

# 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-ASY-F-KPL2008-103.002.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST] KPL2008-103.002 Family Correlation File  
[TESTLAB] Northern Lights Testing Laboratories  
[ISSUEDATE] 8/22/2024  
[TESTDATE] 12/4/2024  
[MANUFAC] Finelite Inc.  
[LUMCAT] HP3-P-ID-4ft-V-B-835-ASY-F  
[LUMINAIRE] HP3-P-ID Series  
[LAMPCAT] 320 LM561B+ LEDs with 80 CRI  
[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 58.3 WATTS  
[ABSOLUTELUMENS]8104  
[LAMP] Samsung  
[BALLAST] Osram  
[BALLASTCAT] Oti50 x-2 @700mA

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	8104
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	139
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)	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	9478	9046	8606
55	8623	8125	7708
65	7787	7318	6922
75	6949	6474	6247
85	6246	5862	5492

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	1094.168	1094.168	1094.168	1094.168	1094.168	1094.168	1094.168	1094.168	1094.168	1094.168
2.5	1086.681	1103.002	1089.615	1090.220	1091.173	1089.577	1092.769	1089.577	1091.173	1090.220
5.0	1081.439	1097.450	1084.026	1084.215	1084.291	1082.733	1085.773	1082.733	1084.291	1084.215
7.5	1073.453	1088.171	1074.512	1073.642	1073.415	1071.320	1073.982	1071.320	1073.415	1073.642
10.0	1066.223	1081.167	1063.984	1059.991	1058.350	1054.855	1057.631	1054.855	1058.350	1059.991
12.5	1045.765	1061.700	1046.294	1046.181	1038.807	1035.116	1036.485	1035.116	1038.807	1046.181
15.0	1026.063	1040.138	1023.892	1023.703	1017.660	1011.345	1012.374	1011.345	1017.660	1023.703
17.5	1003.548	1016.367	999.554	996.628	993.852	983.468	984.685	983.468	993.852	996.628
20.0	978.832	990.698	973.772	966.890	963.736	954.380	954.259	954.380	963.736	966.890
22.5	951.673	960.385	944.374	934.830	928.553	921.935	920.869	921.935	928.553	934.830
25.0	925.739	932.016	912.315	902.044	892.348	885.542	885.579	885.542	892.348	902.044
27.5	887.561	896.644	879.264	868.389	856.946	848.959	845.949	848.959	856.946	868.389
30.0	853.633	856.182	842.266	831.383	818.109	809.707	807.234	809.707	818.109	831.383
32.5	816.748	823.744	803.051	794.346	779.205	770.039	766.469	770.039	779.205	794.346
35.0	780.763	785.520	766.696	753.043	745.817	728.779	727.600	728.779	745.817	753.043
37.5	743.041	744.600	727.068	712.845	698.241	688.353	685.538	688.353	698.241	712.845
40.0	700.675	703.565	686.261	671.391	657.434	647.927	643.705	647.927	657.434	671.391
42.5	660.819	661.617	645.074	631.801	617.159	607.652	603.392	607.652	617.159	631.801
45.0	620.582	621.876	604.457	592.250	575.706	566.427	563.460	566.427	575.706	592.250
47.5	579.205	579.205	564.298	551.024	535.356	525.924	523.072	525.924	535.356	551.024
50.0	537.600	538.969	522.426	509.990	494.625	486.867	483.444	486.867	494.625	509.990
52.5	496.375	497.858	482.189	470.400	456.937	448.152	446.022	448.152	456.937	470.400
55.0	457.964	457.241	444.007	431.495	420.048	413.658	409.361	413.658	420.048	431.495
57.5	419.097	416.017	404.037	393.920	382.853	375.247	372.624	375.247	382.853	393.920
60.0	379.545	376.921	367.261	355.662	346.078	339.841	336.951	339.841	346.078	355.662
62.5	342.123	339.689	330.333	319.244	308.348	304.355	302.746	304.355	308.348	319.244
65.0	304.731	302.134	294.782	286.370	276.394	273.105	270.892	273.105	276.394	286.370
67.5	267.872	266.351	259.612	250.994	243.882	240.688	239.197	240.688	243.882	250.994
70.0	234.147	231.705	224.186	218.729	213.390	209.343	208.468	209.343	213.390	218.729
72.5	198.618	192.670	192.077	186.232	181.238	178.561	178.036	178.561	181.238	186.232
75.0	166.528	164.961	160.698	155.157	153.130	149.453	149.719	149.453	153.130	155.157
77.5	136.682	134.358	130.346	126.284	124.105	121.447	121.637	121.447	124.105	126.284
80.0	106.577	104.774	101.435	99.629	96.910	95.521	94.719	95.521	96.910	99.629
82.5	77.795	76.928	75.586	73.760	72.627	71.688	74.144	71.688	72.627	73.760
85.0	50.405	49.512	47.747	47.306	46.496	45.561	44.321	45.561	46.496	47.306
87.5	26.340	24.454	23.362	22.537	21.343	21.442	21.685	21.442	21.343	22.537
90.0	2.175	2.118	2.407	2.278	2.742	2.902	2.206	2.902	2.742	2.278
92.5	25.989	26.350	28.058	28.179	29.021	30.805	34.122	47.292	60.112	64.173
95.0	53.663	53.236	53.423	53.598	53.313	105.597	78.153	113.303	110.896	114.508
97.5	76.828	75.984	75.426	75.460	141.657	198.134	124.164	161.800	152.276	150.962
100.0	97.299	95.121	100.167	146.747	279.329	290.495	172.846	223.543	227.045	215.442
102.5	120.682	123.398	208.655	417.637	379.037	363.492	223.291	275.980	293.167	308.054
105.0	268.207	322.364	426.111	604.068	551.740	429.668	274.206	318.345	370.673	379.540
107.5	431.913	660.885	805.388	744.412	697.557	498.755	327.289	358.303	446.756	441.173
110.0	885.194	940.806	1034.186	986.565	811.956	556.667	379.683	397.822	504.119	534.444
112.5	1198.280	1230.032	1260.467	1250.507	887.272	612.278	437.834	441.502	543.639	623.335
115.0	1481.601	1515.530	1558.995	1462.987	945.950	672.817	489.779	483.539	577.466	704.016
117.5	1846.583	1858.078	1897.700	1544.213	1010.319	723.502	541.230	523.167	606.695	736.967
120.0	2141.279	2186.159	2159.338	1565.668	1054.984	771.999	593.339	562.469	633.516	770.137
122.5	2558.804	2534.497	2207.396	1575.638	1095.055	814.254	638.771	600.017	663.621	792.688
125.0	2740.533	2618.249	2165.357	1582.529	1127.341	853.445	683.654	644.025	692.412	806.153
127.5	2696.524	2543.369	2106.904	1580.232	1155.697	897.126	730.837	693.616	719.451	820.057
130.0	2594.051	2442.104	2052.173	1578.044	1182.953	937.082	779.552	733.245	747.695	837.025
132.5	2482.836	2345.878	1994.481	1571.589	1205.181	979.886	829.033	776.487	775.064	857.387

