

# 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-D-4FT-B-835-DL-ITL90630.002.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

[TEST]ITL90630.002 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[TESTDATE]07/09/18  
[ISSUEDATE]07/30/18  
[MANUFAC]FINELITE, INC.  
[LUMCAT]FINELITE HP-2-D-4ft-B-835-DL  
[INPUT\_ELECTRICAL]120.0 VOLTS, 18.4 WATTS  
[INPUT\_ELECTRICAL]277.0 VOLTS, 19.6 WATTS  
[ABSOLUTE LUMENS]1872  
[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL90630. 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	1872
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	102
Total Luminaire Watts	18.4
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	1.22
Spacing Criterion (90-270)	1.32
Spacing Criterion (Diagonal)	1.42
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	3.99 ft
Luminous Width (90-270)	0.17 ft
Luminous Height	0.08 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	6545	5686	5483
55	6074	5173	5008
65	5496	4611	4517
75	4595	3976	4003
85	3212	3400	3564

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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	498.816	498.816	498.816	498.816	498.816
2.5	498.816	498.302	498.816	499.331	499.331
5.0	496.243	496.757	497.787	499.331	499.846
7.5	492.639	493.669	496.757	499.331	499.846
10.0	488.006	489.036	494.698	498.302	498.816
12.5	481.829	483.373	491.095	495.213	496.757
15.0	474.107	476.166	485.947	491.610	492.639
17.5	464.327	467.930	479.255	485.947	487.491
20.0	454.031	458.664	471.533	478.740	479.770
22.5	442.706	447.854	462.782	470.504	472.048
25.0	428.807	436.529	453.002	460.723	463.297
27.5	415.938	424.174	442.191	450.942	453.002
30.0	401.524	411.305	430.351	440.132	442.191
32.5	386.596	397.921	418.512	428.292	431.381
35.0	369.608	383.507	405.642	415.938	419.026
37.5	353.650	369.093	391.743	403.583	407.187
40.0	337.177	353.650	378.359	390.714	394.317
42.5	319.675	338.207	363.431	376.815	380.933
45.0	301.658	322.764	348.502	362.916	367.549
47.5	283.641	306.291	333.574	348.502	353.135
50.0	266.138	289.303	318.131	334.089	339.236
52.5	247.092	272.830	302.173	319.675	325.337
55.0	229.075	255.843	286.215	304.232	310.409
57.5	211.058	238.855	270.257	288.788	294.966
60.0	192.526	220.838	253.784	273.345	280.037
62.5	173.479	203.336	237.311	257.902	264.594
65.0	154.947	186.348	219.809	240.914	248.636
67.5	136.930	168.846	203.336	225.471	233.708
70.0	118.398	150.829	186.348	209.513	216.720
72.5	99.866	133.327	169.876	193.040	201.277
75.0	81.849	116.339	153.403	177.082	185.834
77.5	64.862	100.381	136.930	161.639	170.905
80.0	49.418	84.423	122.516	147.226	155.462
82.5	34.490	70.009	108.617	133.327	142.078
85.0	22.135	57.655	96.263	120.972	129.723
87.5	12.869	47.359	85.453	110.162	118.398
90.0	5.663	40.152	77.216	101.925	109.647
92.5	5.663	38.608	74.642	97.807	106.044
95.0	5.148	37.579	72.583	95.233	102.440
97.5	5.148	36.034	70.009	92.145	99.351
100.0	4.633	34.490	67.950	89.056	96.263
102.5	4.633	33.460	65.891	86.482	93.174
105.0	4.633	31.401	63.317	83.393	90.086
107.5	4.118	29.857	61.258	80.305	86.997
110.0	3.603	28.827	58.684	77.216	83.908
112.5	3.603	27.283	56.110	74.128	80.820
115.0	3.603	25.739	54.051	71.554	77.731
117.5	3.089	24.194	51.477	68.465	74.128
120.0	3.089	22.650	48.904	65.376	71.039
122.5	2.574	21.106	46.330	62.288	67.950
125.0	2.574	19.561	43.756	59.199	64.347
127.5	2.059	18.017	41.182	55.596	61.258
130.0	2.059	16.473	38.608	52.507	57.655
132.5	2.059	14.928	36.034	49.418	54.051

