

# 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-H-S-835-ASY-DSO-ITL89599-ITL94139.009.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL89599-ITL94139.009 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]08/24/17

[ISSUEDATE]12/18/2020

[MANUFAC]FINELITE, INC.

[LUMCAT]HP-2-ID-4ft-H-S-835-ASY-DSO

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 42.2 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 44.1 WATTS

[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL89599. 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]4685

[\_CONVERT] Photometric web converted from original test data

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4688
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	111
Total Luminaire Watts	42.2
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)	0.18 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	5661	7155	7349
55	5147	6589	6589
65	4618	5854	5692
75	4107	4995	4731
85	3566	3780	3423

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## CANDELA TABULATION

	<u>0</u>	<u>5</u>	<u>10</u>	<u>15</u>	<u>20</u>	<u>25</u>	<u>30</u>	<u>35</u>	<u>40</u>	<u>45</u>
0.0	477.372	477.372	477.372	477.372	477.372	477.372	477.372	477.372	477.372	477.372
2.5	476.553	476.553	476.553	476.553	476.553	476.553	476.553	476.963	476.963	476.963
5.0	474.097	474.097	474.097	474.506	474.506	474.916	475.325	475.734	476.144	476.553
7.5	469.593	470.003	470.412	470.822	471.231	471.640	472.459	473.278	474.097	474.916
10.0	463.861	464.271	464.680	465.090	465.499	466.727	468.774	470.412	472.459	474.097
12.5	456.902	457.311	458.130	458.539	458.949	460.996	463.861	467.137	470.003	473.278
15.0	447.485	448.304	449.123	450.351	451.170	453.626	458.130	462.224	466.727	470.822
17.5	437.659	438.887	440.116	441.344	442.572	445.848	451.170	456.492	462.224	467.546
20.0	425.377	427.015	428.652	430.699	432.337	436.431	443.391	449.942	456.902	463.452
22.5	412.276	414.323	416.370	418.417	420.464	425.377	433.156	440.935	448.713	456.492
25.0	397.537	400.403	403.269	406.135	409.001	414.323	422.921	431.518	440.116	448.713
27.5	382.798	386.074	389.349	393.034	396.309	402.450	411.866	421.283	430.290	439.706
30.0	366.831	370.925	375.020	378.704	382.798	389.758	399.175	409.001	418.417	428.243
32.5	350.455	354.959	359.053	363.556	368.060	375.429	385.664	395.899	406.135	416.370
35.0	333.260	338.173	342.676	347.589	352.093	359.871	370.516	381.570	392.215	402.859
37.5	316.474	321.387	326.300	331.622	336.535	344.314	354.959	365.603	376.248	386.892
40.0	298.460	303.782	309.105	314.427	319.749	327.937	338.173	348.817	359.053	369.697
42.5	281.265	286.587	291.909	297.232	302.554	310.742	320.977	331.213	341.857	352.093
45.0	263.660	268.982	274.305	279.627	284.949	292.728	302.963	313.199	323.024	333.260
47.5	246.465	251.787	257.110	262.432	267.754	275.123	284.540	293.956	303.373	312.789
50.0	228.451	233.773	239.095	244.418	249.740	256.700	265.298	274.305	282.902	291.909
52.5	210.846	215.759	220.672	225.994	230.907	237.458	245.646	254.244	262.432	270.620
55.0	194.470	198.973	203.477	207.980	212.484	218.625	226.404	233.773	241.552	248.921
57.5	177.274	181.369	185.872	189.966	194.470	199.792	206.752	213.712	220.263	227.222
60.0	160.898	164.583	168.268	171.952	175.637	180.959	187.100	193.242	199.383	205.524
62.5	145.340	148.616	151.891	154.757	158.032	162.536	167.858	173.590	178.912	184.644
65.0	128.555	131.830	134.696	137.971	140.837	144.931	149.435	153.938	158.442	162.945
67.5	113.816	116.272	118.729	121.185	123.642	126.917	130.602	134.696	138.381	142.475
70.0	98.668	100.715	102.762	104.809	106.856	109.722	112.997	116.272	119.548	122.823
72.5	83.929	85.567	87.204	89.251	90.889	92.936	95.802	98.258	101.124	103.581
75.0	70.009	71.237	72.466	73.694	74.922	76.969	79.016	81.063	83.110	85.157
77.5	56.908	57.727	58.546	59.774	60.593	61.821	63.049	64.687	65.915	67.553
80.0	44.626	45.035	45.444	45.854	46.263	47.082	48.310	49.539	50.357	51.586
82.5	32.753	32.753	33.162	33.162	33.572	33.981	34.390	34.800	35.619	36.028
85.0	20.471	20.471	20.880	20.880	21.289	21.289	21.289	21.699	21.699	21.699
87.5	9.416	9.416	9.416	9.416	9.416	9.416	9.007	9.007	8.598	8.598
90.0	28.000	28.000	28.000	27.222	26.444	24.889	23.333	21.778	20.222	17.889
92.5	60.666	61.444	61.444	61.444	60.666	59.889	57.555	54.444	52.111	49.000
95.0	121.333	122.888	122.888	122.110	121.333	119.777	117.444	115.110	113.555	111.222
97.5	184.332	185.888	185.888	185.110	183.554	181.999	183.554	184.332	183.554	182.777
100.0	238.776	241.110	242.665	243.443	247.332	250.443	258.998	267.554	267.554	267.554
102.5	306.443	309.554	314.998	319.665	330.553	340.665	354.664	367.887	367.887	367.109
105.0	398.998	403.664	415.331	426.997	447.219	466.664	476.775	486.108	482.219	478.330
107.5	542.108	540.552	560.774	580.996	594.219	607.441	614.441	621.441	609.774	597.330
110.0	724.885	720.218	734.218	747.440	755.218	762.217	763.773	764.551	738.107	711.662
112.5	905.328	899.883	910.772	920.883	921.661	922.439	909.217	895.995	850.884	804.995
115.0	1080.327	1074.104	1078.771	1082.660	1071.771	1060.882	1028.994	996.327	936.439	875.772
117.5	1221.104	1214.881	1209.437	1203.993	1184.548	1165.104	1118.438	1071.771	997.883	923.217
120.0	1321.436	1315.992	1305.103	1293.437	1263.881	1234.326	1176.771	1118.438	1035.216	951.994
122.5	1385.992	1381.325	1365.769	1349.436	1312.103	1273.992	1208.659	1143.326	1057.771	971.438
125.0	1416.325	1413.214	1394.547	1375.880	1333.103	1289.548	1221.881	1153.437	1069.438	984.661
127.5	1422.547	1420.214	1399.992	1379.769	1334.658	1288.770	1222.659	1155.771	1074.882	993.216
130.0	1411.658	1409.325	1389.102	1368.880	1324.547	1280.214	1217.215	1153.437	1077.216	1000.216
132.5	1391.436	1390.658	1371.992	1352.547	1310.547	1267.770	1208.659	1149.549	1079.549	1009.549

