

# 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-6-EO-D-4FT-X-835-ITL89078.002.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

[TEST]ITL89078.002 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[TESTDATE]03/21/17  
[ISSUEDATE]12/04/17  
[MANUFAC]FINELITE, INC.  
[LUMCAT]FINELITE HP-6-EO-D-4ft-X-835  
[INPUT\_ELECTRICAL]120.0 VOLTS, 84.4 WATTS  
[INPUT\_ELECTRICAL]277.0 VOLTS, 85.1 WATTS  
[ABSOLUTE LUMENS]9082  
[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL89078. 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	9082
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	108
Total Luminaire Watts	84.4
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.22
Spacing Criterion (90-270)	1.22
Spacing Criterion (Diagonal)	1.34
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	4.00 ft
Luminous Width (90-270)	0.43 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	18246	18235	18159
55	17353	17339	17272
65	16336	16299	16299
75	15191	15072	15131
85	14031	13498	13498

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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>
<b>0.0</b>	3299.178	3299.178	3299.178	3299.178	3299.178
<b>2.5</b>	3295.444	3294.199	3295.444	3295.444	3295.444
<b>5.0</b>	3284.243	3281.754	3281.754	3282.999	3281.754
<b>7.5</b>	3265.576	3263.087	3261.842	3260.598	3260.598
<b>10.0</b>	3235.708	3228.241	3233.219	3233.219	3229.485
<b>12.5</b>	3194.639	3183.439	3195.884	3194.639	3187.172
<b>15.0</b>	3147.348	3129.925	3149.837	3149.837	3138.637
<b>17.5</b>	3091.346	3072.678	3093.835	3096.324	3082.634
<b>20.0</b>	3027.876	3005.475	3026.631	3032.854	3017.920
<b>22.5</b>	2954.450	2933.294	2955.695	2958.184	2946.983
<b>25.0</b>	2876.046	2859.868	2878.535	2878.535	2868.579
<b>27.5</b>	2791.420	2771.508	2795.154	2796.398	2785.198
<b>30.0</b>	2700.572	2681.904	2703.061	2703.061	2695.594
<b>32.5</b>	2610.967	2588.566	2609.723	2605.989	2599.767
<b>35.0</b>	2510.163	2486.517	2508.918	2503.940	2498.962
<b>37.5</b>	2405.624	2384.468	2405.624	2399.402	2396.913
<b>40.0</b>	2297.353	2277.441	2298.597	2291.130	2288.641
<b>42.5</b>	2187.836	2170.413	2187.836	2184.103	2177.880
<b>45.0</b>	2074.587	2058.408	2073.342	2069.609	2064.631
<b>47.5</b>	1958.848	1943.914	1958.848	1955.114	1955.114
<b>50.0</b>	1841.864	1828.175	1840.620	1836.886	1838.131
<b>52.5</b>	1721.148	1708.703	1719.903	1716.170	1718.659
<b>55.0</b>	1600.431	1589.230	1599.186	1595.453	1592.964
<b>57.5</b>	1477.225	1467.269	1475.981	1477.225	1473.492
<b>60.0</b>	1354.019	1345.308	1352.775	1354.019	1350.286
<b>62.5</b>	1232.058	1223.346	1229.569	1232.058	1228.324
<b>65.0</b>	1110.097	1102.630	1107.608	1106.363	1107.608
<b>67.5</b>	989.380	981.913	985.646	985.646	986.891
<b>70.0</b>	868.663	861.196	863.685	863.685	866.174
<b>72.5</b>	750.435	742.968	745.457	746.702	752.924
<b>75.0</b>	632.208	628.474	627.230	625.985	629.719
<b>77.5</b>	518.958	515.224	516.469	515.224	516.469
<b>80.0</b>	413.175	404.463	404.463	406.952	405.708
<b>82.5</b>	303.659	294.947	294.947	298.681	296.192
<b>85.0</b>	196.631	189.164	189.164	192.898	189.164
<b>87.5</b>	92.093	84.626	85.871	90.849	87.115
<b>90.0</b>	0.000	0.000	0.000	0.000	0.000

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	1198.02	N.A.	13.20
0-30	2520.76	N.A.	27.80
0-40	4085.38	N.A.	45.00
0-60	7107.57	N.A.	78.30
0-80	8869.67	N.A.	97.70
0-90	9081.63	N.A.	100.00
10-90	8769.88	N.A.	96.60
20-40	2887.36	N.A.	31.80
20-50	4482.96	N.A.	49.40
40-70	4117.94	N.A.	45.30
60-80	1762.1	N.A.	19.40
70-80	666.34	N.A.	7.30
80-90	211.96	N.A.	2.30
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.00	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	9081.63	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	311.75
10-20	886.27
20-30	1322.74
30-40	1564.62
40-50	1595.59
50-60	1426.59
60-70	1095.76
70-80	666.34
80-90	211.96
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

