

# 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-2FT-B-835-ITL91221.010.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

[TEST]ITL91221.010 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[TESTDATE]12/22/18  
[ISSUE DATE]03/01/19  
[MANUFAC]FINELITE, INC.  
[LUMCAT]HP-4-C-D-P-2ft-B-835  
[INPUT\_ELECTRICAL]120.0 VOLTS, 7.2 WATTS  
[INPUT\_ELECTRICAL]277.0 VOLTS, 8.0 WATTS  
[ABSOLUTE LUMENS]747  
[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	747
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	104
Total Luminaire Watts	7.2
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	1123	1141	1164
55	1048	1068	1090
65	963	981	999
75	851	871	880
85	728	728	728

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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	284.396	284.396	284.396	284.396	284.396	284.396	284.396	284.396	284.396
2.5	284.133	284.133	284.133	284.133	284.133	284.133	284.133	284.133	284.396
5.0	282.819	282.819	282.819	282.819	282.819	283.082	283.082	283.082	283.082
7.5	280.454	280.716	280.716	280.716	280.716	280.979	280.979	280.979	280.979
10.0	277.299	277.299	277.825	278.088	278.351	278.351	278.351	278.088	278.088
12.5	272.831	273.094	273.883	274.408	274.934	275.460	274.934	274.934	274.671
15.0	267.837	268.363	269.414	269.677	270.991	270.991	270.203	269.677	270.203
17.5	261.792	262.580	263.632	264.946	265.997	265.997	264.946	264.157	265.209
20.0	255.483	256.272	257.586	259.163	260.478	259.952	258.638	257.849	258.900
22.5	248.387	249.175	250.752	252.329	253.906	253.381	251.278	251.278	251.541
25.0	241.290	241.816	243.393	245.495	247.073	245.758	243.918	243.130	244.181
27.5	232.879	233.405	235.507	237.610	238.662	237.873	236.033	235.245	235.770
30.0	224.994	225.257	226.834	229.725	230.251	229.725	227.885	226.571	226.571
32.5	216.057	216.583	218.685	220.525	222.102	221.314	218.948	217.897	217.371
35.0	206.332	207.383	209.223	211.852	212.640	212.114	209.749	209.223	208.172
37.5	197.395	197.921	200.286	202.389	203.703	202.915	200.286	198.972	198.447
40.0	187.407	188.459	190.036	192.138	193.715	193.190	191.350	189.773	188.984
42.5	177.945	178.733	180.836	182.413	184.253	183.464	180.836	179.522	178.733
45.0	167.694	168.745	170.322	172.162	173.739	173.214	170.585	170.059	169.008
47.5	157.969	158.757	160.597	162.174	163.751	162.963	160.597	158.757	158.494
50.0	147.455	148.244	149.821	151.660	152.975	152.449	150.346	148.769	148.506
52.5	137.730	138.255	139.833	141.672	142.461	141.672	139.833	137.993	137.993
55.0	126.953	127.742	129.319	130.633	131.947	131.159	129.844	128.005	128.530
57.5	117.228	117.754	119.331	120.645	121.171	120.645	119.068	117.228	116.965
60.0	106.451	106.977	108.554	109.606	110.657	110.131	108.817	107.240	106.977
62.5	96.726	97.252	98.566	99.618	99.880	99.618	98.040	96.463	96.201
65.0	85.950	86.475	87.527	88.578	89.104	89.104	87.527	86.475	86.475
67.5	76.224	76.750	77.539	78.590	79.116	78.590	77.276	75.962	75.699
70.0	65.711	66.236	67.025	67.814	68.339	68.339	67.025	66.499	66.236
72.5	56.511	56.511	57.563	58.351	58.351	57.825	57.037	56.248	55.986
75.0	46.523	47.049	47.575	48.100	48.100	48.100	47.837	46.786	47.049
77.5	37.849	37.849	38.375	38.638	39.164	38.638	38.112	37.587	37.587
80.0	28.913	29.176	29.176	29.701	29.701	29.701	29.438	29.176	29.176
82.5	21.027	21.027	21.290	21.290	21.553	21.290	21.290	21.027	21.027
85.0	13.405	13.405	13.405	13.668	13.405	13.668	13.668	13.668	13.931
87.5	6.834	6.834	6.834	6.571	6.571	6.834	6.834	7.097	7.097
90.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : HP-4-C-D-P-2FT-B-835-ITL91221.010.IES**