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## CANDELA TABULATION - (Cont.)

135.0	1368.880	1367.325	1349.436	1331.547	1292.659	1252.992	1200.104	1146.437	1082.660	1018.883
137.5	1346.325	1343.214	1327.659	1311.325	1276.325	1240.548	1193.104	1144.882	1087.327	1028.994
140.0	1322.214	1320.659	1307.436	1293.437	1262.326	1230.437	1187.659	1144.882	1091.993	1039.105
142.5	1302.770	1301.992	1290.325	1278.659	1250.659	1222.659	1184.548	1145.660	1097.438	1049.216
145.0	1286.437	1285.659	1275.548	1264.659	1239.770	1214.881	1180.659	1146.437	1103.660	1060.882
147.5	1271.659	1270.103	1261.548	1252.215	1230.437	1207.881	1177.548	1147.215	1109.882	1071.771
150.0	1255.326	1255.326	1247.548	1239.770	1221.104	1201.659	1175.215	1148.771	1116.104	1082.660
152.5	1242.103	1240.548	1235.103	1228.881	1213.326	1196.993	1174.437	1151.104	1120.771	1090.438
155.0	1231.215	1228.881	1224.215	1219.548	1205.548	1191.548	1171.326	1150.326	1123.104	1095.104
157.5	1220.326	1217.993	1213.326	1208.659	1196.993	1184.548	1165.882	1146.437	1120.771	1095.104
160.0	1205.548	1203.215	1198.548	1193.882	1182.993	1172.104	1155.771	1138.660	1115.326	1091.216
162.5	1186.104	1184.548	1179.882	1175.215	1165.882	1156.549	1140.993	1124.660	1104.438	1083.438
165.0	1161.215	1159.659	1154.993	1150.326	1141.771	1133.215	1120.771	1107.549	1090.438	1072.549
167.5	1131.660	1130.104	1126.215	1121.549	1115.326	1108.326	1097.438	1086.549	1072.549	1057.771
170.0	1097.438	1095.882	1092.771	1089.660	1084.216	1077.993	1070.216	1062.438	1052.327	1041.438
172.5	1062.438	1061.660	1059.327	1056.216	1053.105	1049.216	1043.771	1037.549	1029.772	1021.216
175.0	1025.105	1024.327	1022.771	1020.438	1018.105	1015.771	1012.660	1008.772	1004.105	999.438
177.5	986.994	986.994	986.216	985.438	984.661	983.105	981.549	979.994	978.438	976.105
180.0	950.439	950.439	950.439	950.439	950.439	950.439	950.439	950.439	950.439	950.439

