

# 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-B-S-835-ASY-DSO-ITL89599-ITL94139.012.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL89599-ITL94139.012 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]08/24/17

[ISSUEDATE]12/18/2020

[MANUFAC]FINELITE, INC.

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

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 32.3 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 34.6 WATTS

[OTHER]see [www.finelite.com](http://www.finelite.com) for source files ITL89599 and ITL94139. 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]3553

[\_CONVERT] Photometric web converted from original test data

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3555
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	110
Total Luminaire Watts	32.3
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)	0.18 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	18.523	18.523	18.523	18.009	17.494	16.465	15.436	14.407	13.378	11.834
92.5	40.133	40.648	40.648	40.648	40.133	39.619	38.075	36.017	34.474	32.416
95.0	80.267	81.296	81.296	80.781	80.267	79.238	77.694	76.151	75.122	73.578
97.5	121.944	122.973	122.973	122.459	121.430	120.400	121.430	121.944	121.430	120.915
100.0	157.961	159.505	160.534	161.048	163.621	165.679	171.339	176.999	176.999	176.999
102.5	202.726	204.784	208.386	211.473	218.676	225.365	234.627	243.374	243.374	242.859
105.0	263.955	267.042	274.760	282.478	295.856	308.719	315.408	321.582	319.010	316.437
107.5	358.629	357.600	370.978	384.355	393.102	401.849	406.480	411.111	403.393	395.161
110.0	479.544	476.457	485.718	494.465	499.611	504.241	505.270	505.785	488.291	470.797
112.5	598.915	595.313	602.517	609.206	609.720	610.235	601.488	592.741	562.898	532.541
115.0	714.685	710.569	713.656	716.229	709.025	701.822	680.726	659.115	619.496	579.363
117.5	807.815	803.699	800.097	796.495	783.632	770.769	739.897	709.025	660.144	610.750
120.0	874.190	870.588	863.385	855.667	836.115	816.562	778.487	739.897	684.842	629.787
122.5	916.896	913.809	903.518	892.713	868.015	842.803	799.583	756.362	699.764	642.650
125.0	936.963	934.905	922.556	910.207	881.908	853.094	808.330	763.051	707.481	651.398
127.5	941.079	939.535	926.158	912.780	882.937	852.580	808.844	764.595	711.083	657.057
130.0	933.876	932.332	918.954	905.576	876.248	846.920	805.243	763.051	712.627	661.688
132.5	920.498	919.983	907.635	894.771	866.986	838.687	799.583	760.478	714.170	667.862

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## CANDELA TABULATION - (Cont.)

135.0	905.576	904.547	892.713	880.879	855.152	828.911	793.923	758.420	716.229	674.037
137.5	890.655	888.597	878.306	867.501	844.347	820.678	789.292	757.391	719.316	680.726
140.0	874.704	873.675	864.928	855.667	835.085	813.990	785.690	757.391	722.403	687.415
142.5	861.841	861.327	853.609	845.891	827.367	808.844	783.632	757.906	726.005	694.104
145.0	851.036	850.521	843.832	836.629	820.164	803.699	781.060	758.420	730.121	701.822
147.5	841.260	840.231	834.571	828.396	813.990	799.068	779.001	758.935	734.237	709.025
150.0	830.455	830.455	825.309	820.164	807.815	794.952	777.458	759.964	738.353	716.229
152.5	821.708	820.678	817.077	812.961	802.670	791.865	776.943	761.507	741.441	721.374
155.0	814.504	812.961	809.873	806.786	797.525	788.263	774.885	760.993	742.984	724.461
157.5	807.301	805.757	802.670	799.583	791.865	783.632	771.283	758.420	741.441	724.461
160.0	797.525	795.981	792.894	789.807	782.603	775.400	764.595	753.275	737.839	721.888
162.5	784.661	783.632	780.545	777.458	771.283	765.109	754.818	744.013	730.635	716.743
165.0	768.196	767.167	764.080	760.993	755.333	749.673	741.441	732.693	721.374	709.540
167.5	748.644	747.615	745.042	741.955	737.839	733.208	726.005	718.801	709.540	699.764
170.0	726.005	724.976	722.918	720.859	717.258	713.141	707.996	702.851	696.162	688.958
172.5	702.851	702.336	700.793	698.734	696.676	694.104	690.502	686.386	681.240	675.581
175.0	678.153	677.639	676.610	675.066	673.522	671.979	669.921	667.348	664.261	661.174
177.5	652.941	652.941	652.427	651.912	651.398	650.369	649.339	648.310	647.281	645.738
180.0	628.758	628.758	628.758	628.758	628.758	628.758	628.758	628.758	628.758	628.758

