

# 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-ID-4FT-S-H-835-F-DAO-ITL85132-KPL2008-3.014.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL85132-KPL2008-3.014 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]08/11/15

[ISSUEDATE]08/29/2021

[MANUFAC]FINELITE, INC.

[LUMCAT]HP-2-ID-4ft-S-H-835-F-DAO

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 42.0 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 43.7 WATTS

[OTHER]see [www.finelite.com](http://www.finelite.com) for source files ITL85132 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](http://www.finelite.com/download_files/series_downloads/photometry_pdf/FL_Family_Correlation_WhitePaper.pdf)

[ABSOLUTE LUMENS]4471

[\_CONVERT] Photometric web converted from original test data

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4470
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	106
Total Luminaire Watts	42
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	1.48
Spacing Criterion (90-270)	1.20
Spacing Criterion (Diagonal)	1.36
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	4.00 ft
Luminous Width (90-270)	0.18 ft
Luminous Height	0.00 ft

### LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	18067	18795	13597
55	15333	17064	12129
65	12660	14863	10722
75	10561	12555	8999
85	10539	12509	7484

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	1105.825	1105.825	1105.825	1105.825	1105.825	1105.825	1105.825	1105.825	1105.825	1105.825
2.5	1143.471	1137.413	1131.845	1130.259	1111.517	1094.315	1070.208	1058.419	1059.391	1058.419
5.0	1186.406	1176.491	1159.577	1142.422	1105.825	1073.466	1037.927	1020.041	1016.293	1020.041
7.5	1222.676	1209.751	1183.808	1151.606	1097.201	1047.850	1005.965	976.492	980.839	976.492
10.0	1252.764	1239.061	1201.943	1157.018	1084.602	1021.783	974.906	951.280	949.453	951.280
12.5	1282.035	1263.581	1216.167	1157.951	1068.660	993.204	944.569	917.701	916.597	917.701
15.0	1298.622	1280.697	1226.743	1154.654	1049.794	966.165	913.105	880.093	883.585	880.093
17.5	1304.968	1286.996	1231.705	1146.318	1026.293	935.058	882.450	855.084	853.824	855.084
20.0	1299.275	1283.582	1228.773	1133.883	1003.687	904.691	851.794	826.870	823.736	826.870
22.5	1284.477	1270.572	1222.271	1116.074	975.388	871.959	821.543	798.042	796.091	798.042
25.0	1258.783	1249.513	1201.127	1096.112	945.059	839.468	789.255	769.098	768.764	769.098
27.5	1231.129	1219.627	1179.088	1070.900	910.500	806.052	759.089	740.597	741.118	740.597
30.0	1190.473	1183.645	1147.538	1040.937	875.863	771.003	728.675	710.999	713.472	710.999
32.5	1145.587	1142.826	1114.278	1007.840	836.583	735.837	697.857	682.327	685.336	682.327
35.0	1091.594	1095.217	1074.353	971.328	798.532	699.039	665.413	653.382	655.085	653.382
37.5	1035.485	1041.745	1029.956	928.231	758.763	661.758	632.479	623.458	626.141	623.458
40.0	974.983	985.723	983.032	885.537	720.300	625.285	600.035	593.285	596.862	593.285
42.5	907.327	925.307	929.288	838.823	675.903	588.696	567.342	563.936	565.312	563.936
45.0	841.467	863.133	875.373	790.437	633.295	550.715	533.195	531.772	511.972	531.772
47.5	779.013	797.552	823.083	740.472	589.544	513.963	498.713	500.098	506.436	500.098
50.0	708.106	732.097	761.695	686.067	545.388	475.827	465.779	468.019	473.261	468.019
52.5	642.565	668.057	703.386	633.824	502.781	439.596	430.653	434.556	441.548	434.556
55.0	579.302	604.506	644.680	581.659	458.221	402.602	395.689	402.680	407.074	402.680
57.5	514.896	541.772	582.312	529.618	416.748	365.803	360.477	368.245	374.054	368.245
60.0	457.490	483.596	524.734	476.682	377.391	321.998	320.373	332.465	340.716	332.465
62.5	399.912	427.114	466.837	426.508	329.953	295.223	293.909	303.132	306.040	303.132
65.0	352.428	373.526	413.738	377.188	298.481	260.291	260.306	269.335	271.761	269.335
67.5	305.099	324.743	360.718	329.821	260.952	226.750	226.221	234.511	235.203	234.511
70.0	261.029	277.578	310.302	285.020	222.209	193.575	193.824	200.496	205.209	200.496
72.5	217.605	232.606	259.077	240.048	187.284	162.142	162.352	166.715	169.157	166.715
75.0	180.036	191.950	214.028	199.470	153.409	131.510	131.176	127.287	136.090	127.287
77.5	143.603	154.459	171.334	161.209	123.275	102.527	101.018	102.573	102.153	102.573
80.0	112.543	120.553	132.630	124.744	93.607	75.309	72.385	71.599	71.848	71.599
82.5	84.081	89.166	98.071	92.705	67.960	49.918	47.383	40.493	43.378	40.493
85.0	60.502	62.539	71.809	68.356	42.966	27.957	23.252	18.990	15.841	18.990
87.5	36.317	38.168	40.322	35.640	20.266	7.629	4.083	1.462	0.995	1.462
90.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
92.5	12.282	12.282	12.282	13.510	13.510	13.510	12.282	12.282	12.282	12.282
95.0	29.067	27.839	27.839	28.248	28.657	28.248	27.839	27.839	29.067	27.839
97.5	45.852	44.624	43.805	44.214	44.214	44.214	43.805	44.624	45.852	44.624
100.0	63.046	60.999	60.999	60.999	60.590	60.999	60.999	60.999	63.046	60.999
102.5	81.059	79.422	78.603	78.193	78.193	78.193	78.603	79.422	81.059	79.422
105.0	99.891	98.663	96.616	96.207	95.797	96.207	96.616	98.663	99.891	98.663
107.5	119.132	117.904	115.448	115.039	114.629	115.039	115.448	117.904	119.132	117.904
110.0	139.193	137.964	135.917	135.099	133.871	135.099	135.917	137.964	139.193	137.964
112.5	160.071	158.025	156.796	154.749	153.521	154.749	156.796	158.025	160.071	158.025
115.0	180.950	179.722	178.903	174.810	173.991	174.810	178.903	179.722	180.950	179.722
117.5	203.057	201.010	201.010	196.098	195.279	196.098	201.010	201.010	203.057	201.010
120.0	225.574	222.299	223.118	218.205	216.567	218.205	223.118	222.299	225.574	222.299
122.5	246.862	243.587	245.225	241.131	238.265	241.131	245.225	243.587	246.862	243.587
125.0	270.607	265.694	267.332	263.238	261.191	263.238	267.332	265.694	270.607	265.694
127.5	293.942	288.620	289.439	286.164	285.345	286.164	289.439	288.620	293.942	288.620
130.0	316.868	311.546	312.365	308.271	308.680	308.271	312.365	311.546	316.868	311.546
132.5	339.794	334.062	335.290	331.197	331.197	331.197	335.290	334.062	339.794	334.062