## Vert. Angles

## Horizontal Angles

	<u>50</u>	<u>55</u>	<u>60</u>	<u>65</u>	<u>70</u>	<u>75</u>	<u>80</u>	<u>85</u>	<u>90</u>	<u>95</u>
0.0	477.372	477.372	477.372	477.372	477.372	477.372	477.372	477.372	477.372	477.372
2.5	476.963	477.372	477.372	477.781	477.781	477.781	477.781	477.781	477.781	477.781
5.0	476.963	477.372	477.781	478.191	478.600	479.010	479.010	479.419	479.419	479.419
7.5	475.734	476.963	477.781	479.010	479.829	480.238	480.647	481.466	481.876	481.466
10.0	476.144	477.781	479.829	481.876	483.104	483.513	484.332	484.741	485.560	484.741
12.5	475.734	478.600	481.057	483.923	485.560	486.379	486.788	487.607	488.426	487.607
15.0	474.097	477.372	481.057	484.332	486.379	487.198	488.426	489.245	490.064	489.245
17.5	471.640	475.734	479.829	483.923	486.379	487.607	488.836	489.654	490.883	489.654
20.0	467.956	472.459	476.963	481.466	484.332	485.560	486.788	488.017	489.245	488.017
22.5	461.405	466.727	471.640	476.963	480.238	481.466	482.694	484.332	485.560	484.332
25.0	454.036	459.767	465.090	470.412	474.097	475.325	476.553	477.781	479.010	477.781
27.5	445.438	450.760	456.492	461.815	465.499	466.727	467.956	469.184	470.412	469.184
30.0	433.975	439.297	445.029	450.351	453.626	454.854	455.673	456.902	457.720	456.902
32.5	421.692	427.015	432.337	437.659	440.525	441.344	442.163	442.982	443.800	442.982
35.0	407.772	412.276	417.189	421.692	424.558	424.968	425.377	426.196	426.605	426.196
37.5	391.396	395.490	399.994	404.497	406.544	406.954	407.363	407.363	407.772	407.363
40.0	373.791	377.885	381.570	385.664	387.711	387.302	387.302	386.892	386.892	386.892
42.5	355.368	358.643	361.509	364.784	366.422	366.012	365.603	365.194	364.784	365.194
45.0	335.716	338.173	341.038	343.495	344.314	343.904	343.495	342.676	342.267	342.676
47.5	314.836	316.883	318.930	320.977	321.796	321.387	320.977	320.159	319.749	320.159
50.0	293.547	295.185	296.413	298.050	298.460	297.641	296.413	295.594	294.775	295.594
52.5	271.848	273.077	274.305	275.533	275.533	274.714	273.486	272.667	271.848	272.667
55.0	249.740	250.559	250.968	251.787	251.787	250.968	250.559	249.740	248.921	249.740
57.5	227.632	228.041	228.451	228.860	228.860	227.632	226.404	225.175	223.947	225.175
60.0	205.933	206.343	206.752	207.161	206.752	205.524	204.296	203.067	201.839	203.067
62.5	184.644	184.644	184.234	184.234	183.825	183.006	181.778	180.959	180.140	180.959
65.0	162.945	162.945	162.536	162.536	162.126	161.308	160.079	159.261	158.442	159.261
67.5	142.065	142.065	141.656	141.246	140.837	140.018	138.790	137.971	137.152	137.971
70.0	122.414	122.004	121.595	121.185	120.367	119.548	118.729	117.910	117.091	117.910
72.5	103.171	102.762	102.353	101.943	101.124	100.305	99.896	99.077	98.258	99.077
75.0	84.748	84.338	83.929	83.520	82.701	82.291	81.882	81.063	80.654	81.063
77.5	67.143	66.734	66.324	65.915	65.096	64.687	64.277	63.868	63.459	63.868
80.0	51.176	50.357	49.948	49.539	49.129	48.720	48.310	47.901	47.492	47.901

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## CANDELA TABULATION - (Cont.)

