

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-H-V-835-WSO-DAO-ITL89456-KPL2008-3.007.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST] ITL89456-KPL2008-3.007 Family Correlation File

[TESTLAB] Northern Lights Testing Laboratories

[TESTDATE] 5/18/2021

[ISSUEDATE] 8/24/2021

[MANUFAC] Finelite

[LUMCAT] HP-2-P-ID-4ft-H-V-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, 63.8 WATTS

[INPUT_ELECTRICAL]277.0 VOLTS, 64.8 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

[ABSOLUTELUMENS]6864

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	6866
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	108
Total Luminaire Watts	63.8
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	24200	25175	18213
55	20539	22857	16246
65	16958	19909	14363
75	14146	16817	12054
85	14117	16755	10025

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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	1421.990	1421.990	1421.990	1421.990	1421.990	1421.990	1421.990	1421.990	1421.990	1421.990
2.5	1470.400	1462.610	1455.450	1453.410	1429.310	1407.190	1376.190	1361.030	1362.280	1361.030
5.0	1525.610	1512.860	1491.110	1469.050	1421.990	1380.380	1334.680	1311.680	1306.860	1311.680
7.5	1572.250	1555.630	1522.270	1480.860	1410.900	1347.440	1293.580	1255.680	1261.270	1255.680
10.0	1610.940	1593.320	1545.590	1487.820	1394.700	1313.920	1253.640	1223.260	1220.910	1223.260
12.5	1648.580	1624.850	1563.880	1489.020	1374.200	1277.170	1214.630	1180.080	1178.660	1180.080
15.0	1669.910	1646.860	1577.480	1484.780	1349.940	1242.400	1174.170	1131.720	1136.210	1131.720
17.5	1678.070	1654.960	1583.860	1474.060	1319.720	1202.400	1134.750	1099.560	1097.940	1099.560
20.0	1670.750	1650.570	1580.090	1458.070	1290.650	1163.350	1095.330	1063.280	1059.250	1063.280
22.5	1651.720	1633.840	1571.730	1435.170	1254.260	1121.260	1056.430	1026.210	1023.700	1026.210
25.0	1618.680	1606.760	1544.540	1409.500	1215.260	1079.480	1014.910	988.990	988.560	988.990
27.5	1583.120	1568.330	1516.200	1377.080	1170.820	1036.510	976.120	952.340	953.010	952.340
30.0	1530.840	1522.060	1475.630	1338.550	1126.280	991.440	937.010	914.280	917.460	914.280
32.5	1473.120	1469.570	1432.860	1295.990	1075.770	946.220	897.380	877.410	881.280	877.410
35.0	1403.690	1408.350	1381.520	1249.040	1026.840	898.900	855.660	840.190	842.380	840.190
37.5	1331.540	1339.590	1324.430	1193.620	975.700	850.960	813.310	801.710	805.160	801.710
40.0	1253.740	1267.550	1264.090	1138.720	926.240	804.060	771.590	762.910	767.510	762.910
42.5	1166.740	1189.860	1194.980	1078.650	869.150	757.010	729.550	725.170	726.940	725.170
45.0	1082.050	1109.910	1125.650	1016.430	814.360	708.170	685.640	683.810	658.350	683.810
47.5	1001.740	1025.580	1058.410	952.180	758.100	660.910	641.300	643.080	651.230	643.080
50.0	910.560	941.410	979.470	882.220	701.320	611.870	598.950	601.830	608.570	601.830
52.5	826.280	859.060	904.490	815.040	646.530	565.280	553.780	558.800	567.790	558.800
55.0	744.930	777.340	829.000	747.960	589.230	517.710	508.820	517.810	523.460	517.810
57.5	662.110	696.670	748.800	681.040	535.900	470.390	463.540	473.530	481.000	473.530
60.0	588.290	621.860	674.760	612.970	485.290	414.060	411.970	427.520	438.130	427.520
62.5	514.250	549.230	600.310	548.450	424.290	379.630	377.940	389.800	393.540	389.800
65.0	453.190	480.320	532.030	485.030	383.820	334.710	334.730	346.340	349.460	346.340
67.5	392.330	417.590	463.850	424.120	335.560	291.580	290.900	301.560	302.450	301.560
70.0	335.660	356.940	399.020	366.510	285.740	248.920	249.240	257.820	263.880	257.820
72.5	279.820	299.110	333.150	308.680	240.830	208.500	208.770	214.380	217.520	214.380
75.0	231.510	246.830	275.220	256.500	197.270	169.110	168.680	163.680	175.000	163.680
77.5	184.660	198.620	220.320	207.300	158.520	131.840	129.900	131.900	131.360	131.900
80.0	144.720	155.020	170.550	160.410	120.370	96.840	93.080	92.070	92.390	92.070
82.5	108.120	114.660	126.110	119.210	87.390	64.190	60.930	52.070	55.780	52.070
85.0	77.800	80.420	92.340	87.900	55.250	35.950	29.900	24.420	20.370	24.420
87.5	46.700	49.080	51.850	45.830	26.060	9.810	5.250	1.880	1.280	1.880
90.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
92.5	14.003	24.116	24.116	23.338	23.338	23.338	24.116	24.116	14.003	24.116
95.0	36.563	64.569	64.569	53.678	52.900	53.678	64.569	64.569	36.563	64.569
97.5	61.458	105.800	129.917	93.353	87.908	93.353	129.917	105.800	61.458	105.800
100.0	87.130	137.696	258.277	150.143	132.250	150.143	258.277	137.696	87.130	137.696
102.5	115.136	168.036	357.076	265.279	210.823	265.279	357.076	168.036	115.136	168.036
105.0	142.364	200.710	413.866	432.537	356.298	432.537	413.866	200.710	142.364	200.710
107.5	169.592	232.605	448.874	583.458	543.783	583.458	448.874	232.605	169.592	232.605
110.0	196.820	262.167	479.991	672.144	679.145	672.144	479.991	262.167	196.820	262.167
112.5	224.048	290.951	516.555	730.489	760.051	730.489	516.555	290.951	224.048	290.951
115.0	252.054	318.179	560.120	772.498	815.285	772.498	560.120	318.179	252.054	318.179
117.5	280.060	345.407	607.574	812.174	858.072	812.174	607.574	345.407	280.060	345.407
120.0	308.066	374.191	646.471	854.182	900.859	854.182	646.471	374.191	308.066	374.191
122.5	333.738	398.307	674.477	913.306	945.980	913.306	674.477	398.307	333.738	398.307
125.0	357.854	421.646	690.036	977.876	1010.549	977.876	690.036	421.646	357.854	421.646
127.5	380.415	443.428	699.372	1021.440	1082.120	1021.440	699.372	443.428	380.415	443.428
130.0	399.085	462.099	704.817	1039.333	1133.464	1039.333	704.817	462.099	399.085	462.099
132.5	417.756	479.214	706.373	1032.332	1149.801	1032.332	706.373	479.214	417.756	479.214

