

# 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-H-S-835-TG-F-ITL92550.009.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

[TEST]ITL92550.009 Family Correlation Files  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[ISSUEDATE]11/21/19  
[TESTDATE]01/07/20  
[MANUFAC]FINELITE, INC.  
[LUMCAT]HP-X-ID-4ft-H-S-835-TG-F  
[INPUT\_ELECTRICAL]120.0 VOLTS, 39.9 WATTS  
[INPUT\_ELECTRICAL]277.0 VOLTS, 41.3 WATTS  
[ABSOLUTE LUMENS]4848  
[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	4848
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	122
Total Luminaire Watts	39.9
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 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	7229	6885	6770
55	7008	6565	6472
65	6640	6147	6086
75	6076	5570	5592
85	5251	4776	5097

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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	563.989	563.989	563.989	563.989	563.989
2.5	563.170	563.170	563.579	563.170	563.579
5.0	561.124	561.533	561.533	561.533	561.533
7.5	558.259	558.259	558.668	558.668	558.668
10.0	554.575	553.347	554.575	554.575	554.575
12.5	549.255	547.208	549.255	549.255	548.436
15.0	543.115	539.432	542.706	543.115	541.478
17.5	535.339	531.655	534.930	535.748	534.520
20.0	526.744	521.833	525.516	526.335	524.698
22.5	516.103	511.192	515.694	516.103	514.057
25.0	505.052	499.732	504.234	504.643	503.415
27.5	491.955	487.453	491.955	491.955	490.728
30.0	478.449	473.538	478.040	478.040	477.221
32.5	464.124	459.622	464.124	463.715	463.306
35.0	448.981	444.888	448.572	448.162	446.934
37.5	432.200	428.108	432.610	432.200	431.791
40.0	414.601	410.918	415.011	415.420	415.420
42.5	397.002	393.728	397.411	398.639	399.049
45.0	377.766	376.129	379.403	381.040	380.222
47.5	359.348	356.483	360.167	361.804	362.213
50.0	338.884	336.838	340.931	343.386	343.386
52.5	318.011	316.374	321.695	323.332	323.332
55.0	297.547	295.501	300.412	302.868	304.096
57.5	275.446	274.218	279.948	281.994	283.222
60.0	252.935	251.708	258.665	261.530	262.349
62.5	230.425	230.425	236.974	240.248	241.885
65.0	208.324	208.733	215.282	219.374	221.421
67.5	184.995	186.223	193.590	198.092	200.548
70.0	162.894	164.121	171.898	176.809	178.856
72.5	140.792	142.430	150.615	155.936	158.801
75.0	117.463	121.556	129.333	135.881	137.928
77.5	96.181	100.274	108.869	115.826	118.282
80.0	75.717	80.219	89.223	96.181	98.637
82.5	56.071	60.574	69.987	77.763	80.628
85.0	35.198	41.747	51.160	59.346	62.211
87.5	15.962	23.738	33.561	42.156	45.021
90.0	0.819	9.414	20.873	30.287	33.561
92.5	26.441	39.661	57.548	73.879	79.322
95.0	53.659	66.102	83.988	101.097	106.541
97.5	83.988	94.876	111.984	129.093	134.537
100.0	116.650	125.983	143.091	159.422	165.644
102.5	149.313	157.867	174.976	191.307	197.528
105.0	184.308	193.640	209.971	226.302	231.746
107.5	220.858	228.635	245.744	261.297	266.741
110.0	262.852	267.518	283.849	298.625	304.069
112.5	302.514	306.402	322.733	335.953	341.397
115.0	342.952	346.063	363.949	375.614	380.281
117.5	386.502	389.613	404.388	416.053	419.942
120.0	430.051	431.607	446.382	457.270	461.158
122.5	475.934	474.378	488.377	498.486	504.708
125.0	522.594	518.706	531.926	540.480	545.924
127.5	569.254	564.588	577.031	584.808	589.474
130.0	615.137	609.693	620.580	628.357	631.468
132.5	663.352	656.353	667.241	671.907	678.128

