

# 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-WSO-F-ITL92314.009.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

[TEST]ITL92314.009 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[TESTDATE]10/01/19  
[ISSUEDATE]12/13/19  
[MANUFAC]FINELITE, INC.  
[LUMCAT]HP-X-ID-4ft-H-S-835-WSO-F  
[INPUT\_ELECTRICAL]120.0 VOLTS, 40.0 WATTS  
[INPUT\_ELECTRICAL]277.0 VOLTS, 41.3 WATTS  
[ABSOLUTE LUMENS]4924  
[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL92314. 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	4924
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	123
Total Luminaire Watts	40
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
Luminous Length (0-180)	4.00 ft
Luminous Width (90-270)	0.20 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	7219	7250	7195
55	6983	7003	6955
65	6618	6657	6644
75	6156	6241	6284
85	5359	5737	5863

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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	561.030	561.030	561.030	561.030	561.030
2.5	560.626	560.626	560.626	560.626	560.626
5.0	559.008	559.008	559.008	559.008	559.008
7.5	555.367	555.772	555.772	556.177	555.772
10.0	551.727	550.514	552.132	552.132	550.918
12.5	546.469	544.446	546.873	546.873	544.851
15.0	540.401	537.570	540.401	540.806	537.974
17.5	532.716	528.671	532.716	533.525	529.885
20.0	523.008	519.368	523.413	523.817	521.390
22.5	512.896	508.446	513.300	513.705	511.278
25.0	501.975	497.930	502.379	502.784	500.357
27.5	489.031	485.390	489.840	490.244	487.817
30.0	475.683	472.447	476.492	476.492	474.065
32.5	461.525	457.480	462.334	461.930	459.503
35.0	446.559	442.110	446.559	446.559	444.941
37.5	429.166	426.739	431.188	430.380	428.357
40.0	412.582	410.155	413.795	412.986	410.559
42.5	394.784	391.953	395.593	394.784	392.762
45.0	375.773	374.155	377.391	375.773	374.560
47.5	356.762	355.144	357.975	355.953	354.740
50.0	336.537	334.919	338.155	335.728	334.515
52.5	315.504	315.099	317.526	315.908	314.290
55.0	294.875	294.875	295.684	294.470	293.661
57.5	273.437	273.032	273.841	272.628	271.819
60.0	251.190	250.785	252.403	251.190	250.785
62.5	229.347	228.942	230.156	229.347	228.942
65.0	205.886	206.695	207.100	206.695	206.695
67.5	184.044	184.448	185.257	185.257	185.257
70.0	161.392	161.392	163.010	162.606	163.010
72.5	139.550	139.550	140.763	140.359	140.763
75.0	117.303	117.707	118.921	119.325	119.730
77.5	95.460	96.269	97.483	98.696	98.696
80.0	75.236	75.236	76.853	77.662	77.662
82.5	54.606	55.415	56.629	57.033	57.842
85.0	34.382	35.595	36.809	37.618	37.618
87.5	15.371	16.584	17.798	19.011	19.011
90.0	0.809	2.427	3.640	5.258	6.067
92.5	12.292	31.498	63.764	33.034	29.961
95.0	29.193	66.837	163.635	78.361	61.459
97.5	49.167	98.335	303.455	147.502	106.785
100.0	69.910	127.528	459.408	252.751	175.927
102.5	92.189	149.039	578.486	424.837	285.786
105.0	112.931	172.086	636.104	696.795	488.601
107.5	134.442	193.597	641.481	1009.469	799.739
110.0	157.489	215.876	626.116	1220.735	1139.301
112.5	180.537	238.155	611.520	1290.645	1338.276
115.0	202.816	261.970	604.606	1293.718	1413.563
117.5	225.095	285.017	605.374	1262.988	1433.538
120.0	244.301	305.760	606.142	1216.126	1412.795
122.5	262.738	323.430	607.679	1166.190	1371.310
125.0	278.103	338.794	609.983	1118.559	1319.070
127.5	293.468	353.391	609.983	1070.160	1263.756
130.0	308.833	366.451	610.752	1024.065	1206.138
132.5	321.893	377.206	608.447	979.507	1147.752

