

# 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-X-ID-4FT-S-V-835-WSO-F-ITL92314.013.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

[TEST]ITL92314.013 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[TESTDATE]10/01/19  
[ISSUEDATE]01/06/20  
[MANUFAC]FINELITE, INC.  
[LUMCAT]HP-X-ID-4ft-S-V-835-WSO-F  
[INPUT\_ELECTRICAL]120.0 VOLTS, 48.0 WATTS  
[INPUT\_ELECTRICAL]277.0 VOLTS, 49.2 WATTS  
[ABSOLUTE LUMENS]5734  
[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL92314. 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)

**CHARACTERISTICS**

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5735
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	119
Total Luminaire Watts	48
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	1.28
Spacing Criterion (90-270)	1.26
Spacing Criterion (Diagonal)	1.38
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	4.00 ft
Luminous Width (90-270)	0.20 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	17639	17715	17582
55	17064	17111	16994
65	16170	16266	16234
75	15044	15251	15355
85	13094	14018	14326

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CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0.0	1370.912	1370.912	1370.912	1370.912	1370.912
2.5	1369.924	1369.924	1369.924	1369.924	1369.924
5.0	1365.970	1365.970	1365.970	1365.970	1365.970
7.5	1357.075	1358.063	1358.063	1359.051	1358.063
10.0	1348.179	1345.214	1349.167	1349.167	1346.202
12.5	1335.330	1330.388	1336.318	1336.318	1331.376
15.0	1320.504	1313.585	1320.504	1321.492	1314.573
17.5	1301.724	1291.840	1301.724	1303.701	1294.805
20.0	1278.002	1269.107	1278.991	1279.979	1274.049
22.5	1253.293	1242.420	1254.281	1255.269	1249.339
25.0	1226.606	1216.722	1227.594	1228.582	1222.652
27.5	1194.977	1186.081	1196.954	1197.942	1192.012
30.0	1162.360	1154.452	1164.336	1164.336	1158.406
32.5	1127.765	1117.882	1129.742	1128.754	1122.823
35.0	1091.195	1080.322	1091.195	1091.195	1087.241
37.5	1048.694	1042.763	1053.636	1051.659	1046.717
40.0	1008.169	1002.239	1011.134	1009.157	1003.227
42.5	964.679	957.761	966.656	964.679	959.737
45.0	918.225	914.271	922.178	918.225	915.259
47.5	871.770	867.816	874.735	869.793	866.828
50.0	822.350	818.396	826.303	820.373	817.408
52.5	770.953	769.964	775.895	771.941	767.987
55.0	720.544	720.544	722.521	719.556	717.579
57.5	668.159	667.171	669.148	666.182	664.205
60.0	613.797	612.809	616.762	613.797	612.809
62.5	560.423	559.435	562.400	560.423	559.435
65.0	503.096	505.073	506.061	505.073	505.073
67.5	449.722	450.711	452.688	452.688	452.688
70.0	394.372	394.372	398.326	397.337	398.326
72.5	340.998	340.998	343.964	342.975	343.964
75.0	286.636	287.625	290.590	291.578	292.567
77.5	233.263	235.239	238.205	241.170	241.170
80.0	183.843	183.843	187.796	189.773	189.773
82.5	133.434	135.411	138.376	139.364	141.341
85.0	84.014	86.979	89.945	91.921	91.921
87.5	37.559	40.524	43.490	46.455	46.455
90.0	1.977	5.930	8.896	12.849	14.826
92.5	6.470	16.578	33.561	17.387	15.770
95.0	15.365	35.178	86.126	41.244	32.348
97.5	25.878	51.757	159.718	77.635	56.205
100.0	36.796	67.122	241.801	133.031	92.596
102.5	48.522	78.444	304.476	223.606	150.418
105.0	59.439	90.574	334.802	366.745	257.167
107.5	70.761	101.896	337.632	531.316	420.928
110.0	82.892	113.622	329.545	642.512	599.651
112.5	95.022	125.349	321.863	679.308	704.378
115.0	106.748	137.883	318.223	680.925	744.004
117.5	118.475	150.014	318.628	664.751	754.517
120.0	128.583	160.931	319.032	640.086	743.600
122.5	138.288	170.231	319.841	613.803	721.765
125.0	146.375	178.318	321.054	588.734	694.269
127.5	154.462	186.001	321.054	563.260	665.156
130.0	162.549	192.875	321.458	538.999	634.830
132.5	169.423	198.536	320.245	515.546	604.099