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PHOTOMETRIC FILENAME : HP-2-ID-4FT-S-H-835-F-DAO-ITL85132-KPL2008-3.014.IES

## CANDELA TABULATION - (Cont.)

135.0	361.901	356.579	358.216	354.532	354.532	354.532	358.216	356.579	361.901	356.579
137.5	384.417	379.095	380.733	377.458	377.048	377.458	380.733	379.095	384.417	379.095
140.0	406.934	401.612	402.840	400.793	399.565	400.793	402.840	401.612	406.934	401.612
142.5	428.222	422.490	424.128	422.081	420.444	422.081	424.128	422.490	428.222	422.490
145.0	449.920	443.779	445.416	443.779	440.913	443.779	445.416	443.779	449.920	443.779
147.5	469.980	463.839	465.886	463.429	460.564	463.429	465.886	463.839	469.980	463.839
150.0	489.221	483.080	485.537	482.671	480.214	482.671	485.537	483.080	489.221	483.080
152.5	507.644	501.503	503.959	501.503	499.046	501.503	503.959	501.503	507.644	501.503
155.0	525.247	519.107	521.972	519.516	517.060	519.516	521.972	519.107	525.247	519.107
157.5	540.395	534.663	537.938	535.482	533.026	535.482	537.938	534.663	540.395	534.663
160.0	555.133	549.811	552.677	550.220	547.764	550.220	552.677	549.811	555.133	549.811
162.5	567.824	563.321	565.368	563.730	562.092	563.730	565.368	563.321	567.824	563.321
165.0	579.287	575.193	576.421	575.602	574.374	575.602	576.421	575.193	579.287	575.193
167.5	587.884	585.428	586.246	585.428	585.018	585.428	586.246	585.428	587.884	585.428
170.0	595.662	594.434	594.844	594.025	593.615	594.025	594.844	594.434	595.662	594.434
172.5	602.213	601.803	601.803	601.394	601.394	601.394	601.803	601.803	602.213	601.803
175.0	606.716	606.716	606.716	606.716	606.307	606.716	606.716	606.716	606.716	606.716
177.5	609.172	609.582	609.582	609.582	609.172	609.582	609.582	609.582	609.172	609.582
180.0	610.810	610.810	610.810	610.810	610.810	610.810	610.810	610.810	610.810	610.810