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CANDELA TABULATION - (Cont.)

135.0	434.093	493.216	705.595	1010.549	1133.464	1010.549	705.595	493.216	434.093	493.216
137.5	448.874	506.442	703.261	980.987	1099.235	980.987	703.261	506.442	448.874	506.442
140.0	463.655	518.111	699.372	948.314	1055.670	948.314	699.372	518.111	463.655	518.111
142.5	477.658	529.002	693.926	911.750	1008.993	911.750	693.926	529.002	477.658	529.002
145.0	492.439	539.115	688.480	876.743	961.539	876.743	688.480	539.115	492.439	539.115
147.5	504.886	546.895	682.257	840.957	913.306	840.957	682.257	546.895	504.886	546.895
150.0	517.333	555.452	674.477	809.062	868.185	809.062	674.477	555.452	517.333	555.452
152.5	529.002	561.676	665.142	778.722	826.177	778.722	665.142	561.676	529.002	561.676
155.0	539.893	566.343	655.807	749.160	787.279	749.160	655.807	566.343	539.893	566.343
157.5	550.006	572.567	647.249	721.932	752.272	721.932	647.249	572.567	550.006	572.567
160.0	558.564	576.456	637.136	695.482	719.598	695.482	637.136	576.456	558.564	576.456
162.5	566.343	579.568	627.023	672.922	689.258	672.922	627.023	579.568	566.343	579.568
165.0	572.567	582.680	616.910	651.139	663.586	651.139	616.910	582.680	572.567	582.680
167.5	578.012	585.014	609.130	632.468	641.026	632.468	609.130	585.014	578.012	585.014
170.0	582.680	587.348	603.685	617.688	623.133	617.688	603.685	587.348	582.680	587.348
172.5	585.014	588.904	597.461	605.240	609.908	605.240	597.461	588.904	585.014	588.904
175.0	588.126	589.682	593.571	597.461	599.017	597.461	593.571	589.682	588.126	589.682
177.5	589.682	589.682	591.237	591.237	592.015	591.237	591.237	589.682	589.682	589.682
180.0	590.459	590.459	590.459	590.459	590.459	590.459	590.459	590.459	590.459	590.459

