

# 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-2-ID-4FT-V-B-835-WSO-ITL89456.005.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

[TEST]ITL89456.005 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[TESTDATE]07/19/17  
[ISSUEDATE]08/23/17  
[MANUFAC]FINELITE, INC.  
[LUMCAT]HP2ID-4ft-V-B-835-WSO  
[INPUT\_ELECTRICAL]120.0 VOLTS, 54.3 WATTS  
[INPUT\_ELECTRICAL]277.0 VOLTS, 56.6 WATTS  
[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL89456. 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)  
[ABSOLUTE LUMENS]5722

**CHARACTERISTICS**

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5722
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	105
Total Luminaire Watts	54.3
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)	0.18 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	8773	8275	7789
55	7737	7287	6797
65	6729	6359	5953
75	5645	5433	5132
85	4392	4303	4034

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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	751.827	751.827	751.827	751.827	751.827
2.5	750.798	750.798	750.283	750.283	750.798
5.0	746.681	746.166	745.137	744.623	744.623
7.5	740.506	739.991	737.418	735.360	735.875
10.0	733.302	729.699	726.612	724.553	724.039
12.5	720.951	717.349	713.747	710.659	709.115
15.0	708.086	700.882	699.338	693.677	690.590
17.5	692.134	682.871	679.783	672.579	668.462
20.0	673.608	663.316	659.199	650.451	644.791
22.5	653.024	642.218	635.528	625.750	620.090
25.0	629.867	619.575	610.827	599.506	593.331
27.5	607.740	594.360	584.583	572.232	566.057
30.0	581.495	568.630	556.794	543.415	536.725
32.5	554.736	541.871	529.521	514.597	507.908
35.0	526.433	513.568	500.703	484.751	478.061
37.5	497.616	485.265	471.886	455.419	449.244
40.0	467.769	455.933	442.554	425.572	419.397
42.5	437.923	427.116	414.251	396.755	390.579
45.0	408.590	397.784	385.433	368.966	362.791
47.5	378.744	368.966	357.131	340.663	335.003
50.0	349.412	340.663	329.342	313.904	307.729
52.5	321.109	313.390	302.069	287.660	281.999
55.0	292.291	286.631	275.310	261.930	256.784
57.5	265.018	259.872	249.580	237.229	232.598
60.0	238.259	234.142	224.879	213.558	209.441
62.5	212.529	208.412	200.693	190.916	186.799
65.0	187.314	183.197	177.022	168.788	165.700
67.5	163.127	160.040	154.379	147.690	144.602
70.0	139.970	137.912	132.766	127.106	125.047
72.5	117.328	116.299	112.182	108.066	106.522
75.0	96.230	95.715	92.627	89.540	87.482
77.5	76.675	76.160	73.587	72.044	70.500
80.0	58.150	57.635	56.091	54.547	53.518
82.5	41.168	41.168	40.139	39.109	37.566
85.0	25.215	25.215	24.701	23.672	23.157
87.5	10.292	10.292	9.777	8.748	8.748
90.0	0.000	0.000	0.000	0.000	0.000
92.5	18.000	31.000	31.000	30.000	30.000
95.0	47.000	83.000	83.000	69.000	68.000
97.5	79.000	136.000	167.000	120.000	113.000
100.0	112.000	177.000	332.000	193.000	170.000
102.5	148.000	216.000	459.000	341.000	271.000
105.0	183.000	258.000	532.000	556.000	458.000
107.5	218.000	299.000	577.000	750.000	699.000
110.0	253.000	337.000	617.000	864.000	873.000
112.5	288.000	374.000	664.000	939.000	977.000
115.0	324.000	409.000	720.000	993.000	1048.000
117.5	360.000	444.000	781.000	1044.000	1103.000
120.0	396.000	481.000	831.000	1098.000	1158.000
122.5	429.000	512.000	867.000	1174.000	1216.000
125.0	460.000	542.000	887.000	1257.000	1299.000
127.5	489.000	570.000	899.000	1313.000	1391.000
130.0	513.000	594.000	906.000	1336.000	1457.000
132.5	537.000	616.000	908.000	1327.000	1478.000

