

# 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-V-835-TG-F-ITL92550.010.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

[TEST]ITL92550.010 Family Correlation Files  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[ISSUE DATE]11/21/19  
[TEST DATE]01/07/20  
[MANUFACT]FINELITE, INC.  
[LUMCAT]HP-X-ID-4ft-B-V-835-TG-F  
[INPUT\_ELECTRICAL]120.0 VOLTS, 51.6 WATTS  
[INPUT\_ELECTRICAL]277.0 VOLTS, 52.5 WATTS  
[ABSOLUTE LUMENS]6210  
[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	6210
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	120
Total Luminaire Watts	51.6
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	17662	16822	16541
55	17122	16041	15813
65	16224	15020	14871
75	14846	13609	13662
85	12831	11668	12453

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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	1378.000	1378.000	1378.000	1378.000	1378.000
2.5	1376.000	1376.000	1377.000	1376.000	1377.000
5.0	1371.000	1372.000	1372.000	1372.000	1372.000
7.5	1364.000	1364.000	1365.000	1365.000	1365.000
10.0	1355.000	1352.000	1355.000	1355.000	1355.000
12.5	1342.000	1337.000	1342.000	1342.000	1340.000
15.0	1327.000	1318.000	1326.000	1327.000	1323.000
17.5	1308.000	1299.000	1307.000	1309.000	1306.000
20.0	1287.000	1275.000	1284.000	1286.000	1282.000
22.5	1261.000	1249.000	1260.000	1261.000	1256.000
25.0	1234.000	1221.000	1232.000	1233.000	1230.000
27.5	1202.000	1191.000	1202.000	1202.000	1199.000
30.0	1169.000	1157.000	1168.000	1168.000	1166.000
32.5	1134.000	1123.000	1134.000	1133.000	1132.000
35.0	1097.000	1087.000	1096.000	1095.000	1092.000
37.5	1056.000	1046.000	1057.000	1056.000	1055.000
40.0	1013.000	1004.000	1014.000	1015.000	1015.000
42.5	970.000	962.000	971.000	974.000	975.000
45.0	923.000	919.000	927.000	931.000	929.000
47.5	878.000	871.000	880.000	884.000	885.000
50.0	828.000	823.000	833.000	839.000	839.000
52.5	777.000	773.000	786.000	790.000	790.000
55.0	727.000	722.000	734.000	740.000	743.000
57.5	673.000	670.000	684.000	689.000	692.000
60.0	618.000	615.000	632.000	639.000	641.000
62.5	563.000	563.000	579.000	587.000	591.000
65.0	509.000	510.000	526.000	536.000	541.000
67.5	452.000	455.000	473.000	484.000	490.000
70.0	398.000	401.000	420.000	432.000	437.000
72.5	344.000	348.000	368.000	381.000	388.000
75.0	287.000	297.000	316.000	332.000	337.000
77.5	235.000	245.000	266.000	283.000	289.000
80.0	185.000	196.000	218.000	235.000	241.000
82.5	137.000	148.000	171.000	190.000	197.000
85.0	86.000	102.000	125.000	145.000	152.000
87.5	39.000	58.000	82.000	103.000	110.000
90.0	2.000	23.000	51.000	74.000	82.000
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	504.14	N.A.	8.10
0-30	1070.63	N.A.	17.20
0-40	1754.42	N.A.	28.30
0-60	3123.16	N.A.	50.30
0-80	3974.26	N.A.	64.00
0-90	4111.13	N.A.	66.20
10-90	3980.73	N.A.	64.10
20-40	1250.29	N.A.	20.10
20-50	1964.1	N.A.	31.60
40-70	1887.23	N.A.	30.40
60-80	851.09	N.A.	13.70
70-80	332.61	N.A.	5.40
80-90	136.87	N.A.	2.20
90-110	211.28	N.A.	3.40
90-120	448.84	N.A.	7.20
90-130	763.67	N.A.	12.30
90-150	1493.07	N.A.	24.00
90-180	2098.79	N.A.	33.80
110-180	1887.51	N.A.	30.40
0-180	6209.92	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

