

# 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-ITL85136.002.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST]ITL85136.002 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[TESTDATE]08/14/15  
[ISSUEDATE]02/09/17  
[MANUFAC]FINELITE, INC.  
[LUMCAT]FINELITE HP-2-D-4ft-B-835  
[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 18.4 WATTS  
[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 19.7 WATTS  
[ABSOLUTE]LUMENS]1655  
[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL85136. 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	1655
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	90
Total Luminaire Watts	18.4
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.18
Spacing Criterion (90-270)	1.12
Spacing Criterion (Diagonal)	1.26
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	8419	8011	7580
55	7669	7247	6811
65	6914	6489	6119
75	6218	5886	5554
85	5558	5289	5110

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**CANDELA TABULATION**

	<u><b>0.0</b></u>	<u><b>22.5</b></u>	<u><b>45.0</b></u>	<u><b>67.5</b></u>	<u><b>90.0</b></u>
<b>0.0</b>	686.503	686.503	686.503	686.503	686.503
<b>2.5</b>	685.988	685.474	685.474	685.474	685.474
<b>5.0</b>	682.901	682.386	682.386	681.871	681.357
<b>7.5</b>	677.240	677.240	675.696	675.181	674.152
<b>10.0</b>	671.064	667.977	667.462	666.433	664.889
<b>12.5</b>	661.287	657.170	656.655	654.596	651.509
<b>15.0</b>	649.965	644.304	643.789	640.187	636.070
<b>17.5</b>	636.585	629.380	628.866	623.719	618.058
<b>20.0</b>	620.632	612.912	611.368	604.164	598.503
<b>22.5</b>	603.649	594.901	591.813	583.064	576.374
<b>25.0</b>	583.064	574.830	570.713	559.906	553.216
<b>27.5</b>	562.480	553.216	547.556	536.234	532.117
<b>30.0</b>	540.351	531.088	523.883	511.532	506.901
<b>32.5</b>	517.193	508.959	499.696	486.830	481.684
<b>35.0</b>	493.006	484.772	474.994	461.099	456.468
<b>37.5</b>	468.819	460.585	450.292	435.883	430.737
<b>40.0</b>	442.573	434.339	425.076	409.637	403.462
<b>42.5</b>	416.842	410.152	399.345	383.392	378.246
<b>45.0</b>	392.140	384.421	373.099	358.690	353.029
<b>47.5</b>	366.409	359.205	347.883	333.988	328.327
<b>50.0</b>	340.164	333.988	322.667	309.287	304.140
<b>52.5</b>	314.433	308.257	297.450	285.099	280.468
<b>55.0</b>	289.731	283.556	273.778	261.942	257.310
<b>57.5</b>	264.000	258.854	249.076	238.269	234.152
<b>60.0</b>	239.813	234.667	225.404	216.140	212.538
<b>62.5</b>	215.626	210.994	202.760	194.526	190.924
<b>65.0</b>	192.468	187.836	180.632	173.427	170.339
<b>67.5</b>	169.825	165.708	159.532	153.871	150.269
<b>70.0</b>	148.211	144.608	138.947	134.316	131.228
<b>72.5</b>	126.596	123.509	118.877	115.275	112.702
<b>75.0</b>	106.012	103.439	100.351	96.749	94.690
<b>77.5</b>	86.456	84.398	81.825	78.737	77.193
<b>80.0</b>	67.415	66.386	63.813	61.754	61.240
<b>82.5</b>	49.404	48.889	46.830	45.801	45.287
<b>85.0</b>	31.906	31.392	30.363	29.333	29.333
<b>87.5</b>	14.409	14.409	14.409	13.895	13.895
<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	245.57	N.A.	14.80
0-30	507.11	N.A.	30.60
0-40	803.43	N.A.	48.60
0-60	1335.04	N.A.	80.70
0-80	1620.94	N.A.	98.00
0-90	1654.65	N.A.	100.00
10-90	1590.01	N.A.	96.10
20-40	557.87	N.A.	33.70
20-50	845.17	N.A.	51.10
40-70	711.22	N.A.	43.00
60-80	285.90	N.A.	17.30
70-80	106.29	N.A.	6.40
80-90	33.71	N.A.	2.00
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	1654.65	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	64.64
10-20	180.93
20-30	261.54
30-40	296.32
40-50	287.31
50-60	244.30
60-70	179.62
70-80	106.29
80-90	33.71
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

