

# 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-B-8TW-ITL91221.902.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL91221.002 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]12/22/18

[ISSUEDATE]02/27/19

[MANUFAC]FINELITE, INC.

[LUMCAT]HP-4-C-D-P-4ft-B-8TW

[OTHER]ies file is based on 3500K; see luminaire tech sheet at [www.finelite.com](http://www.finelite.com) for lumen adjustment factors for other CCT's & C

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 15.5 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 16.6 WATTS

[\_ABSOLUTE]LUMENS]1455

[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	1455
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	94
Total Luminaire Watts	15.5
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	2188	2223	2267
55	2042	2080	2123
65	1877	1911	1945
75	1659	1696	1715
85	1419	1419	1419

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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>
0.0	554.039	554.039	554.039	554.039	554.039	554.039	554.039	554.039	554.039
2.5	553.527	553.527	553.527	553.527	553.527	553.527	553.527	553.527	554.039
5.0	550.967	550.967	550.967	550.967	550.967	551.479	551.479	551.479	551.479
7.5	546.359	546.871	546.871	546.871	546.871	547.383	547.383	547.383	547.383
10.0	540.214	540.214	541.238	541.750	542.262	542.262	542.262	541.750	541.750
12.5	531.509	532.021	533.557	534.582	535.606	536.630	535.606	535.606	535.094
15.0	521.780	522.804	524.853	525.365	527.925	527.925	526.389	525.365	526.389
17.5	510.003	511.539	513.587	516.148	518.196	518.196	516.148	514.612	516.660
20.0	497.714	499.250	501.810	504.883	507.443	506.419	503.858	502.322	504.371
22.5	483.888	485.425	488.497	491.569	494.642	493.617	489.521	489.521	490.033
25.0	470.063	471.087	474.159	478.256	481.328	478.768	475.184	473.647	475.696
27.5	453.677	454.702	458.798	462.894	464.943	463.406	459.822	458.286	459.310
30.0	438.316	438.828	441.900	447.533	448.557	447.533	443.948	441.388	441.388
32.5	420.906	421.930	426.027	429.611	432.683	431.147	426.539	424.491	423.466
35.0	401.960	404.008	407.593	412.713	414.249	413.225	408.617	407.593	405.545
37.5	384.551	385.575	390.183	394.279	396.840	395.304	390.183	387.623	386.599
40.0	365.093	367.141	370.213	374.309	377.382	376.358	372.773	369.701	368.165
42.5	346.659	348.195	352.291	355.364	358.948	357.412	352.291	349.731	348.195
45.0	326.689	328.737	331.809	335.394	338.466	337.442	332.321	331.297	329.249
47.5	307.743	309.279	312.863	315.936	319.008	317.472	312.863	309.279	308.767
50.0	287.261	288.797	291.869	295.454	298.014	296.990	292.893	289.821	289.309
52.5	268.315	269.339	272.411	275.996	277.532	275.996	272.411	268.827	268.827
55.0	247.321	248.857	251.929	254.489	257.050	255.514	252.953	249.369	250.393
57.5	228.375	229.399	232.471	235.032	236.056	235.032	231.959	228.375	227.863
60.0	207.381	208.405	211.477	213.525	215.574	214.549	211.989	208.917	208.405
62.5	188.435	189.459	192.019	194.067	194.579	194.067	190.995	187.923	187.411
65.0	167.441	168.465	170.513	172.561	173.585	173.585	170.513	168.465	168.465
67.5	148.495	149.519	151.055	153.103	154.127	153.103	150.543	147.983	147.471
70.0	128.013	129.037	130.573	132.109	133.133	133.133	130.573	129.549	129.037
72.5	110.091	110.091	112.139	113.675	113.675	112.651	111.115	109.579	109.067
75.0	90.633	91.657	92.681	93.705	93.705	93.705	93.193	91.145	91.657
77.5	73.735	73.735	74.759	75.272	76.296	75.272	74.247	73.223	73.223
80.0	56.326	56.838	56.838	57.862	57.862	57.862	57.350	56.838	56.838
82.5	40.964	40.964	41.476	41.476	41.988	41.476	41.476	40.964	40.964
85.0	26.115	26.115	26.115	26.627	26.115	26.627	26.627	26.627	27.139
87.5	13.313	13.313	13.313	12.801	12.801	13.313	13.313	13.825	13.825
90.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