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**CANDELA TABULATION - (Cont.)**

<b>135.0</b>	558.000	634.000	907.000	1299.000	1457.000
<b>137.5</b>	577.000	651.000	904.000	1261.000	1413.000
<b>140.0</b>	596.000	666.000	899.000	1219.000	1357.000
<b>142.5</b>	614.000	680.000	892.000	1172.000	1297.000
<b>145.0</b>	633.000	693.000	885.000	1127.000	1236.000
<b>147.5</b>	649.000	703.000	877.000	1081.000	1174.000
<b>150.0</b>	665.000	714.000	867.000	1040.000	1116.000
<b>152.5</b>	680.000	722.000	855.000	1001.000	1062.000
<b>155.0</b>	694.000	728.000	843.000	963.000	1012.000
<b>157.5</b>	707.000	736.000	832.000	928.000	967.000
<b>160.0</b>	718.000	741.000	819.000	894.000	925.000
<b>162.5</b>	728.000	745.000	806.000	865.000	886.000
<b>165.0</b>	736.000	749.000	793.000	837.000	853.000
<b>167.5</b>	743.000	752.000	783.000	813.000	824.000
<b>170.0</b>	749.000	755.000	776.000	794.000	801.000
<b>172.5</b>	752.000	757.000	768.000	778.000	784.000
<b>175.0</b>	756.000	758.000	763.000	768.000	770.000
<b>177.5</b>	758.000	758.000	760.000	760.000	761.000
<b>180.0</b>	759.000	759.000	759.000	759.000	759.000

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	266.88	N.A.	4.70
0-30	547.56	N.A.	9.60
0-40	860.34	N.A.	15.00
0-60	1403.00	N.A.	24.50
0-80	1676.54	N.A.	29.30
0-90	1704.28	N.A.	29.80
10-90	1633.7	N.A.	28.60
20-40	593.46	N.A.	10.40
20-50	890.13	N.A.	15.60
40-70	717.93	N.A.	12.50
60-80	273.54	N.A.	4.80
70-80	98.27	N.A.	1.70
80-90	27.74	N.A.	0.50
90-110	525.79	N.A.	9.20
90-120	1219.49	N.A.	21.30
90-130	2012.46	N.A.	35.20
90-150	3325.54	N.A.	58.10
90-180	4017.8	N.A.	70.20
110-180	3492.02	N.A.	61.00
0-180	5722.09	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