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**CANDELA TABULATION - (Cont.)**

135.0	2366.789	2251.078	1943.897	1564.470	1229.597	1022.799	879.719	816.882	798.929	877.201
137.5	2258.197	2163.942	1891.572	1556.698	1259.586	1065.493	928.872	858.482	829.033	897.126
140.0	2155.941	2074.825	1842.087	1549.361	1287.942	1110.708	981.856	902.051	855.854	917.596
142.5	2065.518	1995.896	1799.613	1542.134	1317.604	1154.162	1029.477	949.234	898.001	935.549
145.0	1991.520	1930.976	1763.920	1541.481	1348.474	1196.756	1079.397	998.825	950.547	949.562
147.5	1917.076	1867.820	1728.348	1547.500	1380.335	1241.853	1131.727	1057.063	1001.781	966.202
150.0	1855.770	1815.712	1701.853	1554.946	1409.018	1282.684	1180.004	1112.787	1041.847	988.972
152.5	1801.039	1771.257	1687.626	1565.668	1435.948	1323.297	1229.705	1163.142	1082.352	1035.826
155.0	1767.317	1743.783	1676.566	1576.727	1462.878	1362.495	1276.773	1210.221	1122.094	1091.332
157.5	1742.574	1723.416	1670.873	1585.272	1484.115	1399.058	1319.574	1277.655	1169.488	1131.401
160.0	1722.001	1707.764	1666.498	1588.657	1501.847	1430.582	1359.425	1303.921	1224.557	1169.380
162.5	1704.487	1690.793	1656.091	1588.004	1515.095	1460.037	1395.662	1350.227	1282.902	1214.379
165.0	1680.833	1670.765	1641.102	1582.529	1526.263	1484.442	1427.414	1390.187	1327.575	1267.249
167.5	1651.933	1643.617	1620.736	1574.212	1533.926	1505.679	1457.294	1428.938	1368.296	1333.257
170.0	1619.974	1612.202	1599.172	1564.797	1538.302	1520.352	1479.522	1460.255	1409.453	1372.672
172.5	1587.133	1585.272	1576.945	1553.520	1538.520	1530.312	1495.066	1485.868	1446.017	1415.473
175.0	1561.945	1558.113	1556.372	1541.481	1535.461	1535.135	1507.432	1507.976	1477.769	1458.056
177.5	1537.649	1534.906	1537.758	1527.471	1529.213	1535.788	1513.778	1522.431	1503.491	1490.353
180.0	1518.328	1518.328	1518.328	1518.328	1518.328	1518.328	1518.328	1518.328	1518.328	1518.328

