

# 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 : HP3-P-ID-4FT-B-S-835-ASY-F-KPL2008-103.011.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

[TEST] KPL2008-103.011 Family Correlation File  
[TESTLAB] Northern Lights Testing Laboratories  
[ISSUE DATE] 8/22/2024  
[TEST DATE] 12/4/2024  
[MANUFAC] Finelite Inc.  
[LUMCAT] HP3-P-ID-4ft-B-S-835-ASY-F  
[LUMINAIRE] HP3-P-ID Series  
[LAMPCAT] 320 LM561B+ LEDs with 80 CRI  
[OTHER] INPUT ELECTRICAL: 277.0 VOLTS, 43.0 WATTS  
[ABSOLUTE LUMENS] 5905  
[LAMP] Samsung  
[BALLAST] Osram  
[BALLAST CAT] Oti50 x-2 @700mA

**CHARACTERISTICS**

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5905
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	137
Total Luminaire Watts	43
Ballast Factor	1.00
CIE Type	Semi-Indirect
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)	0.25 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	7576	7230	6878
55	6892	6494	6160
65	6224	5849	5533
75	5554	5175	4993
85	4992	4685	4389

CANDELA TABULATION

	<u>0</u>	<u>15</u>	<u>30</u>	<u>45</u>	<u>60</u>	<u>75</u>	<u>90</u>	<u>105</u>	<u>120</u>	<u>135</u>
0.0	874.523	874.523	874.523	874.523	874.523	874.523	874.523	874.523	874.523	874.523
2.5	868.538	881.583	870.884	871.367	872.129	870.854	873.405	870.854	872.129	871.367
5.0	864.349	877.146	866.417	866.568	866.628	865.383	867.813	865.383	866.628	866.568
7.5	857.966	869.729	858.812	858.117	857.936	856.261	858.389	856.261	857.936	858.117
10.0	852.187	864.132	850.398	847.206	845.895	843.102	845.320	843.102	845.895	847.206
12.5	835.836	848.572	836.259	836.168	830.275	827.325	828.419	827.325	830.275	836.168
15.0	820.089	831.339	818.354	818.203	813.373	808.326	809.148	808.326	813.373	818.203
17.5	802.094	812.340	798.902	796.563	794.344	786.045	787.018	786.045	794.344	796.563
20.0	782.339	791.824	778.295	772.794	770.274	762.796	762.700	762.796	770.274	772.794
22.5	760.632	767.596	754.799	747.170	742.153	736.864	736.012	736.864	742.153	747.170
25.0	739.905	744.922	729.175	720.966	713.217	707.776	707.807	707.776	713.217	720.966
27.5	709.390	716.650	702.759	694.067	684.921	678.538	676.132	678.538	684.921	694.067
30.0	682.273	684.310	673.188	664.489	653.881	647.165	645.188	647.165	653.881	664.489
32.5	652.793	658.384	641.845	634.888	622.786	615.460	612.607	615.460	622.786	634.888
35.0	624.031	627.834	612.788	601.876	596.101	582.483	581.540	582.483	596.101	601.876
37.5	593.882	595.128	581.115	569.747	558.074	550.171	547.922	550.171	558.074	569.747
40.0	560.020	562.330	548.500	536.615	525.460	517.861	514.487	517.861	525.460	536.615
42.5	528.165	528.803	515.581	504.972	493.270	485.671	482.266	485.671	493.270	504.972
45.0	496.006	497.039	483.117	473.361	460.138	452.722	450.350	452.722	460.138	473.361
47.5	462.934	462.934	451.019	440.411	427.888	420.349	418.070	420.349	427.888	440.411
