

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-B-835-WSO-DAO-ITL89456-KPL2008-3.15.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST] ITL89456-KPL2008-3.015 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-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, 32.1 WATTS

[INPUT_ELECTRICAL]277.0 VOLTS, 34.4 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]3571

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3571
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	111
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	12462	12965	9379
55	10577	11771	8366
65	8733	10252	7396
75	7285	8660	6207
85	7270	8629	5163

IES INDOOR REPORT

PHOTOMETRIC FILENAME : HP-2-P-ID-4FT-S-B-835-WSO-DAO-ITL89456-KPL2008-3.15.IES

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	7.371	12.695	12.695	12.285	12.285	12.285	12.695	12.695	7.371	12.695
95.0	19.247	33.989	33.989	28.256	27.847	28.256	33.989	33.989	19.247	33.989
97.5	32.351	55.693	68.388	49.141	46.275	49.141	68.388	55.693	32.351	55.693
100.0	45.865	72.483	135.957	79.035	69.617	79.035	135.957	72.483	45.865	72.483
102.5	60.607	88.454	187.965	139.643	110.977	139.643	187.965	88.454	60.607	88.454
105.0	74.940	105.654	217.859	227.688	187.556	227.688	217.859	105.654	74.940	105.654
107.5	89.273	122.443	236.287	307.133	286.247	307.133	236.287	122.443	89.273	122.443
110.0	103.606	138.005	252.668	353.817	357.502	353.817	252.668	138.005	103.606	138.005
112.5	117.939	153.157	271.915	384.530	400.091	384.530	271.915	153.157	117.939	153.157
115.0	132.681	167.490	294.847	406.643	429.166	406.643	294.847	167.490	132.681	167.490
117.5	147.424	181.822	319.827	427.528	451.690	427.528	319.827	181.822	147.424	181.822
120.0	162.166	196.974	340.303	449.642	474.213	449.642	340.303	196.974	162.166	196.974
122.5	175.680	209.669	355.045	480.765	497.964	480.765	355.045	209.669	175.680	209.669
125.0	188.375	221.954	363.235	514.754	531.953	514.754	363.235	221.954	188.375	221.954
127.5	200.250	233.421	368.149	537.687	569.628	537.687	368.149	233.421	200.250	233.421
130.0	210.079	243.249	371.016	547.105	596.656	547.105	371.016	243.249	210.079	243.249
132.5	219.907	252.258	371.835	543.420	605.256	543.420	371.835	252.258	219.907	252.258

IES INDOOR REPORT

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CANDELA TABULATION - (Cont.)

135.0	228.507	259.629	371.426	531.953	596.656	531.953	371.426	259.629	228.507	259.629
137.5	236.287	266.591	370.197	516.392	578.638	516.392	370.197	266.591	236.287	266.591
140.0	244.068	272.734	368.149	499.193	555.705	499.193	368.149	272.734	244.068	272.734
142.5	251.439	278.467	365.283	479.946	531.134	479.946	365.283	278.467	251.439	278.467
145.0	259.220	283.790	362.416	461.518	506.154	461.518	362.416	283.790	259.220	283.790
147.5	265.772	287.886	359.140	442.680	480.765	442.680	359.140	287.886	265.772	287.886
150.0	272.324	292.390	355.045	425.890	457.013	425.890	355.045	292.390	272.324	292.390
152.5	278.467	295.666	350.131	409.920	434.900	409.920	350.131	295.666	278.467	295.666
155.0	284.200	298.123	345.217	394.358	414.424	394.358	345.217	298.123	284.200	298.123
157.5	289.524	301.399	340.712	380.025	395.996	380.025	340.712	301.399	289.524	301.399
160.0	294.028	303.447	335.389	366.102	378.797	366.102	335.389	303.447	294.028	303.447
162.5	298.123	305.085	330.065	354.226	362.826	354.226	330.065	305.085	298.123	305.085
165.0	301.399	306.723	324.741	342.760	349.312	342.760	324.741	306.723	301.399	306.723
167.5	304.266	307.952	320.646	332.932	337.436	332.932	320.646	307.952	304.266	307.952
170.0	306.723	309.180	317.780	325.151	328.018	325.151	317.780	309.180	306.723	309.180
172.5	307.952	309.999	314.504	318.599	321.056	318.599	314.504	309.999	307.952	309.999
175.0	309.590	310.409	312.456	314.504	315.323	314.504	312.456	310.409	309.590	310.409
177.5	310.409	310.409	311.228	311.228	311.637	311.228	311.228	310.409	310.409	310.409
180.0	310.818	310.818	310.818	310.818	310.818	310.818	310.818	310.818	310.818	310.818