**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	1094.168	1094.168	1094.168	1094.168	1094.168	1094.168	1094.168	1094.168	1094.168	1094.168
2.5	1089.615	1103.002	1086.681	1103.002	1089.615	1090.220	1091.173	1089.577	1092.769	1089.577
5.0	1084.026	1097.450	1081.439	1097.450	1084.026	1084.215	1084.291	1082.733	1085.773	1082.733
7.5	1074.512	1088.171	1073.453	1088.171	1074.512	1073.642	1073.415	1071.320	1073.982	1071.320
10.0	1063.984	1081.167	1066.223	1081.167	1063.984	1059.991	1058.350	1054.855	1057.631	1054.855
12.5	1046.294	1061.700	1045.765	1061.700	1046.294	1046.181	1038.807	1035.116	1036.485	1035.116
15.0	1023.892	1040.138	1026.063	1040.138	1023.892	1023.703	1017.660	1011.345	1012.374	1011.345
17.5	999.554	1016.367	1003.548	1016.367	999.554	996.628	993.852	983.468	984.685	983.468
20.0	973.772	990.698	978.832	990.698	973.772	966.890	963.736	954.380	954.259	954.380
22.5	944.374	960.385	951.673	960.385	944.374	934.830	928.553	921.935	920.869	921.935
25.0	912.315	932.016	925.739	932.016	912.315	902.044	892.348	885.542	885.579	885.542
27.5	879.264	896.644	887.561	896.644	879.264	868.389	856.946	848.959	845.949	848.959
30.0	842.266	856.182	853.633	856.182	842.266	831.383	818.109	809.707	807.234	809.707
32.5	803.051	823.744	816.748	823.744	803.051	794.346	779.205	770.039	766.469	770.039
35.0	766.696	785.520	780.763	785.520	766.696	753.043	745.817	728.779	727.600	728.779
37.5	727.068	744.600	743.041	744.600	727.068	712.845	698.241	688.353	685.538	688.353
40.0	686.261	703.565	700.675	703.565	686.261	671.391	657.434	647.927	643.705	647.927
42.5	645.074	661.617	660.819	661.617	645.074	631.801	617.159	607.652	603.392	607.652
45.0	604.457	621.876	620.582	621.876	604.457	592.250	575.706	566.427	563.460	566.427
47.5	564.298	579.205	579.205	579.205	564.298	551.024	535.356	525.924	523.072	525.924
50.0	522.426	538.969	537.600	538.969	522.426	509.990	494.625	486.867	483.444	486.867
52.5	482.189	497.858	496.375	497.858	482.189	470.400	456.937	448.152	446.022	448.152
55.0	444.007	457.241	457.964	457.241	444.007	431.495	420.048	413.658	409.361	413.658
57.5	404.037	416.017	419.097	416.017	404.037	393.920	382.853	375.247	372.624	375.247
60.0	367.261	376.921	379.545	376.921	367.261	355.662	346.078	339.841	336.951	339.841
62.5	330.333	339.689	342.123	339.689	330.333	319.244	308.348	304.355	302.746	304.355
65.0	294.782	302.134	304.731	302.134	294.782	286.370	276.394	273.105	270.892	273.105
67.5	259.612	266.351	267.872	266.351	259.612	250.994	243.882	240.688	239.197	240.688
70.0	224.186	231.705	234.147	231.705	224.186	218.729	213.390	209.343	208.468	209.343
72.5	192.077	192.670	198.618	192.670	192.077	186.232	181.238	178.561	178.036	178.561
75.0	160.698	164.961	166.528	164.961	160.698	155.157	153.130	149.453	149.719	149.453
77.5	130.346	134.358	136.682	134.358	130.346	126.284	124.105	121.447	121.637	121.447
80.0	101.435	104.774	106.577	104.774	101.435	99.629	96.910	95.521	94.719	95.521

CANDELA TABULATION - (Cont.)

