

# 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-S-835-ITL91221.001.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

[TEST]ITL91221.001 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-S-835  
[INPUT\_ELECTRICAL]120.0 VOLTS, 11.1 WATTS  
[INPUT\_ELECTRICAL]277.0 VOLTS, 12.3 WATTS  
[ABSOLUTE LUMENS]1157  
[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	1157
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	104
Total Luminaire Watts	11.1
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	1740	1768	1803
55	1624	1655	1688
65	1493	1520	1547
75	1319	1349	1364
85	1129	1129	1129

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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>	440.681	440.681	440.681	440.681	440.681	440.681	440.681	440.681	440.681
<b>2.5</b>	440.274	440.274	440.274	440.274	440.274	440.274	440.274	440.274	440.681
<b>5.0</b>	438.237	438.237	438.237	438.237	438.237	438.644	438.644	438.644	438.644
<b>7.5</b>	434.572	434.979	434.979	434.979	434.979	435.386	435.386	435.386	435.386
<b>10.0</b>	429.684	429.684	430.499	430.906	431.313	431.313	431.313	430.906	430.906
<b>12.5</b>	422.760	423.168	424.390	425.204	426.019	426.833	426.019	426.019	425.611
<b>15.0</b>	415.022	415.837	417.466	417.873	419.909	419.909	418.688	417.873	418.688
<b>17.5</b>	405.654	406.876	408.505	410.542	412.171	412.171	410.542	409.320	410.949
<b>20.0</b>	395.880	397.102	399.138	401.582	403.618	402.803	400.767	399.545	401.174
<b>22.5</b>	384.883	386.105	388.549	390.992	393.436	392.621	389.363	389.363	389.770
<b>25.0</b>	373.886	374.701	377.145	380.403	382.847	380.810	377.959	376.737	378.366
<b>27.5</b>	360.853	361.668	364.926	368.184	369.814	368.592	365.741	364.519	365.333
<b>30.0</b>	348.635	349.042	351.486	355.966	356.780	355.966	353.115	351.078	351.078
<b>32.5</b>	334.787	335.602	338.860	341.711	344.155	342.933	339.267	337.638	336.824
<b>35.0</b>	319.718	321.347	324.198	328.271	329.492	328.678	325.012	324.198	322.569
<b>37.5</b>	305.870	306.685	310.350	313.608	315.645	314.423	310.350	308.314	307.499
<b>40.0</b>	290.393	292.022	294.466	297.724	300.168	299.353	296.502	294.059	292.837
<b>42.5</b>	275.731	276.953	280.211	282.655	285.506	284.284	280.211	278.175	276.953
<b>45.0</b>	259.847	261.476	263.920	266.771	269.214	268.400	264.327	263.512	261.883
<b>47.5</b>	244.777	245.999	248.850	251.294	253.738	252.516	248.850	245.999	245.592
<b>50.0</b>	228.486	229.708	232.152	235.003	237.039	236.224	232.966	230.523	230.115
<b>52.5</b>	213.417	214.231	216.675	219.526	220.748	219.526	216.675	213.824	213.824
<b>55.0</b>	196.718	197.940	200.384	202.420	204.456	203.235	201.198	198.347	199.162
<b>57.5</b>	181.648	182.463	184.907	186.943	187.758	186.943	184.499	181.648	181.241
<b>60.0</b>	164.950	165.764	168.208	169.837	171.466	170.652	168.615	166.172	165.764
<b>62.5</b>	149.880	150.695	152.731	154.360	154.768	154.360	151.917	149.473	149.066
<b>65.0</b>	133.182	133.996	135.625	137.255	138.069	138.069	135.625	133.996	133.996
<b>67.5</b>	118.112	118.927	120.149	121.778	122.592	121.778	119.741	117.705	117.298
<b>70.0</b>	101.821	102.635	103.857	105.079	105.894	105.894	103.857	103.043	102.635
<b>72.5</b>	87.566	87.566	89.195	90.417	90.417	89.602	88.381	87.159	86.751
<b>75.0</b>	72.089	72.904	73.718	74.533	74.533	74.533	74.126	72.496	72.904
<b>77.5</b>	58.649	58.649	59.463	59.871	60.685	59.871	59.056	58.242	58.242
<b>80.0</b>	44.801	45.208	45.208	46.023	46.023	46.023	45.616	45.208	45.208
<b>82.5</b>	32.583	32.583	32.990	32.990	33.397	32.990	32.990	32.583	32.583
<b>85.0</b>	20.771	20.771	20.771	21.179	20.771	21.179	21.179	21.179	21.586
<b>87.5</b>	10.589	10.589	10.589	10.182	10.182	10.589	10.589	10.997	10.997
<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	159.41	N.A.	13.80
0-30	333.56	N.A.	28.80
0-40	537.00	N.A.	46.40
0-60	920.81	N.A.	79.60
0-80	1133.64	N.A.	97.90
0-90	1157.38	N.A.	100.00
10-90	1115.78	N.A.	96.40
20-40	377.59	N.A.	32.60
20-50	581.90	N.A.	50.30
40-70	518.45	N.A.	44.80
60-80	212.83	N.A.	18.40
70-80	78.19	N.A.	6.80
80-90	23.74	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	1157.38	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	41.60
10-20	117.81
20-30	174.15
30-40	203.44
40-50	204.31
50-60	179.49
60-70	134.64
70-80	78.19
80-90	23.74
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