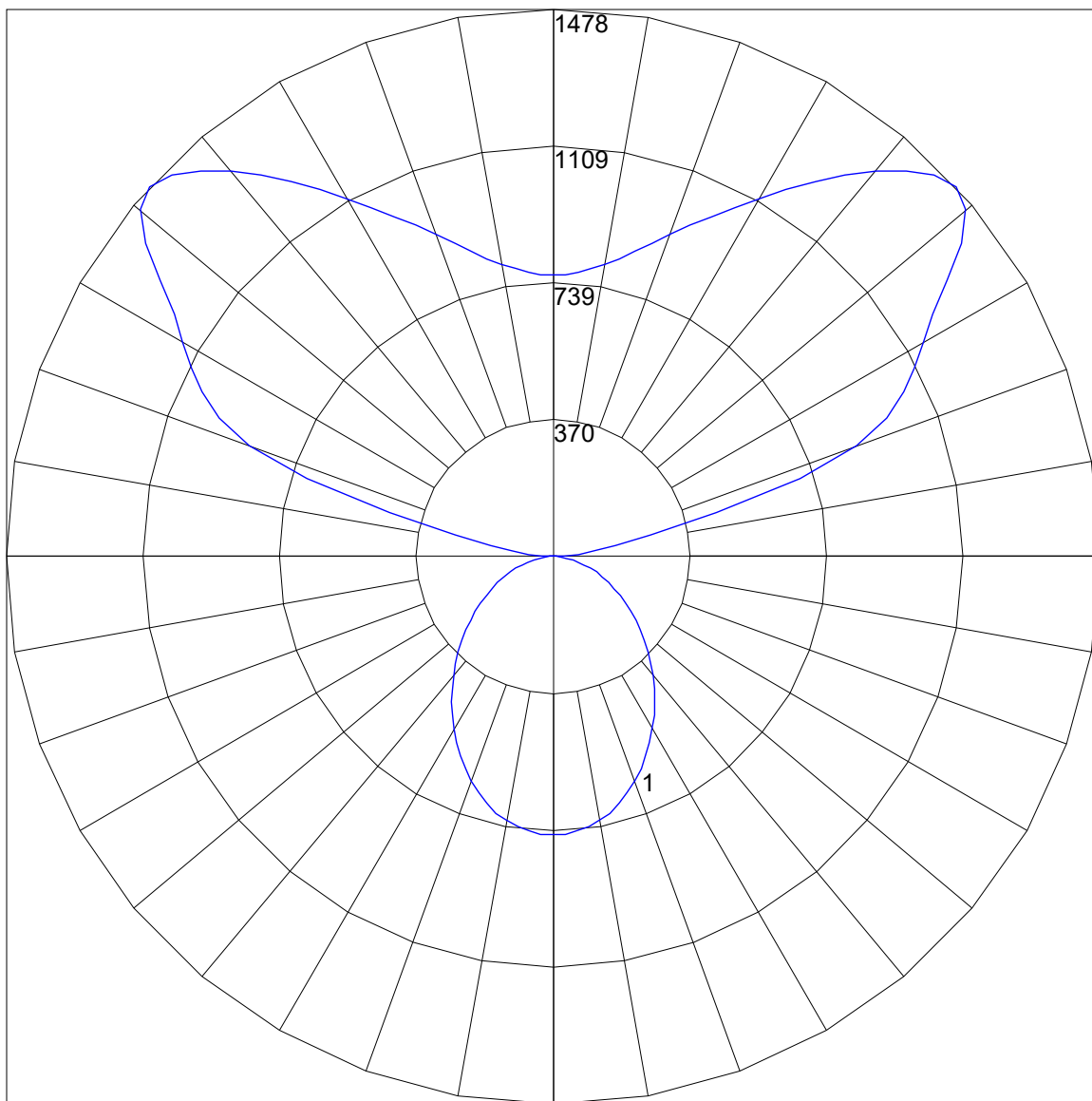
Zone	Lumens
0-10	70.58
10-20	196.29
20-30	280.68
30-40	312.78
40-50	296.66
50-60	246.00
60-70	175.27
70-80	98.27
80-90	27.74
90-100	91.71
100-110	434.08
110-120	693.70
120-130	792.97
130-140	741.14
140-150	571.94
150-160	393.14
160-170	225.92
170-180	73.20

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	102	102	102	102	92	92	92	92	72	72	72	54	54	54	38	38	38	30
1	93	89	86	82	84	80	77	74	63	61	59	48	46	45	33	33	32	25
2	85	78	72	67	76	70	65	61	56	52	49	42	40	38	29	28	27	21
3	78	69	62	56	69	62	56	51	49	45	41	37	34	32	26	25	23	18
4	71	61	53	47	63	55	48	43	44	39	35	33	30	28	24	22	20	16
5	65	54	46	41	58	49	42	37	39	34	31	30	27	24	21	19	18	14
6	60	48	41	35	54	44	37	32	35	30	27	27	24	21	19	17	16	12
7	55	44	36	31	50	40	33	28	32	27	23	24	21	19	18	15	14	11
8	51	40	32	27	46	36	29	25	29	24	21	22	19	17	16	14	12	10
9	48	36	29	24	43	33	26	22	26	22	18	21	17	15	15	13	11	9
10	45	33	26	21	40	30	24	20	24	20	17	19	16	13	14	12	10	8

POLAR GRAPH



Maximum Candela = 1478 Located At Horizontal Angle = 90, Vertical Angle = 132.5  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)