

# 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-R-4FT-S-835-ITL85135.001.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST]ITL85135.001 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[TESTDATE]08/13/15  
[ISSUE DATE]02/10/17  
[MANUFACTURER]FINELITE, INC.  
[LUMCAT]FINELITE HP-2-R-4ft-S-835  
[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 14.5 WATTS  
[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 16.0 WATTS  
[ABSOLUTE LUMENS]1346  
[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL85135. 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	1346
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	93
Total Luminaire Watts	14.5
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.14
Spacing Criterion (Diagonal)	1.28
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	6794	6522	6249
55	6230	5949	5656
65	5676	5412	5147
75	5139	4874	4706
85	4635	4350	4278

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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>	546.491	546.491	546.491	546.491	546.491
<b>2.5</b>	545.672	545.672	545.672	545.672	545.672
<b>5.0</b>	543.216	542.807	542.398	542.398	541.988
<b>7.5</b>	539.123	538.713	537.895	537.485	537.076
<b>10.0</b>	533.801	531.754	531.345	530.936	530.117
<b>12.5</b>	526.433	523.567	523.977	521.930	519.883
<b>15.0</b>	517.427	513.333	513.743	510.877	508.421
<b>17.5</b>	507.193	501.871	501.462	498.187	494.503
<b>20.0</b>	494.503	488.772	487.544	483.450	479.357
<b>22.5</b>	480.585	474.854	473.216	467.485	463.801
<b>25.0</b>	465.848	459.298	456.842	450.292	446.199
<b>27.5</b>	449.883	442.515	439.649	432.281	427.778
<b>30.0</b>	432.690	426.140	421.228	413.860	408.947
<b>32.5</b>	414.678	408.129	403.216	394.620	390.526
<b>35.0</b>	395.848	389.298	383.567	374.561	370.058
<b>37.5</b>	377.018	370.468	364.327	354.503	350.819
<b>40.0</b>	357.368	351.228	344.269	334.444	330.760
<b>42.5</b>	337.719	331.579	324.211	314.386	311.111
<b>45.0</b>	316.433	311.111	303.743	294.327	291.053
<b>47.5</b>	295.965	291.462	284.094	275.088	270.585
<b>50.0</b>	276.316	270.994	264.035	255.439	251.345
<b>52.5</b>	255.848	250.936	244.386	235.789	232.515
<b>55.0</b>	235.380	231.287	224.737	216.550	213.684
<b>57.5</b>	215.731	211.637	205.497	198.129	195.673
<b>60.0</b>	196.082	192.398	186.667	180.117	177.661
<b>62.5</b>	176.842	173.977	168.655	162.924	160.058
<b>65.0</b>	158.012	155.146	150.643	144.912	143.275
<b>67.5</b>	139.591	137.134	133.041	128.947	126.901
<b>70.0</b>	121.988	119.532	115.439	112.573	110.936
<b>72.5</b>	104.795	102.339	99.064	96.608	95.380
<b>75.0</b>	87.602	85.556	83.099	80.643	80.234
<b>77.5</b>	71.637	70.000	67.953	65.906	65.497
<b>80.0</b>	55.673	54.854	53.216	51.579	51.988
<b>82.5</b>	41.345	40.526	39.298	38.480	38.480
<b>85.0</b>	26.608	25.789	24.971	24.561	24.561
<b>87.5</b>	12.281	11.871	11.462	11.462	11.462
<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	195.76	N.A.	14.50
0-30	405.40	N.A.	30.10
0-40	644.75	N.A.	47.90
0-60	1079.76	N.A.	80.20
0-80	1317.52	N.A.	97.90
0-90	1345.58	N.A.	100.00
10-90	1294.14	N.A.	96.20
20-40	448.99	N.A.	33.40
20-50	683.17	N.A.	50.80
40-70	584.25	N.A.	43.40
60-80	237.76	N.A.	17.70
70-80	88.52	N.A.	6.60
80-90	28.06	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	1345.58	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	51.45
10-20	144.31
20-30	209.64
30-40	239.35
40-50	234.18
50-60	200.84
60-70	149.24
70-80	88.52
80-90	28.06
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

