.A.	12.70
90-120	165.20	N.A.	15.70
90-130	174.99	N.A.	16.70
90-150	176.96	N.A.	16.80
90-180	177.83	N.A.	16.90
110-180	44.23	N.A.	4.20
0-180	1050.7	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	76.33
10-20	158.41
20-30	126.67
30-40	116.99
40-50	97.68
50-60	74.95
60-70	75.15
70-80	73.99
80-90	72.70
90-100	71.30
100-110	62.30
110-120	31.60
120-130	9.80
130-140	1.32
140-150	0.65
150-160	0.48
160-170	0.30
170-180	0.10

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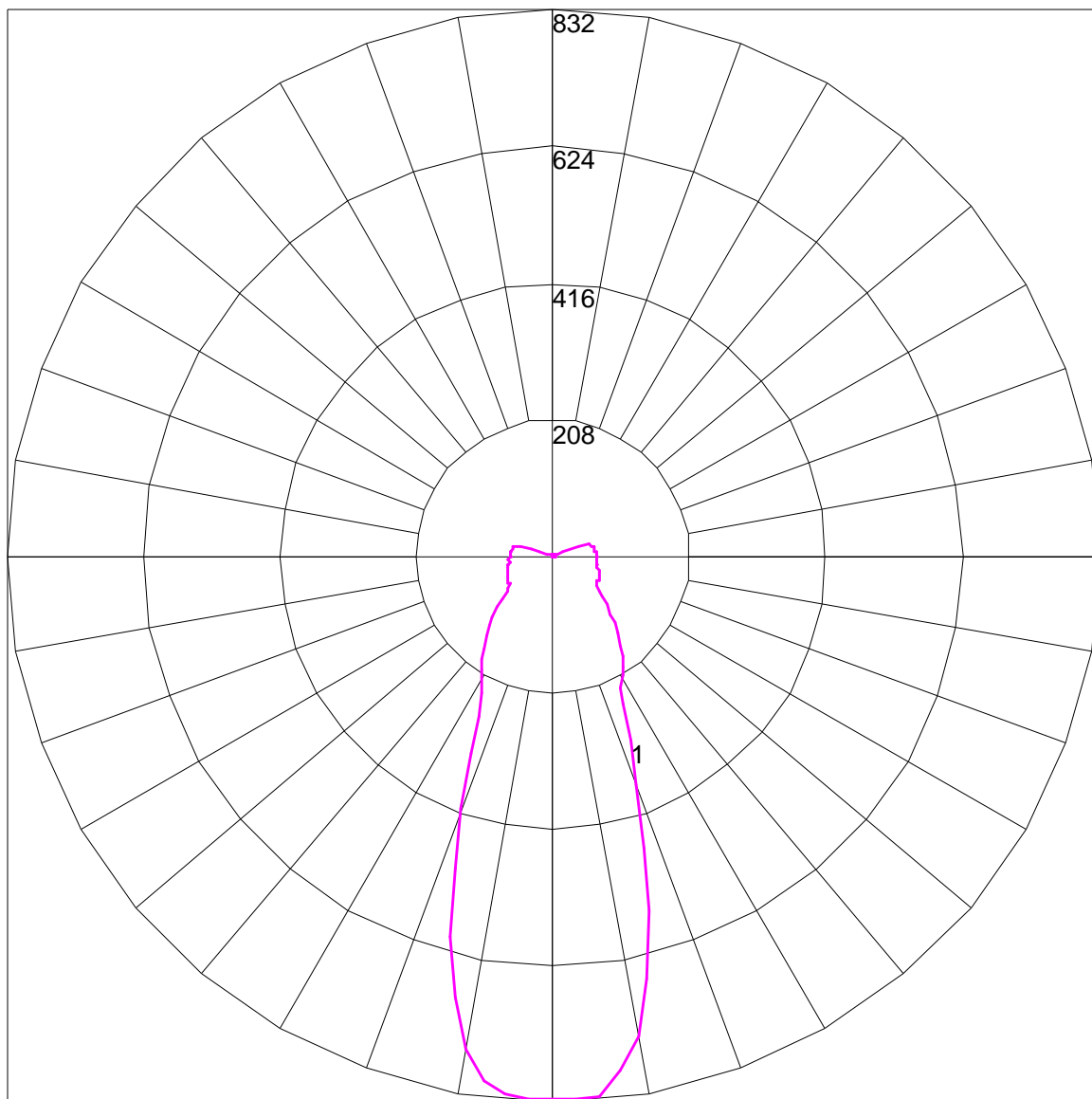
## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	115	115	115	115	110	110	110	110	102	102	102	94	94	94	86	86	86	83
1	104	98	94	90	99	94	90	87	87	84	81	80	78	75	74	72	70	67
2	95	87	80	74	91	83	77	72	77	72	68	71	67	64	66	63	60	57
3	88	78	70	64	84	75	68	62	69	64	59	65	60	56	60	56	53	50
4	81	70	62	56	78	68	60	54	63	57	52	59	54	50	55	51	47	45
5	76	64	56	50	73	62	54	49	58	52	47	54	49	45	51	46	43	40
6	71	59	51	45	68	57	49	44	54	47	42	50	45	41	47	43	39	37
7	66	54	46	41	64	53	45	40	50	43	39	47	41	37	44	40	36	34
8	63	50	43	37	60	49	42	37	46	40	36	44	38	35	42	37	33	31
9	59	47	40	35	57	46	39	34	44	37	33	41	36	32	39	35	31	29
10	56	44	37	32	54	43	36	32	41	35	31	39	34	30	37	33	29	27

IES INDOOR REPORT  
PHOTOMETRIC FILENAME : SP-00660\_2 ~ CP0608XT-20L35K-OSD-EX-FASAL-PT.IES

POLAR GRAPH



Maximum Candela = 832.144 Located At Horizontal Angle = 292.5, Vertical Angle = 2.5  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180)