

# 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-V-B-835-WSO-KPL2008-102.002.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST] KPL2008-102.002 Family Correlation File  
[TESTLAB] Northern Lights Testing Laboratories  
[ISSUEDATE] 8/22/2024  
[TESTDATE] 11/27/2024  
[MANUFAC] Finelite Inc.  
[LUMCAT] HP3-P-ID-4ft-V-B-835-WSO-F  
[LUMINAIRE] HP3-P-ID Series  
[LAMPCAT] 320 LM561B+ LEDs with 80 CRI  
[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 58.3 WATTS  
[ABSOLUTE LUMENS]7958  
[LAMP] Samsung  
[BALLAST] Osram  
[BALLASTCAT] Oti50 x-2 @ 700mA

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	7959
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	137
Total Luminaire Watts	58.3
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)	4.00 ft
Luminous Width (90-270)	0.25 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	9535	9100	8657
55	8675	8173	7754
65	7834	7362	6964
75	6990	6513	6285
85	6283	5897	5525

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	1100.731	1100.731	1100.731	1100.731	1100.731	1100.731	1100.731	1100.731	1100.731	1100.731
2.5	1093.199	1109.618	1096.151	1096.759	1097.718	1096.113	1099.323	1096.113	1097.718	1096.759
5.0	1087.926	1104.033	1090.528	1090.718	1090.794	1089.227	1092.286	1089.227	1090.794	1090.718
7.5	1079.892	1094.697	1080.957	1080.082	1079.853	1077.746	1080.424	1077.746	1079.853	1080.082
10.0	1072.618	1087.652	1070.366	1066.349	1064.698	1061.182	1063.975	1061.182	1064.698	1066.349
12.5	1052.037	1068.068	1052.570	1052.456	1045.037	1041.325	1042.702	1041.325	1045.037	1052.456
15.0	1032.217	1046.377	1030.034	1029.843	1023.764	1017.411	1018.446	1017.411	1023.764	1029.843
17.5	1009.567	1022.463	1005.550	1002.605	999.813	989.367	990.592	989.367	999.813	1002.605
20.0	984.703	996.640	979.613	972.689	969.516	960.105	959.983	960.105	969.516	972.689
22.5	957.381	966.146	950.039	940.437	934.122	927.465	926.392	927.465	934.122	940.437
25.0	931.292	937.607	917.787	907.455	897.701	890.853	890.891	890.853	897.701	907.455
27.5	892.884	902.022	884.538	873.597	862.086	854.051	851.023	854.051	862.086	873.597
30.0	858.753	861.317	847.318	836.369	823.017	814.564	812.076	814.564	823.017	836.369
32.5	821.647	828.685	807.868	799.111	783.879	774.657	771.066	774.657	783.879	799.111
35.0	785.446	790.232	771.295	757.560	750.291	733.151	731.964	733.151	750.291	757.560
37.5	747.498	749.067	731.429	717.120	702.429	692.481	689.650	692.481	702.429	717.120
40.0	704.878	707.785	690.378	675.418	661.377	651.813	647.566	651.813	661.377	675.418
42.5	664.782	665.586	648.943	635.591	620.861	611.297	607.012	611.297	620.861	635.591
45.0	624.305	625.606	608.083	595.802	579.160	569.825	566.840	569.825	579.160	595.802
47.5	582.679	582.679	567.682	554.329	538.567	529.079	526.210	529.079	538.567	554.329
50.0	540.825	542.202	525.559	513.049	497.592	489.787	486.344	489.787	497.592	513.049
