

# 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-C-D-P-4FT-H-835-ITL91221.003.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

[TEST]ITL91221.003 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[TESTDATE]12/22/18  
[ISSUE DATE]02/27/19  
[MANUFAC]FINELITE, INC.  
[LUMCAT]HP-4-C-D-P-4ft-H-835  
[INPUT\_ELECTRICAL]120.0 VOLTS, 21.7 WATTS  
[INPUT\_ELECTRICAL]277.0 VOLTS, 22.4 WATTS  
[ABSOLUTE LUMENS]2199  
[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL91221. 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	2199
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	101
Total Luminaire Watts	21.7
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.22
Spacing Criterion (Diagonal)	1.32
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	0.81 ft
Luminous Width (90-270)	2.81 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	3307	3359	3426
55	3086	3144	3208
65	2836	2888	2940
75	2506	2563	2591
85	2145	2145	2145

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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>	<u>112.5</u>	<u>135.0</u>	<u>157.5</u>	<u>180.0</u>
<b>0.0</b>	837.294	837.294	837.294	837.294	837.294	837.294	837.294	837.294	837.294
<b>2.5</b>	836.520	836.520	836.520	836.520	836.520	836.520	836.520	836.520	837.294
<b>5.0</b>	832.651	832.651	832.651	832.651	832.651	833.424	833.424	833.424	833.424
<b>7.5</b>	825.686	826.460	826.460	826.460	826.460	827.234	827.234	827.234	827.234
<b>10.0</b>	816.400	816.400	817.948	818.721	819.495	819.495	819.495	818.721	818.721
<b>12.5</b>	803.245	804.019	806.340	807.888	809.435	810.983	809.435	809.435	808.662
<b>15.0</b>	788.542	790.089	793.185	793.959	797.828	797.828	795.506	793.959	795.506
<b>17.5</b>	770.743	773.065	776.160	780.030	783.125	783.125	780.030	777.708	780.803
<b>20.0</b>	752.171	754.493	758.362	763.005	766.874	765.327	761.457	759.136	762.231
<b>22.5</b>	731.278	733.599	738.242	742.885	747.528	745.981	739.790	739.790	740.564
<b>25.0</b>	710.384	711.932	716.575	722.765	727.408	723.539	718.122	715.801	718.896
<b>27.5</b>	685.621	687.169	693.360	699.550	702.646	700.324	694.907	692.586	694.133
<b>30.0</b>	662.406	663.180	667.823	676.335	677.883	676.335	670.918	667.049	667.049
<b>32.5</b>	636.096	637.643	643.834	649.251	653.894	651.572	644.608	641.512	639.965
<b>35.0</b>	607.463	610.559	615.976	623.714	626.036	624.488	617.523	615.976	612.880
<b>37.5</b>	581.153	582.701	589.665	595.856	599.725	597.404	589.665	585.796	584.248
<b>40.0</b>	551.747	554.842	559.485	565.676	570.319	568.772	563.355	558.712	556.390
<b>42.5</b>	523.889	526.210	532.401	537.044	542.461	540.139	532.401	528.532	526.210
<b>45.0</b>	493.709	496.805	501.448	506.864	511.507	509.960	502.221	500.674	497.578
<b>47.5</b>	465.077	467.399	472.816	477.459	482.102	479.780	472.816	467.399	466.625
<b>50.0</b>	434.124	436.445	441.088	446.505	450.374	448.827	442.636	437.993	437.219
<b>52.5</b>	405.492	407.039	411.682	417.099	419.421	417.099	411.682	406.265	406.265
<b>55.0</b>	373.764	376.086	380.729	384.598	388.467	386.146	382.276	376.860	378.407
<b>57.5</b>	345.132	346.680	351.323	355.192	356.740	355.192	350.549	345.132	344.358
<b>60.0</b>	313.405	314.952	319.595	322.691	325.786	324.238	320.369	315.726	314.952
<b>62.5</b>	284.773	286.320	290.190	293.285	294.059	293.285	288.642	283.999	283.225
<b>65.0</b>	253.045	254.593	257.688	260.784	262.331	262.331	257.688	254.593	254.593
<b>67.5</b>	224.413	225.961	228.282	231.378	232.925	231.378	227.509	223.639	222.866
<b>70.0</b>	193.460	195.007	197.329	199.650	201.198	201.198	197.329	195.781	195.007
<b>72.5</b>	166.375	166.375	169.471	171.792	171.792	170.245	167.923	165.602	164.828
<b>75.0</b>	136.969	138.517	140.065	141.613	141.613	141.613	140.839	137.743	138.517
<b>77.5</b>	111.433	111.433	112.980	113.754	115.302	113.754	112.207	110.659	110.659
<b>80.0</b>	85.122	85.896	85.896	87.444	87.444	87.444	86.670	85.896	85.896
<b>82.5</b>	61.907	61.907	62.681	62.681	63.455	62.681	62.681	61.907	61.907
<b>85.0</b>	39.466	39.466	39.466	40.240	39.466	40.240	40.240	40.240	41.013
<b>87.5</b>	20.120	20.120	20.120	19.346	19.346	20.120	20.120	20.894	20.894
<b>90.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	302.89	N.A.	13.80
0-30	633.77	N.A.	28.80
0-40	1020.31	N.A.	46.40
0-60	1749.54	N.A.	79.60
0-80	2153.91	N.A.	97.90
0-90	2199.02	N.A.	100.00
10-90	2119.97	N.A.	96.40
20-40	717.42	N.A.	32.60
20-50	1105.62	N.A.	50.30
40-70	985.05	N.A.	44.80
60-80	404.38	N.A.	18.40
70-80	148.56	N.A.	6.80
80-90	45.10	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	2199.02	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	79.04
10-20	223.84
20-30	330.88
30-40	386.54
40-50	388.20
50-60	341.03
60-70	255.82
70-80	148.56
80-90	45.10
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