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	1421.990	1421.990	1421.990	1421.990	1421.990	1421.990	1421.990
2.5	1376.190	1407.190	1429.310	1453.410	1455.450	1462.610	1470.400
5.0	1334.680	1380.380	1421.990	1469.050	1491.110	1512.860	1525.610
7.5	1293.580	1347.440	1410.900	1480.860	1522.270	1555.630	1572.250
10.0	1253.640	1313.920	1394.700	1487.820	1545.590	1593.320	1610.940
12.5	1214.630	1277.170	1374.200	1489.020	1563.880	1624.850	1648.580
15.0	1174.170	1242.400	1349.940	1484.780	1577.480	1646.860	1669.910
17.5	1134.750	1202.400	1319.720	1474.060	1583.860	1654.960	1678.070
20.0	1095.330	1163.350	1290.650	1458.070	1580.090	1650.570	1670.750
22.5	1056.430	1121.260	1254.260	1435.170	1571.730	1633.840	1651.720
25.0	1014.910	1079.480	1215.260	1409.500	1544.540	1606.760	1618.680
27.5	976.120	1036.510	1170.820	1377.080	1516.200	1568.330	1583.120
30.0	937.010	991.440	1126.280	1338.550	1475.630	1522.060	1530.840
32.5	897.380	946.220	1075.770	1295.990	1432.860	1469.570	1473.120
35.0	855.660	898.900	1026.840	1249.040	1381.520	1408.350	1403.690
37.5	813.310	850.960	975.700	1193.620	1324.430	1339.590	1331.540
40.0	771.590	804.060	926.240	1138.720	1264.090	1267.550	1253.740
42.5	729.550	757.010	869.150	1078.650	1194.980	1189.860	1166.740
45.0	685.640	708.170	814.360	1016.430	1125.650	1109.910	1082.050
47.5	641.300	660.910	758.100	952.180	1058.410	1025.580	1001.740
50.0	598.950	611.870	701.320	882.220	979.470	941.410	910.560
52.5	553.780	565.280	646.530	815.040	904.490	859.060	826.280
55.0	508.820	517.710	589.230	747.960	829.000	777.340	744.930
57.5	463.540	470.390	535.900	681.040	748.800	696.670	662.110
60.0	411.970	414.060	485.290	612.970	674.760	621.860	588.290
62.5	377.940	379.630	424.290	548.450	600.310	549.230	514.250
65.0	334.730	334.710	383.820	485.030	532.030	480.320	453.190
67.5	290.900	291.580	335.560	424.120	463.850	417.590	392.330
70.0	249.240	248.920	285.740	366.510	399.020	356.940	335.660
72.5	208.770	208.500	240.830	308.680	333.150	299.110	279.820
75.0	168.680	169.110	197.270	256.500	275.220	246.830	231.510
77.5	129.900	131.840	158.520	207.300	220.320	198.620	184.660
80.0	93.080	96.840	120.370	160.410	170.550	155.020	144.720

IES INDOOR REPORT**PHOTOMETRIC FILENAME : HP-2-P-ID-4FT-H-V-835-WSO-DAO-ITL89456-KPL2008-3.007.IES****CANDELA TABULATION - (Cont.)**