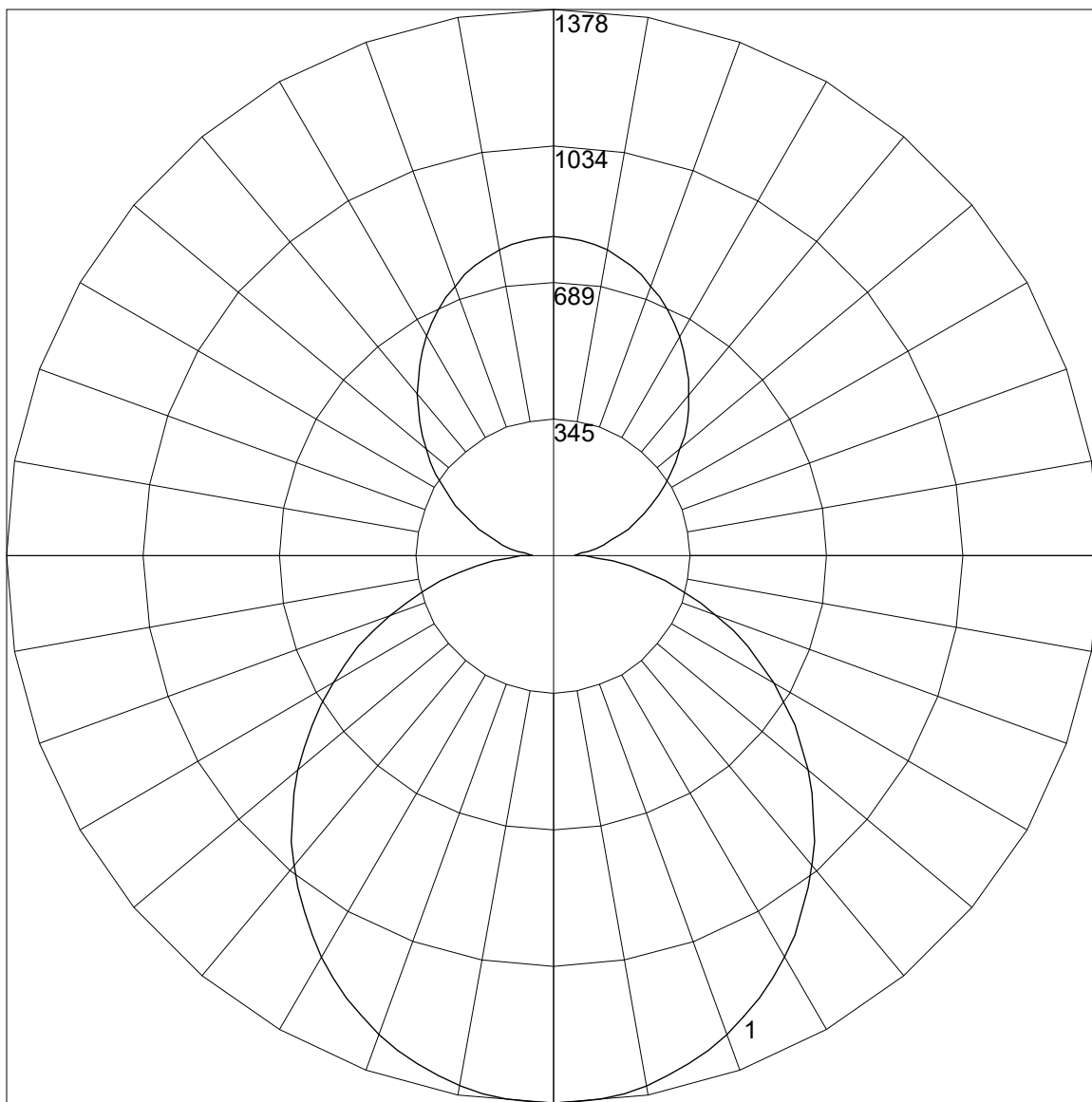
Zone	Lumens
0-10	130.40
10-20	373.74
20-30	566.50
30-40	683.79
40-50	713.82
50-60	654.92
60-70	518.49
70-80	332.61
80-90	136.87
90-100	64.38
100-110	146.90
110-120	237.56
120-130	314.84
130-140	363.03
140-150	366.37
150-160	315.80
160-170	214.08
170-180	75.84

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	111	111	111	111	104	104	104	104	92	92	92	81	81	81	71	71	71	66
1	101	96	92	88	95	90	87	83	80	77	75	70	68	66	62	60	59	54
2	91	83	77	71	86	79	73	68	70	65	61	61	58	55	54	51	49	45
3	83	73	65	59	78	69	62	56	61	56	51	54	50	46	47	44	41	37
4	76	64	56	50	71	61	53	47	54	48	43	48	43	39	42	38	35	32
5	70	57	49	42	65	54	46	41	48	42	37	43	38	34	38	34	30	27
6	64	51	43	37	60	49	41	35	44	37	32	39	33	29	34	30	27	24
7	59	46	38	32	56	44	36	31	39	33	28	35	30	26	31	27	24	21
8	55	42	34	28	52	40	33	27	36	30	25	32	27	23	29	24	21	19
9	51	39	31	25	48	37	29	24	33	27	23	30	24	21	26	22	19	17
10	48	35	28	23	45	34	27	22	30	24	20	27	22	19	24	20	17	15

POLAR GRAPH



Maximum Candela = 1378 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)