

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-S-S-835-WSO-DAO-ITL89456-KPL2008-3.003.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST] ITL89456-KPL2008-3.003 Family Correlation File

[TESTLAB] Northern Lights Testing Laboratories

[TESTDATE] 5/18/2021

[ISSUEDATE] 8/24/2021

[MANUFAC] Finelite

[LUMCAT] HP-2-P-ID-4ft-S-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, 28.3 WATTS

[INPUT_ELECTRICAL]277.0 VOLTS, 30.9 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]3177

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3178
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	112
Total Luminaire Watts	28.3
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	7.373	12.698	12.698	12.289	12.289	12.289	12.698	12.698	7.373	12.698
95.0	19.252	33.999	33.999	28.264	27.855	28.264	33.999	33.999	19.252	33.999
97.5	32.361	55.709	68.408	49.155	46.288	49.155	68.408	55.709	32.361	55.709
100.0	45.878	72.504	135.996	79.058	69.637	79.058	135.996	72.504	45.878	72.504
102.5	60.625	88.479	188.019	139.683	111.009	139.683	188.019	88.479	60.625	88.479
105.0	74.962	105.684	217.922	227.753	187.609	227.753	217.922	105.684	74.962	105.684
107.5	89.299	122.478	236.355	307.220	286.329	307.220	236.355	122.478	89.299	122.478
110.0	103.636	138.044	252.740	353.918	357.604	353.918	252.740	138.044	103.636	138.044
112.5	117.973	153.201	271.992	384.640	400.206	384.640	271.992	153.201	117.973	153.201
115.0	132.719	167.537	294.931	406.760	429.289	406.760	294.931	167.537	132.719	167.537
117.5	147.466	181.874	319.919	427.651	451.819	427.651	319.919	181.874	147.466	181.874
120.0	162.212	197.031	340.400	449.770	474.348	449.770	340.400	197.031	162.212	197.031
122.5	175.730	209.729	355.147	480.902	498.106	480.902	355.147	209.729	175.730	209.729
125.0	188.428	222.018	363.339	514.901	532.105	514.901	363.339	222.018	188.428	222.018
127.5	200.308	233.487	368.255	537.840	569.791	537.840	368.255	233.487	200.308	233.487
130.0	210.139	243.318	371.122	547.262	596.827	547.262	371.122	243.318	210.139	243.318
132.5	219.970	252.330	371.941	543.575	605.429	543.575	371.941	252.330	219.970	252.330

IES INDOOR REPORT

PHOTOMETRIC FILENAME : HP-2-P-ID-4FT-S-S-835-WSO-DAO-ITL89456-KPL2008-3.003.IES

CANDELA TABULATION - (Cont.)

135.0	228.572	259.704	371.532	532.105	596.827	532.105	371.532	259.704	228.572	259.704
137.5	236.355	266.667	370.303	516.540	578.803	516.540	370.303	266.667	236.355	266.667
140.0	244.138	272.812	368.255	499.335	555.864	499.335	368.255	272.812	244.138	272.812
142.5	251.511	278.546	365.387	480.083	531.286	480.083	365.387	278.546	251.511	278.546
145.0	259.294	283.872	362.520	461.650	506.299	461.650	362.520	283.872	259.294	283.872
147.5	265.848	287.968	359.243	442.807	480.902	442.807	359.243	287.968	265.848	287.968
150.0	272.402	292.474	355.147	426.012	457.144	426.012	355.147	292.474	272.402	292.474
152.5	278.546	295.751	350.231	410.037	435.024	410.037	350.231	295.751	278.546	295.751
155.0	284.281	298.208	345.316	394.471	414.543	394.471	345.316	298.208	284.281	298.208
157.5	289.606	301.485	340.810	380.134	396.109	380.134	340.810	301.485	289.606	301.485
160.0	294.112	303.534	335.485	366.207	378.905	366.207	335.485	303.534	294.112	303.534
162.5	298.208	305.172	330.159	354.327	362.930	354.327	330.159	305.172	298.208	305.172
165.0	301.485	306.811	324.834	342.858	349.412	342.858	324.834	306.811	301.485	306.811
167.5	304.353	308.039	320.738	333.027	337.533	333.027	320.738	308.039	304.353	308.039
170.0	306.811	309.268	317.871	325.244	328.111	325.244	317.871	309.268	306.811	309.268
172.5	308.039	310.088	314.594	318.690	321.148	318.690	314.594	310.088	308.039	310.088
175.0	309.678	310.497	312.545	314.594	315.413	314.594	312.545	310.497	309.678	310.497
177.5	310.497	310.497	311.317	311.317	311.726	311.317	311.317	310.497	310.497	310.497
180.0	310.907	310.907	310.907	310.907	310.907	310.907	310.907	310.907	310.907	310.907