82.5	75.586	76.928	77.795	76.928	75.586	73.760	72.627	71.688	74.144	71.688
85.0	47.747	49.512	50.405	49.512	47.747	47.306	46.496	45.561	44.321	45.561
87.5	23.362	24.454	26.340	24.454	23.362	22.537	21.343	21.442	21.685	21.442
90.0	2.407	2.118	2.175	2.118	2.407	2.278	2.742	2.902	2.206	2.902
92.5	66.176	64.687	66.669	64.687	66.176	64.173	60.112	47.292	34.122	30.805
95.0	117.683	120.091	121.733	120.091	117.683	114.508	110.896	113.303	78.153	105.597
97.5	161.800	166.507	167.711	166.507	161.800	150.962	152.276	161.800	124.164	198.134
100.0	191.248	199.459	202.524	199.459	191.248	215.442	227.045	223.543	172.846	290.495
102.5	293.495	241.387	228.797	241.387	293.495	308.054	293.167	275.980	223.291	363.492
105.0	400.668	379.979	358.412	379.979	400.668	379.540	370.673	318.345	274.206	429.668
107.5	475.329	470.402	470.074	470.402	475.329	441.173	446.756	358.303	327.289	498.755
110.0	533.458	551.630	554.368	551.630	533.458	534.444	504.119	397.822	379.683	556.667
112.5	596.296	608.776	614.140	608.776	596.296	623.335	543.639	441.502	437.834	612.278
115.0	727.224	675.334	672.817	675.334	727.224	704.016	577.466	483.539	489.779	672.817
117.5	822.903	826.734	780.101	826.734	822.903	736.967	606.695	523.167	541.230	723.502
120.0	880.048	948.029	955.255	948.029	880.048	770.137	633.516	562.469	593.339	771.999
122.5	920.662	1000.795	1027.944	1000.795	920.662	792.688	663.621	600.017	638.771	814.254
125.0	947.263	1037.688	1065.384	1037.688	947.263	806.153	692.412	644.025	683.654	853.445
127.5	958.210	1065.384	1089.906	1065.384	958.210	820.057	719.451	693.616	730.837	897.126
130.0	957.663	1070.748	1105.451	1070.748	957.663	837.025	747.695	733.245	779.552	937.082
132.5	959.305	1057.392	1092.094	1057.392	959.305	857.387	775.064	776.487	829.033	979.886
135.0	966.421	1043.708	1073.923	1043.708	966.421	877.201	798.929	816.882	879.719	1022.799
137.5	975.507	1039.877	1063.633	1039.877	975.507	897.126	829.033	858.482	928.872	1065.493
140.0	986.893	1040.753	1060.567	1040.753	986.893	917.596	855.854	902.051	981.856	1110.708
142.5	995.760	1043.600	1060.567	1043.600	995.760	935.549	898.001	949.234	1029.477	1154.162
145.0	1005.502	1044.365	1060.349	1044.365	1005.502	949.562	950.547	998.825	1079.397	1196.756
147.5	1012.399	1044.256	1057.940	1044.256	1012.399	966.202	1001.781	1057.063	1131.727	1241.853
150.0	1016.341	1044.475	1056.845	1044.475	1016.341	988.972	1041.847	1112.787	1180.004	1282.684
152.5	1022.799	1040.972	1051.590	1040.972	1022.799	1035.826	1082.352	1163.142	1229.705	1323.297
155.0	1040.206	1042.395	1048.963	1042.395	1040.206	1091.332	1122.094	1210.221	1276.773	1362.495
157.5	1091.006	1058.925	1058.377	1058.925	1091.006	1131.401	1169.488	1277.655	1319.574	1399.058
160.0	1146.499	1114.322	1099.540	1114.322	1146.499	1169.380	1224.557	1303.921	1359.425	1430.582
162.5	1187.667	1170.479	1165.439	1170.479	1187.667	1214.379	1282.902	1350.227	1395.662	1460.037
165.0	1233.091	1210.221	1207.260	1210.221	1233.091	1267.249	1327.575	1390.187	1427.414	1484.442
167.5	1290.129	1261.882	1259.150	1261.882	1290.129	1333.257	1368.296	1428.938	1457.294	1505.679
170.0	1358.990	1334.900	1328.337	1334.900	1358.990	1372.672	1409.453	1460.255	1479.522	1520.352
172.5	1401.464	1384.494	1385.702	1384.494	1401.464	1415.473	1446.017	1485.868	1495.066	1530.312
175.0	1448.542	1433.869	1437.592	1433.869	1448.542	1458.056	1477.769	1507.976	1507.432	1535.135
177.5	1490.570	1480.393	1481.155	1480.393	1490.570	1490.353	1503.491	1522.431	1513.778	1535.788
180.0	1518.328	1518.328	1518.328	1518.328	1518.328	1518.328	1518.328	1518.328	1518.328	1518.328