50.0	429.681	430.775	417.553	407.613	395.333	389.133	386.397	389.133	395.333	407.613
52.5	396.732	397.917	385.394	375.971	365.211	358.189	356.487	358.189	365.211	375.971
55.0	366.032	365.454	354.876	344.876	335.726	330.620	327.185	330.620	335.726	344.876
57.5	334.967	332.505	322.930	314.844	305.999	299.919	297.822	299.919	305.999	314.844
60.0	303.355	301.257	293.537	284.266	276.606	271.621	269.311	271.621	276.606	284.266
62.5	273.444	271.499	264.022	255.158	246.449	243.258	241.972	243.258	246.449	255.158
65.0	243.559	241.483	235.607	228.884	220.910	218.282	216.512	218.282	220.910	228.884
67.5	214.099	212.883	207.497	200.609	194.925	192.372	191.180	192.372	194.925	200.609
70.0	187.144	185.192	179.182	174.821	170.554	167.319	166.620	167.319	170.554	174.821
72.5	158.747	153.993	153.519	148.847	144.856	142.716	142.297	142.716	144.856	148.847
75.0	133.099	131.847	128.439	124.011	122.390	119.451	119.664	119.451	122.390	124.011
77.5	109.244	107.387	104.180	100.933	99.192	97.067	97.220	97.067	99.192	100.933
80.0	85.182	83.741	81.073	79.629	77.456	76.346	75.705	76.346	77.456	79.629
82.5	62.178	61.485	60.413	58.953	58.048	57.297	59.260	57.297	58.048	58.953
85.0	40.287	39.573	38.162	37.810	37.162	36.415	35.424	36.415	37.162	37.810
87.5	21.052	19.545	18.672	18.013	17.058	17.138	17.332	17.138	17.058	18.013
90.0	1.738	1.693	1.924	1.821	2.192	2.319	1.763	2.319	2.192	1.821
92.5	18.057	18.308	19.494	19.578	20.164	21.403	23.708	32.858	41.765	44.587
95.0	37.285	36.989	37.118	37.240	37.041	73.368	54.300	78.723	77.050	79.560
97.5	53.380	52.794	52.406	52.429	98.423	137.663	86.269	112.419	105.801	104.888
100.0	67.603	66.090	69.596	101.960	194.078	201.836	120.093	155.317	157.751	149.688
102.5	83.850	85.737	144.973	290.173	263.354	252.553	155.142	191.750	203.692	214.036
105.0	186.350	223.978	296.061	419.705	383.348	298.532	190.518	221.186	257.543	263.704
107.5	300.092	459.182	559.582	517.216	484.661	346.534	227.400	248.948	310.405	306.526
110.0	615.031	653.670	718.550	685.464	564.146	386.771	263.803	276.406	350.261	371.330
112.5	832.562	854.624	875.770	868.850	616.475	425.410	304.206	306.755	377.720	433.092
115.0	1029.413	1052.987	1083.187	1016.480	657.244	467.472	340.298	335.962	401.222	489.149
117.5	1283.002	1290.989	1318.518	1072.916	701.968	502.687	376.046	363.496	421.531	512.043
120.0	1487.756	1518.939	1500.303	1087.823	733.001	536.383	412.251	390.802	440.165	535.090
122.5	1777.852	1760.964	1533.694	1094.750	760.842	565.742	443.817	416.891	461.082	550.758
125.0	1904.117	1819.154	1504.486	1099.538	783.274	592.972	475.001	447.467	481.087	560.114
127.5	1873.540	1767.128	1463.872	1097.942	802.976	623.321	507.784	481.923	499.873	569.774
130.0	1802.341	1696.769	1425.845	1096.422	821.914	651.083	541.631	509.457	519.497	581.563
132.5	1725.070	1629.911	1385.761	1091.937	837.357	680.823	576.010	539.501	538.513	595.711

CANDELA TABULATION - (Cont.)