### 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	10.291	8.747	7.203	5.660	4.631	3.087	2.058	0.514	0.000	0.514
92.5	32.416	32.416	30.872	28.814	28.299	27.270	24.698	21.610	12.349	15.436
95.0	72.549	71.520	68.947	66.375	62.773	59.171	51.968	44.764	30.357	32.416
97.5	119.886	118.342	113.197	108.052	100.334	92.616	79.238	65.346	49.395	49.395
100.0	174.426	171.854	162.078	151.787	139.438	126.575	105.994	85.412	68.947	66.375
102.5	236.170	228.967	213.531	197.580	176.999	155.903	130.691	104.965	87.985	83.869
105.0	302.545	288.652	264.984	241.315	211.473	181.630	153.845	125.546	107.537	100.848
107.5	373.036	350.396	314.379	278.362	241.830	205.298	175.455	145.098	127.604	119.371
110.0	435.809	400.820	355.542	309.748	268.071	226.394	196.037	165.679	147.671	138.409
112.5	486.233	439.410	387.443	335.475	291.740	247.490	216.103	184.717	167.737	157.447
115.0	524.308	468.739	413.684	358.114	312.835	267.557	236.685	205.813	188.833	176.484
117.5	550.549	490.349	433.750	377.152	332.388	287.109	257.266	226.909	210.444	196.037
120.0	568.558	506.814	451.245	395.161	351.425	307.690	278.362	248.519	231.539	216.103
122.5	581.936	520.706	466.680	412.655	370.463	328.271	299.458	270.129	252.635	236.170
125.0	592.741	533.570	481.602	429.634	389.501	348.853	320.039	291.225	273.731	256.752
127.5	602.002	546.433	497.038	447.643	408.538	369.434	340.620	311.806	294.312	276.818
130.0	610.750	559.811	512.988	465.651	428.091	390.530	362.231	333.931	315.923	297.399
132.5	620.011	572.160	528.424	484.175	448.157	411.626	383.841	356.056	337.533	319.010
135.0	629.787	585.537	543.860	502.183	467.195	432.207	405.451	378.181	359.658	340.106
137.5	640.078	599.430	560.325	520.706	486.747	452.274	426.547	400.306	381.783	361.716
140.0	650.369	612.808	576.276	539.230	506.300	472.855	447.643	422.431	403.393	383.326
142.5	660.659	626.700	592.226	557.753	525.337	492.922	469.253	445.070	425.003	404.937
145.0	671.464	640.592	607.662	574.218	543.346	512.474	489.320	466.166	446.614	427.062
147.5	681.240	653.456	622.069	590.168	560.840	531.511	509.387	487.262	467.710	448.672
150.0	690.502	664.261	634.418	604.061	576.790	549.520	528.424	507.329	489.320	469.768
152.5	697.705	674.037	645.738	616.924	591.712	566.500	546.433	526.366	509.387	490.349
155.0	702.851	680.726	654.485	627.729	604.575	581.421	562.898	544.375	528.424	509.901
157.5	704.909	685.357	661.174	636.991	616.409	595.313	578.848	561.869	546.433	528.939
160.0	704.909	687.415	665.804	644.194	625.671	607.148	592.226	577.305	562.898	546.947
162.5	702.336	687.415	668.377	649.339	633.903	617.953	604.575	591.197	577.819	563.413
165.0	697.191	684.842	668.892	652.941	639.563	626.185	614.866	603.032	591.197	578.848
167.5	689.987	680.211	667.348	653.970	643.165	631.845	622.584	612.808	602.517	591.712
170.0	681.240	673.008	663.232	652.941	644.709	636.476	628.758	620.526	611.264	603.032
172.5	669.921	664.261	657.572	650.369	644.194	638.020	631.845	625.671	618.467	612.293
175.0	657.572	653.970	649.854	645.223	641.107	636.991	632.874	628.758	624.642	620.011
177.5	644.194	642.136	640.078	637.505	635.962	633.903	631.845	629.787	627.729	625.671
180.0	628.758	628.758	628.758	628.758	628.758	628.758	628.758	628.758	628.758	628.758