Vert.  
Angles

Horizontal Angles

	<u>300</u>	<u>315</u>	<u>330</u>	<u>345</u>	<u>360</u>
0.0	1094.168	1094.168	1094.168	1094.168	1094.168
2.5	1091.173	1090.220	1089.615	1103.002	1086.681
5.0	1084.291	1084.215	1084.026	1097.450	1081.439
7.5	1073.415	1073.642	1074.512	1088.171	1073.453
10.0	1058.350	1059.991	1063.984	1081.167	1066.223
12.5	1038.807	1046.181	1046.294	1061.700	1045.765
15.0	1017.660	1023.703	1023.892	1040.138	1026.063
17.5	993.852	996.628	999.554	1016.367	1003.548
20.0	963.736	966.890	973.772	990.698	978.832
22.5	928.553	934.830	944.374	960.385	951.673
25.0	892.348	902.044	912.315	932.016	925.739
27.5	856.946	868.389	879.264	896.644	887.561

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP3-P-ID-4FT-V-B-835-ASY-F-KPL2008-103.002.IES****CANDELA TABULATION - (Cont.)**

30.0	818.109	831.383	842.266	856.182	853.633
32.5	779.205	794.346	803.051	823.744	816.748
35.0	745.817	753.043	766.696	785.520	780.763
37.5	698.241	712.845	727.068	744.600	743.041
40.0	657.434	671.391	686.261	703.565	700.675
42.5	617.159	631.801	645.074	661.617	660.819
45.0	575.706	592.250	604.457	621.876	620.582
47.5	535.356	551.024	564.298	579.205	579.205
50.0	494.625	509.990	522.426	538.969	537.600
52.5	456.937	470.400	482.189	497.858	496.375
55.0	420.048	431.495	444.007	457.241	457.964
57.5	382.853	393.920	404.037	416.017	419.097
60.0	346.078	355.662	367.261	376.921	379.545
62.5	308.348	319.244	330.333	339.689	342.123
65.0	276.394	286.370	294.782	302.134	304.731
67.5	243.882	250.994	259.612	266.351	267.872
70.0	213.390	218.729	224.186	231.705	234.147
72.5	181.238	186.232	192.077	192.670	198.618
75.0	153.130	155.157	160.698	164.961	166.528
77.5	124.105	126.284	130.346	134.358	136.682
80.0	96.910	99.629	101.435	104.774	106.577
82.5	72.627	73.760	75.586	76.928	77.795
85.0	46.496	47.306	47.747	49.512	50.405
87.5	21.343	22.537	23.362	24.454	26.340
90.0	2.742	2.278	2.407	2.118	2.175
92.5	29.021	28.179	28.058	26.350	25.989
95.0	53.313	53.598	53.423	53.236	53.663
97.5	141.657	75.460	75.426	75.984	76.828
100.0	279.329	146.748	100.167	95.121	97.299
102.5	379.037	417.637	208.655	123.398	120.682
105.0	551.740	604.068	426.111	322.364	268.207
107.5	697.557	744.412	805.388	660.885	431.913
110.0	811.956	986.565	1034.186	940.806	885.194
112.5	887.272	1250.507	1260.467	1230.032	1198.280
115.0	945.950	1462.987	1558.995	1515.530	1481.601
117.5	1010.319	1544.213	1897.700	1858.078	1846.583
120.0	1054.984	1565.668	2159.338	2186.159	2141.279
122.5	1095.055	1575.638	2207.396	2534.497	2558.804
125.0	1127.341	1582.529	2165.357	2618.249	2740.533
127.5	1155.697	1580.232	2106.904	2543.369	2696.524
130.0	1182.953	1578.044	2052.173	2442.104	2594.051
132.5	1205.181	1571.589	1994.481	2345.878	2482.836
135.0	1229.597	1564.470	1943.897	2251.078	2366.789
137.5	1259.586	1556.698	1891.572	2163.942	2258.197
140.0	1287.942	1549.361	1842.087	2074.825	2155.941
142.5	1317.604	1542.134	1799.613	1995.896	2065.518
145.0	1348.474	1541.481	1763.920	1930.976	1991.520
147.5	1380.335	1547.500	1728.348	1867.820	1917.076
150.0	1409.018	1554.946	1701.853	1815.712	1855.770
152.5	1435.948	1565.668	1687.626	1771.257	1801.039
155.0	1462.878	1576.727	1676.566	1743.783	1767.317
157.5	1484.115	1585.272	1670.873	1723.416	1742.574
160.0	1501.847	1588.657	1666.498	1707.764	1722.001
162.5	1515.095	1588.004	1656.091	1690.793	1704.487
165.0	1526.263	1582.529	1641.102	1670.765	1680.833
167.5	1533.926	1574.212	1620.736	1643.617	1651.933