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-S-B-835-WSO-DAO-ITL89456-KPL2008-3.15.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	12.695	12.285	12.285	12.285	12.695	12.695	7.371
95.0	33.989	28.256	27.847	28.256	33.989	33.989	19.247
97.5	68.388	49.141	46.275	49.141	68.388	55.693	32.351
100.0	135.957	79.035	69.617	79.035	135.957	72.483	45.865
102.5	187.965	139.643	110.977	139.643	187.965	88.454	60.607
105.0	217.859	227.688	187.556	227.688	217.859	105.654	74.940
107.5	236.287	307.133	286.247	307.133	236.287	122.443	89.273
110.0	252.668	353.817	357.502	353.817	252.668	138.005	103.606
112.5	271.915	384.530	400.091	384.530	271.915	153.157	117.939
115.0	294.847	406.643	429.166	406.643	294.847	167.490	132.681
117.5	319.827	427.528	451.690	427.528	319.827	181.822	147.424
120.0	340.303	449.642	474.213	449.642	340.303	196.974	162.166
122.5	355.045	480.765	497.964	480.765	355.045	209.669	175.680
125.0	363.235	514.754	531.953	514.754	363.235	221.954	188.375
127.5	368.149	537.687	569.628	537.687	368.149	233.421	200.250
130.0	371.016	547.105	596.656	547.105	371.016	243.249	210.079
132.5	371.835	543.420	605.256	543.420	371.835	252.258	219.907
135.0	371.426	531.953	596.656	531.953	371.426	259.629	228.507
137.5	370.197	516.392	578.638	516.392	370.197	266.591	236.287
140.0	368.149	499.193	555.705	499.193	368.149	272.734	244.068
142.5	365.283	479.946	531.134	479.946	365.283	278.467	251.439
145.0	362.416	461.518	506.154	461.518	362.416	283.790	259.220
147.5	359.140	442.680	480.765	442.680	359.140	287.886	265.772
150.0	355.045	425.890	457.013	425.890	355.045	292.390	272.324
152.5	350.131	409.920	434.900	409.920	350.131	295.666	278.467
155.0	345.217	394.358	414.424	394.358	345.217	298.123	284.200
157.5	340.712	380.025	395.996	380.025	340.712	301.399	289.524
160.0	335.389	366.102	378.797	366.102	335.389	303.447	294.028
162.5	330.065	354.226	362.826	354.226	330.065	305.085	298.123
165.0	324.741	342.760	349.312	342.760	324.741	306.723	301.399
167.5	320.646	332.932	337.436	332.932	320.646	307.952	304.266
170.0	317.780	325.151	328.018	325.151	317.780	309.180	306.723
172.5	314.504	318.599	321.056	318.599	314.504	309.999	307.952
175.0	312.456	314.504	315.323	314.504	312.456	310.409	309.590
177.5	311.228	311.228	311.637	311.228	311.228	310.409	310.409
180.0	310.818	310.818	310.818	310.818	310.818	310.818	310.818

IES INDOOR REPORT**PHOTOMETRIC FILENAME : HP-2-P-ID-4FT-S-B-835-WSO-DAO-ITL89456-KPL2008-3.15.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	269.40	N.A.	7.50
0-30	570.56	N.A.	16.00
0-40	923.76	N.A.	25.90
0-60	1567.16	N.A.	43.90
0-80	1893.09	N.A.	53.00
0-90	1926.00	N.A.	53.90
10-90	1856.58	N.A.	52.00
20-40	654.35	N.A.	18.30
20-50	1003.09	N.A.	28.10
40-70	853.69	N.A.	23.90
60-80	325.94	N.A.	9.10
70-80	115.65	N.A.	3.20
80-90	32.91	N.A.	0.90
90-110	215.32	N.A.	6.00
90-120	499.39	N.A.	14.00
90-130	824.12	N.A.	23.10
90-150	1361.84	N.A.	38.10
90-180	1645.33	N.A.	46.10
110-180	1430.02	N.A.	40.00
0-180	3571.33	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	37.56
100-110	177.76
110-120	284.08
120-130	324.73
130-140	303.50
140-150	234.21
150-160	161.00
160-170	92.52
170-180	29.98

