

Family Correlated Photometric Data

The following photometric information is developed using correlated data. Finelite considers a family to be a group of luminaires where critical performance metrics such as photometric performance, thermal performance, and electrical performance can be accurately projected via a combination of LM79 tests at the luminaire level and well-documented specifications at the component level.

For more information, please download [Finelite's Family Correlated White Paper](#)

Additional links:

- [Solid-State Lighting: Early Lessons Learned on the Way to Market](#)
(U.S. Department of Energy)
- [Lighting Facts®](#)
- [Design Lights Consortium®](#)

IES INDOOR REPORT

PHOTOMETRIC FILENAME : HP-2-P-ID-4FT-B-S-835-WSO-DAO-ITL89456-KPL2008-3.12.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST] ITL89456-KPL2008-3.012 Family Correlation File

[TESTLAB] Northern Lights Testing Laboratories

[TESTDATE] 5/18/2021

[ISSUEDATE] 8/24/2021

[MANUFAC] Finelite

[LUMCAT] HP-2-P-ID-4ft-B-S-835-WSO-DAO

[LUMINAIRE] HP Series

[LAMPCAT] 160 LEDs with 80 CRI

[LAMP] Samsung

[BALLAST] Osram

[BALLASTCAT] OTi50W/120-277, 700mA

[MORE] extrapolated from KPL2008-3.IES

[INPUT_ELECTRICAL]120.0 VOLTS, 32.1 WATTS

[INPUT_ELECTRICAL]277.0 VOLTS, 34.6 WATTS

[CONVERT] Photometric web converted from original test data

[OTHER]see www.finelite.com for source files ITL89456 and KPL2008-3. For further details on Finelite family correlation files, go to

[more]http://www.finelite.com/download_files/series_downloads/photometry_pdf/FL_Family_Correlation_WhitePaper.pdf

[ABSOLUTE LUMENS]3600

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3600
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	112
Total Luminaire Watts	32.1
Ballast Factor	1.00
CIE Type	General Diffuse
Spacing Criterion (0-180)	N.A.
Spacing Criterion (90-270)	N.A.
Spacing Criterion (Diagonal)	N.A.
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	0.17 ft
Luminous Width (90-270)	4.00 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	9913	10312	7461
55	8413	9363	6655
65	6947	8155	5883
75	5795	6889	4938
85	5783	6863	4107

