

# 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-B-8TW-TG-F-ITL92550.902.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL92550.902 Family Correlation Files

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[ISSUEDATE]11/21/19

[TESTDATE]01/08/20

[MANUFAC]FINELITE, INC.

[LUMCAT]HP-X-ID-4ft-B-B-8TW-TG-F

[OTHER]ies file is based on 3500K; see luminaire tech sheet at

[more]www.finelite.com for lumen adjustment factors for other CCT's & CRI's

[INPUT\_ELECTRICAL]120.0 VOLTS, 37.7 WATTS

[INPUT\_ELECTRICAL]277.0 VOLTS, 39.6 WATTS

[ABSOLUTE]LUMENS]4212

[OTHER]see 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

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4212
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	112
Total Luminaire Watts	37.7
Ballast Factor	1.00
CIE Type	General Diffuse
Spacing Criterion (0-180)	N.A.
Spacing Criterion (90-270)	N.A.
Spacing Criterion (Diagonal)	N.A.
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	9089	8657	8512
55	8811	8255	8138
65	8349	7729	7653
75	7640	7003	7030
85	6603	6005	6408

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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	709.130	709.130	709.130	709.130	709.130
2.5	708.101	708.101	708.615	708.101	708.615
5.0	705.528	706.042	706.042	706.042	706.042
7.5	701.925	701.925	702.440	702.440	702.440
10.0	697.294	695.750	697.294	697.294	697.294
12.5	690.604	688.031	690.604	690.604	689.575
15.0	682.885	678.253	682.370	682.885	680.826
17.5	673.107	668.476	672.593	673.622	672.078
20.0	662.301	656.125	660.757	661.786	659.727
22.5	648.921	642.745	648.406	648.921	646.348
25.0	635.026	628.336	633.997	634.512	632.968
27.5	618.559	612.898	618.559	618.559	617.015
30.0	601.577	595.401	601.062	601.062	600.033
32.5	583.566	577.905	583.566	583.051	582.536
35.0	564.525	559.379	564.010	563.496	561.952
37.5	543.426	538.280	543.941	543.426	542.911
40.0	521.298	516.666	521.813	522.327	522.327
42.5	499.170	495.053	499.684	501.228	501.743
45.0	474.983	472.925	477.042	479.100	478.071
47.5	451.826	448.224	452.855	454.913	455.428
50.0	426.095	423.522	428.668	431.756	431.756
52.5	399.850	397.792	404.482	406.540	406.540
55.0	374.120	371.547	377.722	380.810	382.354
57.5	346.331	344.787	351.992	354.565	356.109
60.0	318.028	316.484	325.232	328.834	329.864
62.5	289.724	289.724	297.958	302.075	304.133
65.0	261.935	262.450	270.684	275.830	278.403
67.5	232.603	234.147	243.410	249.070	252.158
70.0	204.814	206.358	216.135	222.311	224.884
72.5	177.025	179.084	189.376	196.066	199.668
75.0	147.692	152.839	162.616	170.850	173.423
77.5	120.933	126.079	136.886	145.634	148.722
80.0	95.203	100.863	112.184	120.933	124.020
82.5	70.501	76.162	87.998	97.775	101.378
85.0	44.256	52.490	64.326	74.618	78.220
87.5	20.070	29.847	42.198	53.005	56.607
90.0	1.029	11.836	26.245	38.081	42.198
92.5	17.500	26.251	38.089	48.898	52.501
95.0	35.516	43.751	55.589	66.913	70.516
97.5	55.589	62.795	74.119	85.443	89.046
100.0	77.208	83.384	94.708	105.517	109.635
102.5	98.826	104.487	115.811	126.620	130.738
105.0	121.988	128.165	138.974	149.783	153.386
107.5	146.180	151.327	162.651	172.945	176.548
110.0	173.974	177.063	187.872	197.651	201.254
112.5	200.225	202.798	213.608	222.358	225.961
115.0	226.990	229.049	240.888	248.608	251.697
117.5	255.814	257.873	267.653	275.374	277.947
120.0	284.639	285.668	295.448	302.654	305.227
122.5	315.007	313.977	323.242	329.934	334.051
125.0	345.890	343.316	352.066	357.728	361.331
127.5	376.773	373.685	381.920	387.067	390.156
130.0	407.141	403.538	410.744	415.891	417.950
132.5	439.054	434.421	441.627	444.716	448.833