82.5	60.930	64.190	87.390	119.210	126.110	114.660	108.120
85.0	29.900	35.950	55.250	87.900	92.340	80.420	77.800
87.5	5.250	9.810	26.060	45.830	51.850	49.080	46.700
90.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
92.5	24.116	23.338	23.338	23.338	24.116	24.116	14.003
95.0	64.569	53.678	52.900	53.678	64.569	64.569	36.563
97.5	129.917	93.353	87.908	93.353	129.917	105.800	61.458
100.0	258.277	150.143	132.250	150.143	258.277	137.696	87.130
102.5	357.076	265.279	210.823	265.279	357.076	168.036	115.136
105.0	413.866	432.537	356.298	432.537	413.866	200.710	142.364
107.5	448.874	583.458	543.783	583.458	448.874	232.605	169.592
110.0	479.991	672.144	679.145	672.144	479.991	262.167	196.820
112.5	516.555	730.489	760.051	730.489	516.555	290.951	224.048
115.0	560.120	772.498	815.285	772.498	560.120	318.179	252.054
117.5	607.574	812.174	858.072	812.174	607.574	345.407	280.060
120.0	646.471	854.182	900.859	854.182	646.471	374.191	308.066
122.5	674.477	913.306	945.980	913.306	674.477	398.307	333.738
125.0	690.036	977.876	1010.549	977.876	690.036	421.646	357.854
127.5	699.372	1021.440	1082.120	1021.440	699.372	443.428	380.415
130.0	704.817	1039.333	1133.464	1039.333	704.817	462.099	399.085
132.5	706.373	1032.332	1149.801	1032.332	706.373	479.214	417.756
135.0	705.595	1010.549	1133.464	1010.549	705.595	493.216	434.093
137.5	703.261	980.987	1099.235	980.987	703.261	506.442	448.874
140.0	699.372	948.314	1055.670	948.314	699.372	518.111	463.655
142.5	693.926	911.750	1008.993	911.750	693.926	529.002	477.658
145.0	688.480	876.743	961.539	876.743	688.480	539.115	492.439
147.5	682.257	840.957	913.306	840.957	682.257	546.895	504.886
150.0	674.477	809.062	868.185	809.062	674.477	555.452	517.333
152.5	665.142	778.722	826.177	778.722	665.142	561.676	529.002
155.0	655.807	749.160	787.279	749.160	655.807	566.343	539.893
157.5	647.249	721.932	752.272	721.932	647.249	572.567	550.006
160.0	637.136	695.482	719.598	695.482	637.136	576.456	558.564
162.5	627.023	672.922	689.258	672.922	627.023	579.568	566.343
165.0	616.910	651.139	663.586	651.139	616.910	582.680	572.567
167.5	609.130	632.468	641.026	632.468	609.130	585.014	578.012
170.0	603.685	617.688	623.133	617.688	603.685	587.348	582.680
172.5	597.461	605.240	609.908	605.240	597.461	588.904	585.014
175.0	593.571	597.461	599.017	597.461	593.571	589.682	588.126
177.5	591.237	591.237	592.015	591.237	591.237	589.682	589.682
180.0	590.459	590.459	590.459	590.459	590.459	590.459	590.459

IES INDOOR REPORT**PHOTOMETRIC FILENAME : HP-2-P-ID-4FT-H-V-835-WSO-DAO-ITL89456-KPL2008-3.007.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	523.14	N.A.	7.60
0-30	1107.93	N.A.	16.10
0-40	1793.79	N.A.	26.10
0-60	3043.17	N.A.	44.30
0-80	3676.09	N.A.	53.50
0-90	3739.99	N.A.	54.50
10-90	3605.19	N.A.	52.50
20-40	1270.65	N.A.	18.50
20-50	1947.83	N.A.	28.40
40-70	1657.72	N.A.	24.10
60-80	632.92	N.A.	9.20
70-80	224.58	N.A.	3.30
80-90	63.90	N.A.	0.90
90-110	409.03	N.A.	6.00
90-120	948.69	N.A.	13.80
90-130	1565.58	N.A.	22.80
90-150	2587.08	N.A.	37.70
90-180	3125.63	N.A.	45.50
110-180	2716.59	N.A.	39.60
0-180	6865.62	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	134.80
10-20	388.33
20-30	584.80
30-40	685.86
40-50	677.18
50-60	572.20
60-70	408.34
70-80	224.58
80-90	63.90
90-100	71.35
100-110	337.69
110-120	539.66
120-130	616.89
130-140	576.56
140-150	444.94
150-160	305.84
160-170	175.76
170-180	56.94

IES INDOOR REPORT

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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