52.5	499.352	500.844	485.082	473.222	459.678	450.840	448.697	450.840	459.678	473.222
55.0	460.711	459.984	446.670	434.083	422.567	416.139	411.816	416.139	422.567	434.083
57.5	421.611	418.512	406.460	396.283	385.150	377.498	374.859	377.498	385.150	396.283
60.0	381.822	379.182	369.464	357.795	348.154	341.879	338.972	341.879	348.154	357.795
62.5	344.175	341.726	332.315	321.158	310.197	306.181	304.562	306.181	310.197	321.158
65.0	306.559	303.946	296.551	288.088	278.052	274.743	272.516	274.743	278.052	288.088
67.5	269.479	267.948	261.169	252.499	245.345	242.131	240.632	242.131	245.345	252.499
70.0	235.551	233.095	225.531	220.041	214.670	210.598	209.719	210.598	214.670	220.041
72.5	199.810	193.826	193.229	187.349	182.326	179.632	179.104	179.632	182.326	187.349
75.0	167.527	165.951	161.662	156.088	154.048	150.349	150.617	150.349	154.048	156.088
77.5	137.501	135.164	131.128	127.041	124.849	122.175	122.367	122.175	124.849	127.041
80.0	107.216	105.402	102.043	100.226	97.491	96.094	95.287	96.094	97.491	100.226
82.5	78.262	77.390	76.039	74.203	73.063	72.118	74.589	72.118	73.063	74.203
85.0	50.708	49.809	48.033	47.590	46.775	45.834	44.587	45.834	46.775	47.590
87.5	26.498	24.600	23.502	22.672	21.471	21.571	21.815	21.571	21.471	22.672
90.0	3.149	3.067	3.486	3.298	3.971	4.202	3.194	4.202	3.971	3.298
92.5	41.078	49.370	51.336	55.709	59.916	57.911	64.536	57.911	59.916	55.709
95.0	82.123	104.788	98.510	102.744	105.355	104.391	106.362	104.391	105.355	102.744
97.5	121.329	159.142	163.046	144.985	146.983	149.589	150.513	149.589	146.983	144.985
100.0	164.522	214.872	269.915	259.392	188.001	186.454	191.272	186.454	188.001	259.392
102.5	208.650	268.879	345.072	426.381	338.653	266.728	240.753	266.728	338.653	426.381
105.0	253.979	322.628	421.832	577.350	585.524	463.159	407.533	463.159	585.524	577.350
107.5	300.245	378.562	503.377	658.019	823.323	724.214	689.045	724.214	823.323	658.019
110.0	349.328	431.094	579.223	768.480	941.271	982.405	973.429	982.405	941.271	768.480
112.5	398.435	479.060	633.571	926.844	1037.691	1104.919	1130.697	1104.919	1037.691	926.844
115.0	448.478	527.627	687.314	1047.050	1206.245	1210.811	1208.008	1210.811	1206.245	1047.050
117.5	500.866	577.406	738.139	1093.966	1412.673	1414.381	1388.177	1414.381	1412.673	1093.966
120.0	542.054	620.026	785.880	1122.823	1547.255	1663.878	1649.621	1663.878	1547.255	1122.823
122.5	580.379	655.652	826.242	1148.426	1577.654	1836.513	1888.824	1836.513	1577.654	1148.426
125.0	616.282	689.958	863.686	1171.280	1573.131	1879.735	1976.811	1879.735	1573.131	1171.280
127.5	648.548	719.637	895.734	1191.702	1562.235	1859.750	1964.591	1859.750	1562.235	1191.702
130.0	678.283	748.160	922.660	1210.866	1549.785	1827.260	1926.483	1827.260	1549.785	1210.866
132.5	706.587	775.417	946.943	1224.028	1538.166	1792.240	1883.754	1792.240	1538.166	1224.028