135.0	1644.440	1564.045	1350.616	1086.991	854.321	710.639	611.227	567.568	555.094	609.478
137.5	1568.991	1503.503	1314.260	1081.591	875.157	740.302	645.379	596.472	576.010	623.321
140.0	1497.944	1441.584	1279.879	1076.493	894.859	771.718	682.192	626.743	594.646	637.544
142.5	1435.118	1386.745	1250.368	1071.471	915.468	801.909	715.279	659.526	623.929	650.018
145.0	1383.704	1341.638	1225.568	1071.018	936.917	831.504	749.963	693.982	660.438	659.754
147.5	1331.980	1297.758	1200.852	1075.200	959.054	862.837	786.322	734.446	696.035	671.315
150.0	1289.385	1261.553	1182.444	1080.373	978.983	891.206	819.864	773.162	723.873	687.136
152.5	1251.358	1230.666	1172.559	1087.823	997.694	919.424	854.397	808.149	752.016	719.690
155.0	1227.928	1211.577	1164.875	1095.507	1016.405	946.659	887.100	840.859	779.629	758.256
157.5	1210.737	1197.426	1160.919	1101.444	1031.160	972.063	916.837	887.712	812.558	786.095
160.0	1196.443	1186.551	1157.879	1103.796	1043.481	993.965	944.526	905.962	850.820	812.483
162.5	1184.274	1174.760	1150.649	1103.342	1052.685	1014.431	969.703	938.135	891.358	843.748
165.0	1167.840	1160.844	1140.235	1099.538	1060.444	1031.387	991.764	965.899	922.396	880.482
167.5	1147.760	1141.982	1126.084	1093.760	1065.769	1046.143	1012.525	992.823	950.690	926.344
170.0	1125.555	1120.155	1111.102	1087.218	1068.809	1056.338	1027.969	1014.582	979.285	953.730
172.5	1102.737	1101.444	1095.658	1079.382	1068.960	1063.258	1038.769	1032.378	1004.690	983.468
175.0	1085.236	1082.574	1081.364	1071.018	1066.835	1066.608	1047.360	1047.739	1026.751	1013.054
177.5	1068.355	1066.450	1068.431	1061.284	1062.494	1067.062	1051.770	1057.782	1044.623	1035.494
180.0	1054.931	1054.931	1054.931	1054.931	1054.931	1054.931	1054.931	1054.931	1054.931	1054.931

Vert.  
Angles

Horizontal Angles

	<u>150</u>	<u>165</u>	<u>180</u>	<u>195</u>	<u>210</u>	<u>225</u>	<u>240</u>	<u>255</u>	<u>270</u>	<u>285</u>
0.0	874.523	874.523	874.523	874.523	874.523	874.523	874.523	874.523	874.523	874.523
2.5	870.884	881.583	868.538	881.583	870.884	871.367	872.129	870.854	873.405	870.854
5.0	866.417	877.146	864.349	877.146	866.417	866.568	866.628	865.383	867.813	865.383
7.5	858.812	869.729	857.966	869.729	858.812	858.117	857.936	856.261	858.389	856.261
10.0	850.398	864.132	852.187	864.132	850.398	847.206	845.895	843.102	845.320	843.102
12.5	836.259	848.572	835.836	848.572	836.259	836.168	830.275	827.325	828.419	827.325
15.0	818.354	831.339	820.089	831.339	818.354	818.203	813.373	808.326	809.148	808.326
17.5	798.902	812.340	802.094	812.340	798.902	796.563	794.344	786.045	787.018	786.045
20.0	778.295	791.824	782.339	791.824	778.295	772.794	770.274	762.796	762.700	762.796
22.5	754.799	767.596	760.632	767.596	754.799	747.170	742.153	736.864	736.012	736.864
25.0	729.175	744.922	739.905	744.922	729.175	720.966	713.217	707.776	707.807	707.776
27.5	702.759	716.650	709.390	716.650	702.759	694.067	684.921	678.538	676.132	678.538
30.0	673.188	684.310	682.273	684.310	673.188	664.489	653.881	647.165	645.188	647.165
32.5	641.845	658.384	652.793	658.384	641.845	634.888	622.786	615.460	612.607	615.460
35.0	612.788	627.834	624.031	627.834	612.788	601.876	596.101	582.483	581.540	582.483
37.5	581.115	595.128	593.882	595.128	581.115	569.747	558.074	550.171	547.922	550.171
40.0	548.500	562.330	560.020	562.330	548.500	536.615	525.460	517.861	514.487	517.861
42.5	515.581	528.803	528.165	528.803	515.581	504.972	493.270	485.671	482.266	485.671
45.0	483.117	497.039	496.006	497.039	483.117	473.361	460.138	452.722	450.350	452.722
47.5	451.019	462.934	462.934	462.934	451.019	440.411	427.888	420.349	418.070	420.349
50.0	417.553	430.775	429.681	430.775	417.553	407.613	395.333	389.133	386.397	389.133
52.5	385.394	397.917	396.732	397.917	385.394	375.971	365.211	358.189	356.487	358.189
55.0	354.876	365.454	366.032	365.454	354.876	344.876	335.726	330.620	327.185	330.620
57.5	322.930	332.505	334.967	332.505	322.930	314.844	305.999	299.919	297.822	299.919
60.0	293.537	301.257	303.355	301.257	293.537	284.266	276.606	271.621	269.311	271.621
62.5	264.022	271.499	273.444	271.499	264.022	255.158	246.449	243.258	241.972	243.258
65.0	235.607	241.483	243.559	241.483	235.607	228.884	220.910	218.282	216.512	218.282
67.5	207.497	212.883	214.099	212.883	207.497	200.609	194.925	192.372	191.180	192.372
70.0	179.182	185.192	187.144	185.192	179.182	174.821	170.554	167.319	166.620	167.319
72.5	153.519	153.993	158.747	153.993	153.519	148.847	144.856	142.716	142.297	142.716
75.0	128.439	131.847	133.099	131.847	128.439	124.011	122.390	119.451	119.664	119.451
77.5	104.180	107.387	109.244	107.387	104.180	100.933	99.192	97.067	97.220	97.067
80.0	81.073	83.741	85.182	83.741	81.073	79.629	77.456	76.346	75.705	76.346