**IES INDOOR REPORT**  
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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	200.42	N.A.	13.80
0-30	419.37	N.A.	28.80
0-40	675.14	N.A.	46.40
0-60	1157.67	N.A.	79.60
0-80	1425.25	N.A.	97.90
0-90	1455.1	N.A.	100.00
10-90	1402.79	N.A.	96.40
20-40	474.72	N.A.	32.60
20-50	731.59	N.A.	50.30
40-70	651.81	N.A.	44.80
60-80	267.58	N.A.	18.40
70-80	98.30	N.A.	6.80
80-90	29.85	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	1455.1	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	52.30
10-20	148.12
20-30	218.94
30-40	255.78
40-50	256.87
50-60	225.66
60-70	169.28
70-80	98.30
80-90	29.85
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

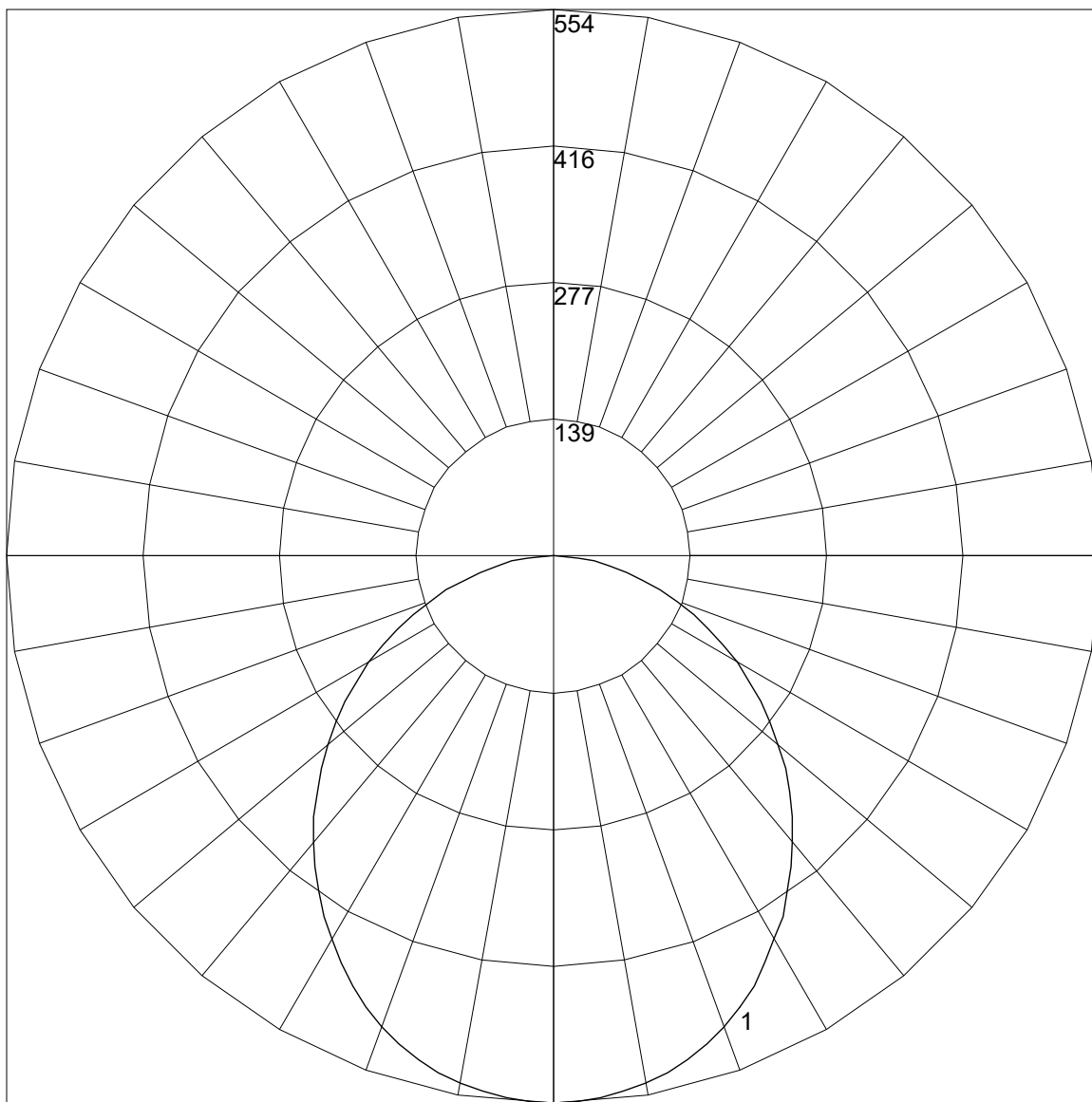
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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 = 554.039 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)