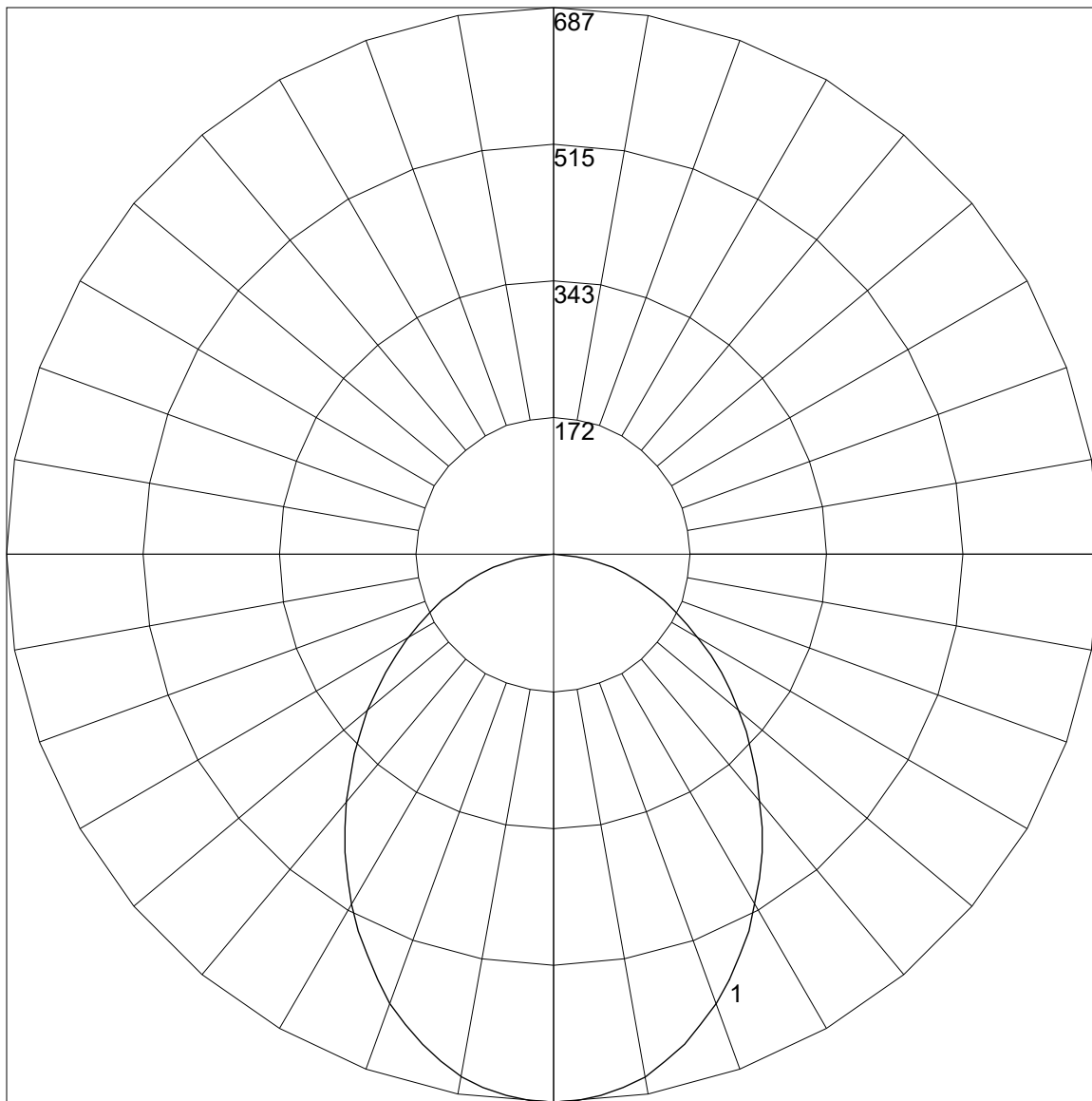
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	85	79	97	90	83	78	86	81	76	83	78	75	80	76	73	71
3	91	81	73	66	89	79	72	66	76	70	65	73	68	64	71	66	62	60
4	84	72	63	57	81	71	63	56	68	61	56	66	60	55	64	58	54	52
5	77	64	56	49	75	63	55	49	61	54	48	59	53	48	57	52	47	45
6	71	58	50	43	69	57	49	43	56	48	43	54	47	42	52	47	42	40
7	66	53	44	38	65	52	44	38	51	43	38	49	43	38	48	42	37	36
8	62	49	40	35	60	48	40	34	47	39	34	45	39	34	44	38	34	32
9	58	45	37	31	56	44	36	31	43	36	31	42	35	31	41	35	31	29
10	54	41	34	28	53	41	33	28	40	33	28	39	33	28	38	32	28	26

POLAR GRAPH



Maximum Candela = 686.503 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)