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

<b>135.0</b>	176.701	203.792	317.819	492.498	571.347
<b>137.5</b>	183.979	209.453	314.989	470.663	542.233
<b>140.0</b>	190.853	214.710	310.136	447.615	511.907
<b>142.5</b>	197.727	219.562	305.284	424.163	479.963
<b>145.0</b>	204.601	224.414	299.623	401.924	448.424
<b>147.5</b>	211.071	228.458	294.367	379.685	419.715
<b>150.0</b>	217.136	232.501	289.515	359.467	391.815
<b>152.5</b>	222.797	236.140	285.067	342.080	367.959
<b>155.0</b>	228.862	239.780	280.214	326.310	346.124
<b>157.5</b>	233.310	242.610	276.171	312.158	327.524
<b>160.0</b>	238.162	245.440	272.128	299.623	310.945
<b>162.5</b>	242.206	247.867	268.488	289.110	297.602
<b>165.0</b>	246.249	250.293	265.254	280.214	285.875
<b>167.5</b>	249.080	251.910	262.423	272.532	276.575
<b>170.0</b>	251.506	253.528	259.997	266.467	268.893
<b>172.5</b>	253.932	255.145	258.784	262.423	263.636
<b>175.0</b>	255.145	255.549	257.167	258.784	259.593
<b>177.5</b>	255.954	255.954	256.358	256.762	257.167
<b>180.0</b>	256.358	256.358	256.358	256.358	256.358

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	501.74	N.A.	8.70
0-30	1065.73	N.A.	18.60
0-40	1746.44	N.A.	30.50
0-60	3097.63	N.A.	54.00
0-80	3904.81	N.A.	68.10
0-90	4004.95	N.A.	69.80
10-90	3875.15	N.A.	67.60
20-40	1244.69	N.A.	21.70
20-50	1952.36	N.A.	34.00
40-70	1851.8	N.A.	32.30
60-80	807.17	N.A.	14.10
70-80	306.58	N.A.	5.30
80-90	100.14	N.A.	1.70
90-110	311.89	N.A.	5.40
90-120	693.26	N.A.	12.10
90-130	1031.41	N.A.	18.00
90-150	1497.89	N.A.	26.10
90-180	1729.82	N.A.	30.20
110-180	1417.92	N.A.	24.70
0-180	5734.76	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