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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	582.485	582.485	582.485	582.485	582.485	582.485	582.485	582.485	582.485	582.485
2.5	602.316	599.125	596.192	595.356	585.484	576.423	563.725	557.515	558.027	557.515
5.0	624.931	619.708	610.799	601.763	582.485	565.441	546.721	537.300	535.325	537.300
7.5	644.036	637.228	623.563	606.600	577.943	551.948	529.885	514.360	516.650	514.360
10.0	659.884	652.667	633.115	609.451	571.307	538.217	513.525	501.080	500.118	501.080
12.5	675.303	665.582	640.607	609.943	562.909	523.163	497.545	483.393	482.811	483.393
15.0	684.040	674.598	646.178	608.206	552.972	508.921	480.972	463.583	465.422	463.583
17.5	687.383	677.916	648.792	603.815	540.593	492.535	464.824	450.410	449.746	450.410
20.0	684.384	676.118	647.247	597.265	528.685	476.540	448.677	435.548	433.897	435.548
22.5	676.589	669.265	643.823	587.884	513.779	459.298	432.742	420.363	419.335	420.363
25.0	663.055	658.172	632.685	577.369	497.803	442.184	415.735	405.117	404.941	405.117
27.5	648.489	642.430	621.076	564.089	479.599	424.582	399.845	390.104	390.379	390.104
30.0	627.073	623.477	604.458	548.306	461.355	406.121	383.825	374.514	375.816	374.514
32.5	603.430	601.976	586.938	530.872	440.664	387.597	367.591	359.411	360.996	359.411
35.0	574.989	576.898	565.908	511.641	420.621	368.214	350.501	344.165	345.062	344.165
37.5	545.435	548.732	542.522	488.939	399.673	348.576	333.154	328.402	329.815	328.402
40.0	513.566	519.223	517.805	466.450	379.413	329.365	316.064	312.509	314.393	312.509
42.5	477.928	487.399	489.496	441.844	356.027	310.092	298.843	297.049	297.774	297.049
45.0	443.237	454.649	461.097	416.357	333.584	290.086	280.857	280.107	269.678	280.107
47.5	410.340	420.105	433.553	390.039	310.538	270.727	262.694	263.423	266.761	263.423
50.0	372.990	385.627	401.217	361.381	287.280	250.638	245.346	246.526	249.287	246.526
52.5	338.467	351.894	370.504	333.862	264.836	231.554	226.843	228.900	232.582	228.900
55.0	305.143	318.419	339.581	306.385	241.365	212.068	208.426	212.109	214.423	212.109
57.5	271.218	285.375	306.729	278.972	219.519	192.684	189.878	193.971	197.031	193.971
60.0	240.979	254.731	276.400	251.089	198.788	169.610	168.754	175.124	179.470	175.124
62.5	210.651	224.979	245.903	224.660	173.801	155.507	154.814	159.673	161.205	159.673
65.0	185.639	196.752	217.934	198.681	157.223	137.106	137.114	141.870	143.148	141.870
67.5	160.709	171.056	190.005	173.731	137.454	119.439	119.160	123.527	123.892	123.527
70.0	137.495	146.212	163.449	150.132	117.047	101.964	102.095	105.610	108.092	105.610
72.5	114.622	122.524	136.467	126.444	98.650	85.407	85.518	87.816	89.102	87.816
75.0	94.833	101.108	112.738	105.069	80.807	69.272	69.096	67.048	71.685	67.048
77.5	75.642	81.360	90.249	84.916	64.934	54.005	53.211	54.030	53.809	54.030
80.0	59.281	63.500	69.862	65.708	49.307	39.668	38.128	37.714	37.845	37.714
82.5	44.289	46.968	51.658	48.832	35.797	26.294	24.959	21.329	22.849	21.329
85.0	31.869	32.942	37.825	36.006	22.632	14.726	12.248	10.003	8.344	10.003
87.5	19.130	20.104	21.239	18.773	10.675	4.018	2.151	0.770	0.524	0.770
90.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
92.5	9.267	15.959	15.959	15.444	15.444	15.444	15.959	15.959	9.267	15.959
95.0	24.196	42.729	42.729	35.522	35.007	35.522	42.729	42.729	24.196	42.729
97.5	40.670	70.014	85.974	61.777	58.174	61.777	85.974	70.014	40.670	70.014
100.0	57.659	91.122	170.918	99.359	87.518	99.359	170.918	91.122	57.659	91.122
102.5	76.192	111.199	236.299	175.551	139.514	175.551	236.299	111.199	76.192	111.199
105.0	94.211	132.822	273.880	286.235	235.784	286.235	273.880	132.822	94.211	132.822
107.5	112.229	153.929	297.047	386.109	359.854	386.109	297.047	153.929	112.229	153.929
110.0	130.247	173.492	317.639	444.798	449.431	444.798	317.639	173.492	130.247	173.492
112.5	148.266	192.540	341.835	483.408	502.971	483.408	341.835	192.540	148.266	192.540
115.0	166.799	210.558	370.665	511.208	539.523	511.208	370.665	210.558	166.799	210.558
117.5	185.332	228.577	402.068	537.464	567.838	537.464	402.068	228.577	185.332	228.577
120.0	203.866	247.625	427.809	565.264	596.152	565.264	427.809	247.625	203.866	247.625
122.5	220.854	263.584	446.342	604.389	626.011	604.389	446.342	263.584	220.854	263.584
125.0	236.814	279.028	456.638	647.119	668.741	647.119	456.638	279.028	236.814	279.028
127.5	251.743	293.443	462.816	675.948	716.104	675.948	462.816	293.443	251.743	293.443
130.0	264.099	305.798	466.420	687.789	750.081	687.789	466.420	305.798	264.099	305.798
132.5	276.454	317.124	467.449	683.156	760.892	683.156	467.449	317.124	276.454	317.124

IES INDOOR REPORT

PHOTOMETRIC FILENAME : HP-2-P-ID-4FT-B-S-835-WSO-DAO-ITL89456-KPL2008-3.12.IES

CANDELA TABULATION - (Cont.)