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : HP3-P-ID-4FT-V-B-835-WSO-KPL2008-102.002.IES**

**CANDELA TABULATION - (Cont.)**

135.0	735.000	801.959	967.868	1232.504	1526.055	1753.202	1838.933	1753.202	1526.055	1232.504
137.5	761.541	826.683	984.001	1235.537	1508.162	1714.875	1792.678	1714.875	1508.162	1235.537
140.0	789.624	852.122	999.254	1233.993	1485.801	1672.310	1745.876	1672.310	1485.801	1233.993
142.5	817.266	875.910	1012.304	1227.773	1459.038	1626.657	1692.678	1626.657	1459.038	1227.773
145.0	845.239	898.982	1022.877	1218.575	1426.449	1579.132	1636.622	1579.132	1426.449	1218.575
147.5	869.468	921.504	1031.963	1205.796	1390.980	1525.124	1577.490	1525.124	1390.980	1205.796
150.0	894.797	941.877	1038.846	1192.140	1352.544	1470.218	1515.148	1470.218	1352.544	1192.140
152.5	918.144	961.370	1044.848	1176.174	1313.012	1413.451	1454.362	1413.451	1313.012	1176.174
155.0	939.399	979.321	1048.923	1160.866	1274.412	1357.450	1393.017	1357.450	1274.412	1160.866
157.5	961.095	996.336	1051.621	1144.013	1237.629	1298.306	1333.665	1298.306	1237.629	1144.013
160.0	979.816	1011.093	1052.281	1128.266	1205.905	1256.683	1278.266	1256.683	1205.905	1128.266
162.5	994.904	1024.199	1053.218	1112.683	1173.262	1212.957	1229.701	1212.957	1173.262	1112.683
165.0	1010.212	1035.707	1053.272	1097.539	1143.301	1173.590	1185.756	1173.590	1143.301	1097.539
167.5	1023.208	1045.398	1053.438	1084.384	1116.319	1136.534	1148.316	1136.534	1116.319	1084.384
170.0	1033.779	1054.098	1053.878	1073.756	1093.744	1105.303	1112.300	1105.303	1093.744	1073.756
172.5	1042.039	1060.431	1054.154	1064.561	1075.629	1081.191	1085.871	1081.191	1075.629	1064.561
175.0	1047.216	1064.561	1054.539	1059.220	1064.671	1064.505	1067.589	1064.505	1064.671	1059.220
177.5	1050.079	1067.204	1054.539	1055.750	1057.623	1055.585	1056.907	1055.585	1057.623	1055.750
180.0	1056.411	1056.411	1056.411	1056.411	1056.411	1056.411	1056.411	1056.411	1056.411	1056.411

**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	1100.731	1100.731	1100.731	1100.731	1100.731	1100.731	1100.731	1100.731	1100.731	1100.731
2.5	1096.151	1109.618	1093.199	1109.618	1096.151	1096.759	1097.718	1096.113	1099.323	1096.113
5.0	1090.528	1104.033	1087.926	1104.033	1090.528	1090.718	1090.794	1089.227	1092.286	1089.227
7.5	1080.957	1094.697	1079.892	1094.697	1080.957	1080.082	1079.853	1077.746	1080.424	1077.746
10.0	1070.366	1087.652	1072.618	1087.652	1070.366	1066.349	1064.698	1061.182	1063.975	1061.182
12.5	1052.570	1068.068	1052.037	1068.068	1052.570	1052.456	1045.037	1041.325	1042.702	1041.325
15.0	1030.034	1046.377	1032.217	1046.377	1030.034	1029.843	1023.764	1017.411	1018.446	1017.411
17.5	1005.550	1022.463	1009.567	1022.463	1005.550	1002.605	999.813	989.367	990.592	989.367
20.0	979.613	996.640	984.703	996.640	979.613	972.689	969.516	960.105	959.983	960.105
22.5	950.039	966.146	957.381	966.146	950.039	940.437	934.122	927.465	926.392	927.465
25.0	917.787	937.607	931.292	937.607	917.787	907.455	897.701	890.853	890.891	890.853
27.5	884.538	902.022	892.884	902.022	884.538	873.597	862.086	854.051	851.023	854.051
30.0	847.318	861.317	858.753	861.317	847.318	836.369	823.017	814.564	812.076	814.564
32.5	807.868	828.685	821.647	828.685	807.868	799.111	783.879	774.657	771.066	774.657
35.0	771.295	790.232	785.446	790.232	771.295	757.560	750.291	733.151	731.964	733.151
37.5	731.429	749.067	747.498	749.067	731.429	717.120	702.429	692.481	689.650	692.481
40.0	690.378	707.785	704.878	707.785	690.378	675.418	661.377	651.813	647.566	651.813
42.5	648.943	665.586	664.782	665.586	648.943	635.591	620.861	611.297	607.012	611.297
45.0	608.083	625.606	624.305	625.606	608.083	595.802	579.160	569.825	566.840	569.825
47.5	567.682	582.679	582.679	582.679	567.682	554.329	538.567	529.079	526.210	529.079
50.0	525.559	542.202	540.825	542.202	525.559	513.049	497.592	489.787	486.344	489.787
52.5	485.082	500.844	499.352	500.844	485.082	473.222	459.678	450.840	448.697	450.840
55.0	446.670	459.984	460.711	459.984	446.670	434.083	422.567	416.139	411.816	416.139
57.5	406.460	418.512	421.611	418.512	406.460	396.283	385.150	377.498	374.859	377.498
60.0	369.464	379.182	381.822	379.182	369.464	357.795	348.154	341.879	338.972	341.879
62.5	332.315	341.726	344.175	341.726	332.315	321.158	310.197	306.181	304.562	306.181
65.0	296.551	303.946	306.559	303.946	296.551	288.088	278.052	274.743	272.516	274.743
67.5	261.169	267.948	269.479	267.948	261.169	252.499	245.345	242.131	240.632	242.131
70.0	225.531	233.095	235.551	233.095	225.531	220.041	214.670	210.598	209.719	210.598
72.5	193.229	193.826	199.810	193.826	193.229	187.349	182.326	179.632	179.104	179.632
75.0	161.662	165.951	167.527	165.951	161.662	156.088	154.048	150.349	150.617	150.349
77.5	131.128	135.164	137.501	135.164	131.128	127.041	124.849	122.175	122.367	122.175
80.0	102.043	105.402	107.216	105.402	102.043	100.226	97.491	96.094	95.287	96.094

