

# 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-R-4FT-S-835-ITL85128.001.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST]ITL85128.001 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[TESTDATE]08/07/15  
[ISSUEDATE]02/10/17  
[MANUFAC]FINELITE, INC.  
[LUMCAT]FINELITE HP-4-R-4ft-S-835  
[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 14.5 WATTS  
[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 15.9 WATTS  
[ABSOLUTE]LUMENS]1525  
[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL85128. 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	1525
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	105
Total Luminaire Watts	14.5
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.18
Spacing Criterion (Diagonal)	1.30
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	4164	4102	4020
55	3862	3803	3720
65	3556	3492	3427
75	3134	3134	3108
85	2737	2737	2776

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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>
<b>0.0</b>	590.292	590.292	590.292	590.292	590.292
<b>2.5</b>	589.474	589.474	589.474	589.474	589.474
<b>5.0</b>	587.018	587.018	586.608	586.608	587.018
<b>7.5</b>	582.924	582.515	582.515	582.105	582.515
<b>10.0</b>	577.193	575.965	576.374	576.374	575.556
<b>12.5</b>	569.825	566.959	568.596	568.187	566.959
<b>15.0</b>	560.409	556.725	558.772	558.363	556.316
<b>17.5</b>	550.175	545.263	548.129	546.901	544.444
<b>20.0</b>	537.076	532.164	535.029	532.982	530.117
<b>22.5</b>	523.977	517.427	520.292	517.836	515.380
<b>25.0</b>	508.012	501.871	504.327	501.462	499.006
<b>27.5</b>	491.637	485.906	487.544	483.860	481.813
<b>30.0</b>	474.035	468.304	469.532	465.439	463.392
<b>32.5</b>	454.795	450.292	450.292	446.608	444.152
<b>35.0</b>	435.556	431.053	431.871	426.959	424.503
<b>37.5</b>	416.316	411.403	411.403	407.310	404.444
<b>40.0</b>	395.439	390.936	390.936	386.433	383.567
<b>42.5</b>	374.561	370.468	369.649	365.556	362.690
<b>45.0</b>	353.684	349.181	348.363	343.860	341.403
<b>47.5</b>	331.988	327.895	327.076	322.982	320.117
<b>50.0</b>	309.474	306.199	305.380	301.696	298.830
<b>52.5</b>	288.187	285.322	283.684	280.000	277.544
<b>55.0</b>	266.082	263.626	261.988	258.304	256.257
<b>57.5</b>	244.386	241.930	240.292	237.018	234.971
<b>60.0</b>	222.281	220.234	219.006	216.550	214.094
<b>62.5</b>	201.813	199.357	197.719	195.673	193.626
<b>65.0</b>	180.526	178.480	177.251	175.205	173.977
<b>67.5</b>	159.240	157.193	156.374	154.737	153.918
<b>70.0</b>	137.544	136.725	136.316	134.678	134.269
<b>72.5</b>	117.076	116.667	116.667	115.439	115.439
<b>75.0</b>	97.427	97.018	97.427	97.018	96.608
<b>77.5</b>	79.415	78.596	79.006	79.415	79.006
<b>80.0</b>	61.404	60.585	61.404	62.222	61.813
<b>82.5</b>	44.620	44.211	45.029	45.439	45.029
<b>85.0</b>	28.655	28.246	28.655	29.474	29.064
<b>87.5</b>	13.509	13.099	13.509	13.918	13.509
<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	212.95	N.A.	14.00
0-30	444.46	N.A.	29.10
0-40	713.31	N.A.	46.80
0-60	1215.01	N.A.	79.60
0-80	1493.36	N.A.	97.90
0-90	1525.44	N.A.	100.00
10-90	1469.76	N.A.	96.30
20-40	500.36	N.A.	32.80
20-50	768.33	N.A.	50.40
40-70	676.90	N.A.	44.40
60-80	278.35	N.A.	18.20
70-80	103.15	N.A.	6.80
80-90	32.08	N.A.	2.10
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	1525.44	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	55.68
10-20	157.27
20-30	231.51
30-40	268.85
40-50	267.97
50-60	233.73
60-70	175.19
70-80	103.15
80-90	32.08
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

