

# 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 : HPO-ID-4FT-B-V-8TW-WSO-F-ITL92549.910.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

[TEST]ITL92549.910 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[TESTDATE]11/20/19  
[ISSUEDATE]09/09/20  
[MANUFAC]FINELITE, INC.  
[LUMCAT]HPO-ID-4ft-B-V-8TW-WSO-F  
[OTHER]ies file is based on 3500K; see luminaire tech sheet at  
[more]www.finelite.com for lumen adjustment factors for other CCT's & CRI's  
[INPUT\_ELECTRICAL]120.0 VOLTS, 56.8 WATTS  
[INPUT\_ELECTRICAL]277.0 VOLTS, 57.9 WATTS  
[ABSOLUTE LUMENS]6178  
[OTHER]see www.finelite.com for source files ITL92549. 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	6178
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	109
Total Luminaire Watts	56.8
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	1.28
Spacing Criterion (90-270)	1.26
Spacing Criterion (Diagonal)	1.38
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	4.00 ft
Luminous Width (90-270)	0.20 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	17712	17712	17577
55	17123	17123	16957
65	16296	16296	16232
75	15010	15220	15273
85	13248	14027	14183

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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	1375.000	1375.000	1375.000	1375.000	1375.000
2.5	1372.000	1373.000	1373.000	1373.000	1374.000
5.0	1367.000	1368.000	1368.000	1368.000	1369.000
7.5	1360.000	1361.000	1362.000	1362.000	1362.000
10.0	1350.000	1349.000	1351.000	1351.000	1349.000
12.5	1339.000	1334.000	1339.000	1340.000	1337.000
15.0	1322.000	1316.000	1322.000	1323.000	1320.000
17.5	1304.000	1295.000	1303.000	1304.000	1299.000
20.0	1283.000	1271.000	1280.000	1281.000	1277.000
22.5	1260.000	1245.000	1255.000	1256.000	1252.000
25.0	1230.000	1218.000	1227.000	1228.000	1225.000
27.5	1199.000	1189.000	1197.000	1199.000	1195.000
30.0	1167.000	1155.000	1166.000	1164.000	1162.000
32.5	1131.000	1120.000	1130.000	1129.000	1126.000
35.0	1094.000	1084.000	1092.000	1091.000	1087.000
37.5	1053.000	1044.000	1053.000	1051.000	1048.000
40.0	1010.000	1002.000	1012.000	1009.000	1007.000
42.5	967.000	960.000	968.000	965.000	960.000
45.0	922.000	915.000	922.000	918.000	915.000
47.5	873.000	868.000	874.000	870.000	869.000
50.0	825.000	818.000	826.000	821.000	819.000
52.5	774.000	769.000	774.000	771.000	768.000
55.0	723.000	718.000	723.000	719.000	716.000
57.5	670.000	666.000	669.000	667.000	665.000
60.0	616.000	612.000	616.000	613.000	613.000
62.5	560.000	557.000	561.000	558.000	560.000
65.0	507.000	504.000	507.000	505.000	505.000
67.5	450.000	448.000	452.000	450.000	453.000
70.0	396.000	395.000	397.000	397.000	397.000
72.5	339.000	340.000	343.000	344.000	345.000
75.0	286.000	286.000	290.000	291.000	291.000
77.5	233.000	235.000	237.000	240.000	240.000
80.0	183.000	184.000	187.000	188.000	190.000
82.5	134.000	135.000	138.000	140.000	140.000
85.0	85.000	86.000	90.000	92.000	91.000
87.5	39.000	40.000	43.000	45.000	46.000
90.0	0.000	0.000	0.000	0.000	0.000
92.5	7.204	20.069	43.225	22.127	19.040
95.0	19.040	42.711	110.121	50.944	40.138
97.5	32.419	63.809	203.775	98.286	72.042
100.0	45.798	82.848	305.663	170.842	117.325
102.5	59.692	97.256	382.851	292.284	193.484
105.0	74.615	112.179	417.328	474.961	334.994
107.5	89.023	126.588	416.813	687.485	557.809
110.0	102.917	140.996	404.978	815.102	773.420
112.5	117.840	156.434	396.230	854.210	891.775
115.0	133.277	171.871	392.628	850.093	936.543
117.5	149.230	188.338	394.172	826.937	942.204
120.0	162.609	202.232	395.715	795.547	926.766
122.5	175.988	214.582	397.774	764.158	898.979
125.0	187.309	225.388	399.832	732.254	865.016
127.5	197.600	235.165	400.861	700.864	827.452
130.0	206.863	243.398	401.376	672.047	790.402
132.5	215.611	251.117	400.861	643.230	753.351

