

# 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-4-ID-4FT-V-S-835-ITL85125.004.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST]ITL85125.004 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[TESTDATE]08/06/15  
[ISSUEDATE]02/09/17  
[MANUFAC]FINELITE, INC.  
[LUMCAT]FINELITE HP-4-ID-4ft-V-S-835  
[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 51.6 WATTS  
[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 53.9 WATTS  
[ABSOLUTE]LUMENS]5697  
[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL85125. 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	5697
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	110
Total Luminaire Watts	51.6
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)	0.32 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	4140	4082	4010
55	3844	3785	3708
65	3508	3460	3403
75	3068	3068	3055
85	2542	2659	2737

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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	590.702	590.702	590.702	590.702	590.702
2.5	589.474	589.474	589.474	589.474	589.474
5.0	586.608	587.018	587.018	586.608	587.018
7.5	582.515	582.924	582.515	581.696	582.515
10.0	576.784	575.556	575.965	575.965	575.146
12.5	569.825	567.778	568.187	568.187	566.140
15.0	560.000	556.725	558.772	557.953	555.088
17.5	549.357	544.854	546.901	546.082	543.216
20.0	536.667	531.754	533.392	532.164	529.298
22.5	522.749	517.427	518.655	517.018	514.152
25.0	507.193	501.462	502.690	501.053	497.778
27.5	490.409	484.678	485.497	483.450	480.585
30.0	472.398	466.667	467.076	465.029	461.754
32.5	453.567	449.064	448.655	445.789	442.924
35.0	434.737	429.825	429.415	425.731	423.275
37.5	414.269	409.357	409.766	405.263	402.807
40.0	393.801	389.708	389.298	384.795	382.339
42.5	374.152	368.830	367.602	363.918	361.462
45.0	351.637	347.953	346.725	343.041	340.585
47.5	329.942	326.257	325.439	321.754	319.298
50.0	308.246	304.971	303.743	300.058	298.012
52.5	286.550	283.275	282.865	278.772	276.725
55.0	264.854	261.988	260.760	257.076	255.439
57.5	242.749	240.292	239.064	235.790	234.152
60.0	221.462	218.596	217.778	214.912	213.684
62.5	199.357	196.901	196.082	193.626	192.807
65.0	178.070	176.023	175.614	173.567	172.749
67.5	156.374	155.146	154.737	153.099	152.281
70.0	135.497	134.678	134.678	133.450	132.632
72.5	115.029	115.439	114.620	115.029	113.801
75.0	95.380	95.790	95.380	95.790	94.971
77.5	76.550	76.959	77.778	77.778	77.778
80.0	58.947	59.357	60.175	60.585	60.585
82.5	42.983	43.392	43.801	44.211	44.211
85.0	26.608	27.427	27.836	28.246	28.655
87.5	11.462	12.281	12.690	13.918	13.918
90.0	0.000	0.000	0.000	0.000	0.000
92.5	30.000	32.000	34.000	38.000	39.000
95.0	71.000	72.000	76.000	81.000	82.000
97.5	115.000	116.000	121.000	126.000	125.000
100.0	160.000	162.000	167.000	172.000	171.000
102.5	206.000	210.000	215.000	220.000	220.000
105.0	257.000	261.000	266.000	270.000	269.000
107.5	311.000	314.000	317.000	321.000	321.000
110.0	369.000	369.000	372.000	376.000	375.000
112.5	427.000	425.000	429.000	435.000	430.000
115.0	485.000	483.000	485.000	490.000	486.000
117.5	543.000	544.000	545.000	546.000	543.000
120.0	602.000	604.000	603.000	602.000	600.000
122.5	662.000	664.000	664.000	661.000	658.000
125.0	723.000	726.000	726.000	720.000	717.000
127.5	784.000	786.000	788.000	779.000	773.000
130.0	843.000	844.000	846.000	840.000	835.000
132.5	903.000	902.000	903.000	899.000	893.000

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CANDELA TABULATION - (Cont.)