## 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	1105.825	1105.825	1105.825	1105.825	1105.825	1105.825	1105.825
2.5	1070.208	1094.315	1111.517	1130.259	1131.845	1137.413	1143.471
5.0	1037.927	1073.466	1105.825	1142.422	1159.577	1176.491	1186.406
7.5	1005.965	1047.850	1097.201	1151.606	1183.808	1209.751	1222.676
10.0	974.906	1021.783	1084.602	1157.018	1201.943	1239.061	1252.764
12.5	944.569	993.204	1068.660	1157.951	1216.167	1263.581	1282.035
15.0	913.105	966.165	1049.794	1154.654	1226.743	1280.697	1298.622
17.5	882.450	935.058	1026.293	1146.318	1231.705	1286.996	1304.968
20.0	851.794	904.691	1003.687	1133.883	1228.773	1283.582	1299.275
22.5	821.543	871.959	975.388	1116.074	1222.271	1270.572	1284.477
25.0	789.255	839.468	945.059	1096.112	1201.127	1249.513	1258.783
27.5	759.089	806.052	910.500	1070.900	1179.088	1219.627	1231.129
30.0	728.675	771.003	875.863	1040.937	1147.538	1183.645	1190.473
32.5	697.857	735.837	836.583	1007.840	1114.278	1142.826	1145.587
35.0	665.413	699.039	798.532	971.328	1074.353	1095.217	1091.594
37.5	632.479	661.758	758.763	928.231	1029.956	1041.745	1035.485
40.0	600.035	625.285	720.300	885.537	983.032	985.723	974.983
42.5	567.342	588.696	675.903	838.823	929.288	925.307	907.327
45.0	533.195	550.715	633.295	790.437	875.373	863.133	841.467
47.5	498.713	513.963	589.544	740.472	823.083	797.552	779.013
50.0	465.779	475.827	545.388	686.067	761.695	732.097	708.106
52.5	430.653	439.596	502.781	633.824	703.386	668.057	642.565
55.0	395.689	402.602	458.221	581.659	644.680	604.506	579.302
57.5	360.477	365.803	416.748	529.618	582.312	541.772	514.896
60.0	320.373	321.998	377.391	476.682	524.734	483.596	457.490
62.5	293.909	295.223	329.953	426.508	466.837	427.114	399.912
65.0	260.306	260.291	298.481	377.188	413.738	373.526	352.428
67.5	226.221	226.750	260.952	329.821	360.718	324.743	305.099
70.0	193.824	193.575	222.209	285.020	310.302	277.578	261.029
72.5	162.352	162.142	187.284	240.048	259.077	232.606	217.605
75.0	131.176	131.510	153.409	199.470	214.028	191.950	180.036
77.5	101.018	102.527	123.275	161.209	171.334	154.459	143.603
80.0	72.385	75.309	93.607	124.744	132.630	120.553	112.543

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-4FT-S-H-835-F-DAO-ITL85132-KPL2008-3.014.IES****CANDELA TABULATION - (Cont.)**