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-X-ID-4FT-H-S-835-WSO-F-ITL92314.009.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	335.721	387.193	603.837	935.717	1085.524
<b>137.5</b>	349.550	397.949	598.460	894.232	1030.211
<b>140.0</b>	362.610	407.936	589.241	850.443	972.593
<b>142.5</b>	375.670	417.155	580.022	805.885	911.902
<b>145.0</b>	388.730	426.374	569.267	763.631	851.979
<b>147.5</b>	401.022	434.056	559.279	721.378	797.434
<b>150.0</b>	412.545	441.739	550.061	682.966	744.426
<b>152.5</b>	423.301	448.653	541.610	649.932	699.099
<b>155.0</b>	434.824	455.567	532.391	619.971	657.614
<b>157.5</b>	443.275	460.945	524.709	593.082	622.275
<b>160.0</b>	452.494	466.322	517.026	569.267	590.777
<b>162.5</b>	460.176	470.932	510.112	549.292	565.425
<b>165.0</b>	467.859	475.541	503.966	532.391	543.146
<b>167.5</b>	473.236	478.614	498.588	517.794	525.477
<b>170.0</b>	477.846	481.687	493.979	506.271	510.880
<b>172.5</b>	482.455	484.760	491.674	498.588	500.893
<b>175.0</b>	484.760	485.528	488.601	491.674	493.211
<b>177.5</b>	486.296	486.296	487.065	487.833	488.601
<b>180.0</b>	487.065	487.065	487.065	487.065	487.065

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	205.33	N.A.	4.20
0-30	436.14	N.A.	8.90
0-40	714.71	N.A.	14.50
0-60	1267.67	N.A.	25.70
0-80	1598.00	N.A.	32.50
0-90	1638.98	N.A.	33.30
10-90	1585.86	N.A.	32.20
20-40	509.38	N.A.	10.30
20-50	798.98	N.A.	16.20
40-70	757.83	N.A.	15.40
60-80	330.33	N.A.	6.70
70-80	125.46	N.A.	2.50
80-90	40.98	N.A.	0.80
90-110	590.73	N.A.	12.00
90-120	1315.31	N.A.	26.70
90-130	1957.77	N.A.	39.80
90-150	2844.07	N.A.	57.80
90-180	3284.7	N.A.	66.70
110-180	2693.97	N.A.	54.70
0-180	4923.68	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