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**CANDELA TABULATION - (Cont.)**

<b>135.0</b>	1.544	13.384	32.946	46.330	50.963
<b>137.5</b>	1.544	11.840	30.372	42.726	47.359
<b>140.0</b>	1.544	10.295	27.283	39.638	43.756
<b>142.5</b>	1.544	8.751	24.194	36.549	40.667
<b>145.0</b>	1.030	7.722	21.621	33.460	37.064
<b>147.5</b>	1.030	6.692	19.047	29.857	33.460
<b>150.0</b>	1.030	5.663	16.473	26.768	29.857
<b>152.5</b>	0.515	4.118	13.899	23.165	26.253
<b>155.0</b>	0.515	3.603	11.325	19.561	22.650
<b>157.5</b>	0.515	2.574	9.266	15.443	19.047
<b>160.0</b>	0.515	1.544	7.207	12.355	15.443
<b>162.5</b>	0.515	1.030	5.663	9.266	12.355
<b>165.0</b>	0.515	1.030	4.118	6.692	9.266
<b>167.5</b>	0.515	0.515	2.574	4.633	6.177
<b>170.0</b>	0.515	0.515	1.030	2.574	3.603
<b>172.5</b>	0.515	0.515	0.515	1.030	1.544
<b>175.0</b>	0.000	0.000	0.000	0.000	0.000
<b>177.5</b>	0.000	0.000	0.000	0.000	0.000
<b>180.0</b>	0.000	0.000	0.000	0.000	0.000

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	184.01	N.A.	9.80
0-30	391.03	N.A.	20.90
0-40	641.42	N.A.	34.30
0-60	1155.21	N.A.	61.70
0-80	1519.42	N.A.	81.10
0-90	1616.63	N.A.	86.30
10-90	1569.22	N.A.	83.80
20-40	457.40	N.A.	24.40
20-50	721.55	N.A.	38.50
40-70	724.21	N.A.	38.70
60-80	364.21	N.A.	19.50
70-80	153.79	N.A.	8.20
80-90	97.21	N.A.	5.20
90-110	130.36	N.A.	7.00
90-120	177.91	N.A.	9.50
90-130	212.93	N.A.	11.40
90-150	249.01	N.A.	13.30
90-180	255.80	N.A.	13.70
110-180	125.45	N.A.	6.70
0-180	1872.44	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	47.41
10-20	136.60
20-30	207.02
30-40	250.38
40-50	264.15
50-60	249.64
60-70	210.42
70-80	153.79
80-90	97.21
90-100	70.66
100-110	59.70
110-120	47.56
120-130	35.02
130-140	23.11
140-150	12.96
150-160	5.45
160-170	1.28
170-180	0.06