82.5	47.383	49.918	67.960	92.705	98.071	89.166	84.081
85.0	23.252	27.957	42.966	68.356	71.809	62.539	60.502
87.5	4.083	7.629	20.266	35.640	40.322	38.168	36.317
90.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
92.5	12.282	13.510	13.510	13.510	12.282	12.282	12.282
95.0	27.839	28.248	28.657	28.248	27.839	27.839	29.067
97.5	43.805	44.214	44.214	44.214	43.805	44.624	45.852
100.0	60.999	60.999	60.590	60.999	60.999	60.999	63.046
102.5	78.603	78.193	78.193	78.193	78.603	79.422	81.059
105.0	96.616	96.207	95.797	96.207	96.616	98.663	99.891
107.5	115.448	115.039	114.629	115.039	115.448	117.904	119.132
110.0	135.917	135.099	133.871	135.099	135.917	137.964	139.193
112.5	156.796	154.749	153.521	154.749	156.796	158.025	160.071
115.0	178.903	174.810	173.991	174.810	178.903	179.722	180.950
117.5	201.010	196.098	195.279	196.098	201.010	201.010	203.057
120.0	223.118	218.205	216.567	218.205	223.118	222.299	225.574
122.5	245.225	241.131	238.265	241.131	245.225	243.587	246.862
125.0	267.332	263.238	261.191	263.238	267.332	265.694	270.607
127.5	289.439	286.164	285.345	286.164	289.439	288.620	293.942
130.0	312.365	308.271	308.680	308.271	312.365	311.546	316.868
132.5	335.290	331.197	331.197	331.197	335.290	334.062	339.794
135.0	358.216	354.532	354.532	354.532	358.216	356.579	361.901
137.5	380.733	377.458	377.048	377.458	380.733	379.095	384.417
140.0	402.840	400.793	399.565	400.793	402.840	401.612	406.934
142.5	424.128	422.081	420.444	422.081	424.128	422.490	428.222
145.0	445.416	443.779	440.913	443.779	445.416	443.779	449.920
147.5	465.886	463.429	460.564	463.429	465.886	463.839	469.980
150.0	485.537	482.671	480.214	482.671	485.537	483.080	489.221
152.5	503.959	501.503	499.046	501.503	503.959	501.503	507.644
155.0	521.972	519.516	517.060	519.516	521.972	519.107	525.247
157.5	537.938	535.482	533.026	535.482	537.938	534.663	540.395
160.0	552.677	550.220	547.764	550.220	552.677	549.811	555.133
162.5	565.368	563.730	562.092	563.730	565.368	563.321	567.824
165.0	576.421	575.602	574.374	575.602	576.421	575.193	579.287
167.5	586.246	585.428	585.018	585.428	586.246	585.428	587.884
170.0	594.844	594.025	593.615	594.025	594.844	594.434	595.662
172.5	601.803	601.394	601.394	601.394	601.803	601.803	602.213
175.0	606.716	606.716	606.307	606.716	606.716	606.716	606.716
177.5	609.582	609.582	609.172	609.582	609.582	609.582	609.172
180.0	610.810	610.810	610.810	610.810	610.810	610.810	610.810

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-4FT-S-H-835-F-DAO-ITL85132-KPL2008-3.014.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	406.82	N.A.	9.10
0-30	861.60	N.A.	19.30
0-40	1394.96	N.A.	31.20
0-60	2366.56	N.A.	52.90
0-80	2858.75	N.A.	64.00
0-90	2908.44	N.A.	65.10
10-90	2803.61	N.A.	62.70
20-40	988.14	N.A.	22.10
20-50	1514.75	N.A.	33.90
40-70	1289.14	N.A.	28.80
60-80	492.19	N.A.	11.00
70-80	174.65	N.A.	3.90
80-90	49.69	N.A.	1.10
90-110	134.78	N.A.	3.00
90-120	311.03	N.A.	7.00
90-130	548.75	N.A.	12.30
90-150	1101.93	N.A.	24.70
90-180	1561.15	N.A.	34.90
110-180	1426.38	N.A.	31.90
0-180	4469.6	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	104.83
10-20	301.99
20-30	454.77
30-40	533.36
40-50	526.62
50-60	444.98
60-70	317.55
70-80	174.65
80-90	49.69
90-100	31.55
100-110	103.23
110-120	176.25
120-130	237.72
130-140	275.34
140-150	277.84
150-160	239.40
160-170	162.30
170-180	57.52