CANDELA TABULATION - (Cont.)

82.5	60.413	61.485	62.178	61.485	60.413	58.953	58.048	57.297	59.260	57.297
85.0	38.162	39.573	40.287	39.573	38.162	37.810	37.162	36.415	35.424	36.415
87.5	18.672	19.545	21.052	19.545	18.672	18.013	17.058	17.138	17.332	17.138
90.0	1.924	1.693	1.738	1.693	1.924	1.821	2.192	2.319	1.763	2.319
92.5	45.979	44.944	46.321	44.944	45.979	44.587	41.765	32.858	23.708	21.403
95.0	81.766	83.439	84.580	83.439	81.766	79.560	77.050	78.723	54.300	73.368
97.5	112.419	115.689	116.525	115.689	112.419	104.888	105.801	112.419	86.269	137.663
100.0	132.879	138.584	140.713	138.584	132.879	149.688	157.751	155.317	120.093	201.836
102.5	203.920	167.715	158.968	167.715	203.920	214.036	203.692	191.750	155.142	252.553
105.0	278.383	264.008	249.024	264.008	278.383	263.704	257.543	221.186	190.518	298.532
107.5	330.258	326.835	326.606	326.835	330.258	306.526	310.405	248.948	227.400	346.534
110.0	370.646	383.272	385.174	383.272	370.646	371.330	350.261	276.406	263.803	386.771
112.5	414.305	422.976	426.703	422.976	414.305	433.092	377.720	306.755	304.206	425.410
115.0	505.274	469.221	467.472	469.221	505.274	489.149	401.222	335.962	340.298	467.472
117.5	571.752	574.413	542.012	574.413	571.752	512.043	421.531	363.496	376.046	502.687
120.0	611.455	658.689	663.709	658.689	611.455	535.090	440.165	390.802	412.251	536.383
122.5	639.674	695.351	714.214	695.351	639.674	550.758	461.082	416.891	443.817	565.742
125.0	658.156	720.983	740.227	720.983	658.156	560.114	481.087	447.467	475.001	592.972
127.5	665.763	740.227	757.265	740.227	665.763	569.774	499.873	481.923	507.784	623.321
130.0	665.382	743.954	768.065	743.954	665.382	581.563	519.497	509.457	541.631	651.083
132.5	666.523	734.674	758.785	734.674	666.523	595.711	538.513	539.501	576.010	680.823
135.0	671.467	725.166	746.159	725.166	671.467	609.478	555.094	567.568	611.227	710.639
137.5	677.780	722.504	739.010	722.504	677.780	623.321	576.010	596.472	645.379	740.302
140.0	685.691	723.113	736.880	723.113	685.691	637.544	594.646	626.743	682.192	771.718
142.5	691.852	725.091	736.880	725.091	691.852	650.018	623.929	659.526	715.279	801.909
145.0	698.621	725.623	736.728	725.623	698.621	659.754	660.438	693.982	749.963	831.504
147.5	703.413	725.547	735.054	725.547	703.413	671.315	696.035	734.446	786.322	862.837
150.0	706.152	725.699	734.294	725.699	706.152	687.136	723.873	773.162	819.864	891.206
152.5	710.639	723.265	730.643	723.265	710.639	719.690	752.016	808.149	854.397	919.424
155.0	722.733	724.254	728.817	724.254	722.733	758.256	779.629	840.859	887.100	946.659
157.5	758.029	735.739	735.358	735.739	758.029	786.095	812.558	887.712	916.837	972.063
160.0	796.585	774.229	763.958	774.229	796.585	812.483	850.820	905.962	944.526	993.965
162.5	825.188	813.246	809.745	813.246	825.188	843.748	891.358	938.135	969.703	1014.431
165.0	856.749	840.859	838.802	840.859	856.749	880.482	922.396	965.899	991.764	1031.387
167.5	896.379	876.753	874.855	876.753	896.379	926.344	950.690	992.823	1012.525	1046.143
170.0	944.223	927.486	922.926	927.486	944.223	953.730	979.285	1014.582	1027.969	1056.338
172.5	973.734	961.943	962.783	961.943	973.734	983.468	1004.690	1032.378	1038.769	1063.258
175.0	1006.444	996.249	998.836	996.249	1006.444	1013.054	1026.751	1047.739	1047.360	1066.608
177.5	1035.645	1028.574	1029.103	1028.574	1035.645	1035.494	1044.623	1057.782	1051.770	1067.062
180.0	1054.931	1054.931	1054.931	1054.931	1054.931	1054.931	1054.931	1054.931	1054.931	1054.931