## 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-B-S-835-ASY-DSO-ITL89599-ITL94139.012.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	2.058	3.087	4.631	5.660	6.689	8.232	9.262	10.291	10.805	11.834
92.5	15.950	16.465	16.980	18.009	19.038	19.552	20.581	21.610	22.125	22.125
95.0	33.445	33.959	34.988	36.017	37.561	39.104	40.648	42.192	42.192	42.192
97.5	50.424	51.453	52.482	54.026	56.599	58.657	61.229	63.287	64.317	64.831
100.0	67.918	68.947	70.491	72.549	75.122	77.694	80.781	83.354	84.898	86.956
102.5	85.927	87.985	90.043	92.616	95.703	98.790	101.877	104.965	107.023	108.566
105.0	103.421	106.508	109.081	112.683	117.313	121.430	126.060	130.177	131.206	132.235
107.5	121.944	124.517	127.089	130.691	135.322	139.953	145.098	149.729	151.787	153.845
110.0	139.953	141.496	143.040	147.156	152.816	158.476	164.650	170.310	172.368	174.426
112.5	157.961	158.476	158.990	163.107	169.796	176.484	183.688	190.377	192.950	195.522
115.0	175.970	175.455	174.941	178.028	185.746	193.464	201.182	208.900	212.502	216.103
117.5	193.979	191.406	189.348	192.435	200.667	209.415	217.647	225.880	230.510	235.141
120.0	212.502	208.386	204.784	206.842	215.589	223.821	232.569	240.801	246.461	252.121
122.5	230.510	225.365	219.705	221.249	229.481	238.228	246.461	254.693	261.382	268.071
125.0	249.548	242.859	235.656	236.170	243.888	251.606	259.324	267.042	274.760	282.993
127.5	268.071	259.324	250.577	250.063	256.752	263.955	270.644	277.847	286.594	295.341
130.0	286.594	276.304	265.498	263.440	269.100	275.275	280.935	287.109	296.370	305.632
132.5	306.147	293.283	280.420	276.818	281.449	286.080	291.225	295.856	304.603	313.350
135.0	325.184	310.263	295.341	289.682	293.283	296.885	300.487	304.088	312.321	320.039
137.5	344.736	327.757	310.777	303.574	305.632	307.176	309.234	311.292	318.495	325.699
140.0	364.803	346.280	327.757	318.495	318.495	319.010	319.010	319.010	325.184	330.844
142.5	385.385	366.347	346.795	335.989	333.417	331.359	328.786	326.728	331.359	335.989
145.0	406.995	386.928	366.861	354.512	349.367	344.736	339.591	334.446	337.533	340.620
147.5	428.091	408.024	387.443	373.036	365.318	357.600	349.882	342.164	344.222	346.280
150.0	448.672	427.576	406.480	391.044	381.268	370.978	361.202	350.911	351.940	352.454
152.5	469.253	448.672	427.576	411.111	398.762	386.928	374.579	362.231	361.202	360.172
155.0	489.320	469.253	448.672	431.692	418.315	404.937	391.559	378.181	375.094	372.007
157.5	508.872	488.805	468.739	452.274	439.410	426.547	413.169	400.306	394.132	388.472
160.0	528.424	510.416	491.893	476.457	463.593	450.730	438.381	425.518	417.286	409.053
162.5	546.947	530.997	514.532	500.125	487.776	475.428	463.079	450.730	442.498	434.265
165.0	564.956	551.578	537.686	524.823	512.474	500.640	488.291	475.942	468.739	462.050
167.5	580.392	569.072	557.753	546.433	535.628	524.823	514.018	503.212	496.523	489.834

**IES INDOOR REPORT**

**PHOTOMETRIC FILENAME : HP-2-ID-4FT-B-S-835-ASY-DSO-ITL89599-ITL94139.012.IES**

**CANDELA TABULATION - (Cont.)**

<b>170.0</b>	593.770	585.023	575.761	567.014	558.782	550.035	541.802	533.570	527.395	521.221
<b>172.5</b>	605.604	599.430	592.741	586.567	580.392	574.732	568.558	562.384	557.753	553.122
<b>175.0</b>	615.895	611.264	607.148	603.032	599.430	595.828	591.712	588.110	585.023	582.450
<b>177.5</b>	623.613	621.040	618.982	616.924	615.380	613.837	611.779	610.235	609.206	607.662
<b>180.0</b>	628.758	628.758	628.758	628.758	628.758	628.758	628.758	628.758	628.758	628.758

**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>	12.349	12.863	13.378	13.378	13.892	13.892	13.892
<b>92.5</b>	22.639	23.154	23.154	23.154	23.669	23.669	23.669
<b>95.0</b>	42.706	42.706	42.706	42.192	41.677	41.163	40.648
<b>97.5</b>	65.860	66.375	66.889	66.375	65.860	65.860	65.346
<b>100.0</b>	88.499	90.043	91.072	91.072	90.558	90.558	90.558
<b>102.5</b>	110.624	112.168	113.197	113.197	113.712	113.712	113.712
<b>105.0</b>	133.778	134.807	135.322	135.322	134.807	134.807	134.807
<b>107.5</b>	155.389	157.447	157.961	157.447	156.932	156.418	155.903
<b>110.0</b>	175.970	178.028	179.057	179.057	179.057	179.057	179.057
<b>112.5</b>	198.095	200.667	201.696	201.696	201.696	201.696	201.696
<b>115.0</b>	219.705	223.307	224.851	225.365	225.365	225.880	225.880