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-S-S-835-WSO-DAO-ITL89456-KPL2008-3.003.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	12.698	12.289	12.289	12.289	12.698	12.698	7.373
95.0	33.999	28.264	27.855	28.264	33.999	33.999	19.252
97.5	68.408	49.155	46.288	49.155	68.408	55.709	32.361
100.0	135.996	79.058	69.637	79.058	135.996	72.504	45.878
102.5	188.019	139.683	111.009	139.683	188.019	88.479	60.625
105.0	217.922	227.753	187.609	227.753	217.922	105.684	74.962
107.5	236.355	307.220	286.329	307.220	236.355	122.478	89.299
110.0	252.740	353.918	357.604	353.918	252.740	138.044	103.636
112.5	271.992	384.640	400.206	384.640	271.992	153.201	117.973
115.0	294.931	406.760	429.289	406.760	294.931	167.537	132.719
117.5	319.919	427.651	451.819	427.651	319.919	181.874	147.466
120.0	340.400	449.770	474.348	449.770	340.400	197.031	162.212
122.5	355.147	480.902	498.106	480.902	355.147	209.729	175.730
125.0	363.339	514.901	532.105	514.901	363.339	222.018	188.428
127.5	368.255	537.840	569.791	537.840	368.255	233.487	200.308
130.0	371.122	547.262	596.827	547.262	371.122	243.318	210.139
132.5	371.941	543.575	605.429	543.575	371.941	252.330	219.970
135.0	371.532	532.105	596.827	532.105	371.532	259.704	228.572
137.5	370.303	516.540	578.803	516.540	370.303	266.667	236.355
140.0	368.255	499.335	555.864	499.335	368.255	272.812	244.138
142.5	365.387	480.083	531.286	480.083	365.387	278.546	251.511
145.0	362.520	461.650	506.299	461.650	362.520	283.872	259.294
147.5	359.243	442.807	480.902	442.807	359.243	287.968	265.848
150.0	355.147	426.012	457.144	426.012	355.147	292.474	272.402
152.5	350.231	410.037	435.024	410.037	350.231	295.751	278.546
155.0	345.316	394.471	414.543	394.471	345.316	298.208	284.281
157.5	340.810	380.134	396.109	380.134	340.810	301.485	289.606
160.0	335.485	366.207	378.905	366.207	335.485	303.534	294.112
162.5	330.159	354.327	362.930	354.327	330.159	305.172	298.208
165.0	324.834	342.858	349.412	342.858	324.834	306.811	301.485
167.5	320.738	333.027	337.533	333.027	320.738	308.039	304.353
170.0	317.871	325.244	328.111	325.244	317.871	309.268	306.811
172.5	314.594	318.690	321.148	318.690	314.594	310.088	308.039
175.0	312.545	314.594	315.413	314.594	312.545	310.497	309.678
177.5	311.317	311.317	311.726	311.317	311.317	310.497	310.497
180.0	310.907	310.907	310.907	310.907	310.907	310.907	310.907

IES INDOOR REPORT**PHOTOMETRIC FILENAME : HP-2-P-ID-4FT-S-S-835-WSO-DAO-ITL89456-KPL2008-3.003.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	214.29	N.A.	6.70
0-30	453.84	N.A.	14.30
0-40	734.78	N.A.	23.10
0-60	1246.57	N.A.	39.20
0-80	1505.83	N.A.	47.40
0-90	1532.00	N.A.	48.20
10-90	1476.78	N.A.	46.50
20-40	520.49	N.A.	16.40
20-50	797.89	N.A.	25.10
40-70	679.05	N.A.	21.40
60-80	259.26	N.A.	8.20
70-80	91.99	N.A.	2.90
80-90	26.18	N.A.	0.80
90-110	215.38	N.A.	6.80
90-120	499.54	N.A.	15.70
90-130	824.36	N.A.	25.90
90-150	1362.23	N.A.	42.90
90-180	1645.8	N.A.	51.80
110-180	1430.42	N.A.	45.00
0-180	3177.8	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	37.57
100-110	177.81
110-120	284.16
120-130	324.82
130-140	303.59
140-150	234.28
150-160	161.04
160-170	92.54
170-180	29.98