135.0	287.265	326.391	466.934	668.741	750.081	668.741	466.934	326.391	287.265	326.391
137.5	297.047	335.143	465.390	649.178	727.429	649.178	465.390	335.143	297.047	335.143
140.0	306.828	342.865	462.816	627.556	698.600	627.556	462.816	342.865	306.828	342.865
142.5	316.095	350.072	459.212	603.360	667.711	603.360	459.212	350.072	316.095	350.072
145.0	325.876	356.765	455.609	580.193	636.308	580.193	455.609	356.765	325.876	356.765
147.5	334.113	361.913	451.490	556.512	604.389	556.512	451.490	361.913	334.113	361.913
150.0	342.350	367.576	446.342	535.404	574.530	535.404	446.342	367.576	342.350	367.576
152.5	350.072	371.694	440.164	515.327	546.730	515.327	440.164	371.694	350.072	371.694
155.0	357.280	374.783	433.987	495.764	520.990	495.764	433.987	374.783	357.280	374.783
157.5	363.972	378.902	428.324	477.746	497.823	477.746	428.324	378.902	363.972	378.902
160.0	369.635	381.476	421.631	460.242	476.201	460.242	421.631	381.476	369.635	381.476
162.5	374.783	383.535	414.938	445.312	456.123	445.312	414.938	383.535	374.783	383.535
165.0	378.902	385.594	408.246	430.898	439.135	430.898	408.246	385.594	378.902	385.594
167.5	382.505	387.139	403.098	418.542	424.205	418.542	403.098	387.139	382.505	387.139
170.0	385.594	388.683	399.494	408.761	412.364	408.761	399.494	388.683	385.594	388.683
172.5	387.139	389.713	395.376	400.524	403.613	400.524	395.376	389.713	387.139	389.713
175.0	389.198	390.228	392.802	395.376	396.405	395.376	392.802	390.228	389.198	390.228
177.5	390.228	390.228	391.257	391.257	391.772	391.257	390.228	390.228	390.228	390.228
180.0	390.742	390.742	390.742	390.742	390.742	390.742	390.742	390.742	390.742	390.742