CANDELA TABULATION - (Cont.)

82.5	76.039	77.390	78.262	77.390	76.039	74.203	73.063	72.118	74.589	72.118
85.0	48.033	49.809	50.708	49.809	48.033	47.590	46.775	45.834	44.587	45.834
87.5	23.502	24.600	26.498	24.600	23.502	22.672	21.471	21.571	21.815	21.571
90.0	3.486	3.067	3.149	3.067	3.486	3.298	3.971	4.202	3.194	4.202
92.5	51.336	49.370	41.078	49.370	51.336	55.709	59.916	57.911	64.536	57.911
95.0	98.510	104.788	82.123	104.788	98.510	102.744	105.355	104.391	106.362	104.391
97.5	163.046	159.142	121.329	159.142	163.046	144.985	146.983	149.589	150.513	149.589
100.0	269.915	214.872	164.522	214.872	269.915	259.392	188.001	186.454	191.272	186.454
102.5	345.072	268.879	208.650	268.879	345.072	426.381	338.653	266.728	240.753	266.728
105.0	421.832	322.628	253.979	322.628	421.832	577.350	585.524	463.159	407.533	463.159
107.5	503.377	378.562	300.245	378.562	503.377	658.019	823.323	724.214	689.045	724.214
110.0	579.223	431.094	349.328	431.094	579.223	768.480	941.271	982.405	973.429	982.405
112.5	633.571	479.060	398.435	479.060	633.571	926.844	1037.691	1104.919	1130.697	1104.919
115.0	687.314	527.627	448.478	527.627	687.314	1047.050	1206.245	1210.811	1208.008	1210.811
117.5	738.139	577.406	500.866	577.406	738.139	1093.966	1412.673	1414.381	1388.177	1414.381
120.0	785.880	620.026	542.054	620.026	785.880	1122.823	1547.255	1663.878	1649.621	1663.878
122.5	826.242	655.652	580.379	655.652	826.242	1148.426	1577.654	1836.513	1888.824	1836.513
125.0	863.686	689.958	616.282	689.958	863.686	1171.280	1573.131	1879.735	1976.811	1879.735
127.5	895.734	719.637	648.548	719.637	895.734	1191.702	1562.235	1859.750	1964.591	1859.750
130.0	922.660	748.160	678.283	748.160	922.660	1210.866	1549.785	1827.260	1926.483	1827.260
132.5	946.943	775.417	706.587	775.417	946.943	1224.028	1538.166	1792.240	1883.754	1792.240
135.0	967.868	801.959	735.000	801.959	967.868	1232.504	1526.055	1753.191	1838.933	1753.202
137.5	984.001	826.683	761.541	826.683	984.001	1235.537	1508.162	1714.875	1792.678	1714.875
140.0	999.254	852.122	789.624	852.122	999.254	1233.993	1485.801	1672.310	1745.876	1672.310
142.5	1012.304	875.910	817.266	875.910	1012.304	1227.773	1459.038	1626.657	1692.678	1626.657
145.0	1022.877	898.982	845.239	898.982	1022.877	1218.575	1426.449	1579.132	1636.622	1579.132
147.5	1031.963	921.504	869.468	921.504	1031.963	1205.796	1390.980	1525.124	1577.490	1525.124
150.0	1038.846	941.877	894.797	941.877	1038.846	1192.140	1352.544	1470.218	1515.148	1470.218
152.5	1044.848	961.370	918.144	961.370	1044.848	1176.174	1313.012	1413.451	1454.362	1413.451
155.0	1048.923	979.321	939.399	979.321	1048.923	1160.866	1274.412	1357.450	1393.017	1357.450
157.5	1051.621	996.336	961.095	996.336	1051.621	1144.013	1237.629	1298.306	1333.665	1298.306
160.0	1052.281	1011.093	979.816	1011.093	1052.281	1128.266	1205.905	1256.683	1278.266	1256.683
162.5	1053.218	1024.199	994.904	1024.199	1053.218	1112.683	1173.262	1212.957	1229.701	1212.957
165.0	1053.272	1035.707	1010.212	1035.707	1053.272	1097.539	1143.301	1173.590	1185.756	1173.590
167.5	1053.438	1045.398	1023.208	1045.398	1053.438	1084.384	1116.319	1136.534	1148.316	1136.534
170.0	1053.878	1054.098	1033.779	1054.098	1053.878	1073.756	1093.744	1105.303	1112.300	1105.303
172.5	1054.154	1060.431	1042.039	1060.431	1054.154	1064.561	1075.629	1081.191	1085.871	1081.191
175.0	1054.539	1064.561	1047.216	1064.561	1054.539	1059.220	1064.671	1064.505	1067.589	1064.505
177.5	1054.539	1067.204	1050.079	1067.204	1054.539	1055.750	1057.623	1055.585	1056.907	1055.585
180.0	1056.411	1056.411	1056.411	1056.411	1056.411	1056.411	1056.411	1056.411	1056.411	1056.411