82.5	35.619	35.209	34.800	34.390	34.390	33.981	33.572	33.572	33.162	33.572
85.0	21.289	21.289	20.880	20.471	20.471	20.061	20.061	19.652	19.652	19.652
87.5	8.598	8.598	8.188	8.188	8.188	7.779	7.779	7.369	7.369	7.369
90.0	15.556	13.222	10.889	8.556	7.000	4.667	3.111	0.778	0.000	0.778
92.5	49.000	49.000	46.666	43.555	42.778	41.222	37.333	32.666	18.667	23.333
95.0	109.666	108.111	104.222	100.333	94.888	89.444	78.555	67.666	45.889	49.000
97.5	181.221	178.888	171.110	163.332	151.666	139.999	119.777	98.777	74.666	74.666
100.0	263.665	259.776	244.999	229.443	210.776	191.332	160.221	129.110	104.222	100.333
102.5	356.998	346.109	322.776	298.665	267.554	235.665	197.554	158.666	132.999	126.777
105.0	457.330	436.331	400.553	364.776	319.665	274.554	232.554	189.777	162.555	152.444
107.5	563.885	529.663	475.219	420.775	365.553	310.331	265.221	219.332	192.888	180.443
110.0	658.774	605.885	537.441	468.219	405.220	342.220	296.332	250.443	223.221	209.221
112.5	734.995	664.218	585.663	507.108	440.997	374.109	326.665	279.221	253.554	237.999
115.0	792.551	708.551	625.330	541.330	472.886	404.442	357.776	311.109	285.443	266.776
117.5	832.217	741.218	655.663	570.108	502.441	433.997	388.887	342.998	318.109	296.332
120.0	859.439	766.106	682.107	597.330	531.219	465.108	420.775	375.664	349.998	326.665
122.5	879.661	787.106	705.440	623.774	559.997	496.219	452.664	408.331	381.887	356.998
125.0	895.995	806.551	727.995	649.440	588.774	527.330	483.775	440.219	413.775	388.109
127.5	909.994	825.995	751.329	676.663	617.552	558.441	514.886	471.330	444.886	418.442
130.0	923.217	846.217	775.440	703.885	647.107	590.330	547.552	504.775	477.553	449.553
132.5	937.216	864.884	798.773	731.884	677.440	622.218	580.219	538.219	510.219	482.219
135.0	951.994	885.106	822.106	759.106	706.218	653.329	612.885	571.663	543.663	514.108
137.5	967.550	906.106	846.995	787.106	735.773	683.663	644.774	605.107	577.107	546.774
140.0	983.105	926.328	871.106	815.106	765.329	714.773	676.663	638.552	609.774	579.441
142.5	998.660	947.327	895.217	843.106	794.106	745.106	709.329	672.774	642.441	612.107
145.0	1014.994	968.327	918.550	867.995	821.328	774.662	739.662	704.662	675.107	645.552
147.5	1029.772	987.772	940.328	892.106	847.773	803.439	769.995	736.551	706.996	678.218
150.0	1043.771	1004.105	958.994	913.106	871.884	830.662	798.773	766.884	739.662	710.107
152.5	1054.660	1018.883	976.105	932.550	894.439	856.328	825.995	795.662	769.995	741.218
155.0	1062.438	1028.994	989.327	948.883	913.883	878.884	850.884	822.884	798.773	770.773
157.5	1065.549	1035.994	999.438	962.883	931.772	899.883	874.995	849.328	825.995	799.551
160.0	1065.549	1039.105	1006.438	973.772	945.772	917.772	895.217	872.661	850.884	826.773
162.5	1061.660	1039.105	1010.327	981.549	958.216	934.105	913.883	893.661	873.439	851.661
165.0	1053.882	1035.216	1011.105	986.994	966.772	946.550	929.439	911.550	893.661	874.995
167.5	1042.994	1028.216	1008.772	988.549	972.216	955.105	941.105	926.328	910.772	894.439
170.0	1029.772	1017.327	1002.549	986.994	974.550	962.105	950.439	937.994	923.994	911.550
172.5	1012.660	1004.105	993.994	983.105	973.772	964.438	955.105	945.772	934.883	925.550
175.0	993.994	988.549	982.327	975.327	969.105	962.883	956.661	950.439	944.216	937.216
177.5	973.772	970.661	967.550	963.661	961.327	958.216	955.105	951.994	948.883	945.772
180.0	950.439	950.439	950.439	950.439	950.439	950.439	950.439	950.439	950.439	950.439

Vert.  
Angles

Horizontal Angles

	<u>100</u>	<u>105</u>	<u>110</u>	<u>115</u>	<u>120</u>	<u>125</u>	<u>130</u>	<u>135</u>	<u>140</u>	<u>145</u>
0.0	477.372	477.372	477.372	477.372	477.372	477.372	477.372	477.372	477.372	477.372
2.5	477.781	477.781	477.781	477.781	477.372	477.372	476.963	476.963	476.963	476.963
5.0	479.010	479.010	478.600	478.191	477.781	477.372	476.963	476.553	476.144	475.734
7.5	480.647	480.238	479.829	479.010	477.781	476.963	475.734	474.916	474.097	473.278
10.0	484.332	483.513	483.104	481.876	479.829	477.781	476.144	474.097	472.459	470.412
12.5	486.788	486.379	485.560	483.923	481.057	478.600	475.734	473.278	470.003	467.137
15.0	488.426	487.198	486.379	484.332	481.057	477.372	474.097	470.822	466.727	462.224
17.5	488.836	487.607	486.379	483.923	479.829	475.734	471.640	467.546	462.224	456.492
20.0	486.788	485.560	484.332	481.466	476.963	472.459	467.956	463.452	456.902	449.942
22.5	482.694	481.466	480.238	476.963	471.640	466.727	461.405	456.492	448.713	440.935
25.0	476.553	475.325	474.097	470.412	465.090	459.767	454.036	448.713	440.116	431.518
27.5	467.956	466.727	465.499	461.815	456.492	450.760	445.438	439.706	430.290	421.283

