

# 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-B-8TW-WSO-F-ITL92549.902.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

[TEST]ITL92549.902 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[TESTDATE]11/20/19  
[ISSUEDATE]09/09/20  
[MANUFAC]FINELITE, INC.  
[LUMCAT]HPO-ID-4ft-B-B-835-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, 37.7 WATTS  
[INPUT\_ELECTRICAL]277.0 VOLTS, 39.6 WATTS  
[ABSOLUTE LUMENS]4234  
[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	4234
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	112
Total Luminaire Watts	37.7
Ballast Factor	1.00
CIE Type	General Diffuse
Spacing Criterion (0-180)	N.A.
Spacing Criterion (90-270)	N.A.
Spacing Criterion (Diagonal)	N.A.
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	9114	9114	9045
55	8811	8811	8726
65	8386	8386	8353
75	7724	7832	7859
85	6817	7218	7298

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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	707.554	707.553	707.553	707.553	707.553
2.5	706.010	706.524	706.524	706.524	707.039
5.0	703.437	703.951	703.951	703.951	704.466
7.5	699.835	700.349	700.864	700.864	700.864
10.0	694.689	694.174	695.203	695.203	694.174
12.5	689.028	686.456	689.028	689.543	687.999
15.0	680.280	677.193	680.280	680.795	679.251
17.5	671.018	666.387	670.503	671.018	668.445
20.0	660.212	654.037	658.668	659.183	657.124
22.5	648.376	640.658	645.803	646.318	644.260
25.0	632.939	626.764	631.395	631.910	630.366
27.5	616.987	611.841	615.957	616.987	614.928
30.0	600.520	594.345	600.005	598.976	597.947
32.5	581.995	576.335	581.480	580.966	579.422
35.0	562.955	557.809	561.926	561.412	559.353
37.5	541.857	537.226	541.857	540.828	539.284
40.0	519.730	515.614	520.759	519.216	518.187
42.5	497.603	494.001	498.118	496.574	494.001
45.0	474.447	470.845	474.447	472.388	470.845
47.5	449.232	446.659	449.747	447.688	447.174
50.0	424.532	420.930	425.047	422.474	421.445
52.5	398.288	395.715	398.288	396.745	395.201
55.0	372.045	369.472	372.045	369.986	368.442
57.5	344.772	342.713	344.257	343.228	342.199
60.0	316.984	314.926	316.984	315.440	315.440
62.5	288.167	286.623	288.682	287.138	288.167
65.0	260.894	259.351	260.894	259.865	259.865
67.5	231.563	230.534	232.592	231.563	233.107
70.0	203.775	203.261	204.290	204.290	204.290
72.5	174.444	174.959	176.502	177.017	177.532
75.0	147.171	147.171	149.230	149.744	149.744
77.5	119.898	120.927	121.957	123.500	123.500
80.0	94.169	94.683	96.227	96.742	97.771
82.5	68.954	69.469	71.013	72.042	72.042
85.0	43.740	44.254	46.313	47.342	46.827
87.5	20.069	20.583	22.127	23.156	23.671
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

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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	258.68	N.A.	6.10
0-30	549.28	N.A.	13.00
0-40	899.94	N.A.	21.30
0-60	1595.43	N.A.	37.70
0-80	2010.07	N.A.	47.50
0-90	2060.8	N.A.	48.70
10-90	1993.87	N.A.	47.10
20-40	641.26	N.A.	15.10
20-50	1005.69	N.A.	23.80
40-70	952.73	N.A.	22.50
60-80	414.64	N.A.	9.80
70-80	157.40	N.A.	3.70
80-90	50.73	N.A.	1.20
90-110	394.44	N.A.	9.30
90-120	871.03	N.A.	20.60
90-130	1293.18	N.A.	30.50
90-150	1879.44	N.A.	44.40
90-180	2172.92	N.A.	51.30
110-180	1778.48	N.A.	42.00
0-180	4233.72	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	66.93
10-20	191.76
20-30	290.60
30-40	350.65
40-50	364.43
50-60	331.06
60-70	257.24
70-80	157.40
80-90	50.73
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

