

# 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-3FT-B-835-ITL91221.006.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL91221.006 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]12/22/18

[ISSUEDATE]03/01/19

[MANUFAC]FINELITE, INC.

[LUMCAT]HP-4-C-D-P-3ft-B-835

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 11.9 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 12.8 WATTS

[\_ABSOLUTE]LUMENS]1236

[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	1236
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	104
Total Luminaire Watts	11.9
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	1859	1888	1926
55	1735	1767	1803
65	1594	1623	1653
75	1409	1441	1457
85	1206	1206	1206

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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>	470.662	470.662	470.662	470.662	470.662	470.662	470.662	470.662	470.662
<b>2.5</b>	470.227	470.227	470.227	470.227	470.227	470.227	470.227	470.227	470.662
<b>5.0</b>	468.052	468.052	468.052	468.052	468.052	468.487	468.487	468.487	468.487
<b>7.5</b>	464.138	464.573	464.573	464.573	464.573	465.008	465.008	465.008	465.008
<b>10.0</b>	458.918	458.918	459.788	460.223	460.658	460.658	460.658	460.223	460.223
<b>12.5</b>	451.523	451.958	453.263	454.133	455.003	455.873	455.003	455.003	454.568
<b>15.0</b>	443.258	444.128	445.868	446.303	448.478	448.478	447.173	446.303	447.173
<b>17.5</b>	433.253	434.558	436.298	438.473	440.213	440.213	438.473	437.168	438.908
<b>20.0</b>	422.813	424.118	426.293	428.903	431.078	430.208	428.033	426.728	428.468
<b>22.5</b>	411.068	412.373	414.983	417.593	420.203	419.333	415.853	415.853	416.288
<b>25.0</b>	399.324	400.194	402.804	406.283	408.893	406.718	403.674	402.369	404.108
<b>27.5</b>	385.404	386.274	389.754	393.234	394.974	393.669	390.624	389.319	390.189
<b>30.0</b>	372.354	372.789	375.399	380.184	381.054	380.184	377.139	374.964	374.964
<b>32.5</b>	357.564	358.434	361.914	364.959	367.569	366.264	362.349	360.609	359.739
<b>35.0</b>	341.470	343.209	346.254	350.604	351.909	351.039	347.124	346.254	344.514
<b>37.5</b>	326.680	327.550	331.465	334.945	337.120	335.815	331.465	329.290	328.420
<b>40.0</b>	310.150	311.890	314.500	317.980	320.590	319.720	316.675	314.065	312.760
<b>42.5</b>	294.490	295.795	299.275	301.885	304.930	303.625	299.275	297.100	295.795
<b>45.0</b>	277.526	279.266	281.875	284.920	287.530	286.660	282.310	281.440	279.700
<b>47.5</b>	261.431	262.736	265.781	268.391	271.001	269.696	265.781	262.736	262.301
<b>50.0</b>	244.031	245.336	247.946	250.991	253.166	252.296	248.816	246.206	245.771
<b>52.5</b>	227.936	228.806	231.416	234.461	235.766	234.461	231.416	228.371	228.371
<b>55.0</b>	210.102	211.407	214.017	216.192	218.366	217.062	214.887	211.842	212.712
<b>57.5</b>	194.007	194.877	197.487	199.662	200.532	199.662	197.052	194.007	193.572
<b>60.0</b>	176.172	177.042	179.652	181.392	183.132	182.262	180.087	177.477	177.042
<b>62.5</b>	160.077	160.947	163.122	164.862	165.297	164.862	162.252	159.642	159.207
<b>65.0</b>	142.243	143.113	144.853	146.593	147.463	147.463	144.853	143.113	143.113
<b>67.5</b>	126.148	127.018	128.323	130.063	130.933	130.063	127.888	125.713	125.278
<b>70.0</b>	108.748	109.618	110.923	112.228	113.098	113.098	110.923	110.053	109.618
<b>72.5</b>	93.523	93.523	95.263	96.568	96.568	95.698	94.393	93.089	92.654
<b>75.0</b>	76.994	77.864	78.734	79.604	79.604	79.604	79.169	77.429	77.864
<b>77.5</b>	62.639	62.639	63.509	63.944	64.814	63.944	63.074	62.204	62.204
<b>80.0</b>	47.849	48.284	48.284	49.154	49.154	49.154	48.719	48.284	48.284
<b>82.5</b>	34.799	34.799	35.234	35.234	35.669	35.234	35.234	34.799	34.799
<b>85.0</b>	22.185	22.185	22.185	22.620	22.185	22.620	22.620	22.620	23.055
<b>87.5</b>	11.310	11.310	11.310	10.875	10.875	11.310	11.310	11.745	11.745
<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	170.26	N.A.	13.80
0-30	356.26	N.A.	28.80
0-40	573.54	N.A.	46.40
0-60	983.46	N.A.	79.60
0-80	1210.77	N.A.	97.90
0-90	1236.12	N.A.	100.00
10-90	1191.69	N.A.	96.40
20-40	403.28	N.A.	32.60
20-50	621.49	N.A.	50.30
40-70	553.72	N.A.	44.80
60-80	227.31	N.A.	18.40
70-80	83.51	N.A.	6.80
80-90	25.35	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	1236.12	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	44.43
10-20	125.83
20-30	186.00
30-40	217.28
40-50	218.21
50-60	191.70
60-70	143.80
70-80	83.51
80-90	25.35
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