**IES INDOOR REPORT**

**PHOTOMETRIC FILENAME : HP3-P-ID-4FT-V-B-835-ASY-F-KPL2008-103.002.IES**

**CANDELA TABULATION - (Cont.)**

<b>170.0</b>	1538.302	1564.797	1599.172	1612.202	1619.974
<b>172.5</b>	1538.520	1553.520	1576.945	1585.272	1587.133
<b>175.0</b>	1535.461	1541.481	1556.372	1558.113	1561.945
<b>177.5</b>	1529.213	1527.471	1537.758	1534.906	1537.649
<b>180.0</b>	1518.328	1518.328	1518.328	1518.328	1518.328

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP3-P-ID-4FT-V-B-835-ASY-F-KPL2008-103.002.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	390.79	N.A.	4.80
0-30	806.96	N.A.	10.00
0-40	1278.65	N.A.	15.80
0-60	2122.75	N.A.	26.20
0-80	2573.29	N.A.	31.80
0-90	2626.55	N.A.	32.40
10-90	2523.62	N.A.	31.10
20-40	887.86	N.A.	11.00
20-50	1344.56	N.A.	16.60
40-70	1128.25	N.A.	13.90
60-80	450.54	N.A.	5.60
70-80	166.39	N.A.	2.10
80-90	53.26	N.A.	0.70
90-110	528.17	N.A.	6.50
90-120	1424.79	N.A.	17.60
90-130	2531.91	N.A.	31.20
90-150	4311.97	N.A.	53.20
90-180	5477.87	N.A.	67.60
110-180	4949.7	N.A.	61.10
0-180	8104.42	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	102.93
10-20	287.86
20-30	416.17
30-40	471.69
40-50	456.69
50-60	387.40
60-70	284.16
70-80	166.39
80-90	53.26
90-100	98.72
100-110	429.46
110-120	896.62
120-130	1107.12
130-140	976.85
140-150	803.21
150-160	618.15
160-170	405.00
170-180	142.75