Vert.  
Angles

Horizontal Angles

	<u>300</u>	<u>315</u>	<u>330</u>	<u>345</u>	<u>360</u>
0.0	874.523	874.523	874.523	874.523	874.523
2.5	872.129	871.367	870.884	881.583	868.538
5.0	866.628	866.568	866.417	877.146	864.349
7.5	857.936	858.117	858.812	869.729	857.966
10.0	845.895	847.206	850.398	864.132	852.187
12.5	830.275	836.168	836.259	848.572	835.836
15.0	813.373	818.203	818.354	831.339	820.089
17.5	794.344	796.563	798.902	812.340	802.094
20.0	770.274	772.794	778.295	791.824	782.339
22.5	742.153	747.170	754.799	767.596	760.632
25.0	713.217	720.966	729.175	744.922	739.905
27.5	684.921	694.067	702.759	716.650	709.390

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : HP3-P-ID-4FT-B-S-835-ASY-F-KPL2008-103.011.IES**

**CANDELA TABULATION - (Cont.)**

30.0	653.881	664.489	673.188	684.310	682.273
32.5	622.786	634.888	641.845	658.384	652.793
35.0	596.101	601.876	612.788	627.834	624.031
37.5	558.074	569.747	581.115	595.128	593.882
40.0	525.460	536.615	548.500	562.330	560.020
42.5	493.270	504.972	515.581	528.803	528.165
45.0	460.138	473.361	483.117	497.039	496.006
47.5	427.888	440.411	451.019	462.934	462.934
50.0	395.333	407.613	417.553	430.775	429.681
52.5	365.211	375.971	385.394	397.917	396.732
55.0	335.726	344.876	354.876	365.454	366.032
57.5	305.999	314.844	322.930	332.505	334.967
60.0	276.606	284.266	293.537	301.257	303.355
62.5	246.449	255.158	264.022	271.499	273.444
65.0	220.910	228.884	235.607	241.483	243.559
67.5	194.925	200.609	207.497	212.883	214.099
70.0	170.554	174.821	179.182	185.192	187.144
72.5	144.856	148.847	153.519	153.993	158.747
75.0	122.390	124.011	128.439	131.847	133.099
77.5	99.192	100.933	104.180	107.387	109.244
80.0	77.456	79.629	81.073	83.741	85.182
82.5	58.048	58.953	60.413	61.485	62.178
85.0	37.162	37.810	38.162	39.573	40.287
87.5	17.058	18.013	18.672	19.545	21.052
90.0	2.192	1.821	1.924	1.693	1.738
92.5	20.164	19.578	19.494	18.308	18.057
95.0	37.041	37.240	37.118	36.989	37.285
97.5	98.423	52.429	52.406	52.794	53.380
100.0	194.078	101.960	69.596	66.090	67.603
102.5	263.354	290.173	144.973	85.737	83.850
105.0	383.348	419.705	296.061	223.978	186.350
107.5	484.661	517.216	559.582	459.182	300.092
110.0	564.146	685.464	718.550	653.670	615.031
112.5	616.475	868.850	875.770	854.624	832.562
115.0	657.244	1016.480	1083.187	1052.987	1029.413
117.5	701.968	1072.916	1318.518	1290.989	1283.002
120.0	733.001	1087.823	1500.303	1518.939	1487.756
122.5	760.842	1094.750	1533.694	1760.964	1777.852
125.0	783.274	1099.538	1504.486	1819.154	1904.117
127.5	802.976	1097.942	1463.872	1767.128	1873.540
130.0	821.914	1096.422	1425.845	1696.769	1802.341
132.5	837.357	1091.937	1385.761	1629.911	1725.070
135.0	854.321	1086.991	1350.616	1564.045	1644.440
137.5	875.157	1081.591	1314.260	1503.503	1568.991
140.0	894.859	1076.493	1279.879	1441.584	1497.944
142.5	915.468	1071.471	1250.368	1386.745	1435.118
145.0	936.917	1071.018	1225.568	1341.638	1383.704
147.5	959.054	1075.200	1200.852	1297.758	1331.980
150.0	978.983	1080.373	1182.444	1261.553	1289.385
152.5	997.694	1087.823	1172.559	1230.666	1251.358
155.0	1016.405	1095.507	1164.875	1211.577	1227.928
157.5	1031.160	1101.444	1160.919	1197.426	1210.737
160.0	1043.481	1103.796	1157.879	1186.551	1196.443
162.5	1052.685	1103.342	1150.649	1174.760	1184.274
165.0	1060.444	1099.538	1140.235	1160.844	1167.840
167.5	1065.769	1093.760	1126.084	1141.982	1147.760