IES INDOOR REPORT

PHOTOMETRIC FILENAME : HP-2-P-ID-4FT-S-S-835-WSO-DAO-ITL89456-KPL2008-3.003.IES

COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

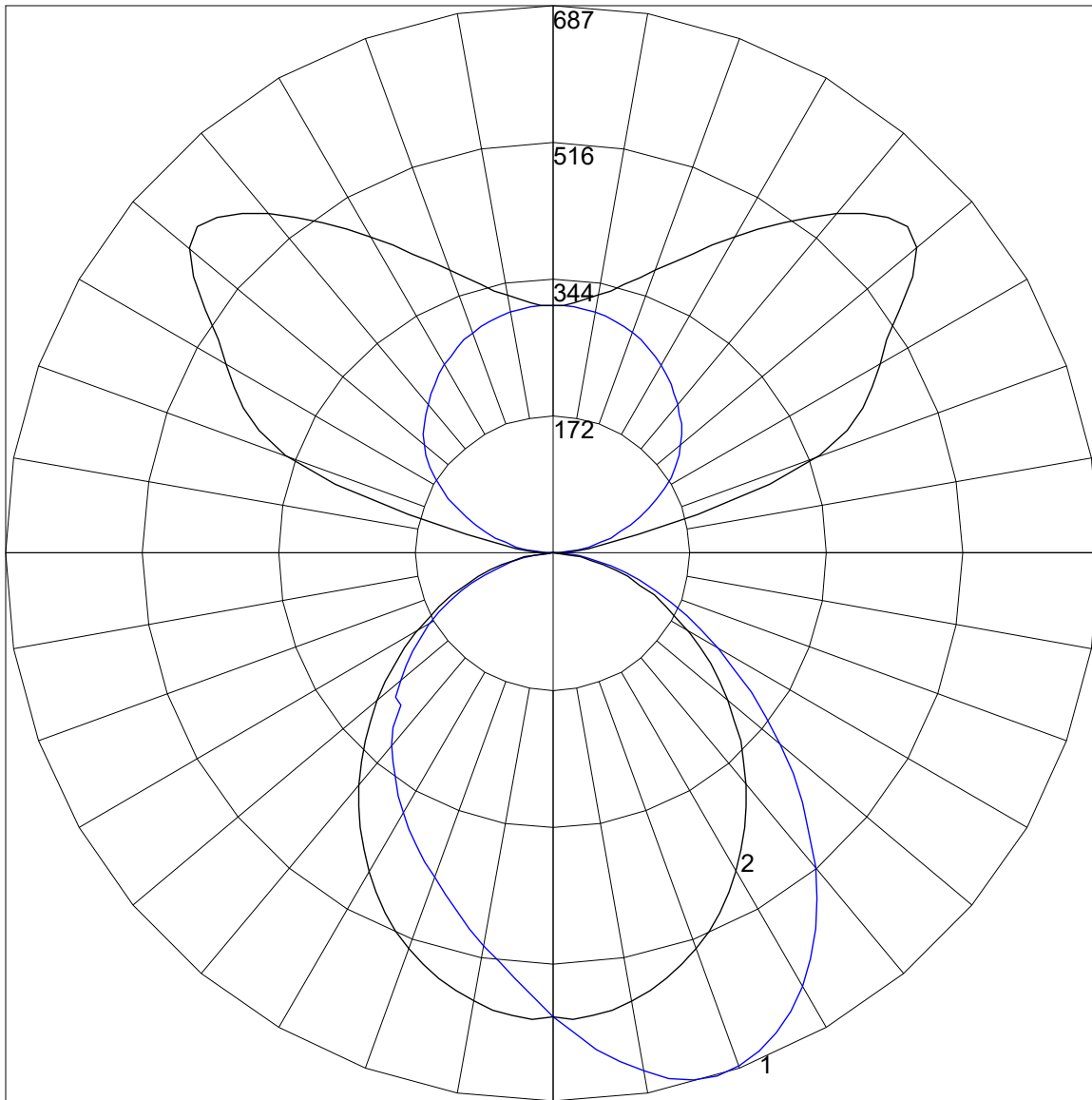
Effective Floor Cavity Reflectance 0.20

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	107	107	107	107	98	98	98	98	82	82	82	68	68	68	54	54	54	48
1	97	93	89	86	90	86	83	80	72	70	68	60	58	57	48	47	46	41
2	89	81	75	70	81	75	70	65	63	60	56	53	50	47	43	41	39	34
3	81	72	64	59	74	66	60	55	56	51	47	47	43	40	38	35	33	29
4	74	63	56	50	68	59	52	46	50	45	40	41	38	34	34	31	29	25
5	68	57	48	43	62	52	45	40	45	39	35	37	33	30	30	27	25	22
6	63	51	43	37	58	47	40	35	40	35	30	34	29	26	28	24	22	19
7	58	46	38	32	53	43	35	30	36	31	27	31	26	23	25	22	20	17
8	54	42	34	29	49	39	32	27	33	28	24	28	24	21	23	20	18	15
9	50	38	30	25	46	35	29	24	30	25	21	26	22	19	21	18	16	14
10	47	35	28	23	43	32	26	22	28	23	19	24	20	17	20	17	14	12

IES INDOOR REPORT

PHOTOMETRIC FILENAME : HP-2-P-ID-4FT-S-S-835-WSO-DAO-ITL89456-KPL2008-3.003.IES

POLAR GRAPH



Maximum Candela = 687.383 Located At Horizontal Angle = 0, Vertical Angle = 17.5

1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)

2 - Vertical Plane Through Horizontal Angles (90 - 270)