# IES INDOOR REPORT

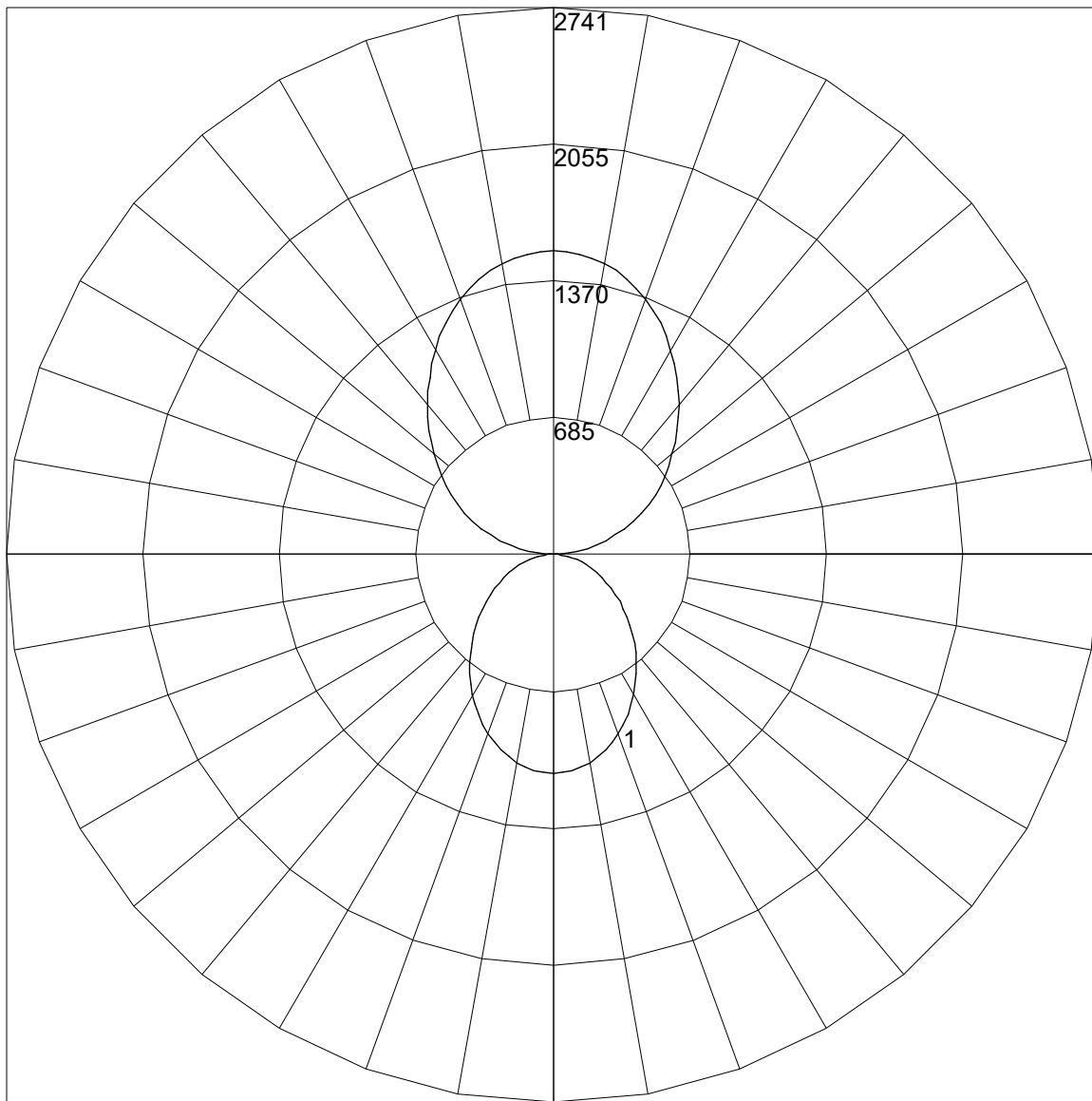
PHOTOMETRIC FILENAME : HP3-P-ID-4FT-V-B-835-ASY-F-KPL2008-103.002.IES

## 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	56	56	56	40	40	40	32
1	94	90	86	82	84	81	78	75	64	62	60	49	48	47	35	34	34	27
2	85	78	72	67	77	71	66	61	56	53	50	43	41	39	31	30	28	23
3	78	69	62	56	70	62	56	51	50	46	42	38	35	33	28	26	24	20
4	71	61	53	47	64	55	49	44	44	40	36	34	31	28	25	23	21	17
5	65	54	46	41	59	49	42	37	40	35	31	31	27	25	22	20	18	15
6	60	49	41	35	54	44	37	32	36	31	27	28	24	21	20	18	16	13
7	56	44	36	31	50	40	33	28	32	27	24	25	22	19	19	16	14	12
8	52	40	32	27	46	36	30	25	29	24	21	23	19	17	17	15	13	10
9	48	36	29	24	43	33	27	22	27	22	19	21	18	15	16	13	12	9
10	45	33	26	21	40	30	24	20	25	20	17	19	16	14	15	12	11	9

POLAR GRAPH



Maximum Candela = 2740.533 Located At Horizontal Angle = 0, Vertical Angle = 125  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)