**IES INDOOR REPORT**

**PHOTOMETRIC FILENAME : HP3-P-ID-4FT-B-S-835-ASY-F-KPL2008-103.011.IES**

**CANDELA TABULATION - (Cont.)**

<b>170.0</b>	1068.809	1087.218	1111.102	1120.155	1125.555
<b>172.5</b>	1068.960	1079.382	1095.658	1101.444	1102.737
<b>175.0</b>	1066.835	1071.018	1081.364	1082.574	1085.236
<b>177.5</b>	1062.494	1061.284	1068.431	1066.450	1068.355
<b>180.0</b>	1054.931	1054.931	1054.931	1054.931	1054.931

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP3-P-ID-4FT-B-S-835-ASY-F-KPL2008-103.011.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	312.34	N.A.	5.30
0-30	644.97	N.A.	10.90
0-40	1021.97	N.A.	17.30
0-60	1696.62	N.A.	28.70
0-80	2056.72	N.A.	34.80
0-90	2099.29	N.A.	35.50
10-90	2017.02	N.A.	34.20
20-40	709.63	N.A.	12.00
20-50	1074.65	N.A.	18.20
40-70	901.76	N.A.	15.30
60-80	360.10	N.A.	6.10
70-80	132.98	N.A.	2.30
80-90	42.57	N.A.	0.70
90-110	367.01	N.A.	6.20
90-120	989.98	N.A.	16.80
90-130	1759.2	N.A.	29.80
90-150	2995.98	N.A.	50.70
90-180	3806.05	N.A.	64.50
110-180	3439.04	N.A.	58.20
0-180	5905.34	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	82.27
10-20	230.07
20-30	332.63
30-40	377.00
40-50	365.02
50-60	309.63
60-70	227.11
70-80	132.98
80-90	42.57
90-100	68.62
100-110	298.39
110-120	622.97
120-130	769.22
130-140	678.72
140-150	558.07
150-160	429.49
160-170	281.39
170-180	99.19