Vert.  
Angles

Horizontal Angles

	<u>300</u>	<u>315</u>	<u>330</u>	<u>345</u>	<u>360</u>
0.0	1100.731	1100.731	1100.731	1100.731	1100.731
2.5	1097.718	1096.759	1096.151	1109.618	1093.199
5.0	1090.794	1090.718	1090.528	1104.033	1087.926
7.5	1079.853	1080.082	1080.957	1094.697	1079.892
10.0	1064.698	1066.349	1070.366	1087.652	1072.618
12.5	1045.037	1052.456	1052.570	1068.068	1052.037
15.0	1023.764	1029.843	1030.034	1046.377	1032.217
17.5	999.813	1002.605	1005.550	1022.463	1009.567
20.0	969.516	972.689	979.613	996.640	984.703
22.5	934.122	940.437	950.039	966.146	957.381
25.0	897.701	907.455	917.787	937.607	931.292
27.5	862.086	873.597	884.538	902.022	892.884

**IES INDOOR REPORT**  
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**CANDELA TABULATION - (Cont.)**

30.0	823.017	836.369	847.318	861.317	858.753
32.5	783.879	799.111	807.868	828.685	821.647
35.0	750.291	757.560	771.295	790.232	785.446
37.5	702.429	717.120	731.429	749.067	747.498
40.0	661.377	675.418	690.378	707.785	704.878
42.5	620.861	635.591	648.943	665.586	664.782
45.0	579.160	595.802	608.083	625.606	624.305
47.5	538.567	554.329	567.682	582.679	582.679
50.0	497.592	513.049	525.559	542.202	540.825
52.5	459.678	473.222	485.082	500.844	499.352
55.0	422.567	434.083	446.670	459.984	460.711
57.5	385.150	396.283	406.460	418.512	421.611
60.0	348.154	357.795	369.464	379.182	381.822
62.5	310.197	321.158	332.315	341.726	344.175
65.0	278.052	288.088	296.551	303.946	306.559
67.5	245.345	252.499	261.169	267.948	269.479
70.0	214.670	220.041	225.531	233.095	235.551
72.5	182.326	187.349	193.229	193.826	199.810
75.0	154.048	156.088	161.662	165.951	167.527
77.5	124.849	127.041	131.128	135.164	137.501
80.0	97.491	100.226	102.043	105.402	107.216
82.5	73.063	74.203	76.039	77.390	78.262
85.0	46.775	47.590	48.033	49.809	50.708
87.5	21.471	22.672	23.502	24.600	26.498
90.0	3.971	3.298	3.486	3.067	3.149
92.5	59.916	55.709	51.336	49.370	41.078
95.0	105.355	102.744	98.510	104.788	82.123
97.5	146.983	144.985	163.046	159.142	121.329
100.0	188.001	259.392	269.915	214.872	164.522
102.5	338.653	426.381	345.072	268.879	208.650
105.0	585.524	577.350	421.832	322.628	253.979
107.5	823.323	658.019	503.377	378.562	300.245
110.0	941.271	768.480	579.223	431.094	349.328
112.5	1037.691	926.844	633.571	479.060	398.435
115.0	1206.245	1047.050	687.314	527.627	448.478
117.5	1412.673	1093.966	738.139	577.406	500.866
120.0	1547.255	1122.823	785.880	620.026	542.054
122.5	1577.654	1148.426	826.242	655.652	580.379
125.0	1573.131	1171.280	863.686	689.958	616.282
127.5	1562.235	1191.702	895.734	719.637	648.548
130.0	1549.785	1210.866	922.660	748.160	678.283
132.5	1538.166	1224.028	946.943	775.417	706.587
135.0	1526.055	1232.504	967.868	801.959	735.000
137.5	1508.162	1235.537	984.001	826.683	761.541
140.0	1485.801	1233.993	999.254	852.122	789.624
142.5	1459.038	1227.773	1012.304	875.910	817.266
145.0	1426.449	1218.575	1022.877	898.982	845.239
147.5	1390.980	1205.796	1031.963	921.504	869.468
150.0	1352.544	1192.140	1038.846	941.877	894.797
152.5	1313.012	1176.174	1044.848	961.370	918.144
155.0	1274.412	1160.866	1048.923	979.321	939.399
157.5	1237.629	1144.013	1051.621	996.336	961.095
160.0	1205.905	1128.266	1052.281	1011.093	979.816
162.5	1173.262	1112.683	1053.218	1024.199	994.904
165.0	1143.301	1097.539	1053.272	1035.707	1010.212
167.5	1116.319	1084.384	1053.438	1045.398	1023.208