# IES INDOOR REPORT

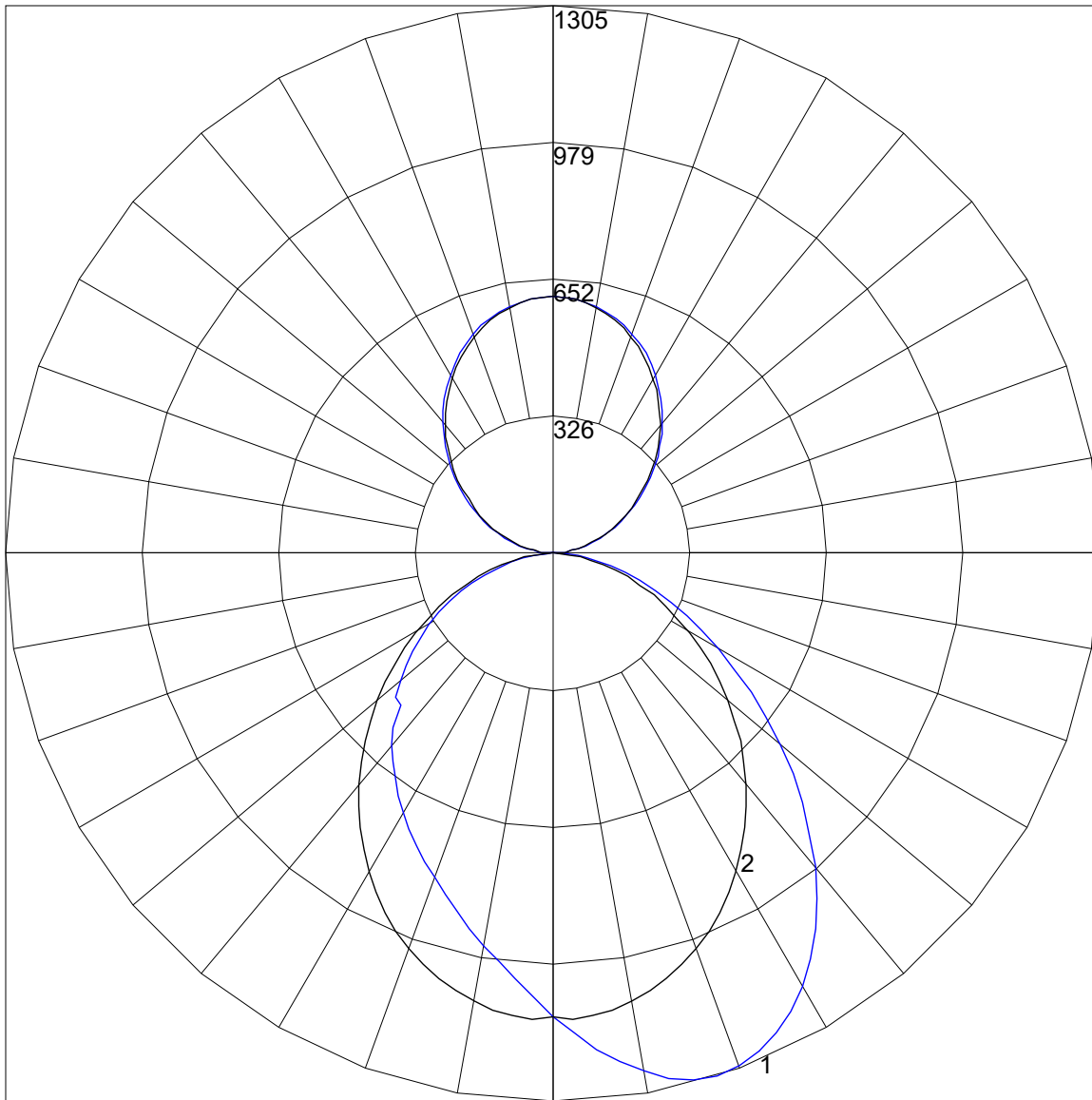
PHOTOMETRIC FILENAME : HP-2-ID-4FT-S-H-835-F-DAO-ITL85132-KPL2008-3.014.IES

## 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	111	111	111	111	104	104	104	104	92	92	92	80	80	80	70	70	70	65
1	101	97	93	89	95	91	88	85	81	78	76	71	69	67	62	61	59	55
2	92	85	78	73	87	80	74	70	71	67	63	62	59	56	55	52	50	46
3	84	75	67	61	79	70	64	58	63	57	53	55	51	48	49	45	43	39
4	77	66	58	52	72	63	55	50	56	50	45	49	45	41	43	40	37	34
5	71	59	51	45	66	56	48	43	50	44	39	44	40	36	39	35	32	29
6	65	53	45	39	61	50	43	37	45	39	34	40	35	31	36	32	28	26
7	61	48	40	34	57	46	38	33	41	35	30	37	32	28	33	28	25	23
8	56	44	36	30	53	42	34	29	37	31	27	34	29	25	30	26	23	20
9	52	40	32	27	49	38	31	26	34	28	24	31	26	22	28	24	21	18
10	49	37	29	24	46	35	28	24	32	26	22	29	24	20	26	22	19	17

POLAR GRAPH



Maximum Candela = 1304.968 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)