**IES INDOOR REPORT**

**PHOTOMETRIC FILENAME : HP-2-ID-4FT-H-S-835-ASY-DSO-ITL89599-ITL94139.009.IES**

**CANDELA TABULATION - (Cont.)**

30.0	455.673	454.854	453.626	450.351	445.029	439.297	433.975	428.243	418.417	409.001
32.5	442.163	441.344	440.525	437.659	432.337	427.015	421.692	416.370	406.135	395.899
35.0	425.377	424.968	424.558	421.692	417.189	412.276	407.772	402.859	392.215	381.570
37.5	407.363	406.954	406.544	404.497	399.994	395.490	391.396	386.892	376.248	365.603
40.0	387.302	387.302	387.711	385.664	381.570	377.885	373.791	369.697	359.053	348.817
42.5	365.603	366.012	366.422	364.784	361.509	358.643	355.368	352.093	341.857	331.213
45.0	343.495	343.904	344.314	343.495	341.038	338.173	335.716	333.260	323.024	313.199
47.5	320.977	321.387	321.796	320.977	318.930	316.883	314.836	312.789	303.373	293.956
50.0	296.413	297.641	298.460	298.050	296.413	295.185	293.547	291.909	282.902	274.305
52.5	273.486	274.714	275.533	275.533	274.305	273.077	271.848	270.620	262.432	254.244
55.0	250.559	250.968	251.787	251.787	250.968	250.559	249.740	248.921	241.552	233.773
57.5	226.404	227.632	228.860	228.860	228.451	228.041	227.632	227.222	220.263	213.712
60.0	204.296	205.524	206.752	207.161	206.752	206.343	205.933	205.524	199.383	193.242
62.5	181.778	183.006	183.825	184.234	184.234	184.644	184.644	184.644	178.912	173.590
65.0	160.079	161.308	162.126	162.536	162.536	162.945	162.945	162.945	158.442	153.938
67.5	138.790	140.018	140.837	141.246	141.656	142.065	142.065	142.475	138.381	134.696
70.0	118.729	119.548	120.367	121.185	121.595	122.004	122.414	122.823	119.548	116.272
72.5	99.896	100.305	101.124	101.943	102.353	102.762	103.171	103.581	101.124	98.258
75.0	81.882	82.291	82.701	83.520	83.929	84.338	84.748	85.157	83.110	81.063
77.5	64.277	64.687	65.096	65.915	66.324	66.734	67.143	67.553	65.915	64.687
80.0	48.310	48.720	49.129	49.539	49.948	50.357	51.176	51.586	50.357	49.539
82.5	33.572	33.981	34.390	34.390	34.800	35.209	35.619	36.028	35.619	34.800
85.0	20.061	20.061	20.471	20.471	20.880	21.289	21.289	21.699	21.699	21.699
87.5	7.779	7.779	8.188	8.188	8.188	8.598	8.598	8.598	8.598	9.007
90.0	3.111	4.667	7.000	8.556	10.111	12.444	14.000	15.556	16.333	17.889
92.5	24.111	24.889	25.666	27.222	28.778	29.555	31.111	32.666	33.444	33.444
95.0	50.555	51.333	52.889	54.444	56.777	59.111	61.444	63.777	63.777	63.777
97.5	76.222	77.777	79.333	81.666	85.555	88.666	92.555	95.666	97.222	97.999
100.0	102.666	104.222	106.555	109.666	113.555	117.444	122.110	125.999	128.333	131.444
102.5	129.888	132.999	136.110	139.999	144.666	149.332	153.999	158.666	161.777	164.110
105.0	156.332	160.999	164.888	170.332	177.332	183.554	190.554	196.777	198.332	199.888
107.5	184.332	188.221	192.110	197.554	204.554	211.554	219.332	226.332	229.443	232.554
110.0	211.554	213.888	216.221	222.443	230.999	239.554	248.887	257.443	260.554	263.665
112.5	238.776	239.554	240.332	246.554	256.665	266.776	277.665	287.776	291.665	295.554
115.0	265.998	265.221	264.443	269.110	280.776	292.443	304.109	315.776	321.220	326.665
117.5	293.220	289.332	286.221	290.887	303.332	316.554	328.998	341.442	348.442	355.442
120.0	321.220	314.998	309.554	312.665	325.887	338.331	351.553	363.998	372.553	381.109
122.5	348.442	340.665	332.109	334.442	346.887	360.109	372.553	384.998	395.109	405.220
125.0	377.220	367.109	356.220	356.998	368.664	380.331	391.998	403.664	415.331	427.775
127.5	405.220	391.998	378.776	377.998	388.109	398.998	409.109	419.997	433.220	446.442
130.0	433.220	417.664	401.331	398.220	406.775	416.109	424.664	433.997	447.997	461.997
132.5	462.775	443.331	423.886	418.442	425.442	432.442	440.219	447.219	460.442	473.664
135.0	491.553	468.997	446.442	437.886	443.331	448.775	454.219	459.664	472.108	483.775
137.5	521.108	495.441	469.775	458.886	461.997	464.330	467.442	470.553	481.442	492.330
140.0	551.441	523.441	495.441	481.442	481.442	482.219	482.219	482.219	491.553	500.108
142.5	582.552	553.774	524.219	507.886	503.997	500.886	496.997	493.886	500.886	507.886
145.0	615.218	584.885	554.552	535.886	528.108	521.108	513.330	505.553	510.219	514.886
147.5	647.107	616.774	585.663	563.885	552.219	540.552	528.886	517.219	520.330	523.441
150.0	678.218	646.329	614.441	591.107	576.330	560.774	545.997	530.441	531.997	532.774
152.5	709.329	678.218	646.329	621.441	602.774	584.885	566.219	547.552	545.997	544.441
155.0	739.662	709.329	678.218	652.552	632.330	612.107	591.885	571.663	566.996	562.330
157.5	769.217	738.884	708.551	683.663	664.218	644.774	624.552	605.107	595.774	587.219
160.0	798.773	771.551	743.551	720.218	700.774	681.329	662.663	643.218	630.774	618.330
162.5	826.773	802.662	777.773	755.995	737.329	718.662	699.996	681.329	668.885	656.440
165.0	853.995	833.773	812.773	793.328	774.662	756.773	738.107	719.440	708.551	698.440
167.5	877.328	860.217	843.106	825.995	809.662	793.328	776.995	760.662	750.551	740.440