135.0	963.000	958.000	961.000	958.000	951.000
137.5	1021.000	1013.000	1018.000	1014.000	1007.000
140.0	1079.000	1070.000	1076.000	1072.000	1064.000
142.5	1132.000	1125.000	1132.000	1126.000	1119.000
145.0	1189.000	1177.000	1185.000	1179.000	1172.000
147.5	1240.000	1228.000	1236.000	1230.000	1223.000
150.0	1290.000	1277.000	1285.000	1279.000	1273.000
152.5	1334.000	1324.000	1332.000	1325.000	1320.000
155.0	1377.000	1367.000	1374.000	1368.000	1363.000
157.5	1419.000	1409.000	1415.000	1409.000	1405.000
160.0	1455.000	1447.000	1453.000	1447.000	1444.000
162.5	1489.000	1480.000	1487.000	1481.000	1479.000
165.0	1517.000	1510.000	1514.000	1511.000	1510.000
167.5	1542.000	1536.000	1539.000	1537.000	1537.000
170.0	1563.000	1559.000	1561.000	1559.000	1559.000
172.5	1578.000	1578.000	1577.000	1577.000	1577.000
175.0	1590.000	1590.000	1590.000	1589.000	1590.000
177.5	1597.000	1598.000	1598.000	1598.000	1598.000
180.0	1600.000	1600.000	1600.000	1600.000	1600.000

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	212.80	N.A.	3.70
0-30	443.81	N.A.	7.80
0-40	711.69	N.A.	12.50
0-60	1211.11	N.A.	21.30
0-80	1486.02	N.A.	26.10
0-90	1517.15	N.A.	26.60
10-90	1461.48	N.A.	25.70
20-40	498.90	N.A.	8.80
20-50	765.76	N.A.	13.40
40-70	672.82	N.A.	11.80
60-80	274.92	N.A.	4.80
70-80	101.52	N.A.	1.80
80-90	31.13	N.A.	0.50
90-110	366.84	N.A.	6.40
90-120	848.57	N.A.	14.90
90-130	1494.82	N.A.	26.20
90-150	2972.13	N.A.	52.20
90-180	4180.24	N.A.	73.40
110-180	3813.4	N.A.	66.90
0-180	5697.39	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	55.67
10-20	157.12
20-30	231.01
30-40	267.88
40-50	266.86
50-60	232.55
60-70	173.40
70-80	101.52
80-90	31.13
90-100	85.72
100-110	281.12
110-120	481.73
120-130	646.25
130-140	739.31
140-150	738.00
150-160	631.02
160-170	426.27
170-180	150.82