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**CANDELA TABULATION - (Cont.)**

<b>135.0</b>	469.422	464.789	471.481	474.569	476.628
<b>137.5</b>	500.820	494.128	500.305	503.393	504.423
<b>140.0</b>	531.188	524.497	530.159	532.217	531.703
<b>142.5</b>	561.556	553.321	558.983	560.012	560.012
<b>145.0</b>	590.380	581.115	587.807	587.292	587.292
<b>147.5</b>	618.690	609.425	614.572	614.057	613.543
<b>150.0</b>	644.426	636.190	639.793	639.793	638.249
<b>152.5</b>	669.647	659.867	664.500	662.956	661.926
<b>155.0</b>	693.324	683.544	688.177	685.603	684.059
<b>157.5</b>	713.398	705.162	709.280	707.221	705.162
<b>160.0</b>	732.442	724.722	728.839	726.780	723.692
<b>162.5</b>	748.913	742.737	745.825	744.281	742.222
<b>165.0</b>	764.355	758.693	760.752	759.722	756.634
<b>167.5</b>	776.193	773.105	774.134	773.105	771.046
<b>170.0</b>	786.487	784.943	785.458	784.943	783.399
<b>172.5</b>	794.208	793.694	793.694	793.179	793.179
<b>175.0</b>	799.870	799.870	799.870	799.870	799.870
<b>177.5</b>	803.988	803.473	803.473	803.473	803.473
<b>180.0</b>	805.017	805.017	805.017	805.017	805.017

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	259.43	N.A.	6.20
0-30	550.96	N.A.	13.10
0-40	902.84	N.A.	21.40
0-60	1607.2	N.A.	38.20
0-80	2045.18	N.A.	48.60
0-90	2115.62	N.A.	50.20
10-90	2048.51	N.A.	48.60
20-40	643.41	N.A.	15.30
20-50	1010.74	N.A.	24.00
40-70	971.18	N.A.	23.10
60-80	437.98	N.A.	10.40
70-80	171.16	N.A.	4.10
80-90	70.44	N.A.	1.70
90-110	208.22	N.A.	4.90
90-120	445.89	N.A.	10.60
90-130	760.87	N.A.	18.10
90-150	1490.62	N.A.	35.40
90-180	2096.62	N.A.	49.80
110-180	1888.41	N.A.	44.80
0-180	4212.24	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

