

# 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-B-H-835-TG-F-ITL92550.011.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

[TEST]ITL92550.011 Family Correlation Files  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[ISSUEDATE]11/21/19  
[TESTDATE]01/07/20  
[MANUFAC]FINELITE, INC.  
[LUMCAT]HP-X-ID-4ft-B-H-835-TG-F  
[INPUT\_ELECTRICAL]120.0 VOLTS, 43.6 WATTS  
[INPUT\_ELECTRICAL]277.0 VOLTS, 44.7 WATTS  
[ABSOLUTE LUMENS]5295  
[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL92550. 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	5295
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	121
Total Luminaire Watts	43.6
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 w/Sides
Luminous Length (0-180)	4.00 ft
Luminous Width (90-270)	0.20 ft
Luminous Height	0.02 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	13738	13085	12865
55	13317	12477	12300
65	12619	11682	11567
75	11548	10585	10626
85	9980	9076	9686

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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	1071.815	1071.815	1071.815	1071.815	1071.815
2.5	1070.260	1070.260	1071.038	1070.260	1071.038
5.0	1066.371	1067.149	1067.149	1067.149	1067.149
7.5	1060.926	1060.926	1061.704	1061.704	1061.704
10.0	1053.926	1051.592	1053.926	1053.926	1053.926
12.5	1043.814	1039.925	1043.814	1043.814	1042.259
15.0	1032.147	1025.147	1031.370	1032.147	1029.036
17.5	1017.369	1010.369	1016.591	1018.147	1015.813
20.0	1001.035	991.702	998.702	1000.257	997.146
22.5	980.812	971.479	980.034	980.812	976.923
25.0	959.812	949.700	958.256	959.034	956.700
27.5	934.922	926.366	934.922	934.922	932.588
30.0	909.254	899.920	908.476	908.476	906.921
32.5	882.031	873.475	882.031	881.253	880.475
35.0	853.252	845.474	852.474	851.697	849.363
37.5	821.362	813.584	822.140	821.362	820.584
40.0	787.917	780.916	788.694	789.472	789.472
42.5	754.471	748.249	755.249	757.582	758.360
45.0	717.914	714.803	721.025	724.136	722.581
47.5	682.913	677.468	684.468	687.580	688.357
50.0	644.023	640.134	647.912	652.578	652.578
52.5	604.355	601.243	611.355	614.466	614.466
55.0	565.464	561.575	570.909	575.576	577.909
57.5	523.463	521.129	532.019	535.908	538.241
60.0	480.683	478.350	491.573	497.017	498.573
62.5	437.904	437.904	450.349	456.572	459.683
65.0	395.903	396.681	409.125	416.904	420.793
67.5	351.568	353.901	367.902	376.458	381.125
70.0	309.566	311.900	326.678	336.012	339.901
72.5	267.565	270.676	286.232	296.344	301.788
75.0	223.230	231.008	245.786	258.231	262.120
77.5	182.784	190.562	206.896	220.119	224.786
80.0	143.894	152.450	169.561	182.784	187.451
82.5	106.559	115.115	133.005	147.783	153.228
85.0	66.891	79.336	97.226	112.782	118.226
87.5	30.334	45.113	63.780	80.114	85.559
90.0	1.556	17.890	39.668	57.558	63.780
92.5	17.492	26.238	38.071	48.875	52.476
95.0	35.499	43.730	55.563	66.882	70.483
97.5	55.563	62.766	74.084	85.403	89.004
100.0	77.171	83.345	94.663	105.467	109.583
102.5	98.779	104.438	115.757	126.560	130.676
105.0	121.930	128.104	138.908	149.712	153.313
107.5	146.110	151.255	162.574	172.863	176.464
110.0	173.892	176.979	187.783	197.558	201.159
112.5	200.130	202.702	213.506	222.252	225.854
115.0	226.883	228.941	240.774	248.491	251.577
117.5	255.693	257.751	267.526	275.243	277.816
120.0	284.504	285.533	295.308	302.510	305.083
122.5	314.858	313.829	323.089	329.777	333.893
125.0	345.726	343.154	351.900	357.559	361.160
127.5	376.594	373.508	381.739	386.884	389.971
130.0	406.948	403.347	410.550	415.695	417.752
132.5	438.846	434.216	441.418	444.505	448.621