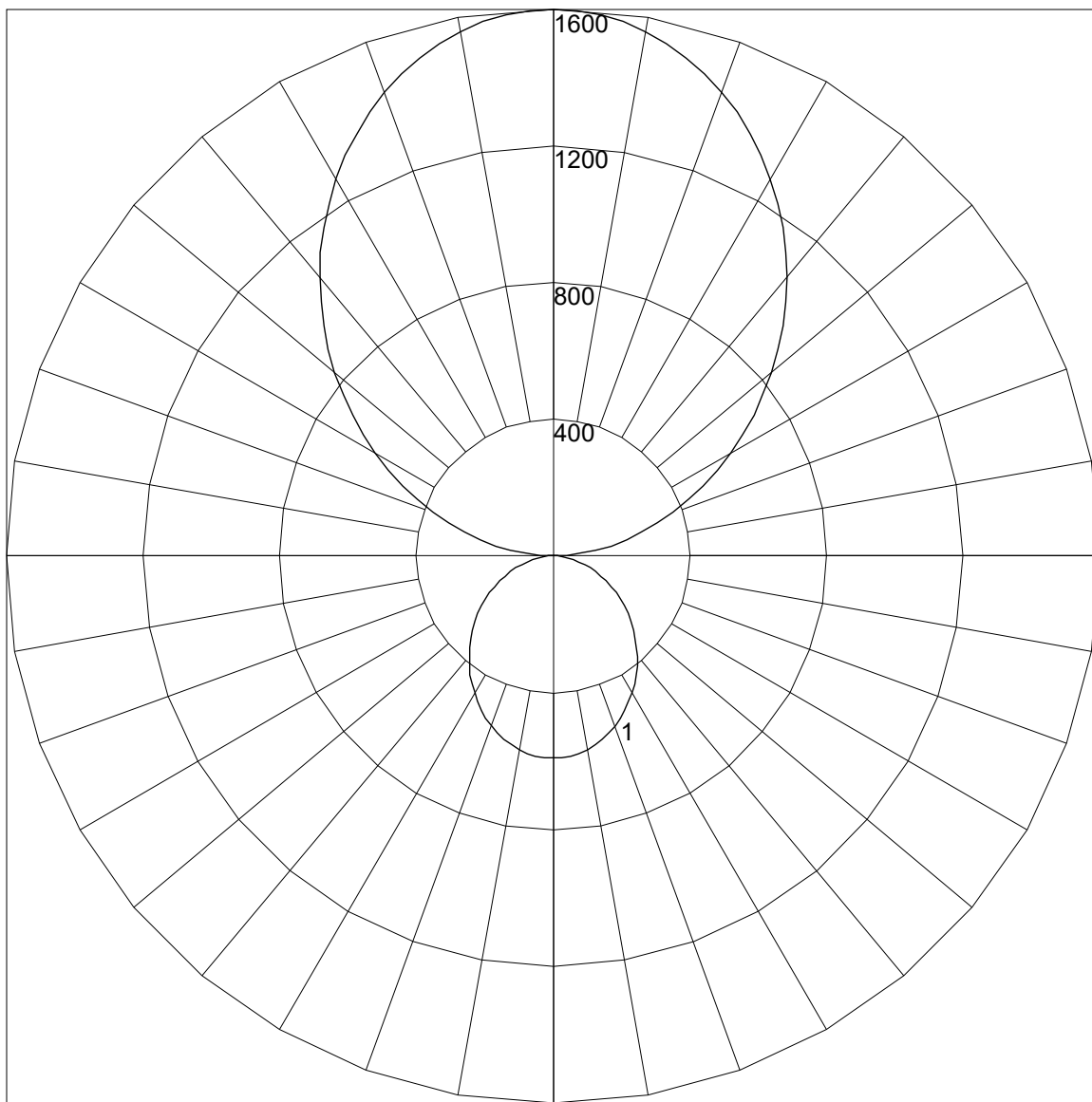
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	102	102	102	102	91	91	91	91	70	70	70	52	52	52	35	35	35	27
1	93	88	85	81	82	79	76	73	61	59	57	45	44	43	31	30	29	22
2	84	77	71	66	75	69	64	60	54	50	48	40	38	36	27	26	25	19
3	77	68	61	55	68	61	55	50	47	43	40	35	32	30	24	22	21	16
4	70	60	52	46	62	54	47	42	42	37	34	31	28	26	21	19	18	14
5	64	53	45	40	57	48	41	36	37	33	29	28	25	22	19	17	16	12
6	59	47	40	34	53	43	36	31	34	29	25	25	22	19	17	15	14	10
7	54	43	35	30	48	38	32	27	30	26	22	23	20	17	16	14	12	9
8	50	39	31	26	45	35	28	24	28	23	19	21	18	15	14	12	11	8
9	47	35	28	23	42	32	25	21	25	21	17	19	16	14	13	11	10	7
10	44	32	25	21	39	29	23	19	23	19	15	18	14	12	12	10	9	7

POLAR GRAPH



Maximum Candela = 1600 Located At Horizontal Angle = 0, Vertical Angle = 180  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)