**IES INDOOR REPORT**

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**CANDELA TABULATION - (Cont.)**

<b>170.0</b>	1093.744	1073.756	1053.878	1054.098	1033.779
<b>172.5</b>	1075.629	1064.561	1054.154	1060.431	1042.039
<b>175.0</b>	1064.671	1059.220	1054.539	1064.561	1047.216
<b>177.5</b>	1057.623	1055.750	1054.539	1067.204	1050.079
<b>180.0</b>	1056.411	1056.411	1056.411	1056.411	1056.411

**IES INDOOR REPORT**  
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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	393.13	N.A.	4.90
0-30	811.80	N.A.	10.20
0-40	1286.32	N.A.	16.20
0-60	2135.48	N.A.	26.80
0-80	2588.72	N.A.	32.50
0-90	2642.45	N.A.	33.20
10-90	2538.9	N.A.	31.90
20-40	893.19	N.A.	11.20
20-50	1352.62	N.A.	17.00
40-70	1135.02	N.A.	14.30
60-80	453.24	N.A.	5.70
70-80	167.38	N.A.	2.10
80-90	53.73	N.A.	0.70
90-110	595.28	N.A.	7.50
90-120	1512.29	N.A.	19.00
90-130	2613.67	N.A.	32.80
90-150	4361.78	N.A.	54.80
90-180	5316.47	N.A.	66.80
110-180	4721.18	N.A.	59.30
0-180	7958.92	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	103.55
10-20	289.59
20-30	418.67
30-40	474.52
40-50	459.43
50-60	389.72
60-70	285.86
70-80	167.38
80-90	53.73
90-100	113.19
100-110	482.10
110-120	917.01
120-130	1101.39
130-140	975.34
140-150	772.76
150-160	540.00
160-170	312.97
170-180	101.72



