

# 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-ID-4FT-S-V-835-WSO-DSO-ITL89033-ITL92993.015.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL89033 and ITL92993.015 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]03/27/17

[ISSUEDATE]08/04/2020

[MANUFAC]FINELITE, INC.

[LUMCAT]FINELITE HP-4-ID-4ft-S-V-835-WSO-DSO

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 50.5 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 51.9 WATTS

[OTHER]see [www.finelite.com](http://www.finelite.com) for source files ITL89033 and ITL92293. 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)

[\_ABSOLUTE]LUMENS]5524

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5525
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	109
Total Luminaire Watts	50.5
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	1.18
Spacing Criterion (90-270)	1.48
Spacing Criterion (Diagonal)	1.46
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	4.00 ft
Luminous Width (90-270)	0.32 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	8324	10950	11939
55	7664	10407	11148
65	7013	9495	9988
75	6305	8267	8460
85	5540	6496	6305

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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>
0.0	1250.000	1250.000	1250.000	1250.000	1250.000
2.5	1247.000	1248.000	1250.000	1251.000	1252.000
5.0	1241.000	1243.000	1249.000	1255.000	1257.000
7.5	1230.000	1236.000	1248.000	1260.000	1264.000
10.0	1217.000	1223.000	1245.000	1268.000	1275.000
12.5	1204.000	1209.000	1243.000	1279.000	1288.000
15.0	1187.000	1204.000	1242.000	1287.000	1298.000
17.5	1150.000	1168.000	1241.000	1290.000	1306.000
20.0	1119.000	1141.000	1239.000	1290.000	1308.000
22.5	1088.000	1114.000	1215.000	1286.000	1307.000
25.0	1053.000	1091.000	1197.000	1277.000	1300.000
27.5	1011.000	1058.000	1178.000	1264.000	1286.000
30.0	971.000	1021.000	1155.000	1245.000	1265.000
32.5	929.000	987.000	1133.000	1223.000	1239.000
35.0	887.000	950.000	1096.000	1193.000	1205.000
37.5	842.000	909.000	1060.000	1149.000	1165.000
40.0	800.000	867.000	1020.000	1103.000	1121.000
42.5	752.000	826.000	977.000	1057.000	1070.000
45.0	707.000	780.000	930.000	1002.000	1014.000
47.5	663.000	734.000	882.000	948.000	959.000
50.0	617.000	687.000	830.000	892.000	896.000
52.5	571.000	640.000	773.000	831.000	833.000
55.0	528.000	591.000	717.000	765.000	768.000
57.5	485.000	543.000	659.000	702.000	703.000
60.0	441.000	494.000	600.000	638.000	639.000
62.5	397.000	448.000	540.000	575.000	572.000
65.0	356.000	399.000	482.000	508.000	507.000
67.5	316.000	351.000	424.000	446.000	444.000
70.0	273.000	305.000	367.000	383.000	378.000
72.5	235.000	260.000	311.000	323.000	319.000
75.0	196.000	217.000	257.000	265.000	263.000
77.5	160.000	174.000	205.000	211.000	209.000
80.0	124.000	135.000	156.000	160.000	155.000
82.5	91.000	97.000	110.000	112.000	108.000
85.0	58.000	61.000	68.000	66.000	66.000
87.5	27.000	27.000	28.000	26.000	25.000
90.0	0.000	0.000	0.000	0.000	0.000
92.5	6.550	11.463	12.281	12.281	12.281
95.0	18.422	32.750	33.569	26.200	26.200
97.5	32.341	55.675	85.969	53.628	46.669
100.0	48.716	76.144	136.322	100.707	79.010
102.5	68.366	92.928	201.413	155.972	126.907
105.0	86.378	110.941	251.357	241.123	193.226
107.5	104.800	128.953	274.282	352.882	296.798
110.0	122.403	145.738	285.335	445.810	424.932
112.5	140.416	162.113	298.435	484.292	509.673
115.0	157.610	177.669	320.541	496.164	541.604
117.5	171.529	191.997	338.145	501.895	553.476
120.0	184.219	205.916	349.607	524.411	562.073
122.5	195.272	219.425	356.976	552.248	588.683
125.0	205.916	231.297	362.298	567.395	619.795
127.5	215.741	241.941	366.392	567.804	636.170
130.0	223.929	251.357	369.666	557.980	633.305
132.5	232.526	260.363	372.532	544.470	618.158