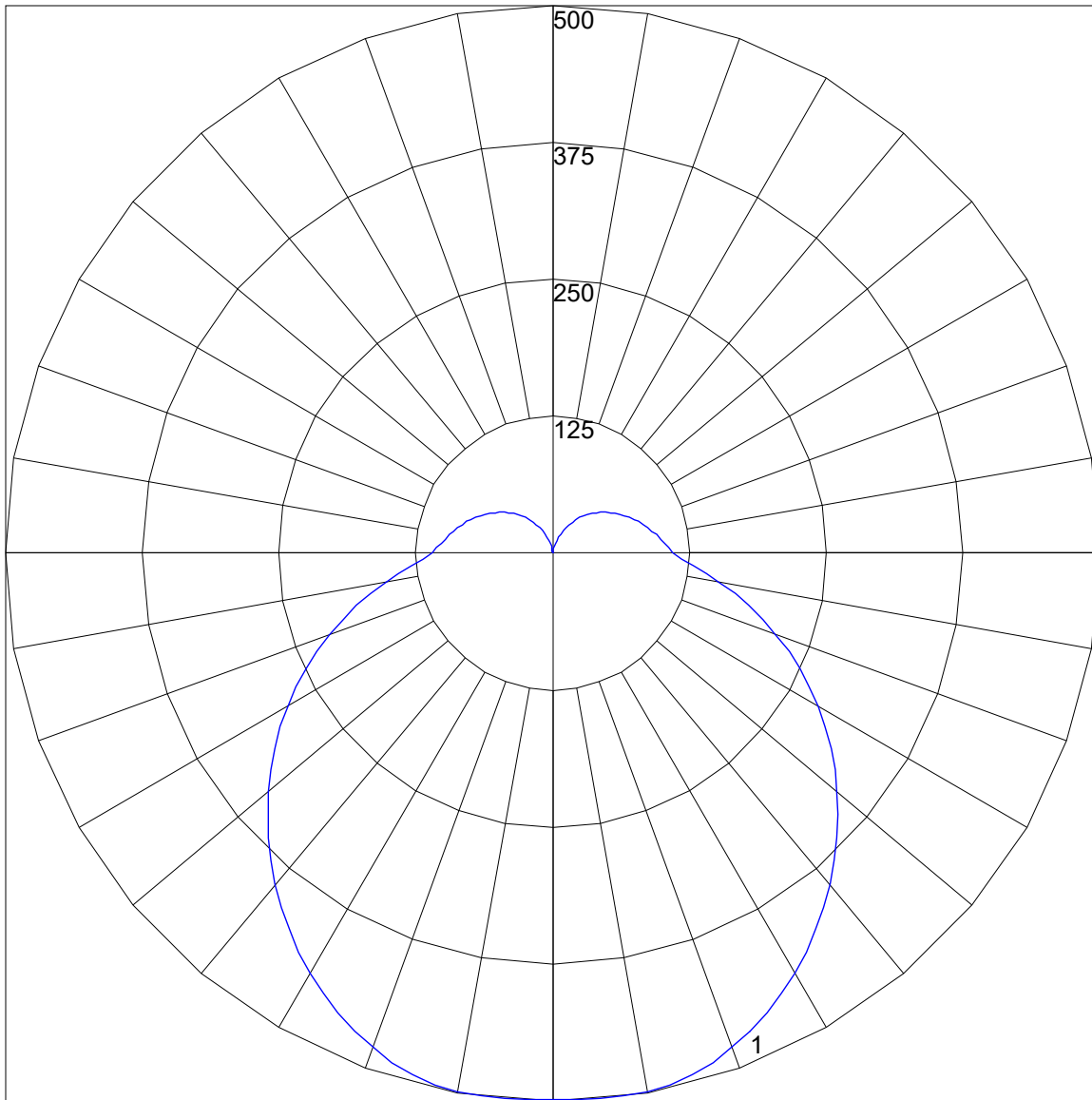
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	116	116	116	116	112	112	112	112	104	104	104	96	96	96	90	90	90	86
1	104	98	93	89	100	95	90	86	88	84	81	82	79	76	76	74	72	68
2	94	85	77	71	90	82	75	69	76	70	66	71	66	62	66	62	59	56
3	85	74	65	59	81	71	63	57	66	60	54	62	56	52	58	53	49	46
4	78	65	56	49	74	63	55	48	59	52	46	55	49	44	51	46	42	39
5	71	58	49	42	68	56	48	41	52	45	39	49	43	38	46	40	36	34
6	66	52	43	36	63	50	42	36	47	40	34	44	38	33	41	36	32	29
7	61	47	38	32	58	46	37	31	43	36	30	40	34	29	38	32	28	26
8	57	43	34	28	54	42	34	28	39	32	27	37	31	26	35	29	25	23
9	53	39	31	25	51	38	30	25	36	29	24	34	28	23	32	27	23	21
10	49	36	28	23	47	35	28	23	33	27	22	31	25	21	30	24	20	19

POLAR GRAPH



Maximum Candela = 499.846 Located At Horizontal Angle = 90, Vertical Angle = 5  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)