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	582.485	582.485	582.485	582.485	582.485	582.485	582.485
2.5	563.725	576.423	585.484	595.356	596.192	599.125	602.316
5.0	546.721	565.441	582.485	601.763	610.799	619.708	624.931
7.5	529.885	551.948	577.943	606.600	623.563	637.228	644.036
10.0	513.525	538.217	571.307	609.451	633.115	652.667	659.884
12.5	497.545	523.163	562.909	609.943	640.607	665.582	675.303
15.0	480.972	508.921	552.972	608.206	646.178	674.598	684.040
17.5	464.824	492.535	540.593	603.815	648.792	677.916	687.383
20.0	448.677	476.540	528.685	597.265	647.247	676.118	684.384
22.5	432.742	459.298	513.779	587.884	643.823	669.265	676.589
25.0	415.735	442.184	497.803	577.369	632.685	658.172	663.055
27.5	399.845	424.582	479.599	564.089	621.076	642.430	648.489
30.0	383.825	406.121	461.355	548.306	604.458	623.477	627.073
32.5	367.591	387.597	440.664	530.872	586.938	601.976	603.430
35.0	350.501	368.214	420.621	511.641	565.908	576.898	574.989
37.5	333.154	348.576	399.673	488.939	542.522	548.732	545.435
40.0	316.064	329.365	379.413	466.450	517.805	519.223	513.566
42.5	298.843	310.092	356.027	441.844	489.496	487.399	477.928
45.0	280.857	290.086	333.584	416.357	461.097	454.649	443.237
47.5	262.694	270.727	310.538	390.039	433.553	420.105	410.340
50.0	245.346	250.638	287.280	361.381	401.217	385.627	372.990
52.5	226.843	231.554	264.836	333.862	370.504	351.894	338.467
55.0	208.426	212.068	241.365	306.385	339.581	318.419	305.143
57.5	189.878	192.684	219.519	278.972	306.729	285.375	271.218
60.0	168.754	169.610	198.788	251.089	276.400	254.731	240.979
62.5	154.814	155.507	173.801	224.660	245.903	224.979	210.651
65.0	137.114	137.106	157.223	198.681	217.934	196.752	185.639
67.5	119.160	119.439	137.454	173.731	190.005	171.056	160.709
70.0	102.095	101.964	117.047	150.132	163.449	146.212	137.495
72.5	85.518	85.407	98.650	126.444	136.467	122.524	114.622
75.0	69.096	69.272	80.807	105.069	112.738	101.108	94.833
77.5	53.211	54.005	64.934	84.916	90.249	81.360	75.642
80.0	38.128	39.668	49.307	65.708	69.862	63.500	59.281

IES INDOOR REPORT**PHOTOMETRIC FILENAME : HP-2-P-ID-4FT-B-S-835-WSO-DAO-ITL89456-KPL2008-3.12.IES****CANDELA TABULATION - (Cont.)**

82.5	24.959	26.294	35.797	48.832	51.658	46.968	44.289
85.0	12.248	14.726	22.632	36.006	37.825	32.942	31.869
87.5	2.151	4.018	10.675	18.773	21.239	20.104	19.130
90.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
92.5	15.959	15.444	15.444	15.444	15.959	15.959	9.267
95.0	42.729	35.522	35.007	35.522	42.729	42.729	24.196
97.5	85.974	61.777	58.174	61.777	85.974	70.014	40.670
100.0	170.918	99.359	87.518	99.359	170.918	91.122	57.659
102.5	236.299	175.551	139.514	175.551	236.299	111.199	76.192
105.0	273.880	286.235	235.784	286.235	273.880	132.822	94.211
107.5	297.047	386.109	359.854	386.109	297.047	153.929	112.229
110.0	317.639	444.798	449.431	444.798	317.639	173.492	130.247
112.5	341.835	483.408	502.971	483.408	341.835	192.540	148.266
115.0	370.665	511.208	539.523	511.208	370.665	210.558	166.799
117.5	402.068	537.464	567.838	537.464	402.068	228.577	185.332
120.0	427.809	565.264	596.152	565.264	427.809	247.625	203.866
122.5	446.342	604.389	626.011	604.389	446.342	263.584	220.854
125.0	456.638	647.119	668.741	647.119	456.638	279.028	236.814
127.5	462.816	675.948	716.104	675.948	462.816	293.443	251.743
130.0	466.420	687.789	750.081	687.789	466.420	305.798	264.099
132.5	467.449	683.156	760.892	683.156	467.449	317.124	276.454
135.0	466.934	668.741	750.081	668.741	466.934	326.391	287.265
137.5	465.390	649.178	727.429	649.178	465.390	335.143	297.047
140.0	462.816	627.556	698.600	627.556	462.816	342.865	306.828
142.5	459.212	603.360	667.711	603.360	459.212	350.072	316.095
145.0	455.609	580.193	636.308	580.193	455.609	356.765	325.876
147.5	451.490	556.512	604.389	556.512	451.490	361.913	334.113
150.0	446.342	535.404	574.530	535.404	446.342	367.576	342.350
152.5	440.164	515.327	546.730	515.327	440.164	371.694	350.072
155.0	433.987	495.764	520.990	495.764	433.987	374.783	357.280
157.5	428.324	477.746	497.823	477.746	428.324	378.902	363.972
160.0	421.631	460.242	476.201	460.242	421.631	381.476	369.635
162.5	414.938	445.312	456.123	445.312	414.938	383.535	374.783
165.0	408.246	430.898	439.135	430.898	408.246	385.594	378.902
167.5	403.098	418.542	424.205	418.542	403.098	387.139	382.505
170.0	399.494	408.761	412.364	408.761	399.494	388.683	385.594
172.5	395.376	400.524	403.613	400.524	395.376	389.713	387.139
175.0	392.802	395.376	396.405	395.376	392.802	390.228	389.198
177.5	391.257	391.257	391.772	391.257	391.257	390.228	390.228
180.0	390.742	390.742	390.742	390.742	390.742	390.742	390.742