IES INDOOR REPORT  
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CANDELA TABULATION - (Cont.)

135.0	224.359	258.321	398.803	615.957	715.272
137.5	233.107	264.496	395.201	589.199	678.737
140.0	241.855	271.700	390.570	560.897	640.658
142.5	250.088	277.875	384.394	532.080	601.549
145.0	258.836	284.051	378.219	504.807	564.499
147.5	267.069	289.196	372.045	479.078	529.507
150.0	274.274	294.342	365.870	454.378	495.545
152.5	281.992	298.974	360.209	432.251	464.670
155.0	288.682	303.090	354.549	412.182	437.911
157.5	295.371	306.692	349.403	394.172	414.240
160.0	301.546	310.809	344.772	379.249	394.172
162.5	307.207	314.411	340.140	366.384	377.190
165.0	311.324	316.984	336.024	355.063	361.753
167.5	315.440	319.557	332.421	345.286	349.917
170.0	318.528	321.615	329.334	338.082	340.655
172.5	321.101	323.159	327.276	331.907	333.965
175.0	322.644	323.674	325.732	327.276	328.305
177.5	324.188	324.703	325.217	325.732	325.217
180.0	324.188	324.188	324.188	324.188	324.188

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	502.70	N.A.	8.10
0-30	1067.43	N.A.	17.30
0-40	1748.87	N.A.	28.30
0-60	3100.42	N.A.	50.20
0-80	3906.21	N.A.	63.20
0-90	4004.79	N.A.	64.80
10-90	3874.73	N.A.	62.70
20-40	1246.16	N.A.	20.20
20-50	1954.37	N.A.	31.60
40-70	1851.46	N.A.	30.00
60-80	805.78	N.A.	13.00
70-80	305.88	N.A.	5.00
80-90	98.58	N.A.	1.60
90-110	394.44	N.A.	6.40
90-120	871.03	N.A.	14.10
90-130	1293.18	N.A.	20.90
90-150	1879.44	N.A.	30.40
90-180	2172.92	N.A.	35.20
110-180	1778.48	N.A.	28.80
0-180	6177.71	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