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-4-ID-4FT-S-V-835-WSO-DSO-ITL89033-ITL92993.015.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	240.713	268.551	374.579	529.732	598.508
<b>137.5</b>	248.491	275.919	375.398	513.767	575.992
<b>140.0</b>	256.679	282.879	375.807	497.801	552.248
<b>142.5</b>	264.866	289.429	375.398	481.017	528.504
<b>145.0</b>	273.463	295.979	373.351	465.461	505.170
<b>147.5</b>	280.423	301.301	370.485	449.904	482.654
<b>150.0</b>	287.791	306.623	367.620	434.757	462.185
<b>152.5</b>	295.160	311.126	364.345	420.020	443.354
<b>155.0</b>	301.710	315.629	361.070	406.101	424.523
<b>157.5</b>	307.851	319.313	356.976	393.410	407.738
<b>160.0</b>	313.582	322.998	353.701	381.948	392.592
<b>162.5</b>	318.495	325.863	349.607	371.304	379.491
<b>165.0</b>	323.407	328.320	345.923	361.888	368.029
<b>167.5</b>	327.091	330.366	342.648	353.701	358.204
<b>170.0</b>	329.957	332.413	340.192	347.151	349.607
<b>172.5</b>	332.004	333.641	338.145	341.829	343.466
<b>175.0</b>	334.051	334.460	336.098	337.735	338.963
<b>177.5</b>	334.870	334.870	335.279	335.688	335.688
<b>180.0</b>	335.279	335.279	335.279	335.279	335.279

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-4-ID-4FT-S-V-835-WSO-DSO-ITL89033-ITL92993.015.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	469.77	N.A.	8.50
0-30	1015.78	N.A.	18.40
0-40	1684.49	N.A.	30.50
0-60	2981.79	N.A.	54.00
0-80	3690.04	N.A.	66.80
0-90	3763.33	N.A.	68.10
10-90	3644.22	N.A.	66.00
20-40	1214.72	N.A.	22.00
20-50	1903.66	N.A.	34.50
40-70	1748.48	N.A.	31.60
60-80	708.25	N.A.	12.80
70-80	257.07	N.A.	4.70
80-90	73.29	N.A.	1.30
90-110	238.04	N.A.	4.30
90-120	567.04	N.A.	10.30
90-130	915.86	N.A.	16.60
90-150	1463.12	N.A.	26.50
90-180	1761.17	N.A.	31.90
110-180	1523.13	N.A.	27.60
0-180	5524.5	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	119.12
10-20	350.65
20-30	546.01
30-40	668.71
40-50	688.94
50-60	608.36
60-70	451.18
70-80	257.07
80-90	73.29
90-100	39.67
100-110	198.38
110-120	329.00
120-130	348.82
130-140	307.81
140-150	239.44
150-160	167.63
160-170	98.21
170-180	32.21