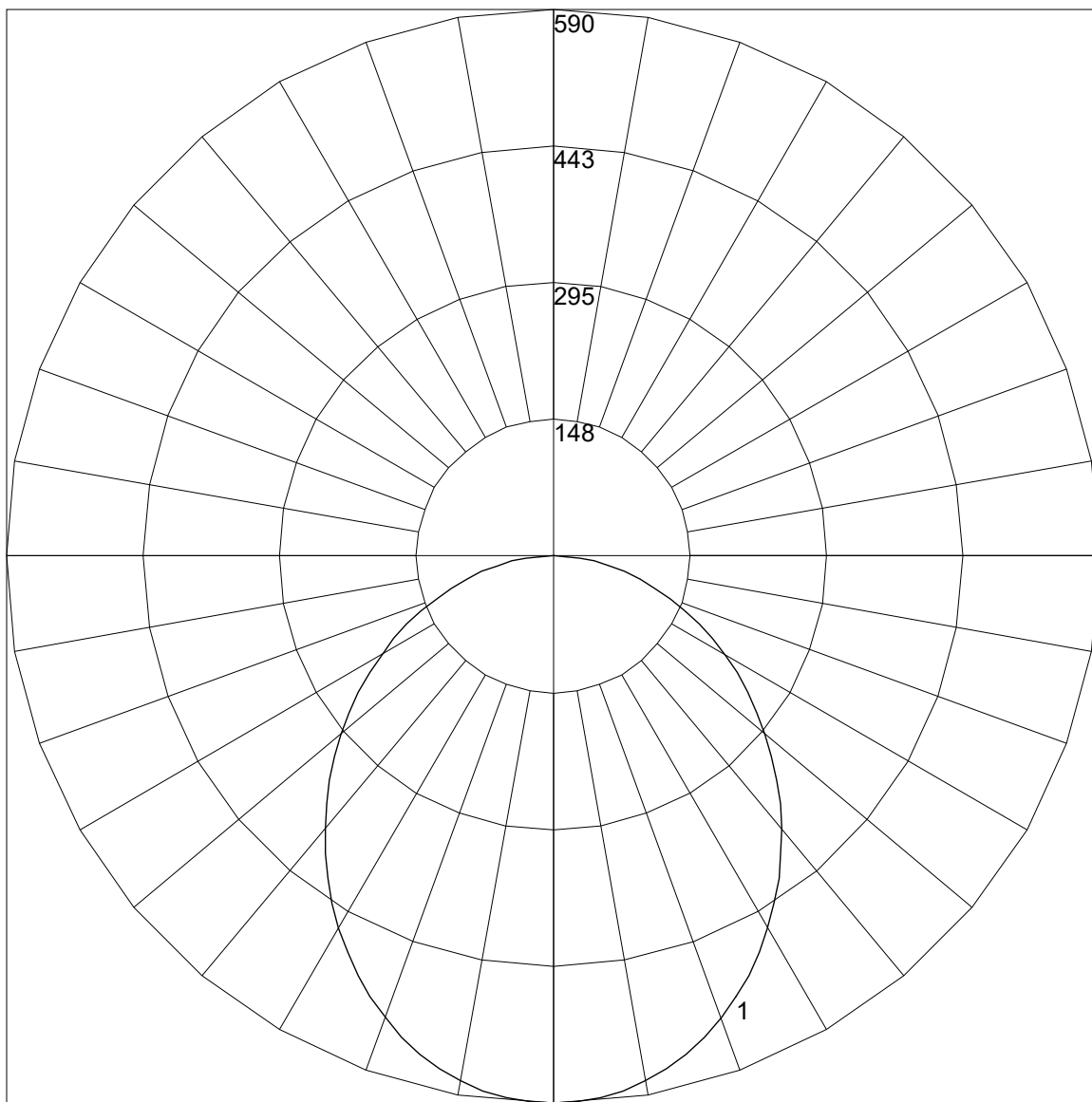
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	94	98	94	91	94	91	89	90	88	86	84
2	99	91	84	78	96	89	83	78	85	80	76	82	78	74	79	76	72	70
3	91	80	72	66	88	78	71	65	75	69	64	73	67	63	70	66	62	59
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	57	53	51
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	57	51	46	44
6	71	57	49	42	69	57	48	42	55	47	42	53	46	41	51	46	41	39
7	66	52	44	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34
8	61	48	39	33	60	47	39	33	46	38	33	44	38	33	43	37	33	31
9	57	44	36	30	56	43	35	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25

POLAR GRAPH



Maximum Candela = 590.292 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)