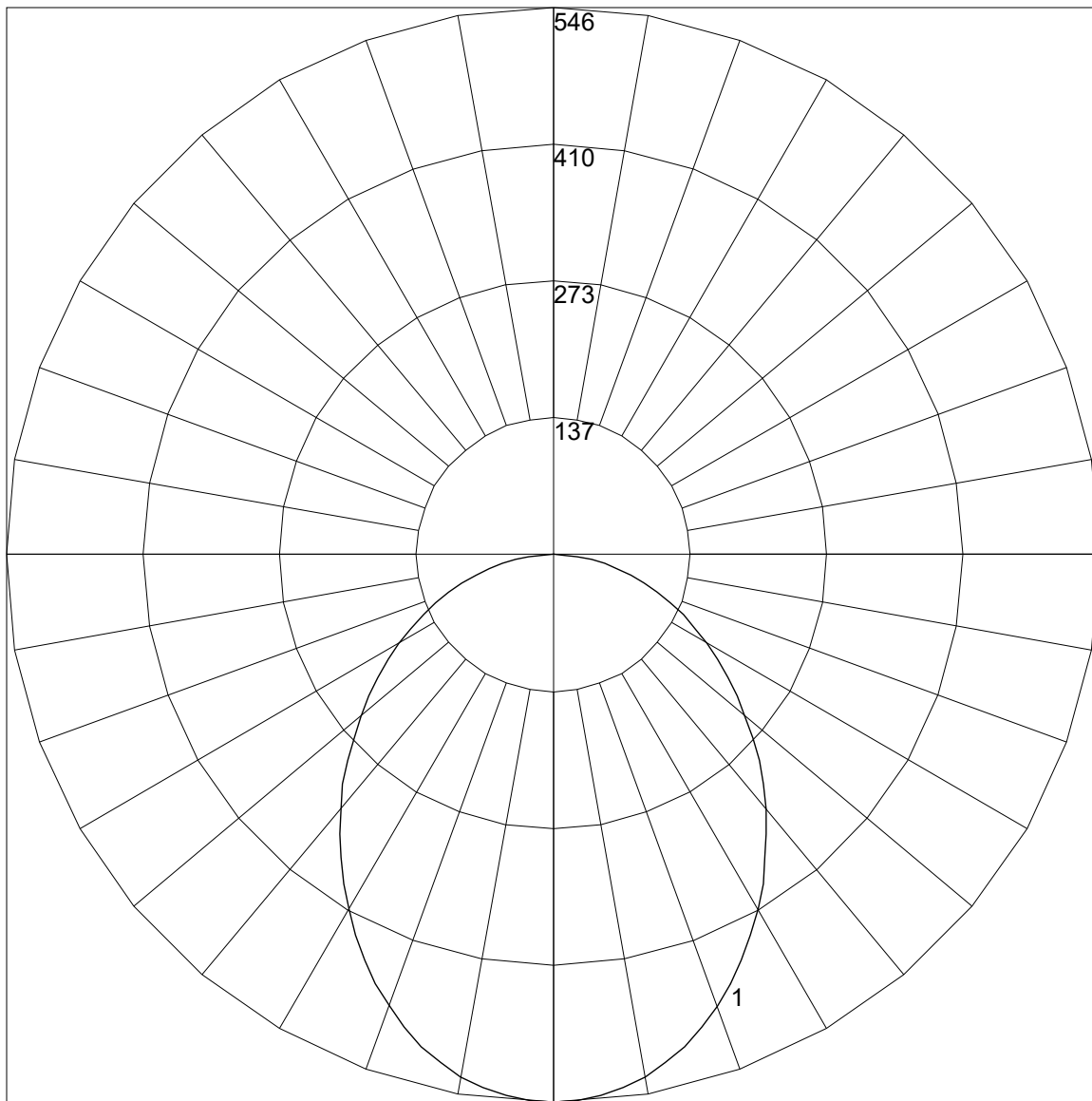
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	94	92	94	91	89	90	88	86	84
2	99	91	84	79	97	89	83	78	86	81	76	82	78	74	79	76	73	71
3	91	80	72	66	88	79	71	65	76	70	64	73	68	63	71	66	62	60
4	83	72	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	52
5	77	64	55	49	75	63	55	49	61	54	48	59	53	48	57	52	47	45
6	71	58	49	43	69	57	49	43	55	48	42	54	47	42	52	46	42	40
7	66	53	44	38	64	52	44	38	50	43	38	49	42	37	48	42	37	35
8	62	48	40	34	60	48	40	34	46	39	34	45	38	34	44	38	33	32
9	58	44	36	31	56	44	36	31	43	36	31	42	35	30	41	35	30	28
10	54	41	33	28	53	41	33	28	40	33	28	39	32	28	38	32	28	26

POLAR GRAPH



Maximum Candela = 546.491 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)