# IES INDOOR REPORT

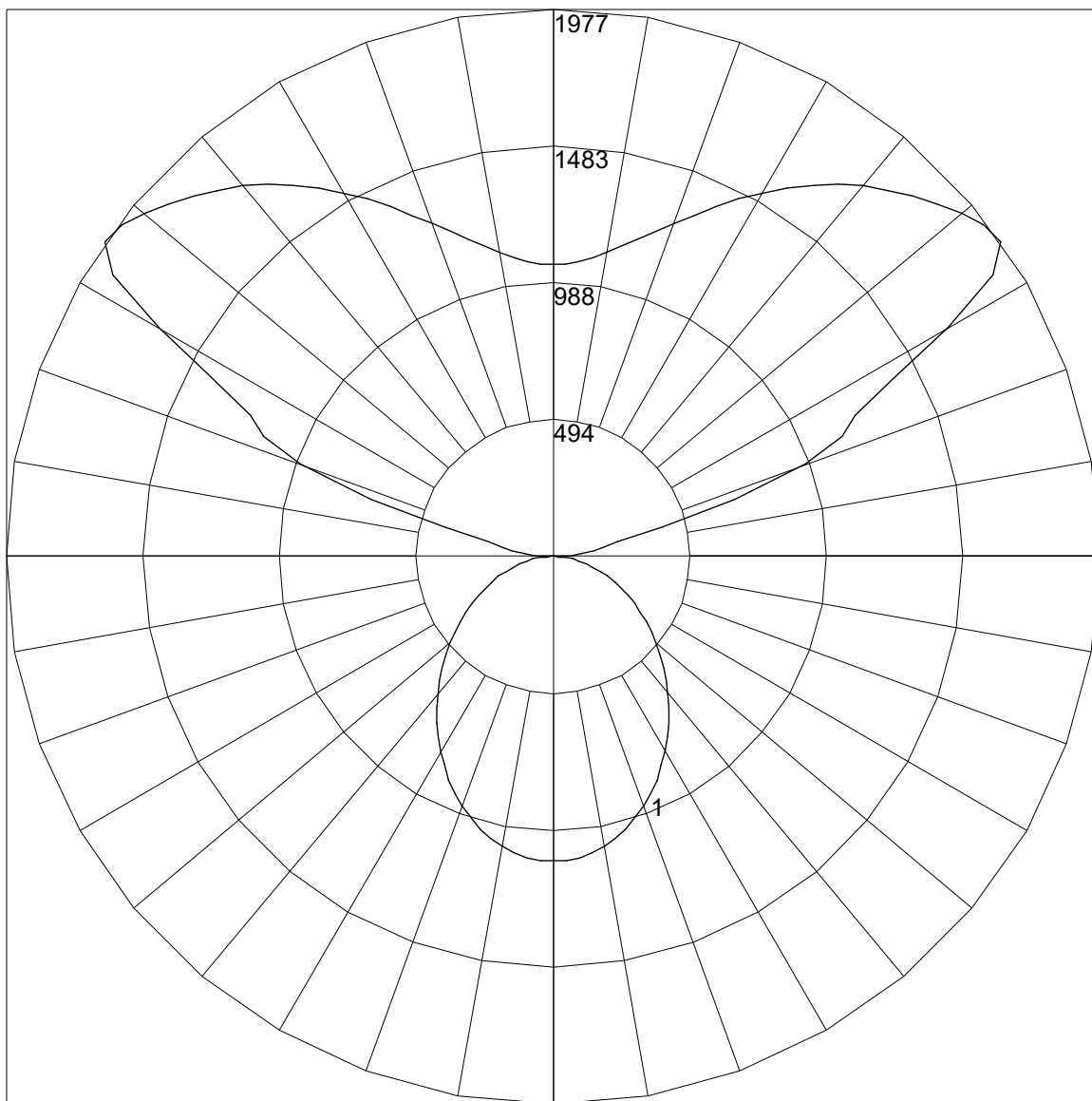
PHOTOMETRIC FILENAME : HP3-P-ID-4FT-V-B-835-WSO-KPL2008-102.002.IES

## 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	103	103	103	103	93	93	93	93	74	74	74	57	57	57	41	41	41	33
1	94	90	86	83	85	81	78	75	65	63	61	50	48	47	36	35	34	28
2	86	78	73	68	77	71	66	62	57	53	50	44	41	39	32	30	29	24
3	78	69	62	56	70	62	56	52	50	46	42	39	36	33	28	26	25	20
4	71	61	53	48	64	55	49	44	45	40	36	35	31	29	25	23	21	17
5	66	54	46	41	59	49	43	37	40	35	31	31	28	25	23	20	19	15
6	60	49	41	35	54	44	37	32	36	31	27	28	24	22	21	18	16	13
7	56	44	36	31	50	40	33	28	32	27	24	25	22	19	19	16	15	12
8	52	40	32	27	46	36	30	25	30	25	21	23	20	17	17	15	13	11
9	48	36	29	24	43	33	27	22	27	22	19	21	18	15	16	14	12	10
10	45	33	26	21	40	30	24	20	25	20	17	20	16	14	15	12	11	9

POLAR GRAPH



Maximum Candela = 1976.811 Located At Horizontal Angle = 90, Vertical Angle = 125  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)