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**CANDELA TABULATION - (Cont.)**

<b>135.0</b>	469.200	464.570	471.258	474.344	476.402
<b>137.5</b>	500.583	493.894	500.068	503.155	504.184
<b>140.0</b>	530.937	524.248	529.908	531.966	531.451
<b>142.5</b>	561.290	553.059	558.718	559.747	559.747
<b>145.0</b>	590.101	580.841	587.529	587.014	587.014
<b>147.5</b>	618.397	609.136	614.281	613.767	613.252
<b>150.0</b>	644.121	635.889	639.490	639.490	637.947
<b>152.5</b>	669.330	659.555	664.185	662.642	661.613
<b>155.0</b>	692.996	683.221	687.851	685.279	683.735
<b>157.5</b>	713.060	704.828	708.944	706.886	704.828
<b>160.0</b>	732.096	724.379	728.494	726.436	723.350
<b>162.5</b>	748.559	742.385	745.472	743.928	741.871
<b>165.0</b>	763.993	758.334	760.392	759.363	756.276
<b>167.5</b>	775.826	772.739	773.768	772.739	770.681
<b>170.0</b>	786.115	784.572	785.086	784.572	783.028
<b>172.5</b>	793.832	793.318	793.318	792.803	792.803
<b>175.0</b>	799.492	799.492	799.492	799.492	799.492
<b>177.5</b>	803.607	803.093	803.093	803.093	803.093
<b>180.0</b>	804.636	804.636	804.636	804.636	804.636

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	392.12	N.A.	7.40
0-30	832.74	N.A.	15.70
0-40	1364.6	N.A.	25.80
0-60	2429.21	N.A.	45.90
0-80	3091.2	N.A.	58.40
0-90	3197.66	N.A.	60.40
10-90	3096.23	N.A.	58.50
20-40	972.48	N.A.	18.40
20-50	1527.69	N.A.	28.90
40-70	1467.89	N.A.	27.70
60-80	661.98	N.A.	12.50
70-80	258.70	N.A.	4.90
80-90	106.46	N.A.	2.00
90-110	209.83	N.A.	4.00
90-120	447.39	N.A.	8.40
90-130	762.23	N.A.	14.40
90-150	1491.63	N.A.	28.20
90-180	2097.35	N.A.	39.60
110-180	1887.51	N.A.	35.60
0-180	5295.00	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