IES INDOOR REPORT**PHOTOMETRIC FILENAME : HP-2-P-ID-4FT-B-S-835-WSO-DAO-ITL89456-KPL2008-3.12.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	214.29	N.A.	6.00
0-30	453.84	N.A.	12.60
0-40	734.78	N.A.	20.40
0-60	1246.57	N.A.	34.60
0-80	1505.83	N.A.	41.80
0-90	1532.00	N.A.	42.60
10-90	1476.78	N.A.	41.00
20-40	520.49	N.A.	14.50
20-50	797.89	N.A.	22.20
40-70	679.05	N.A.	18.90
60-80	259.26	N.A.	7.20
70-80	91.99	N.A.	2.60
80-90	26.18	N.A.	0.70
90-110	270.68	N.A.	7.50
90-120	627.81	N.A.	17.40
90-130	1036.04	N.A.	28.80
90-150	1712.03	N.A.	47.60
90-180	2068.41	N.A.	57.40
110-180	1797.73	N.A.	49.90
0-180	3600.41	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	55.22
10-20	159.07
20-30	239.55
30-40	280.95
40-50	277.39
50-60	234.39
60-70	167.27
70-80	91.99
80-90	26.18
90-100	47.21
100-110	223.47
110-120	357.13
120-130	408.23
130-140	381.55
140-150	294.44
150-160	202.40
160-170	116.31
170-180	37.68