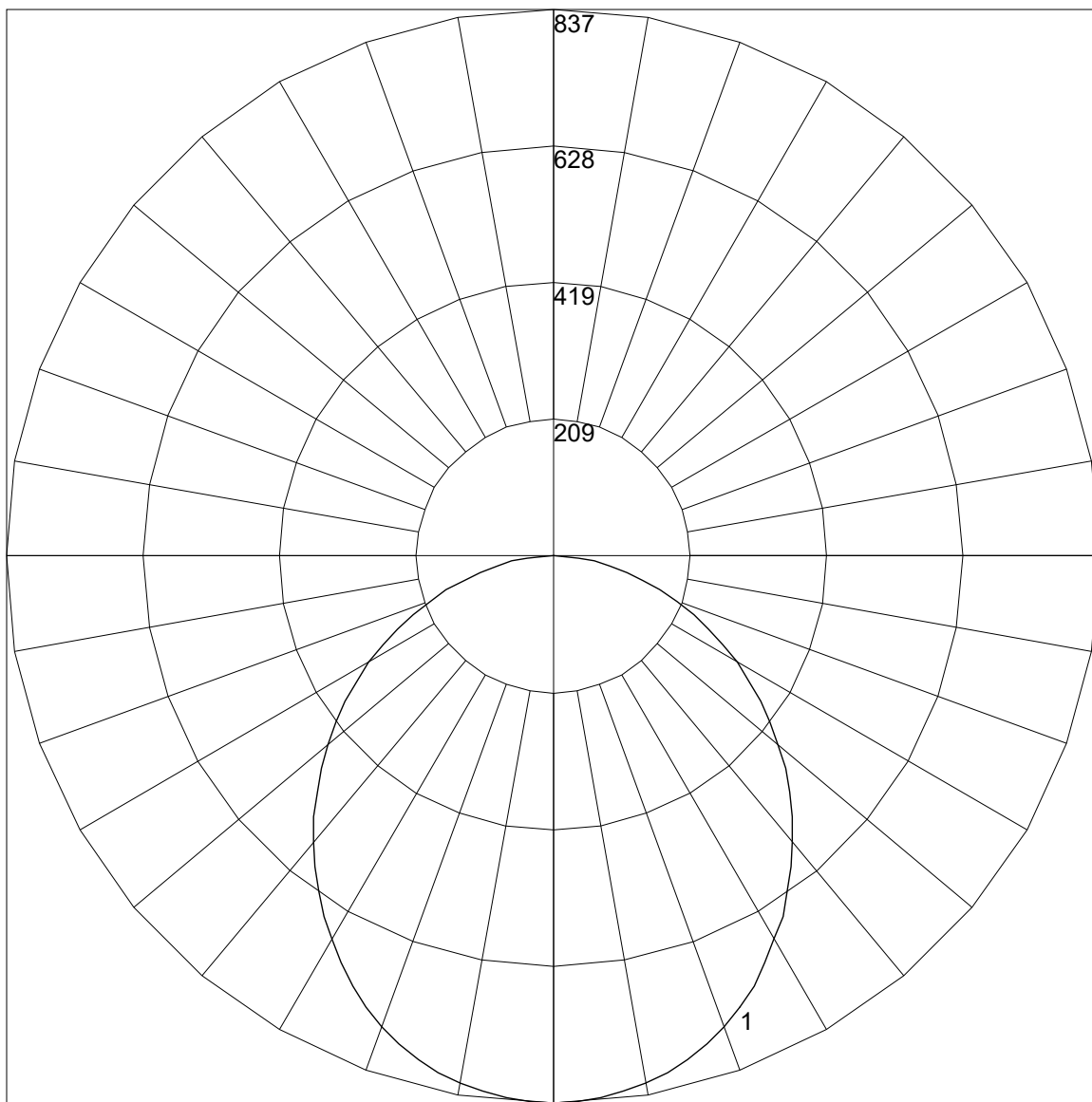
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	77	85	80	76	82	78	74	79	75	72	70
3	90	80	72	65	88	78	71	65	75	69	64	73	67	62	70	65	61	59
4	83	71	62	56	81	70	61	55	67	60	54	65	59	54	63	57	53	51
5	76	64	55	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44
6	71	57	48	42	69	56	48	42	55	47	41	53	46	41	51	45	41	39
7	65	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34
8	61	48	39	33	59	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	34	30	40	34	29	28
10	54	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

POLAR GRAPH



Maximum Candela = 837.294 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)