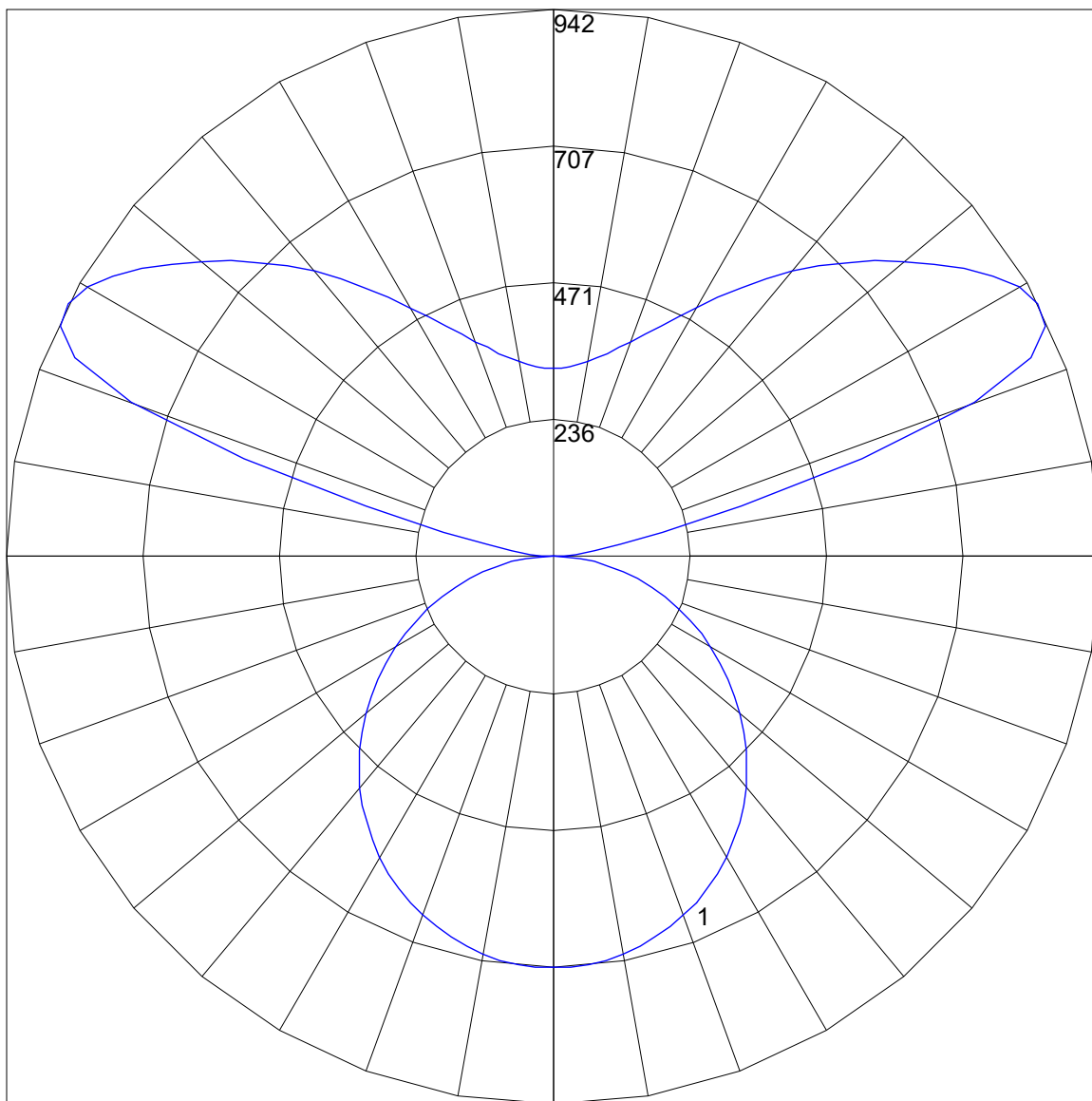
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	107	107	107	107	98	98	98	98	83	83	83	68	68	68	55	55	55	49
1	97	93	89	85	89	85	82	79	72	69	67	59	58	56	48	47	46	40
2	88	81	74	69	81	74	69	64	63	59	55	52	49	46	42	40	38	33
3	80	71	63	57	74	65	59	53	55	50	46	46	42	39	37	34	32	28
4	73	62	54	48	67	58	51	45	49	43	39	41	37	33	33	30	28	24
5	67	56	47	41	62	51	44	39	44	38	34	36	32	29	30	26	24	21
6	62	50	41	36	57	46	39	33	39	33	29	33	28	25	27	23	21	18
7	57	45	37	31	52	42	34	29	35	30	26	30	25	22	24	21	19	16
8	53	41	33	27	49	38	31	26	32	27	23	27	23	20	22	19	17	14
9	49	37	29	24	45	34	28	23	30	24	20	25	21	18	21	17	15	13
10	46	34	27	22	42	32	25	21	27	22	18	23	19	16	19	16	13	11

POLAR GRAPH



Maximum Candela = 942.204 Located At Horizontal Angle = 90, Vertical Angle = 117.5  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)