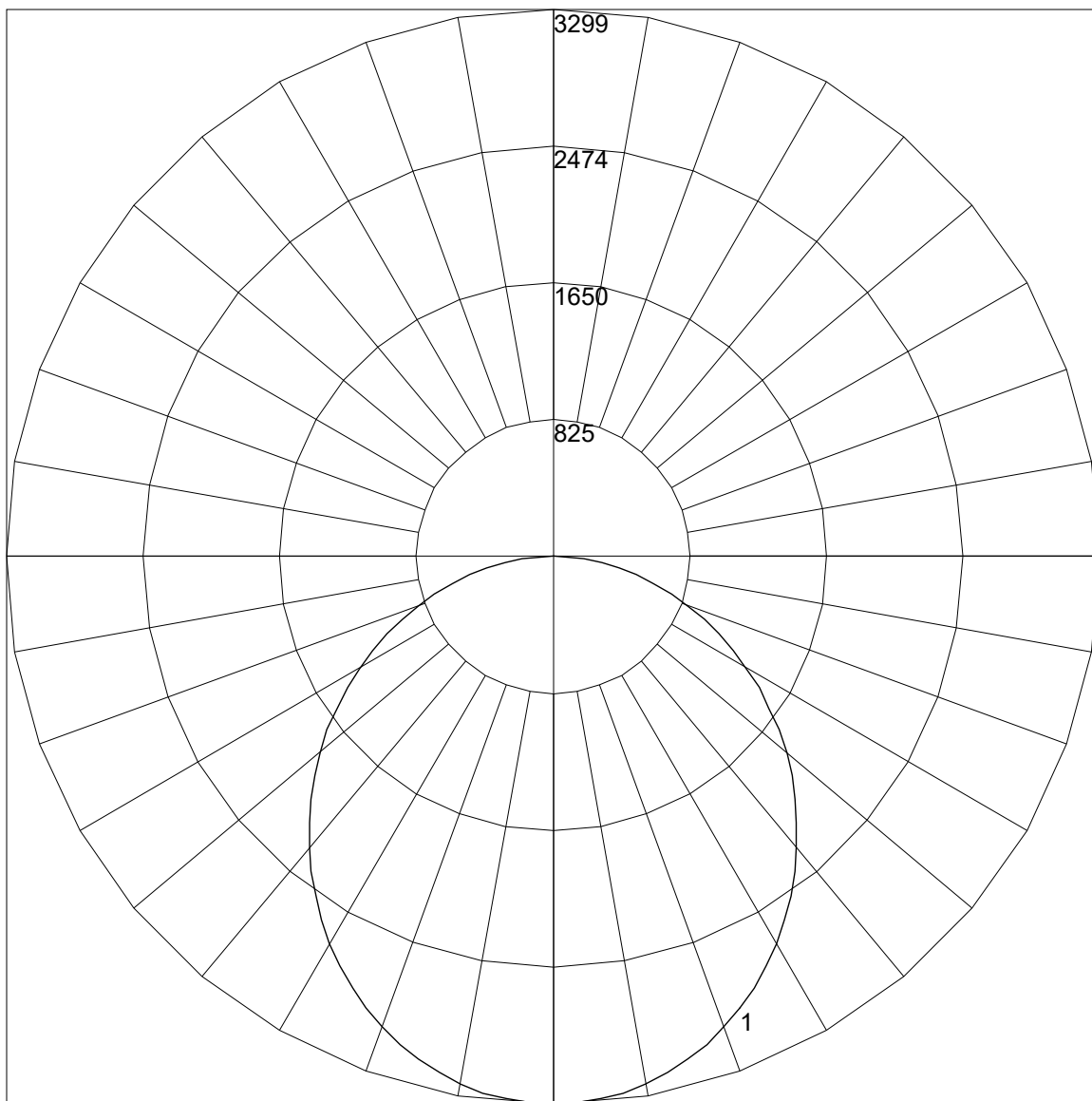
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	99	95	106	101	97	94	97	94	91	93	90	88	90	87	85	83
2	99	90	83	77	96	88	82	77	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	78	70	64	75	68	63	72	66	62	69	65	60	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	57	48	41	68	56	47	41	54	46	41	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	36	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	44	37	32	42	36	32	30
9	56	43	35	29	55	42	35	29	41	34	29	40	34	29	39	33	29	27
10	53	40	32	27	52	39	32	26	38	31	26	37	31	26	36	30	26	24

POLAR GRAPH



Maximum Candela = 3299.178 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)