

# 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-S-835-ABL-8H-ITL85136.201.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

[TEST]ITL85136.201 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-S-835-ABL-8H  
[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 14.5 WATTS  
[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 15.9 WATTS  
[ABSOLUTE]LUMENS]1316  
[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	1316
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	91
Total Luminaire Watts	14.5
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	6697	6372	6029
55	6100	5764	5418
65	5500	5162	4868
75	4946	4682	4418
85	4421	4207	4064

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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>	546.082	546.082	546.082	546.082	546.082
<b>2.5</b>	545.672	545.263	545.263	545.263	545.263
<b>5.0</b>	543.216	542.807	542.807	542.398	541.988
<b>7.5</b>	538.713	538.713	537.485	537.076	536.257
<b>10.0</b>	533.801	531.345	530.936	530.117	528.889
<b>12.5</b>	526.023	522.749	522.339	520.702	518.246
<b>15.0</b>	517.018	512.515	512.105	509.240	505.965
<b>17.5</b>	506.374	500.643	500.234	496.140	491.637
<b>20.0</b>	493.684	487.544	486.316	480.585	476.082
<b>22.5</b>	480.175	473.216	470.760	463.801	458.480
<b>25.0</b>	463.801	457.251	453.977	445.380	440.058
<b>27.5</b>	447.427	440.058	435.556	426.550	423.275
<b>30.0</b>	429.825	422.456	416.725	406.901	403.216
<b>32.5</b>	411.403	404.854	397.485	387.251	383.158
<b>35.0</b>	392.164	385.614	377.836	366.784	363.099
<b>37.5</b>	372.924	366.374	358.187	346.725	342.632
<b>40.0</b>	352.047	345.497	338.129	325.848	320.936
<b>42.5</b>	331.579	326.257	317.661	304.971	300.877
<b>45.0</b>	311.930	305.789	296.784	285.322	280.819
<b>47.5</b>	291.462	285.731	276.725	265.673	261.170
<b>50.0</b>	270.585	265.673	256.667	246.023	241.930
<b>52.5</b>	250.117	245.205	236.608	226.784	223.099
<b>55.0</b>	230.468	225.556	217.778	208.363	204.678
<b>57.5</b>	210.000	205.906	198.129	189.532	186.257
<b>60.0</b>	190.760	186.667	179.298	171.930	169.064
<b>62.5</b>	171.520	167.836	161.287	154.737	151.871
<b>65.0</b>	153.099	149.415	143.684	137.953	135.497
<b>67.5</b>	135.088	131.813	126.901	122.398	119.532
<b>70.0</b>	117.895	115.029	110.526	106.842	104.386
<b>72.5</b>	100.702	98.246	94.561	91.696	89.649
<b>75.0</b>	84.327	82.281	79.825	76.959	75.322
<b>77.5</b>	68.772	67.135	65.088	62.632	61.404
<b>80.0</b>	53.626	52.807	50.760	49.123	48.713
<b>82.5</b>	39.298	38.889	37.251	36.433	36.023
<b>85.0</b>	25.380	24.971	24.152	23.333	23.333
<b>87.5</b>	11.462	11.462	11.462	11.053	11.053
<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	195.34	N.A.	14.80
0-30	403.39	N.A.	30.60
0-40	639.09	N.A.	48.60
0-60	1061.96	N.A.	80.70
0-80	1289.38	N.A.	98.00
0-90	1316.2	N.A.	100.00
10-90	1264.78	N.A.	96.10
20-40	443.76	N.A.	33.70
20-50	672.29	N.A.	51.10
40-70	565.74	N.A.	43.00
60-80	227.42	N.A.	17.30
70-80	84.55	N.A.	6.40
80-90	26.81	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	1316.2	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	51.42
10-20	143.92
20-30	208.05
30-40	235.71
40-50	228.54
50-60	194.33
60-70	142.88
70-80	84.55
80-90	26.81
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