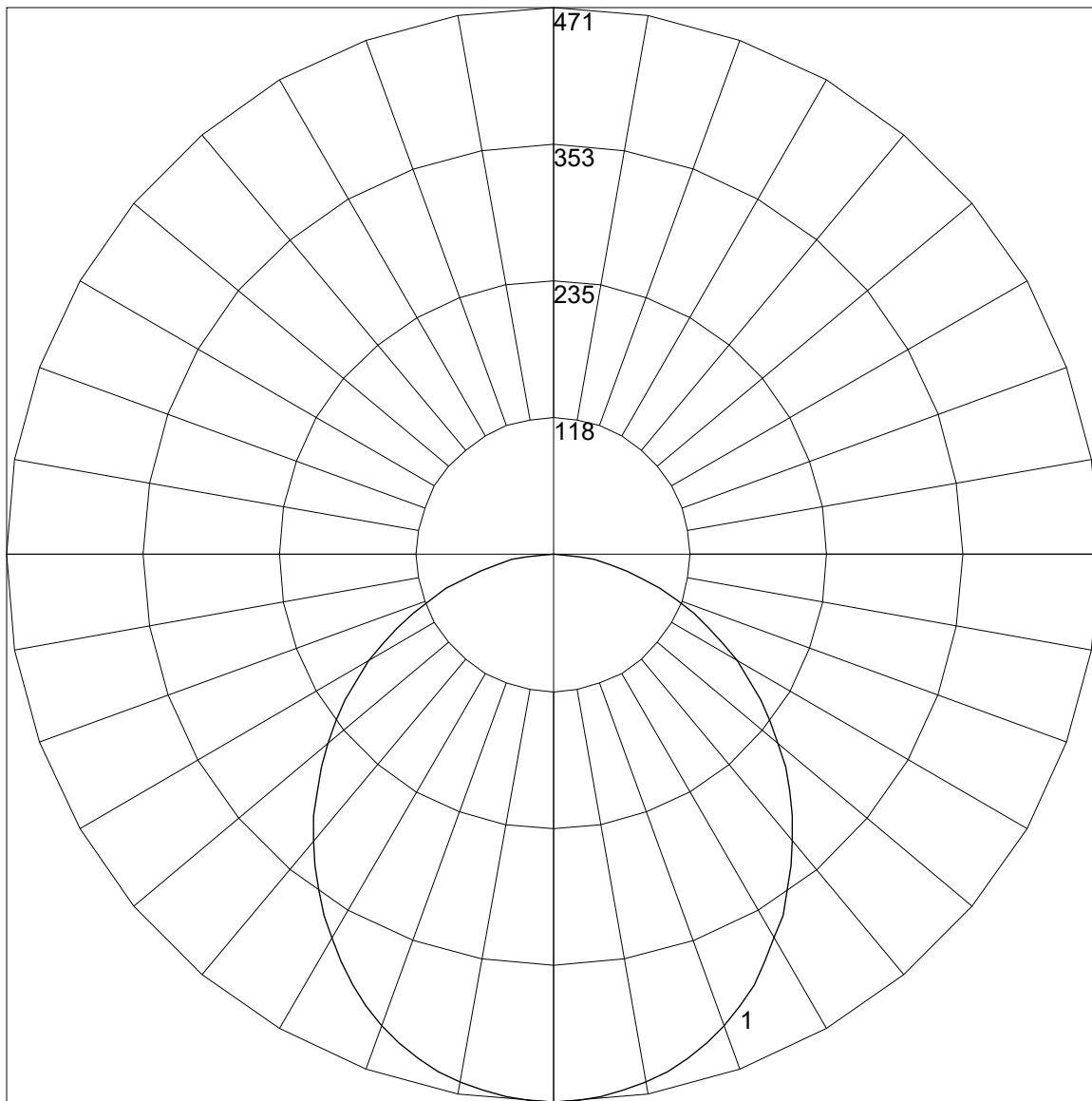
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	63	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 = 470.662 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)