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	102.88	N.A.	13.80
0-30	215.27	N.A.	28.80
0-40	346.56	N.A.	46.40
0-60	594.25	N.A.	79.60
0-80	731.60	N.A.	97.90
0-90	746.92	N.A.	100.00
10-90	720.07	N.A.	96.40
20-40	243.68	N.A.	32.60
20-50	375.54	N.A.	50.30
40-70	334.58	N.A.	44.80
60-80	137.35	N.A.	18.40
70-80	50.46	N.A.	6.80
80-90	15.32	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	746.92	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	26.85
10-20	76.03
20-30	112.39
30-40	131.29
40-50	131.85
50-60	115.84
60-70	86.89
70-80	50.46
80-90	15.32
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

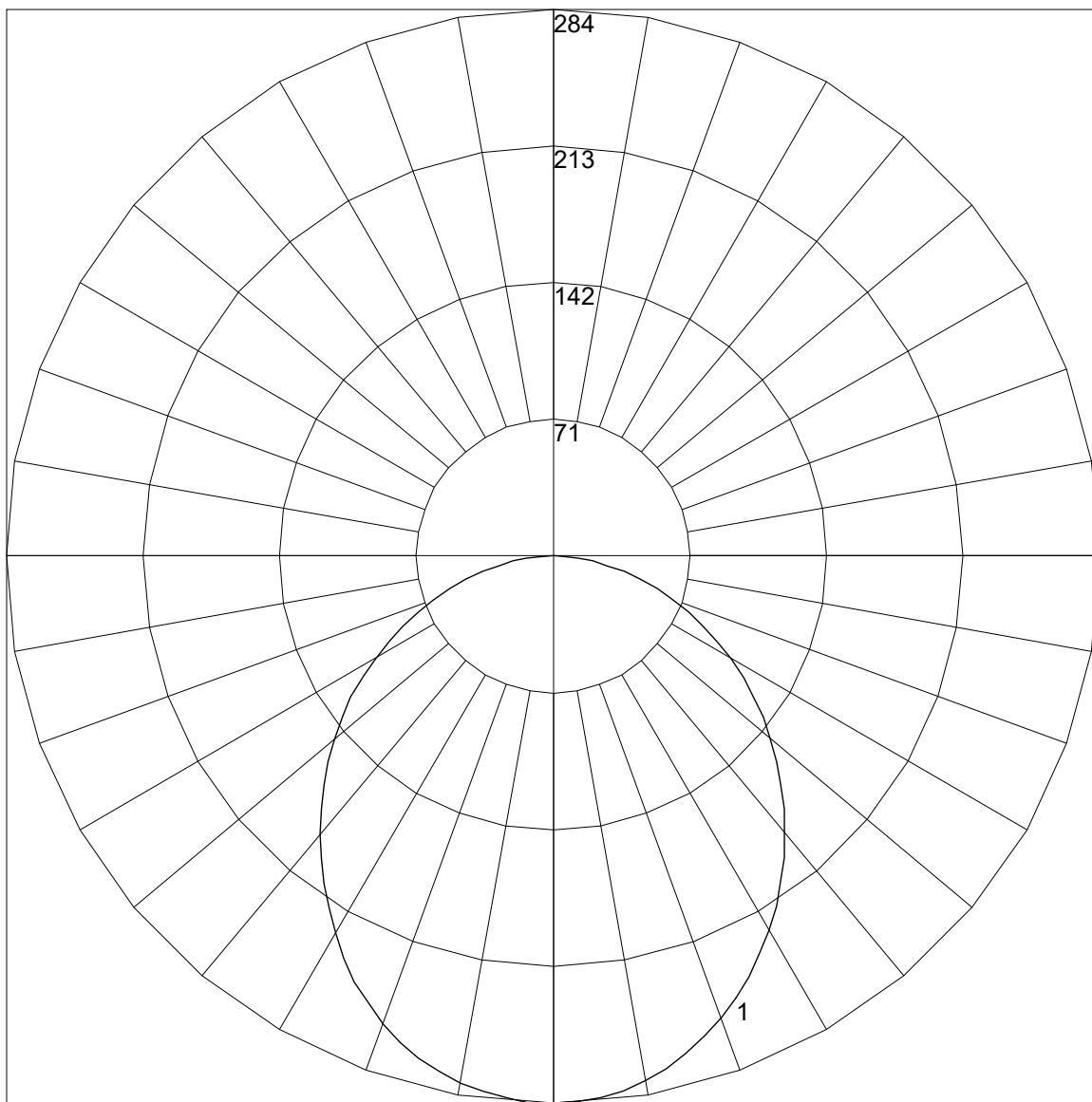
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	97	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	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

POLAR GRAPH



Maximum Candela = 284.396 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180)