IES INDOOR REPORT

PHOTOMETRIC FILENAME : HP-2-P-ID-4FT-B-S-835-WSO-DAO-ITL89456-KPL2008-3.12.IES

COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

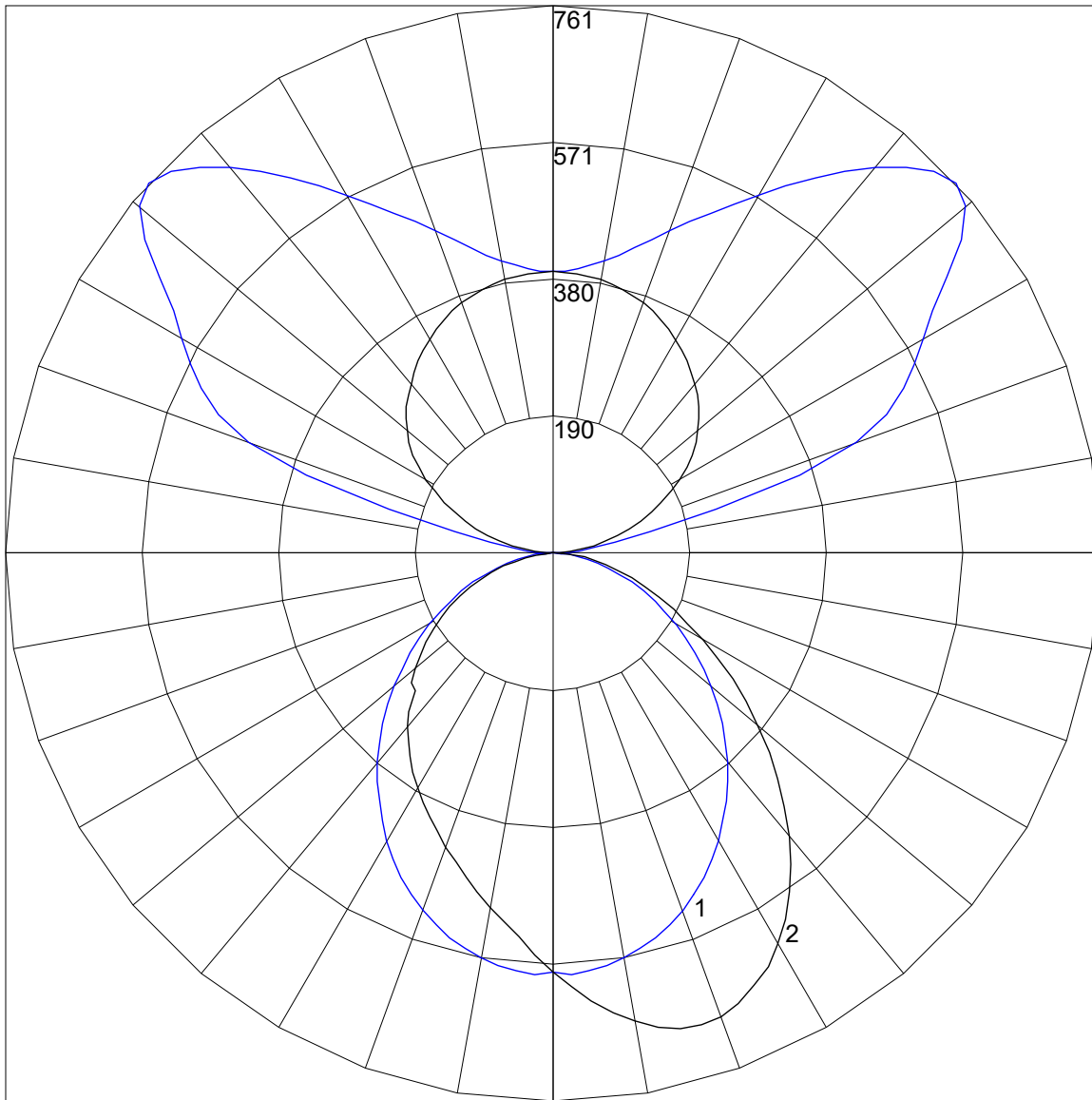
Effective Floor Cavity Reflectance 0.20

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	105	105	105	105	96	96	96	96	79	79	79	64	64	64	49	49	49	43
1	96	92	88	85	88	84	81	78	69	67	65	56	54	53	44	43	42	36
2	88	80	74	69	80	74	68	64	61	57	54	49	47	44	38	37	35	30
3	80	71	63	58	73	65	59	54	54	49	45	44	40	38	34	32	30	26
4	73	63	55	49	67	57	51	45	48	43	39	39	35	32	31	28	26	22
5	67	56	48	42	61	51	44	39	43	37	33	35	31	28	28	25	23	19
6	62	50	42	36	56	46	39	34	38	33	29	32	28	24	25	22	20	17
7	57	45	37	32	52	42	35	30	35	29	26	29	25	22	23	20	18	15
8	53	41	33	28	48	38	31	26	32	26	23	26	22	19	21	18	16	13
9	49	37	30	25	45	34	28	23	29	24	20	24	20	17	19	16	14	12
10	46	34	27	22	42	32	25	21	27	22	18	22	18	16	18	15	13	11

IES INDOOR REPORT

PHOTOMETRIC FILENAME : HP-2-P-ID-4FT-B-S-835-WSO-DAO-ITL89456-KPL2008-3.12.IES

POLAR GRAPH



Maximum Candela = 760.892 Located At Horizontal Angle = 90, Vertical Angle = 132.5

1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)

2 - Vertical Plane Through Horizontal Angles (0 - 180)