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-4FT-B-S-835-ASY-DSO-ITL89599-ITL94139.012.IES****CANDELA TABULATION - (Cont.)**

117.5	239.772	244.403	246.461	246.975	247.490	248.004	248.519
120.0	257.781	263.440	267.042	267.557	268.071	269.100	269.615
122.5	274.760	281.449	285.565	286.594	287.109	288.138	289.167
125.0	290.711	298.429	303.059	304.088	305.118	306.147	307.176
127.5	304.088	312.835	317.981	319.524	321.068	322.612	324.155
130.0	314.379	323.641	329.300	331.873	334.446	336.504	339.077
132.5	322.097	330.844	336.504	339.591	343.193	346.280	349.367
135.0	328.271	335.989	341.649	344.736	348.338	351.425	354.512
137.5	332.902	340.106	345.251	347.824	350.911	353.483	356.571
140.0	337.019	342.678	347.309	349.882	352.454	355.027	357.600
142.5	340.620	345.251	348.338	350.396	352.454	354.512	356.571
145.0	344.222	347.309	349.367	350.911	352.454	353.998	355.542
147.5	347.824	349.882	351.425	352.454	353.483	354.512	355.542
150.0	353.483	353.998	354.512	355.027	355.542	355.542	356.056
152.5	359.658	358.629	358.114	358.114	358.114	358.114	358.114
155.0	368.919	365.832	363.774	363.260	362.745	361.716	361.202
157.5	382.297	376.637	373.036	372.007	370.463	369.434	368.405
160.0	400.820	392.588	387.443	385.385	383.326	381.268	379.210
162.5	426.033	417.800	412.140	409.053	405.451	402.364	399.277
165.0	454.846	448.157	443.012	439.925	436.323	433.236	430.149
167.5	483.146	476.457	472.340	469.768	467.195	465.137	462.564
170.0	514.532	508.358	504.241	501.669	499.096	497.038	494.465
172.5	548.491	543.860	540.773	538.715	537.171	535.113	533.055
175.0	579.363	576.790	574.732	573.703	572.160	571.130	570.101
177.5	606.633	605.090	604.061	603.546	603.032	602.002	601.488
180.0	628.758	628.758	628.758	628.758	628.758	628.758	628.758



**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-4FT-B-S-835-ASY-DSO-ITL89599-ITL94139.012.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	178.00	N.A.	5.00
0-30	381.83	N.A.	10.70
0-40	625.68	N.A.	17.60
0-60	1079.75	N.A.	30.40
0-80	1316.34	N.A.	37.00
0-90	1341.6	N.A.	37.70
10-90	1296.19	N.A.	36.50
20-40	447.68	N.A.	12.60
20-50	692.13	N.A.	19.50
40-70	605.74	N.A.	17.00
60-80	236.59	N.A.	6.70
70-80	84.92	N.A.	2.40
80-90	25.26	N.A.	0.70
90-110	266.70	N.A.	7.50
90-120	618.94	N.A.	17.40
90-130	1022.93	N.A.	28.80
90-150	1729.91	N.A.	48.70
90-180	2213.26	N.A.	62.30
110-180	1946.56	N.A.	54.80
0-180	3554.86	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	25.26
90-100	62.44
100-110	204.26
110-120	352.24
120-130	403.99
130-140	379.82
140-150	327.16
150-160	256.44
160-170	167.72
170-180	59.18

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : HP-2-ID-4FT-B-S-835-ASY-DSO-ITL89599-ITL94139.012.IES

## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

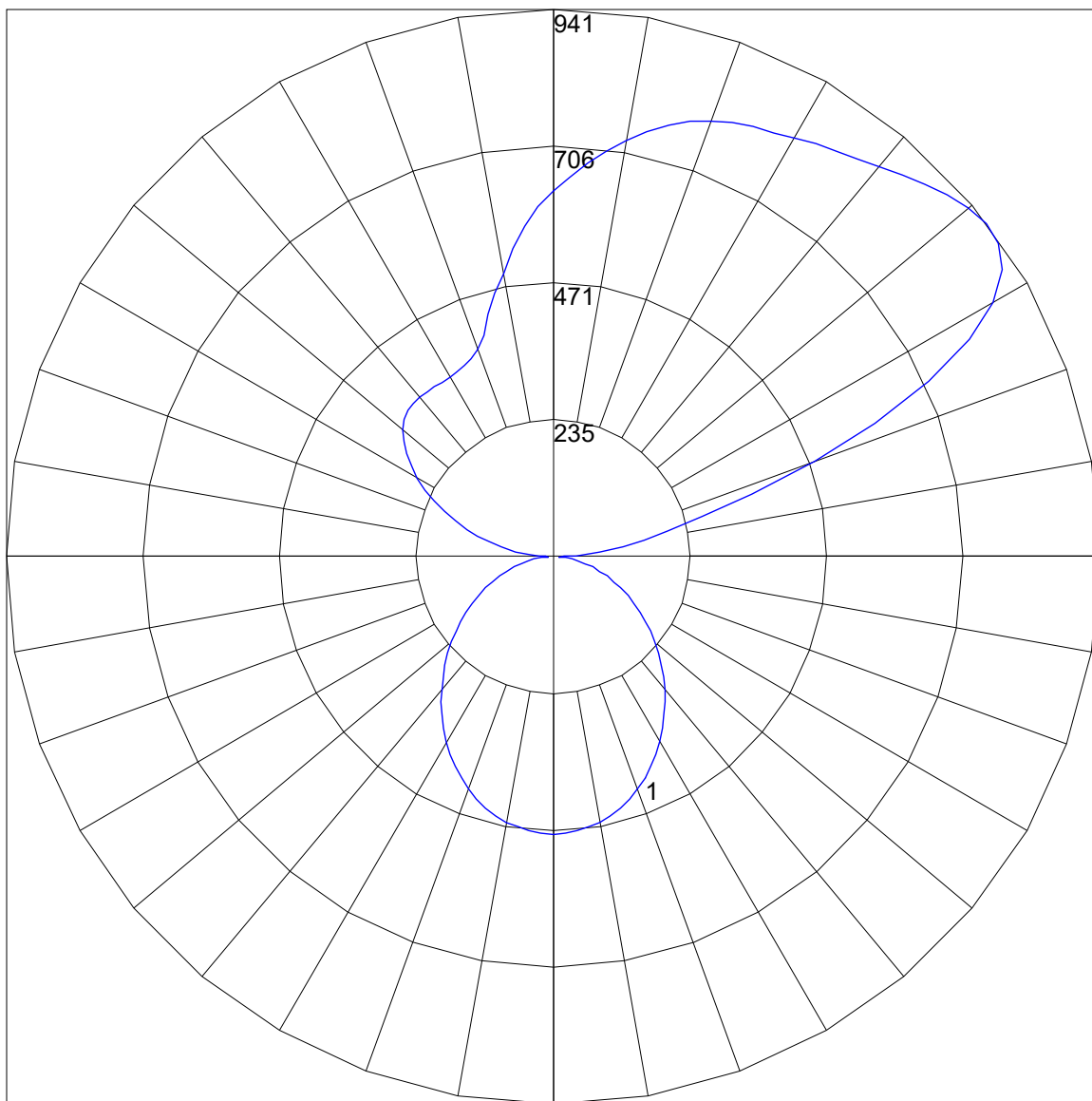
Effective Floor Cavity Reflectance 0.20

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	95	95	95	95	77	77	77	60	60	60	45	45	45	38
1	95	91	87	84	86	82	79	76	67	65	63	53	51	50	40	39	38	32
2	86	79	73	68	78	72	67	63	59	55	52	46	44	42	35	33	32	27
3	79	70	62	57	71	63	57	52	52	47	44	41	38	35	31	29	27	22
4	72	61	54	48	65	56	49	44	46	41	37	36	33	30	28	25	23	19
5	66	55	47	41	60	50	43	38	41	36	32	33	29	26	25	22	20	17
6	61	49	41	35	55	45	38	33	37	32	28	29	26	23	22	20	18	15
7	56	44	36	31	51	40	33	29	33	28	24	27	23	20	20	18	16	13
8	52	40	32	27	47	37	30	25	30	25	21	24	21	18	19	16	14	12
9	48	36	29	24	44	33	27	22	28	23	19	22	19	16	17	15	13	10
10	45	33	26	21	41	31	24	20	25	21	17	21	17	14	16	13	11	9

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : HP-2-ID-4FT-B-S-835-ASY-DSO-ITL89599-ITL94139.012.IES

## POLAR GRAPH



Maximum Candela = 941.079 Located At Horizontal Angle = 0, Vertical Angle = 127.5

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