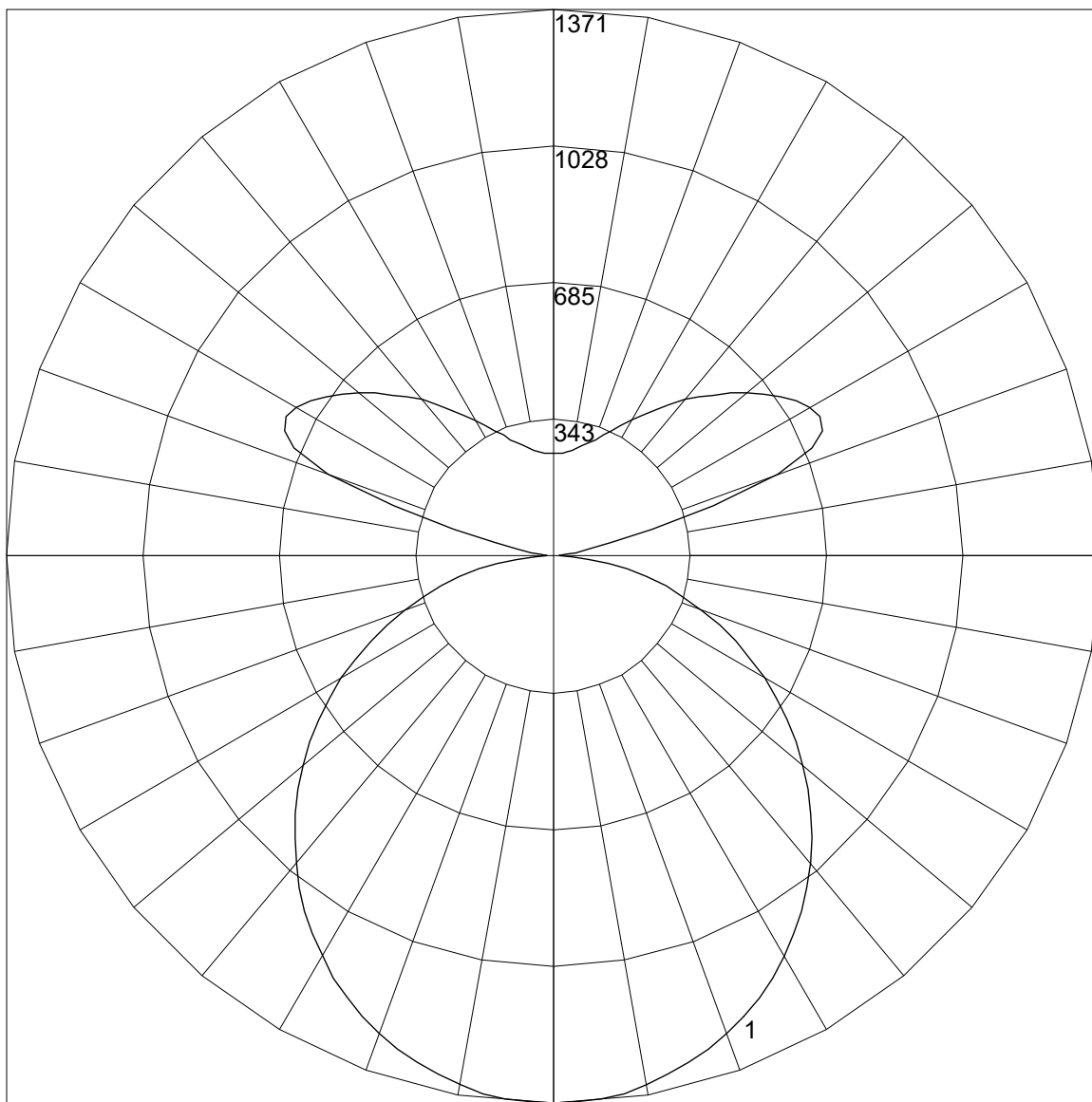
Zone	Lumens
0-10	129.79
10-20	371.95
20-30	563.98
30-40	680.71
40-50	707.67
50-60	643.53
60-70	500.60
70-80	306.58
80-90	100.14
90-100	58.93
100-110	252.96
110-120	381.37
120-130	338.15
130-140	269.23
140-150	197.25
150-160	131.73
160-170	75.53
170-180	24.66

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	112	112	112	112	106	106	106	106	94	94	94	84	84	84	74	74	74	70
1	102	97	93	89	96	92	88	85	82	79	77	73	71	69	65	63	62	58
2	92	84	78	72	87	80	74	69	72	67	63	64	60	57	57	54	52	48
3	84	74	66	60	79	70	63	57	63	57	53	56	52	48	50	47	44	40
4	77	65	57	50	72	62	54	49	56	50	45	50	45	41	45	41	37	34
5	71	58	50	43	66	55	47	42	50	43	38	45	39	35	40	36	32	29
6	65	52	44	38	61	50	42	36	45	38	34	40	35	31	36	32	28	26
7	60	47	39	33	57	45	37	32	41	34	30	37	31	27	33	29	25	23
8	56	43	35	29	53	41	33	28	37	31	26	34	28	24	30	26	22	20
9	52	39	31	26	49	37	30	25	34	28	24	31	26	22	28	23	20	18
10	49	36	28	23	46	34	27	23	31	25	21	29	23	20	26	22	18	16

POLAR GRAPH



Maximum Candela = 1370.912 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)