

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-B-835-WSO-DAO-ITL89456-KPL2008-3.002.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST] ITL89456-KPL2008-3.002 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-B-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, 35.9 WATTS

[INPUT_ELECTRICAL]277.0 VOLTS, 38.1 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]3994

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3994
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	111
Total Luminaire Watts	35.9
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	12462	12965	9379
55	10577	11771	8366
65	8733	10252	7396
75	7285	8660	6207
85	7270	8629	5163

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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	732.289	732.289	732.289	732.289	732.289	732.289	732.289	732.289	732.289	732.289
2.5	757.219	753.208	749.520	748.470	736.059	724.668	708.703	700.896	701.540	700.896
5.0	785.651	779.085	767.884	756.524	732.289	710.861	687.327	675.482	673.000	675.482
7.5	809.669	801.111	783.931	762.606	726.578	693.898	666.161	646.644	649.523	646.644
10.0	829.594	820.520	795.940	766.190	718.236	676.636	645.593	629.948	628.738	629.948
12.5	848.977	836.757	805.359	766.808	707.679	657.711	625.504	607.712	606.980	607.712
15.0	859.962	848.092	812.363	764.625	695.185	639.805	604.668	582.807	585.120	582.807
17.5	864.164	852.263	815.648	759.104	679.623	619.206	584.368	566.246	565.412	566.246
20.0	860.394	850.002	813.707	750.870	664.652	599.096	564.068	547.563	545.487	547.563
22.5	850.594	841.387	809.402	739.077	645.913	577.421	544.035	528.472	527.180	528.472
25.0	833.580	827.441	795.399	725.857	625.828	555.905	522.653	509.305	509.084	509.305
27.5	815.267	807.651	780.805	709.162	602.943	533.777	502.677	490.431	490.776	490.431
30.0	788.344	783.823	759.913	689.320	580.006	510.567	482.537	470.831	472.469	470.831
32.5	758.620	756.792	737.887	667.402	553.995	487.280	462.128	451.844	453.837	451.844
35.0	722.865	725.265	711.448	643.224	528.797	462.911	440.643	432.677	433.805	432.677
37.5	685.710	689.855	682.048	614.684	502.461	438.223	418.834	412.861	414.637	412.861
40.0	645.645	652.757	650.975	586.412	476.990	414.071	397.350	392.880	395.248	392.880
42.5	600.842	612.748	615.385	555.478	447.591	389.841	375.700	373.444	374.356	373.444
45.0	557.229	571.576	579.682	523.436	419.375	364.690	353.087	352.145	339.034	352.145
47.5	515.871	528.148	545.055	490.349	390.403	340.352	330.253	331.170	335.367	331.170
50.0	468.916	484.803	504.403	454.321	361.162	315.098	308.444	309.927	313.398	309.927
52.5	425.514	442.394	465.790	419.725	332.947	291.105	285.183	287.768	292.398	287.768
55.0	383.620	400.311	426.914	385.181	303.439	266.608	262.030	266.659	269.569	266.659
57.5	340.970	358.768	385.613	350.719	275.975	242.239	238.712	243.856	247.703	243.856
60.0	302.955	320.242	347.485	315.664	249.912	213.231	212.154	220.162	225.626	220.162
62.5	264.826	282.840	309.145	282.438	218.499	195.500	194.630	200.737	202.663	200.737
65.0	233.382	247.353	273.982	249.778	197.658	172.367	172.378	178.356	179.963	178.356
67.5	202.040	215.048	238.871	218.411	172.805	150.156	149.806	155.296	155.754	155.296
70.0	172.857	183.815	205.485	188.743	147.149	128.188	128.352	132.771	135.892	132.771
72.5	144.100	154.034	171.564	158.962	124.021	107.372	107.511	110.400	112.017	110.400
75.0	119.222	127.111	141.731	132.091	101.589	87.087	86.866	84.291	90.121	84.291
77.5	95.095	102.284	113.459	106.754	81.634	67.894	66.895	67.925	67.647	67.925
80.0	74.527	79.831	87.829	82.607	61.988	49.870	47.934	47.414	47.579	47.414
82.5	55.679	59.047	64.943	61.390	45.004	33.056	31.377	26.815	28.725	26.815
85.0	40.065	41.414	47.553	45.266	28.452	18.513	15.398	12.576	10.490	12.576
87.5	24.049	25.275	26.701	23.601	13.420	5.052	2.704	0.968	0.659	0.968
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