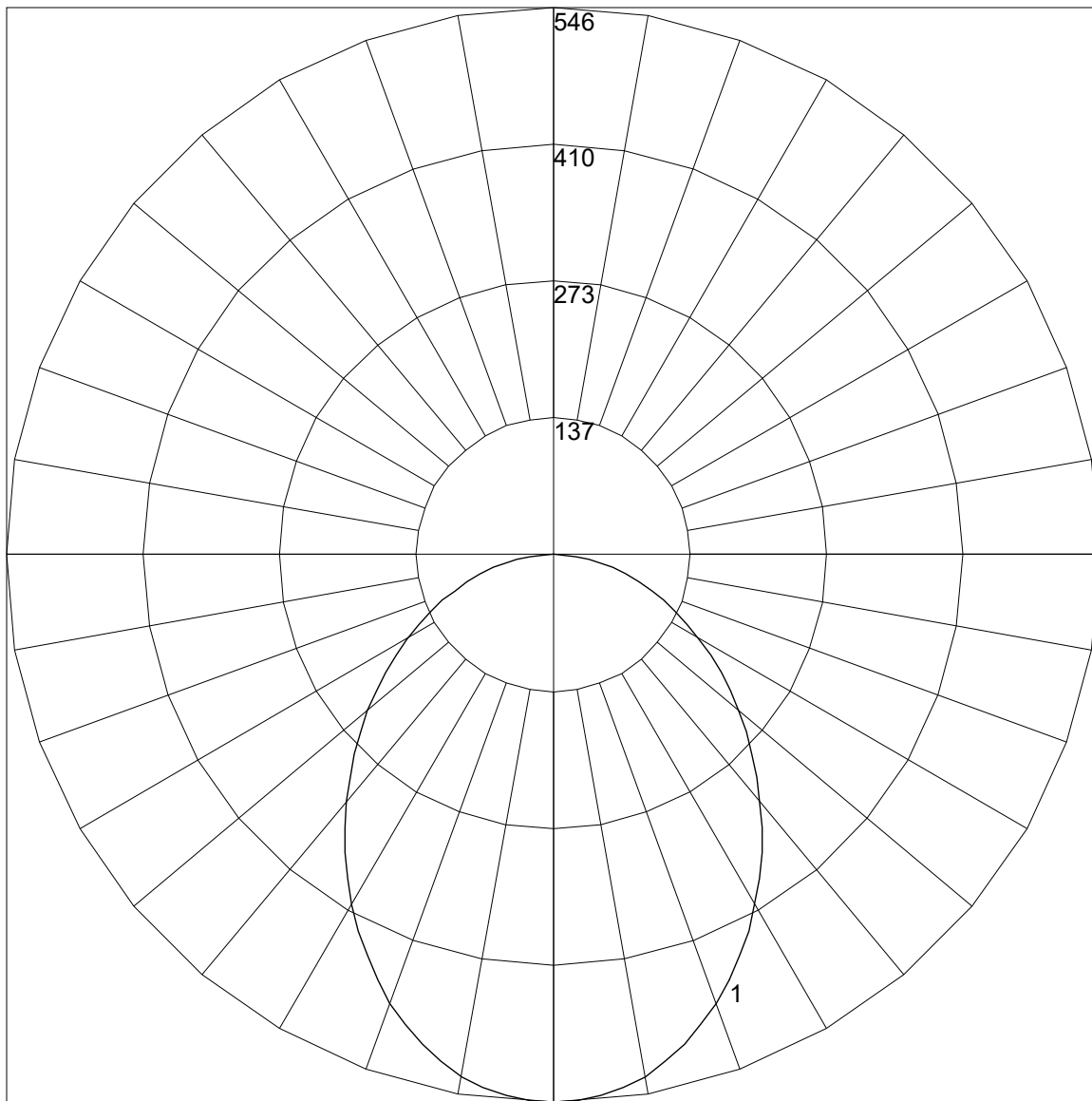
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	65	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	38	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 = 546.082 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)