IES INDOOR REPORT

PHOTOMETRIC FILENAME : HP-2-P-ID-4FT-S-B-835-WSO-DAO-ITL89456-KPL2008-3.15.IES

COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

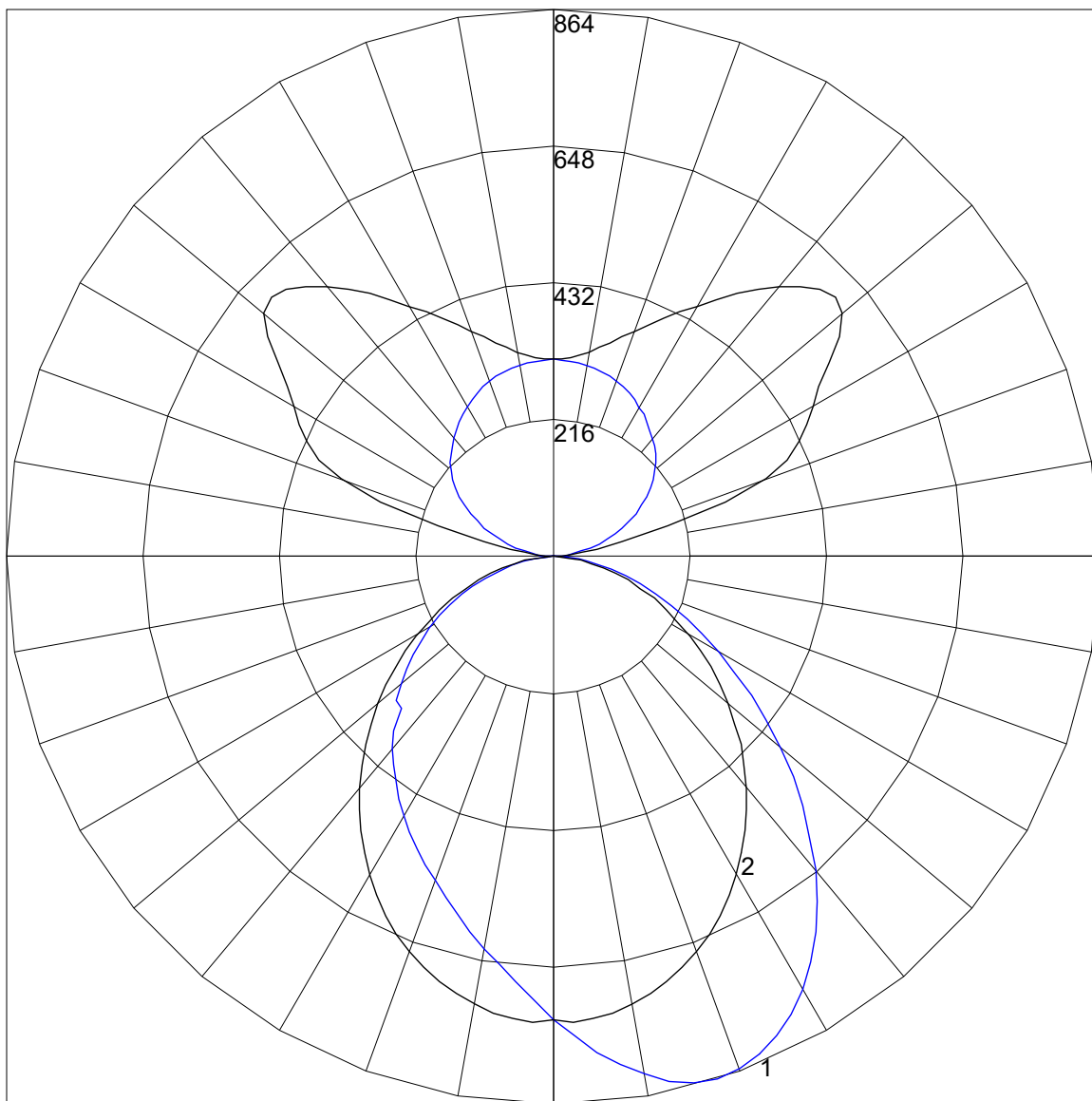
Effective Floor Cavity Reflectance 0.20

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	108	108	108	108	100	100	100	100	86	86	86	72	72	72	60	60	60	54
1	99	94	91	87	91	88	84	81	75	73	70	64	62	60	53	52	51	46
2	90	83	76	71	83	77	71	67	66	62	58	56	53	50	47	45	43	38
3	82	73	65	59	76	68	61	56	58	53	49	50	46	43	41	39	36	33
4	75	64	56	50	69	60	53	48	52	46	42	44	40	37	37	34	31	28
5	69	57	49	43	64	54	46	41	46	41	36	40	35	32	33	30	27	24
6	64	52	43	38	59	48	41	36	42	36	32	36	31	28	30	27	24	21
7	59	47	39	33	54	44	36	31	38	32	28	33	28	25	28	24	22	19
8	55	42	34	29	51	40	33	28	35	29	25	30	25	22	25	22	19	17
9	51	39	31	26	47	36	29	25	32	26	22	28	23	20	23	20	17	15
10	48	35	28	23	44	33	27	22	29	24	20	25	21	18	22	18	16	14

IES INDOOR REPORT

PHOTOMETRIC FILENAME : HP-2-P-ID-4FT-S-B-835-WSO-DAO-ITL89456-KPL2008-3.15.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)