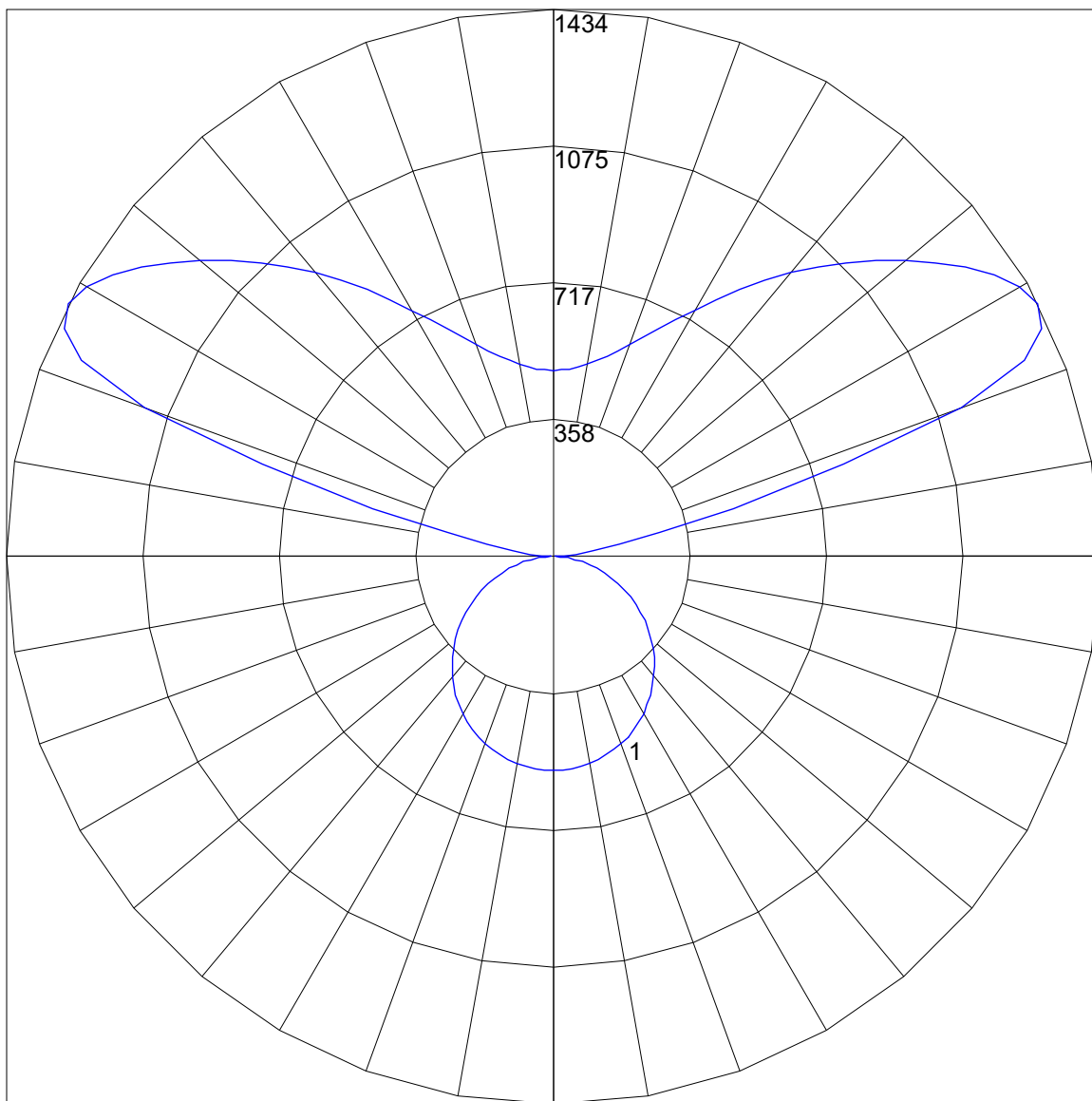
Zone	Lumens
0-10	53.12
10-20	152.22
20-30	230.80
30-40	278.57
40-50	289.61
50-60	263.36
60-70	204.86
70-80	125.46
80-90	40.98
90-100	110.12
100-110	480.61
110-120	724.58
120-130	642.46
130-140	511.52
140-150	374.77
150-160	250.29
160-170	143.51
170-180	46.84

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	103	103	103	103	93	93	93	93	74	74	74	57	57	57	41	41	41	33
1	94	90	86	82	84	81	78	75	64	62	60	49	48	47	36	35	34	28
2	85	78	72	67	77	70	65	61	56	53	50	43	41	39	31	30	28	23
3	78	68	61	55	70	62	56	51	49	45	41	38	35	32	27	26	24	19
4	71	60	52	47	64	55	48	43	44	39	35	34	30	28	24	22	20	16
5	65	54	46	40	58	48	42	36	39	34	30	30	27	24	22	20	18	14
6	60	48	40	34	54	43	36	31	35	30	26	27	23	21	20	17	15	12
7	55	43	35	30	49	39	32	27	32	26	23	25	21	18	18	16	14	11
8	51	39	31	26	46	35	29	24	29	24	20	22	19	16	17	14	12	10
9	47	35	28	23	43	32	26	21	26	21	18	21	17	14	15	13	11	9
10	44	32	25	21	40	30	23	19	24	19	16	19	15	13	14	12	10	8

POLAR GRAPH



Maximum Candela = 1433.538 Located At Horizontal Angle = 90, Vertical Angle = 117.5  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)