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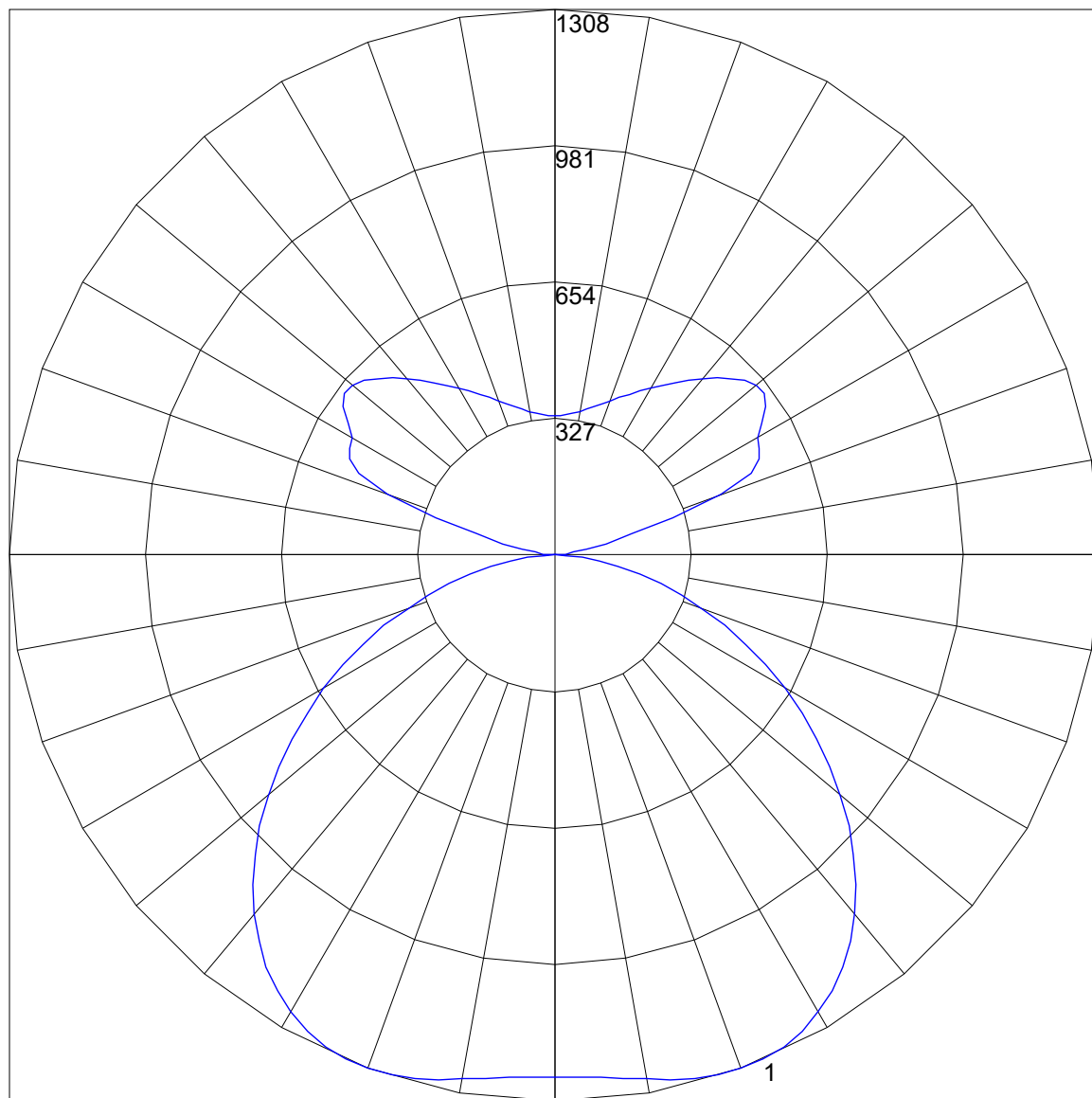
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	111	111	111	111	105	105	105	105	93	93	93	83	83	83	73	73	73	68
1	102	97	93	89	96	92	88	85	82	79	76	73	70	69	64	63	61	57
2	92	85	78	73	87	80	74	69	71	67	63	63	60	57	56	54	51	47
3	84	74	67	60	79	70	63	58	63	57	53	56	52	48	50	46	43	40
4	77	66	57	51	72	62	55	49	56	50	45	50	45	41	44	40	37	34
5	71	58	50	44	66	55	48	42	50	43	39	45	39	35	40	36	32	29
6	65	52	44	38	61	50	42	36	45	38	34	40	35	31	36	32	28	26
7	60	47	39	33	57	45	37	32	41	34	30	37	31	27	33	28	25	23
8	56	43	35	29	53	41	34	28	37	31	26	33	28	24	30	26	22	20
9	52	39	32	26	49	37	30	25	34	28	24	31	26	22	28	23	20	18
10	49	36	29	24	46	34	28	23	31	25	21	28	23	20	26	21	18	16

POLAR GRAPH



Maximum Candela = 1308 Located At Horizontal Angle = 90, Vertical Angle = 20  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)