**IES INDOOR REPORT**

**PHOTOMETRIC FILENAME : HP-2-ID-4FT-H-S-835-ASY-DSO-ITL89599-ITL94139.009.IES**

**CANDELA TABULATION - (Cont.)**

<b>170.0</b>	897.550	884.328	870.328	857.106	844.662	831.439	818.995	806.551	797.217	787.884
<b>172.5</b>	915.439	906.106	895.995	886.661	877.328	868.773	859.439	850.106	843.106	836.106
<b>175.0</b>	930.994	923.994	917.772	911.550	906.106	900.661	894.439	888.995	884.328	880.439
<b>177.5</b>	942.661	938.772	935.661	932.550	930.216	927.883	924.772	922.439	920.883	918.550
<b>180.0</b>	950.439	950.439	950.439	950.439	950.439	950.439	950.439	950.439	950.439	950.439

**Vert. Horizontal Angles**

	<b>150</b>	<b>155</b>	<b>160</b>	<b>165</b>	<b>170</b>	<b>175</b>	<b>180</b>
<b>0.0</b>	477.372	477.372	477.372	477.372	477.372	477.372	477.372
<b>2.5</b>	476.553	476.553	476.553	476.553	476.553	476.553	476.553
<b>5.0</b>	475.325	474.916	474.506	474.506	474.097	474.097	474.097
<b>7.5</b>	472.459	471.640	471.231	470.822	470.412	470.003	469.593
<b>10.0</b>	468.774	466.727	465.499	465.090	464.680	464.271	463.861
<b>12.5</b>	463.861	460.996	458.949	458.539	458.130	457.311	456.902
<b>15.0</b>	458.130	453.626	451.170	450.351	449.123	448.304	447.485
<b>17.5</b>	451.170	445.848	442.572	441.344	440.116	438.887	437.659
<b>20.0</b>	443.391	436.431	432.337	430.699	428.652	427.015	425.377
<b>22.5</b>	433.156	425.377	420.464	418.417	416.370	414.323	412.276
<b>25.0</b>	422.921	414.323	409.001	406.135	403.269	400.403	397.537
<b>27.5</b>	411.866	402.450	396.309	393.034	389.349	386.074	382.798
<b>30.0</b>	399.175	389.758	382.798	378.704	375.020	370.925	366.831
<b>32.5</b>	385.664	375.429	368.060	363.556	359.053	354.959	350.455
<b>35.0</b>	370.516	359.871	352.093	347.589	342.676	338.173	333.260
<b>37.5</b>	354.959	344.314	336.535	331.622	326.300	321.387	316.474
<b>40.0</b>	338.173	327.937	319.749	314.427	309.105	303.782	298.460
<b>42.5</b>	320.977	310.742	302.554	297.232	291.909	286.587	281.265
<b>45.0</b>	302.963	292.728	284.949	279.627	274.305	268.982	263.660
<b>47.5</b>	284.540	275.123	267.754	262.432	257.110	251.787	246.465
<b>50.0</b>	265.298	256.700	249.740	244.418	239.095	233.773	228.451
<b>52.5</b>	245.646	237.458	230.907	225.994	220.672	215.759	210.846
<b>55.0</b>	226.404	218.625	212.484	207.980	203.477	198.973	194.470
<b>57.5</b>	206.752	199.792	194.470	189.966	185.872	181.369	177.274
<b>60.0</b>	187.100	180.959	175.637	171.952	168.268	164.583	160.898
<b>62.5</b>	167.858	162.536	158.032	154.757	151.891	148.616	145.340
<b>65.0</b>	149.435	144.931	140.837	137.971	134.696	131.830	128.555
<b>67.5</b>	130.602	126.917	123.642	121.185	118.729	116.272	113.816
<b>70.0</b>	112.997	109.722	106.856	104.809	102.762	100.715	98.668
<b>72.5</b>	95.802	92.936	90.889	89.251	87.204	85.567	83.929
<b>75.0</b>	79.016	76.969	74.922	73.694	72.466	71.237	70.009
<b>77.5</b>	63.049	61.821	60.593	59.774	58.546	57.727	56.908
<b>80.0</b>	48.310	47.082	46.263	45.854	45.444	45.035	44.626
<b>82.5</b>	34.390	33.981	33.572	33.162	33.162	32.753	32.753
<b>85.0</b>	21.289	21.289	21.289	20.880	20.880	20.471	20.471
<b>87.5</b>	9.007	9.416	9.416	9.416	9.416	9.416	9.416
<b>90.0</b>	18.667	19.444	20.222	20.222	21.000	21.000	21.000
<b>92.5</b>	34.222	35.000	35.000	35.000	35.778	35.778	35.778
<b>95.0</b>	64.555	64.555	64.555	63.777	63.000	62.222	61.444
<b>97.5</b>	99.555	100.333	101.111	100.333	99.555	99.555	98.777
<b>100.0</b>	133.777	136.110	137.666	137.666	136.888	136.888	136.888
<b>102.5</b>	167.221	169.554	171.110	171.110	171.888	171.888	171.888
<b>105.0</b>	202.221	203.776	204.554	204.554	203.776	203.776	203.776
<b>107.5</b>	234.887	237.999	238.776	237.999	237.221	236.443	235.665
<b>110.0</b>	265.998	269.110	270.665	270.665	270.665	270.665	270.665
<b>112.5</b>	299.443	303.332	304.887	304.887	304.887	304.887	304.887
<b>115.0</b>	332.109	337.553	339.887	340.665	340.665	341.442	341.442