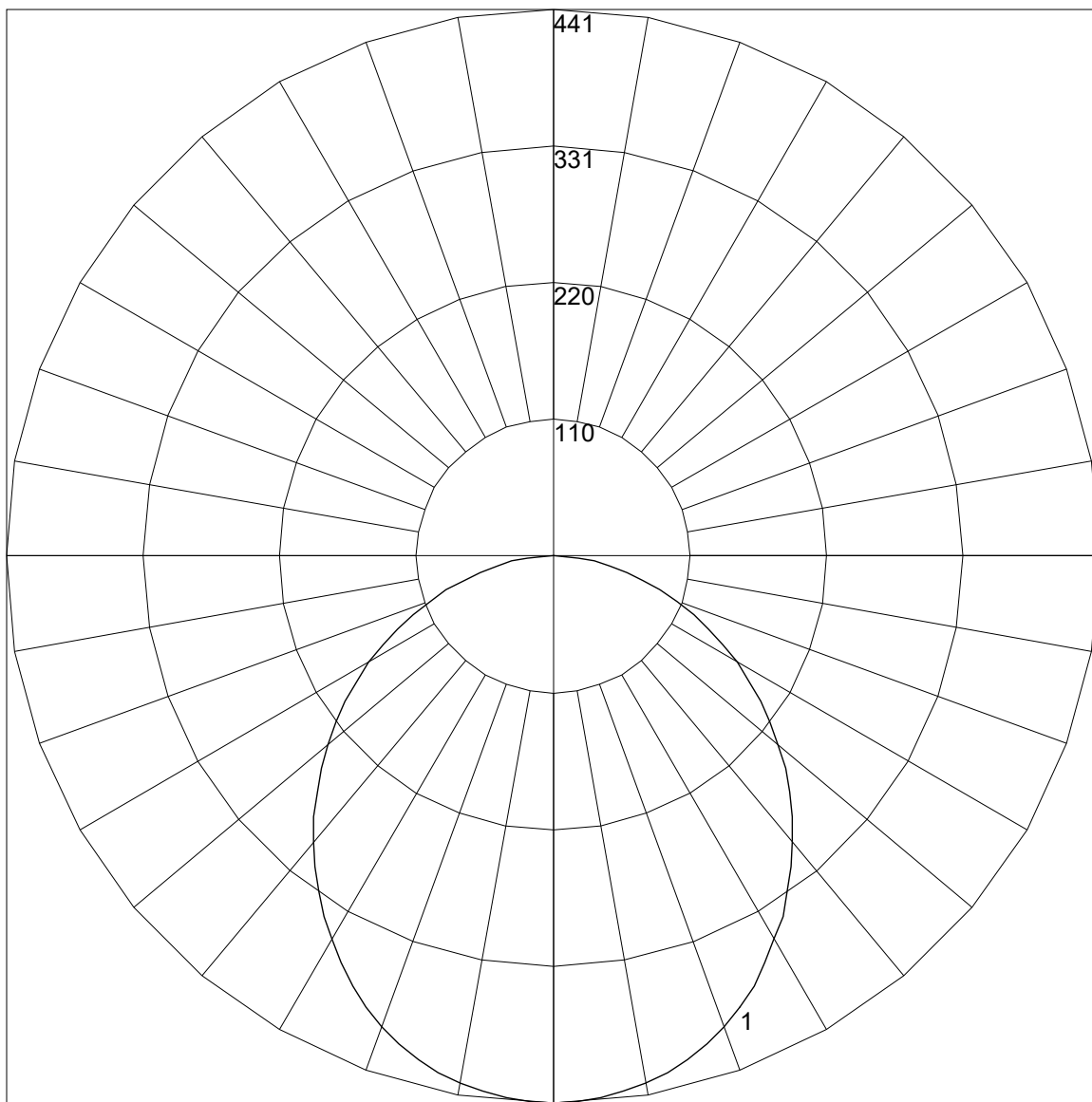
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	33	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

POLAR GRAPH



Maximum Candela = 440.681 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)