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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	732.289	732.289	732.289	732.289	732.289	732.289	732.289
2.5	708.703	724.668	736.059	748.470	749.520	753.208	757.219
5.0	687.327	710.861	732.289	756.524	767.884	779.085	785.651
7.5	666.161	693.898	726.578	762.606	783.931	801.111	809.669
10.0	645.593	676.636	718.236	766.190	795.940	820.520	829.594
12.5	625.504	657.711	707.679	766.808	805.359	836.757	848.977
15.0	604.668	639.805	695.185	764.625	812.363	848.092	859.962
17.5	584.368	619.206	679.623	759.104	815.648	852.263	864.164
20.0	564.068	599.096	664.652	750.870	813.707	850.002	860.394
22.5	544.035	577.421	645.913	739.077	809.402	841.387	850.594
25.0	522.653	555.905	625.828	725.857	795.399	827.441	833.580
27.5	502.677	533.777	602.943	709.162	780.805	807.651	815.267
30.0	482.537	510.567	580.006	689.320	759.913	783.823	788.344
32.5	462.128	487.280	553.995	667.402	737.887	756.792	758.620
35.0	440.643	462.911	528.797	643.224	711.448	725.265	722.865
37.5	418.834	438.223	502.461	614.684	682.048	689.855	685.710
40.0	397.350	414.071	476.990	586.412	650.975	652.757	645.645
42.5	375.700	389.841	447.591	555.478	615.385	612.748	600.842
45.0	353.087	364.690	419.375	523.436	579.682	571.576	557.229
47.5	330.253	340.352	390.403	490.349	545.055	528.148	515.871
50.0	308.444	315.098	361.162	454.321	504.403	484.803	468.916
52.5	285.183	291.105	332.947	419.725	465.790	442.394	425.514
55.0	262.030	266.608	303.439	385.181	426.914	400.311	383.620
57.5	238.712	242.239	275.975	350.719	385.613	358.768	340.970
60.0	212.154	213.231	249.912	315.664	347.485	320.242	302.955
62.5	194.630	195.500	218.499	282.438	309.145	282.840	264.826
65.0	172.378	172.367	197.658	249.778	273.982	247.353	233.382
67.5	149.806	150.156	172.805	218.411	238.871	215.048	202.040
70.0	128.352	128.188	147.149	188.743	205.485	183.815	172.857
72.5	107.511	107.372	124.021	158.962	171.564	154.034	144.100
75.0	86.866	87.087	101.589	132.091	141.731	127.111	119.222
77.5	66.895	67.894	81.634	106.754	113.459	102.284	95.095
80.0	47.934	49.870	61.988	82.607	87.829	79.831	74.527

IES INDOOR REPORT**PHOTOMETRIC FILENAME : HP-2-P-ID-4FT-B-B-835-WSO-DAO-ITL89456-KPL2008-3.002.IES****CANDELA TABULATION - (Cont.)**

82.5	31.377	33.056	45.004	61.390	64.943	59.047	55.679
85.0	15.398	18.513	28.452	45.266	47.553	41.414	40.065
87.5	2.704	5.052	13.420	23.601	26.701	25.275	24.049
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-B-835-WSO-DAO-ITL89456-KPL2008-3.002.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	269.40	N.A.	6.70
0-30	570.56	N.A.	14.30
0-40	923.76	N.A.	23.10
0-60	1567.16	N.A.	39.20
0-80	1893.09	N.A.	47.40
0-90	1926.00	N.A.	48.20
10-90	1856.58	N.A.	46.50
20-40	654.35	N.A.	16.40
20-50	1003.09	N.A.	25.10
40-70	853.69	N.A.	21.40
60-80	325.94	N.A.	8.20
70-80	115.65	N.A.	2.90
80-90	32.91	N.A.	0.80
90-110	270.68	N.A.	6.80
90-120	627.81	N.A.	15.70
90-130	1036.04	N.A.	25.90
90-150	1712.03	N.A.	42.90
90-180	2068.41	N.A.	51.80
110-180	1797.73	N.A.	45.00
0-180	3994.42	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	69.42
10-20	199.98
20-30	301.16
30-40	353.20
40-50	348.73
50-60	294.67
60-70	210.28
70-80	115.65
80-90	32.91
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-B-835-WSO-DAO-ITL89456-KPL2008-3.002.IES

COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

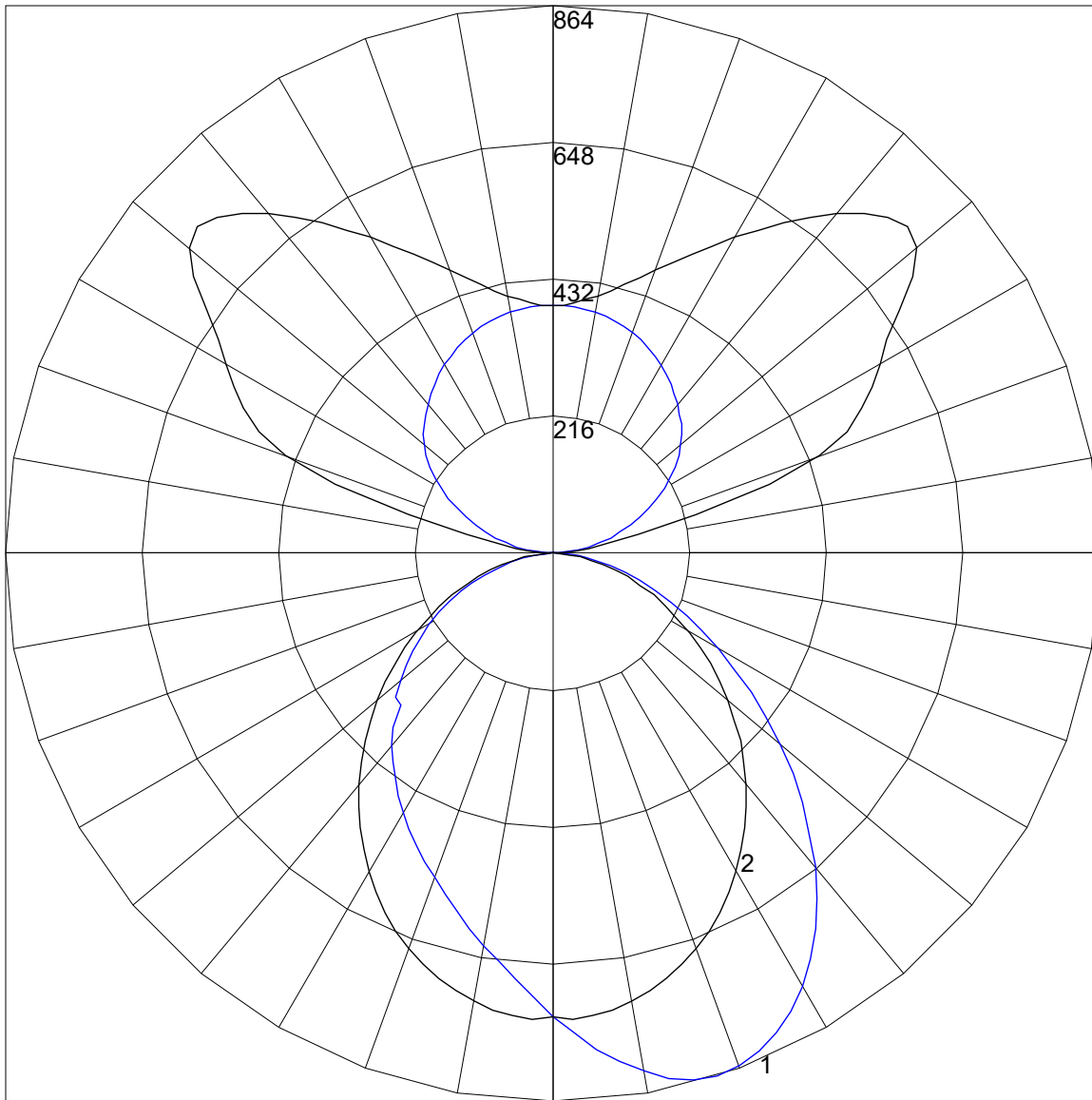
Effective Floor Cavity Reflectance 0.20

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	42	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	25	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-B-B-835-WSO-DAO-ITL89456-KPL2008-3.002.IES

POLAR GRAPH



Maximum Candela = 864.164 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)