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**CANDELA TABULATION - (Cont.)**

<b>135.0</b>	709.235	702.236	712.345	717.011	720.122
<b>137.5</b>	756.673	746.563	755.895	760.561	762.116
<b>140.0</b>	802.555	792.445	801.000	804.110	803.333
<b>142.5</b>	848.438	835.995	844.549	846.105	846.105
<b>145.0</b>	891.987	877.989	888.099	887.321	887.321
<b>147.5</b>	934.759	920.761	928.538	927.760	926.982
<b>150.0</b>	973.642	961.200	966.643	966.643	964.310
<b>152.5</b>	1011.748	996.972	1003.972	1001.639	1000.083
<b>155.0</b>	1047.521	1032.745	1039.744	1035.856	1033.523
<b>157.5</b>	1077.850	1065.408	1071.629	1068.518	1065.408
<b>160.0</b>	1106.624	1094.959	1101.180	1098.070	1093.404
<b>162.5</b>	1131.509	1122.177	1126.843	1124.510	1121.400
<b>165.0</b>	1154.840	1146.285	1149.396	1147.841	1143.174
<b>167.5</b>	1172.726	1168.060	1169.615	1168.060	1164.949
<b>170.0</b>	1188.279	1185.946	1186.724	1185.946	1183.613
<b>172.5</b>	1199.944	1199.167	1199.167	1198.389	1198.389
<b>175.0</b>	1208.499	1208.499	1208.499	1208.499	1208.499
<b>177.5</b>	1214.720	1213.942	1213.942	1213.942	1213.942
<b>180.0</b>	1216.275	1216.275	1216.275	1216.275	1216.275

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	206.33	N.A.	4.30
0-30	438.19	N.A.	9.00
0-40	718.05	N.A.	14.80
0-60	1278.25	N.A.	26.40
0-80	1626.59	N.A.	33.60
0-90	1682.6	N.A.	34.70
10-90	1629.24	N.A.	33.60
20-40	511.72	N.A.	10.60
20-50	803.87	N.A.	16.60
40-70	772.41	N.A.	15.90
60-80	348.34	N.A.	7.20
70-80	136.13	N.A.	2.80
80-90	56.02	N.A.	1.20
90-110	312.19	N.A.	6.40
90-120	671.28	N.A.	13.80
90-130	1147.18	N.A.	23.70
90-150	2249.73	N.A.	46.40
90-180	3165.33	N.A.	65.30
110-180	2853.13	N.A.	58.90
0-180	4847.93	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