# IES INDOOR REPORT

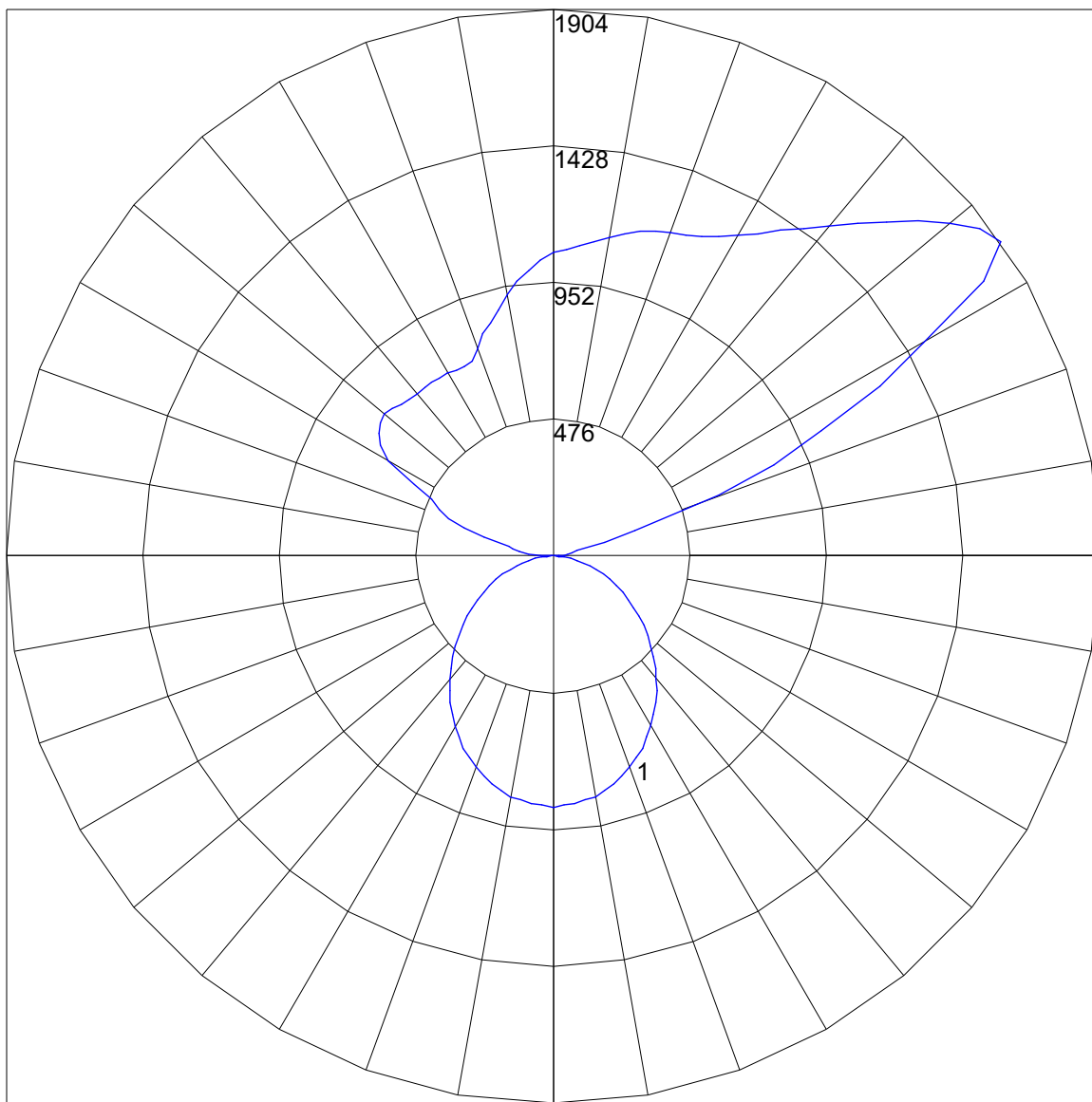
PHOTOMETRIC FILENAME : HP3-P-ID-4FT-B-S-835-ASY-F-KPL2008-103.011.IES

## 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	104	104	104	104	94	94	94	94	75	75	75	58	58	58	43	43	43	36
1	95	90	87	83	85	82	79	76	66	64	62	51	50	49	38	37	36	30
2	86	79	73	68	78	72	67	62	58	54	51	45	43	41	33	32	31	25
3	79	69	62	57	71	63	57	52	51	47	43	40	37	34	30	28	26	21
4	72	61	54	48	65	56	49	44	45	41	37	36	32	30	27	24	23	19
5	66	55	47	41	59	50	43	38	41	36	32	32	28	26	24	22	20	16
6	61	49	41	36	55	45	38	33	37	31	28	29	25	22	22	19	17	14
7	56	44	36	31	51	40	34	29	33	28	24	26	23	20	20	17	15	13
8	52	40	33	27	47	37	30	25	30	25	22	24	20	18	18	16	14	11
9	48	36	29	24	44	33	27	23	28	23	19	22	18	16	17	14	13	10
10	45	33	26	22	41	31	24	20	25	21	17	20	17	14	16	13	11	9

POLAR GRAPH



Maximum Candela = 1904.117 Located At Horizontal Angle = 0, Vertical Angle = 125  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)