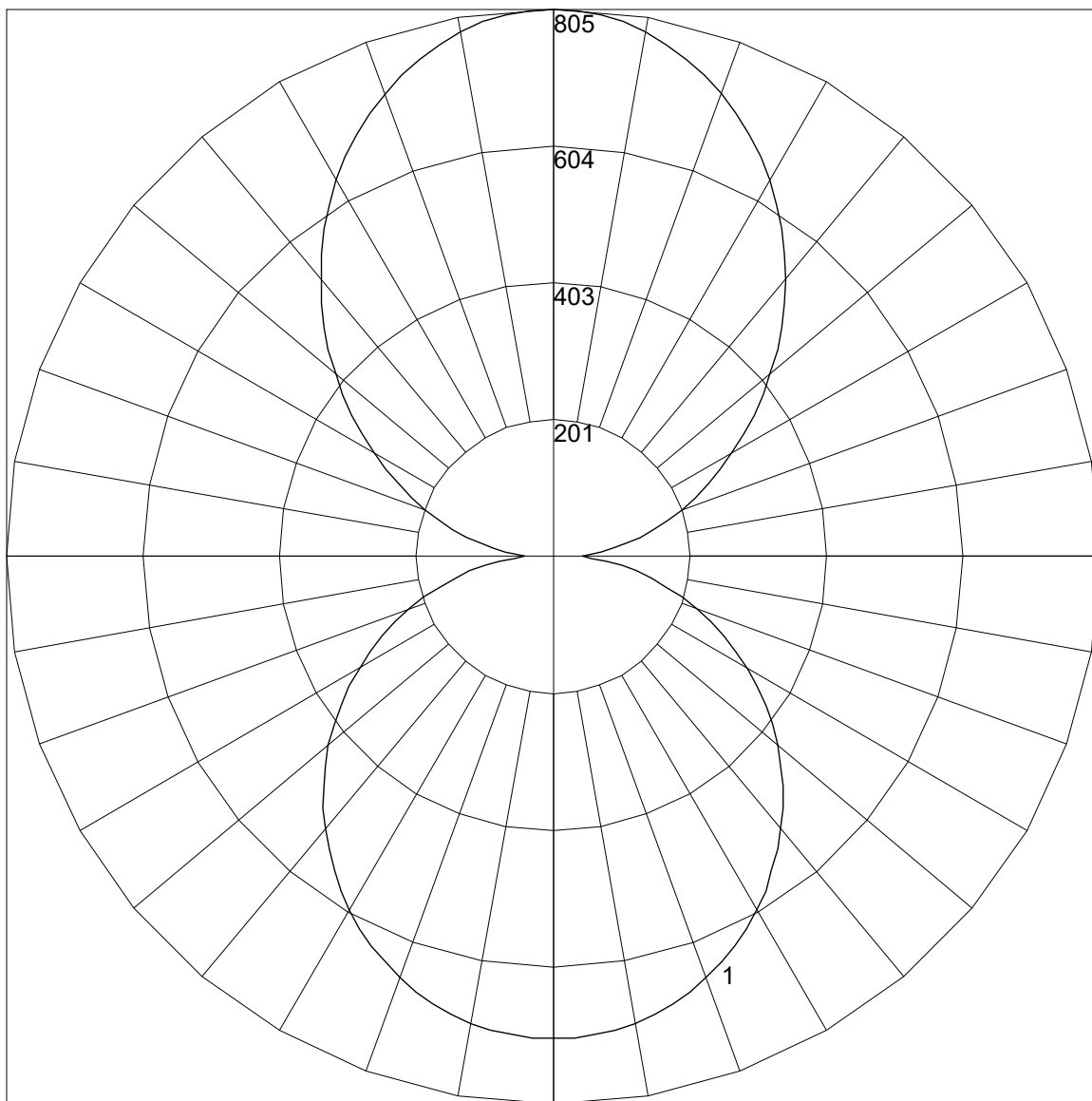
Zone	Lumens
0-10	67.10
10-20	192.33
20-30	291.52
30-40	351.88
40-50	367.34
50-60	337.03
60-70	266.82
70-80	171.16
80-90	70.44
90-100	61.25
100-110	146.97
110-120	237.67
120-130	314.98
130-140	363.20
140-150	366.54
150-160	315.95
160-170	214.18
170-180	75.88

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	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	50
1	97	93	89	85	90	86	82	79	72	70	67	60	58	57	49	48	46	41
2	88	81	74	69	81	74	69	64	63	59	55	52	49	47	43	41	39	34
3	80	71	63	57	74	65	59	53	55	50	46	46	42	39	38	35	33	28
4	73	62	54	48	67	58	50	45	49	43	39	41	37	33	33	30	28	24
5	67	55	47	41	62	51	44	38	44	38	34	37	32	29	30	27	24	21
6	62	50	41	35	57	46	39	33	39	33	29	33	29	25	27	24	21	18
7	57	45	37	31	53	42	34	29	36	30	26	30	25	22	25	21	19	16
8	53	41	33	27	49	38	31	26	32	27	23	27	23	20	23	19	17	14
9	49	37	29	24	45	34	28	23	30	24	20	25	21	18	21	17	15	13
10	46	34	27	22	42	32	25	20	27	22	18	23	19	16	19	16	14	12

POLAR GRAPH



Maximum Candela = 805.017 Located At Horizontal Angle = 0, Vertical Angle = 180  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)