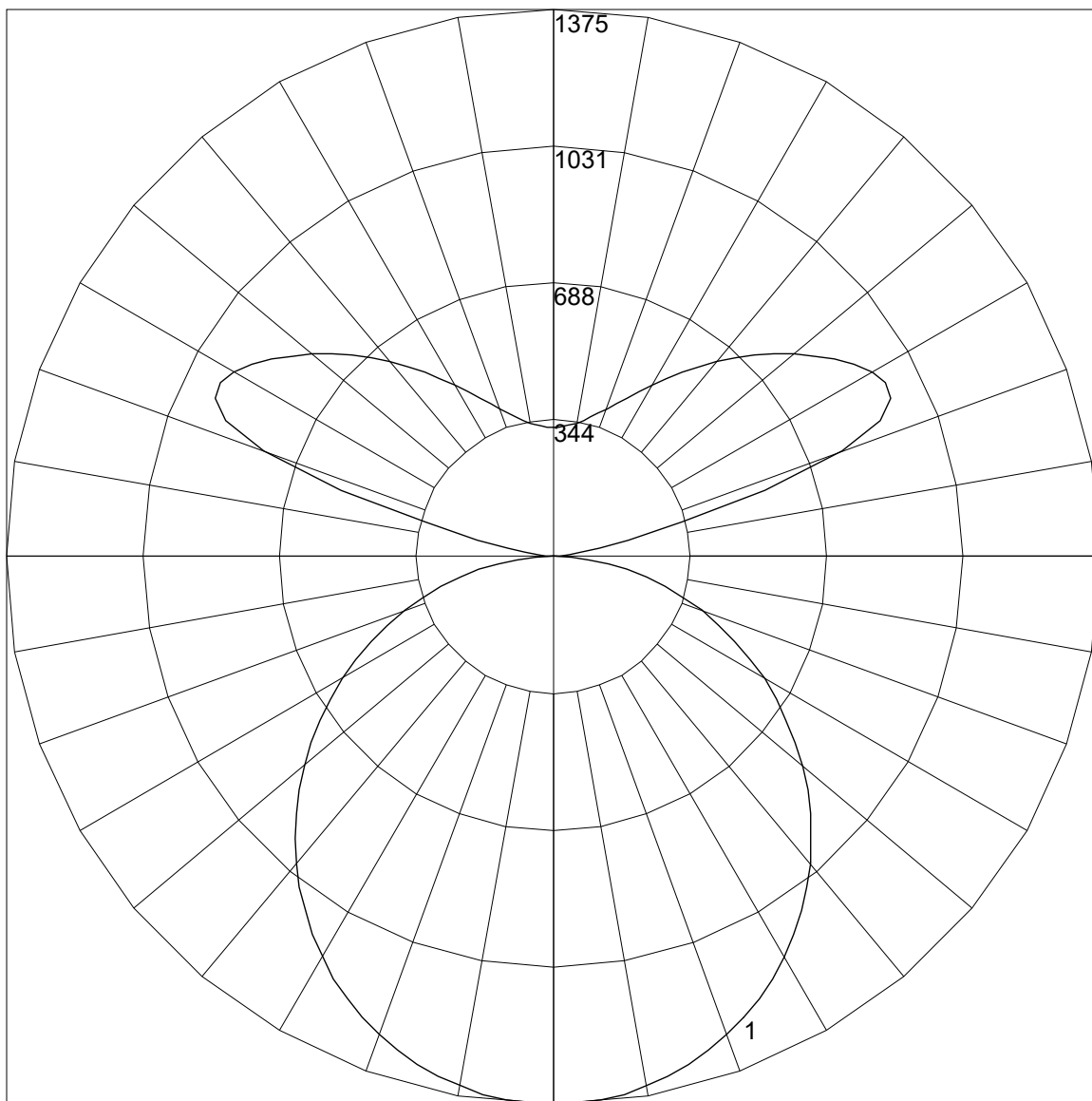
Zone	Lumens
0-10	130.06
10-20	372.64
20-30	564.73
30-40	681.43
40-50	708.21
50-60	643.35
60-70	499.90
70-80	305.88
80-90	98.58
90-100	72.78
100-110	321.66
110-120	476.59
120-130	422.15
130-140	337.64
140-150	248.62
150-160	166.57
160-170	95.70
170-180	31.22

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	104	104	104	104	92	92	92	80	80	80	70	70	70	65
1	101	96	92	88	94	90	87	83	80	77	74	70	68	66	61	59	58	54
2	91	84	77	72	86	79	73	68	70	65	61	61	58	55	53	51	48	44
3	83	73	65	59	78	69	62	56	61	56	51	54	49	46	47	44	41	37
4	76	65	56	50	71	61	54	48	54	48	43	48	43	39	42	38	35	32
5	70	58	49	43	65	54	47	41	48	42	37	43	38	34	38	34	30	27
6	64	52	43	37	60	49	41	36	44	37	33	39	33	30	34	30	27	24
7	59	47	38	32	56	44	37	31	39	33	29	35	30	26	31	27	24	21
8	55	42	34	29	52	40	33	28	36	30	25	32	27	23	28	24	21	19
9	51	39	31	26	48	37	30	25	33	27	23	30	24	21	26	22	19	17
10	48	36	28	23	45	34	27	22	30	25	21	27	22	19	24	20	17	15

POLAR GRAPH



Maximum Candela = 1375 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)