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-4FT-H-S-835-ASY-DSO-ITL89599-ITL94139.009.IES****CANDELA TABULATION - (Cont.)**

117.5	362.442	369.442	372.553	373.331	374.109	374.887	375.664
120.0	389.664	398.220	403.664	404.442	405.220	406.775	407.553
122.5	415.331	425.442	431.664	433.220	433.997	435.553	437.108
125.0	439.442	451.108	458.108	459.664	461.219	462.775	464.330
127.5	459.664	472.886	480.664	482.997	485.330	487.664	489.997
130.0	475.219	489.219	497.775	501.664	505.553	508.663	512.552
132.5	486.886	500.108	508.663	513.330	518.775	523.441	528.108
135.0	496.219	507.886	516.441	521.108	526.552	531.219	535.886
137.5	503.219	514.108	521.886	525.774	530.441	534.330	538.997
140.0	509.441	517.997	524.997	528.886	532.774	536.663	540.552
142.5	514.886	521.886	526.552	529.663	532.774	535.886	538.997
145.0	520.330	524.997	528.108	530.441	532.774	535.108	537.441
147.5	525.774	528.886	531.219	532.774	534.330	535.886	537.441
150.0	534.330	535.108	535.886	536.663	537.441	537.441	538.219
152.5	543.663	542.108	541.330	541.330	541.330	541.330	541.330
155.0	557.663	552.997	549.885	549.108	548.330	546.774	545.997
157.5	577.885	569.330	563.885	562.330	559.997	558.441	556.885
160.0	605.885	593.441	585.663	582.552	579.441	576.330	573.219
162.5	643.996	631.552	622.996	618.330	612.885	608.218	603.552
165.0	687.551	677.440	669.663	664.996	659.552	654.885	650.218
167.5	730.329	720.218	713.996	710.107	706.218	703.107	699.218
170.0	777.773	768.440	762.217	758.329	754.440	751.329	747.440
172.5	829.106	822.106	817.439	814.328	811.995	808.884	805.773
175.0	875.772	871.884	868.773	867.217	864.884	863.328	861.773
177.5	916.994	914.661	913.106	912.328	911.550	909.994	909.217
180.0	950.439	950.439	950.439	950.439	950.439	950.439	950.439



**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-4FT-H-S-835-ASY-DSO-ITL89599-ITL94139.009.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	178.00	N.A.	3.80
0-30	381.83	N.A.	8.10
0-40	625.68	N.A.	13.30
0-60	1079.75	N.A.	23.00
0-80	1316.34	N.A.	28.10
0-90	1342.29	N.A.	28.60
10-90	1296.88	N.A.	27.70
20-40	447.68	N.A.	9.50
20-50	692.13	N.A.	14.80
40-70	605.74	N.A.	12.90
60-80	236.59	N.A.	5.00
70-80	84.92	N.A.	1.80
80-90	25.95	N.A.	0.60
90-110	403.15	N.A.	8.60
90-120	935.60	N.A.	20.00
90-130	1546.27	N.A.	33.00
90-150	2614.95	N.A.	55.80
90-180	3345.59	N.A.	71.40
110-180	2942.44	N.A.	62.80
0-180	4687.88	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	45.41
10-20	132.59
20-30	203.83
30-40	243.85
40-50	244.45
50-60	209.62
60-70	151.67
70-80	84.92
80-90	25.95
90-100	94.39
100-110	308.76
110-120	532.45
120-130	610.67
130-140	574.14
140-150	494.54
150-160	387.64
160-170	253.53
170-180	89.46

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : HP-2-ID-4FT-H-S-835-ASY-DSO-ITL89599-ITL94139.009.IES

## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

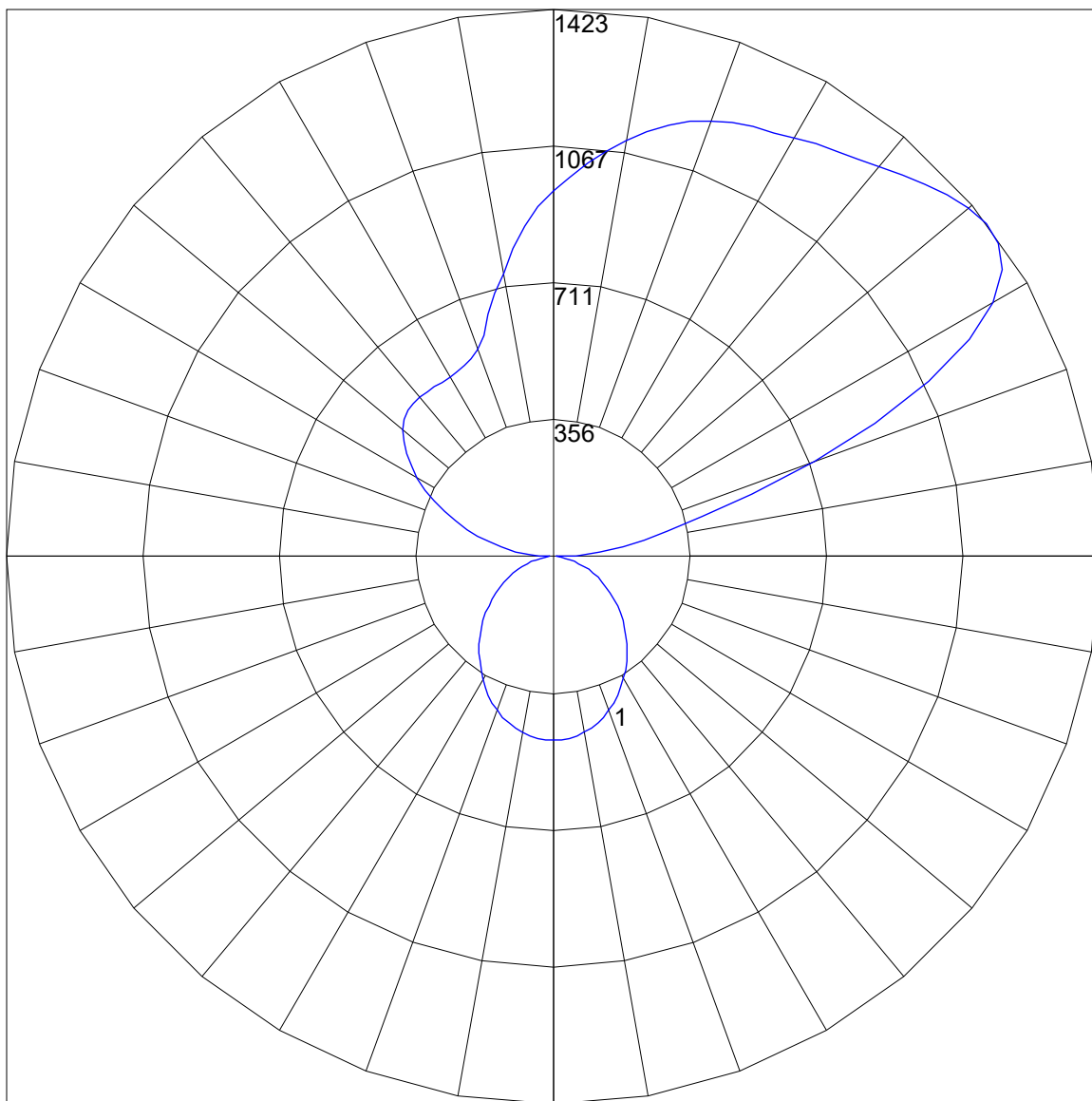
Effective Floor Cavity Reflectance 0.20

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	102	102	102	102	91	91	91	91	71	71	71	53	53	53	36	36	36	29
1	93	89	85	82	83	80	76	74	62	60	58	47	45	44	32	31	31	24
2	85	77	72	67	76	70	65	60	55	51	48	41	39	37	28	27	26	20
3	77	68	61	55	69	61	55	50	48	44	41	36	33	31	25	23	22	17
4	70	60	52	47	63	54	48	42	43	38	34	32	29	27	22	20	19	15
5	65	53	46	40	58	48	41	36	38	33	30	29	25	23	20	18	16	13
6	59	48	40	34	53	43	36	31	34	29	26	26	23	20	18	16	14	11
7	55	43	35	30	49	39	32	27	31	26	22	23	20	18	17	14	13	10
8	51	39	31	26	45	35	29	24	28	23	20	21	18	16	15	13	11	9
9	47	35	28	23	42	32	26	21	26	21	18	20	16	14	14	12	10	8
10	44	32	25	21	39	29	23	19	23	19	16	18	15	12	13	11	9	7

IES INDOOR REPORT

PHOTOMETRIC FILENAME : HP-2-ID-4FT-H-S-835-ASY-DSO-ITL89599-ITL94139.009.IES

POLAR GRAPH



Maximum Candela = 1422.547 Located At Horizontal Angle = 0, Vertical Angle = 127.5

# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)