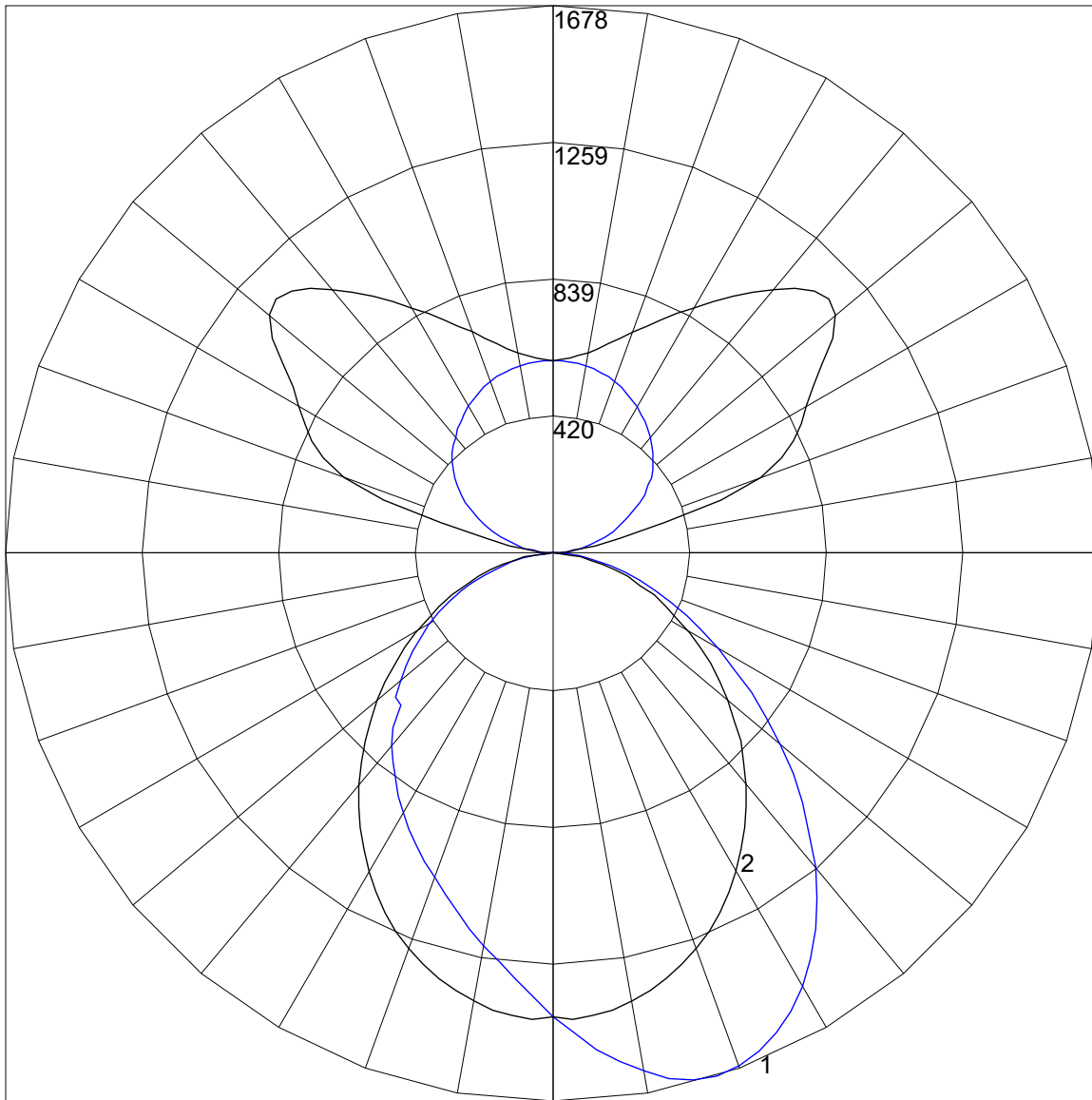
Effective Floor Cavity Reflectance 0.20

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	95	91	87	92	88	85	81	75	73	71	64	62	61	53	52	51	46
2	90	83	77	71	83	77	72	67	66	62	59	56	53	51	47	45	43	39
3	82	73	65	60	76	68	61	56	58	53	49	50	46	43	42	39	37	33
4	75	64	56	50	70	60	53	48	52	47	42	44	40	37	37	34	32	28
5	69	57	49	43	64	54	46	41	47	41	36	40	35	32	34	30	28	25
6	64	52	43	38	59	48	41	36	42	36	32	36	32	28	31	27	24	22
7	59	47	39	33	55	44	36	31	38	32	28	33	28	25	28	24	22	19
8	55	42	35	29	51	40	33	28	35	29	25	30	26	22	26	22	19	17
9	51	39	31	26	47	36	29	25	32	26	22	28	23	20	24	20	18	15
10	48	36	28	23	44	33	27	22	29	24	20	26	21	18	22	18	16	14

IES INDOOR REPORT

PHOTOMETRIC FILENAME : HP-2-P-ID-4FT-H-V-835-WSO-DAO-ITL89456-KPL2008-3.007.IES

POLAR GRAPH



Maximum Candela = 1678.07 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)