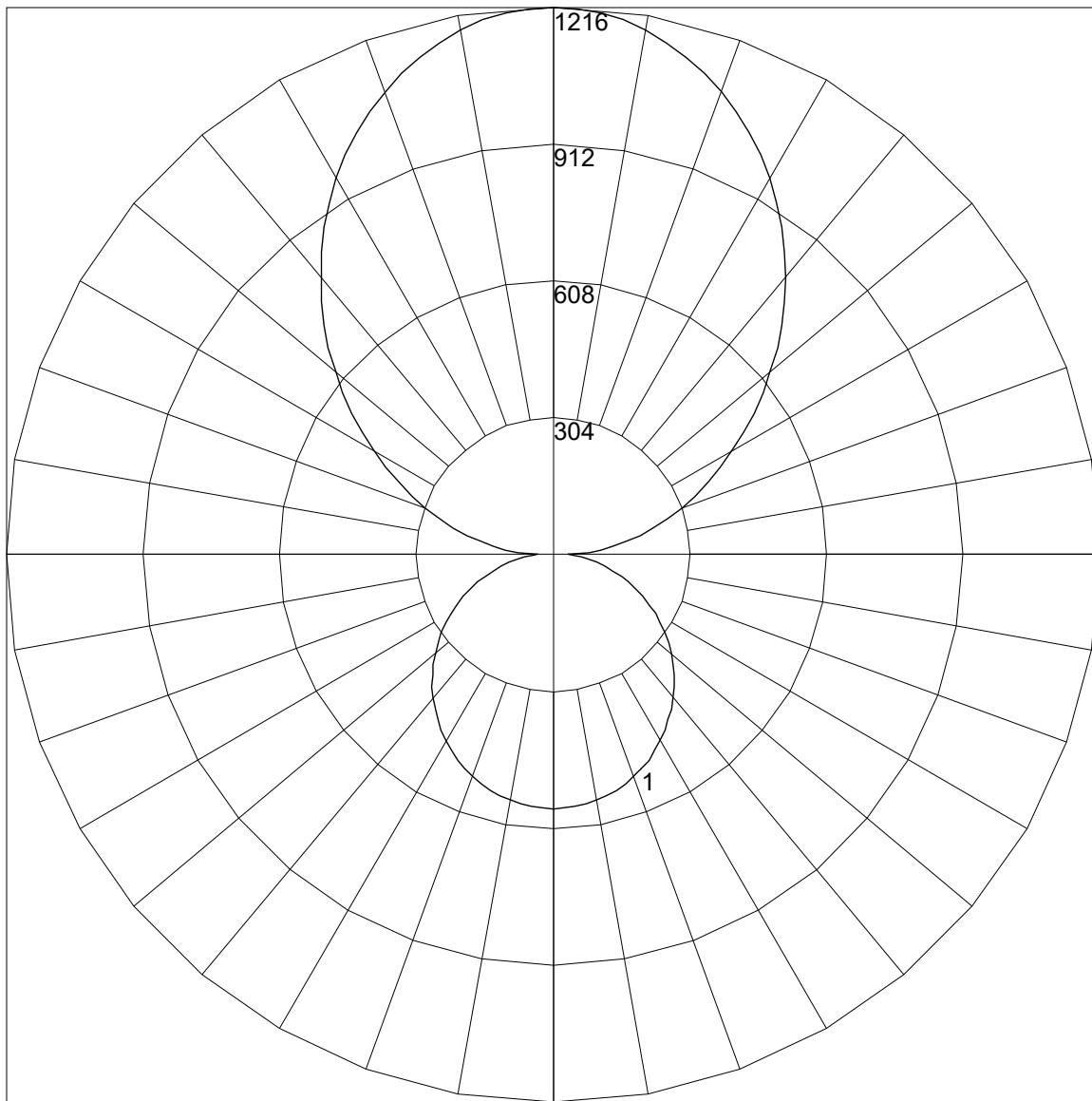
Zone	Lumens
0-10	53.37
10-20	152.96
20-30	231.86
30-40	279.86
40-50	292.15
50-60	268.05
60-70	212.21
70-80	136.13
80-90	56.02
90-100	90.14
100-110	222.05
110-120	359.09
120-130	475.90
130-140	548.75
140-150	553.80
150-160	477.36
160-170	323.60
170-180	114.64

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	94	94	94	94	75	75	75	58	58	58	42	42	42	35
1	94	90	86	82	85	81	78	75	65	63	61	50	49	47	37	36	35	28
2	85	78	72	67	77	71	65	61	57	53	50	44	41	39	32	30	29	23
3	78	68	61	55	70	62	56	51	50	45	41	38	35	33	28	26	24	20
4	71	60	52	46	64	55	48	43	44	39	35	34	31	28	25	23	21	17
5	65	53	45	40	58	49	42	36	39	34	30	31	27	24	22	20	18	14
6	60	48	40	34	54	43	36	31	35	30	26	27	24	21	20	18	16	13
7	55	43	35	30	50	39	32	27	32	27	23	25	21	18	18	16	14	11
8	51	39	31	26	46	35	29	24	29	24	20	23	19	16	17	14	12	10
9	47	35	28	23	43	32	26	21	26	21	18	21	17	14	16	13	11	9
10	44	32	25	21	40	30	23	19	24	19	16	19	16	13	14	12	10	8

POLAR GRAPH



Maximum Candela = 1216.275 Located At Horizontal Angle = 0, Vertical Angle = 180  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)