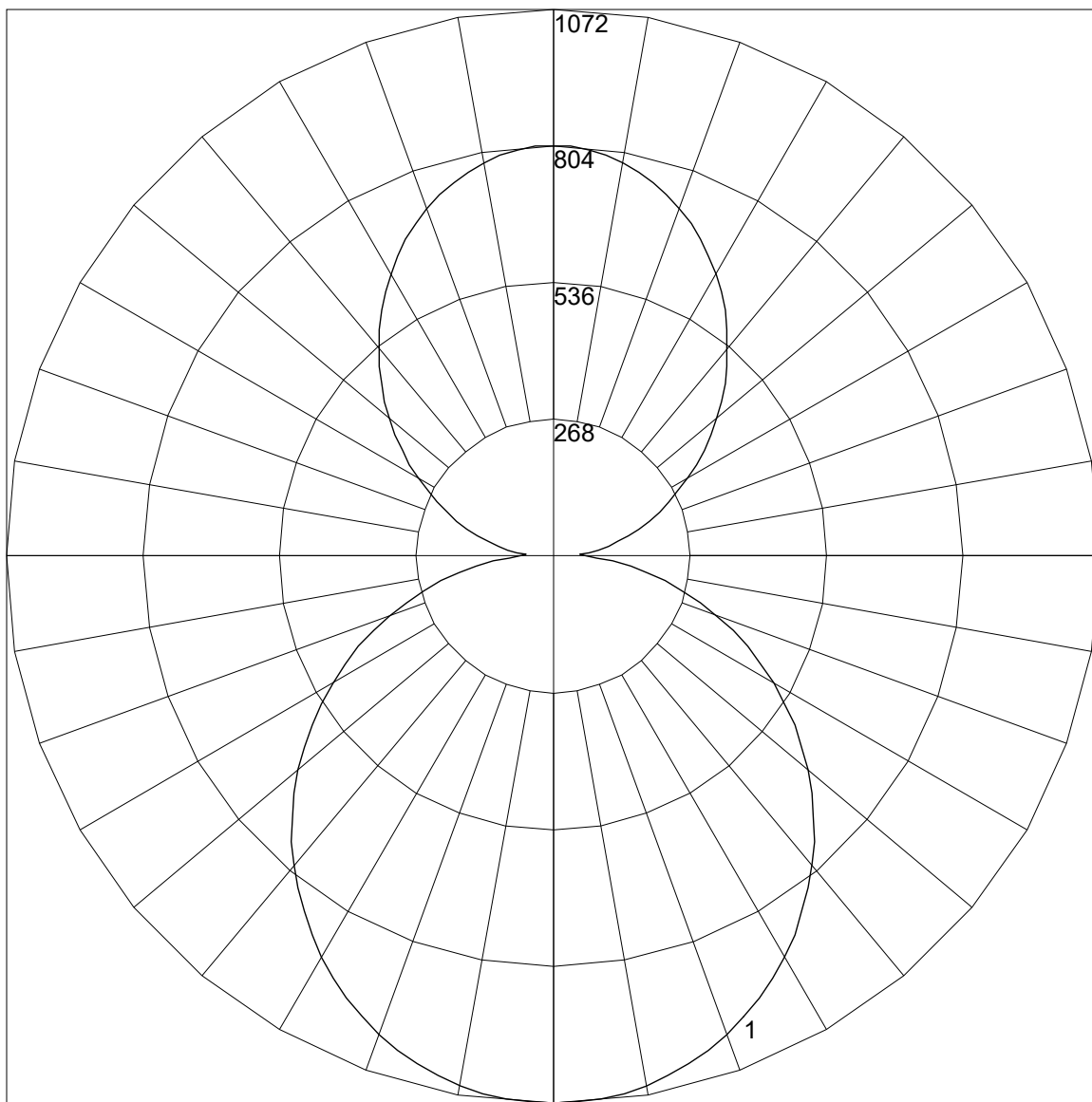
Zone	Lumens
0-10	101.42
10-20	290.70
20-30	440.62
30-40	531.85
40-50	555.21
50-60	509.40
60-70	403.28
70-80	258.70
80-90	106.46
90-100	62.94
100-110	146.90
110-120	237.56
120-130	314.84
130-140	363.03
140-150	366.37
150-160	315.80
160-170	214.08
170-180	75.84

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	110	110	110	110	102	102	102	102	89	89	89	77	77	77	66	66	66	60
1	99	95	91	87	93	89	85	82	77	74	72	67	65	63	57	56	54	50
2	90	82	76	70	84	77	71	66	67	63	59	58	55	52	50	47	45	41
3	82	72	64	58	76	68	61	55	59	54	49	51	47	43	44	41	38	34
4	75	64	55	49	70	60	52	46	52	46	42	45	41	37	39	35	32	29
5	69	57	48	42	64	53	46	40	47	41	36	41	36	32	35	31	28	25
6	63	51	42	36	59	48	40	35	42	36	31	37	32	28	32	28	25	22
7	59	46	38	32	55	43	36	30	38	32	27	33	28	25	29	25	22	19
8	54	42	34	28	51	39	32	27	35	29	24	30	25	22	26	22	19	17
9	51	38	30	25	47	36	29	24	32	26	22	28	23	20	24	20	18	15
10	47	35	27	22	44	33	26	21	29	24	20	26	21	18	23	19	16	14

POLAR GRAPH



Maximum Candela = 1071.815 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)