

# 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-S-S-835-WSO-F-ITL92549.303.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

[TEST]ITL92549.303 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[TESTDATE]11/20/19  
[ISSUEDATE]09/09/20  
[MANUFAC]FINELITE, INC.  
[LUMCAT]HPO-ID-4ft-S-S-835-WSO-F  
[INPUT\_ELECTRICAL]120.0 VOLTS, 27.0 WATTS  
[INPUT\_ELECTRICAL]277.0 VOLTS, 29.2 WATTS  
[ABSOLUTE LUMENS]3368  
[OTHER]see [www.finelite.com](http://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	3368
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	125
Total Luminaire Watts	27
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	7250	7250	7195
55	7009	7009	6941
65	6671	6671	6644
75	6144	6230	6252
85	5423	5742	5806

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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	562.842	562.842	562.842	562.842	562.842
2.5	561.614	562.024	562.024	562.024	562.433
5.0	559.567	559.977	559.977	559.977	560.386
7.5	556.702	557.111	557.521	557.521	557.521
10.0	552.609	552.199	553.018	553.018	552.199
12.5	548.106	546.059	548.106	548.515	547.287
15.0	541.147	538.691	541.147	541.557	540.329
17.5	533.779	530.095	533.370	533.779	531.732
20.0	525.183	520.271	523.955	524.364	522.727
22.5	515.768	509.628	513.721	514.131	512.494
25.0	503.488	498.576	502.260	502.669	501.441
27.5	490.798	486.705	489.980	490.798	489.161
30.0	477.700	472.788	477.290	476.472	475.653
32.5	462.963	458.461	462.554	462.145	460.917
35.0	447.818	443.724	446.999	446.590	444.952
37.5	431.035	427.351	431.035	430.216	428.988
40.0	413.433	410.159	414.252	413.024	412.205
42.5	395.832	392.966	396.241	395.013	392.966
45.0	377.411	374.546	377.411	375.774	374.546
47.5	357.354	355.307	357.763	356.126	355.716
50.0	337.705	334.840	338.115	336.068	335.249
52.5	316.829	314.782	316.829	315.601	314.373
55.0	295.953	293.906	295.953	294.315	293.087
57.5	274.258	272.620	273.848	273.030	272.211
60.0	252.153	250.516	252.153	250.925	250.925
62.5	229.230	228.002	229.640	228.412	229.230
65.0	207.535	206.307	207.535	206.717	206.717
67.5	184.203	183.384	185.022	184.203	185.431
70.0	162.099	161.689	162.508	162.508	162.508
72.5	138.766	139.175	140.404	140.813	141.222
75.0	117.071	117.071	118.709	119.118	119.118
77.5	95.376	96.195	97.013	98.242	98.242
80.0	74.909	75.319	76.546	76.956	77.775
82.5	54.852	55.261	56.489	57.308	57.308
85.0	34.794	35.203	36.841	37.659	37.250
87.5	15.964	16.374	17.602	18.420	18.830
90.0	0.000	0.000	0.000	0.000	0.000
92.5	5.731	15.964	34.385	17.602	15.146
95.0	15.146	33.975	87.599	40.525	31.928
97.5	25.788	50.758	162.099	78.184	57.308
100.0	36.431	65.904	243.148	135.901	93.329
102.5	47.483	77.365	304.549	232.505	153.912
105.0	59.354	89.236	331.975	377.821	266.480
107.5	70.816	100.698	331.565	546.878	443.724
110.0	81.868	112.159	322.151	648.394	615.238
112.5	93.739	124.439	315.192	679.504	709.386
115.0	106.019	136.720	312.326	676.229	744.999
117.5	118.709	149.818	313.554	657.809	749.501
120.0	129.351	160.870	314.782	632.839	737.221
122.5	139.994	170.695	316.420	607.870	715.117
125.0	149.000	179.291	318.057	582.490	688.100
127.5	157.186	187.068	318.876	557.521	658.218
130.0	164.555	193.618	319.285	534.598	628.746
132.5	171.513	199.758	318.876	511.675	599.274

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CANDELA TABULATION - (Cont.)

135.0	178.472	205.489	317.238	489.980	568.982
137.5	185.431	210.401	314.373	468.694	539.919
140.0	192.390	216.131	310.689	446.180	509.628
142.5	198.939	221.043	305.777	423.257	478.518
145.0	205.898	225.956	300.865	401.562	449.046
147.5	212.447	230.049	295.953	381.095	421.211
150.0	218.178	234.142	291.041	361.447	394.194
152.5	224.318	237.826	286.538	343.846	369.634
155.0	229.640	241.101	282.035	327.881	348.348
157.5	234.961	243.966	277.942	313.554	329.519
160.0	239.873	247.241	274.258	301.683	313.554
162.5	244.376	250.107	270.574	291.450	300.046
165.0	247.651	252.153	267.299	282.445	287.766
167.5	250.925	254.200	264.433	274.667	278.351
170.0	253.381	255.837	261.978	268.936	270.983
172.5	255.428	257.065	260.340	264.024	265.661
175.0	256.656	257.475	259.112	260.340	261.159
177.5	257.884	258.293	258.703	259.112	258.703
180.0	257.884	257.884	257.884	257.884	257.884

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	205.78	N.A.	6.10
0-30	436.94	N.A.	13.00
0-40	715.88	N.A.	21.30
0-60	1269.13	N.A.	37.70
0-80	1598.97	N.A.	47.50
0-90	1639.32	N.A.	48.70
10-90	1586.08	N.A.	47.10
20-40	510.10	N.A.	15.10
20-50	800.00	N.A.	23.80
40-70	757.88	N.A.	22.50
60-80	329.84	N.A.	9.80
70-80	125.21	N.A.	3.70
80-90	40.35	N.A.	1.20
90-110	313.77	N.A.	9.30
90-120	692.88	N.A.	20.60
90-130	1028.69	N.A.	30.50
90-150	1495.05	N.A.	44.40
90-180	1728.51	N.A.	51.30
110-180	1414.74	N.A.	42.00
0-180	3367.83	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	53.24
10-20	152.54
20-30	231.17
30-40	278.94
40-50	289.90
50-60	263.35
60-70	204.63
70-80	125.21
80-90	40.35
90-100	57.90
100-110	255.87
110-120	379.11
120-130	335.81
130-140	268.58
140-150	197.77
150-160	132.50
160-170	76.13
170-180	24.83

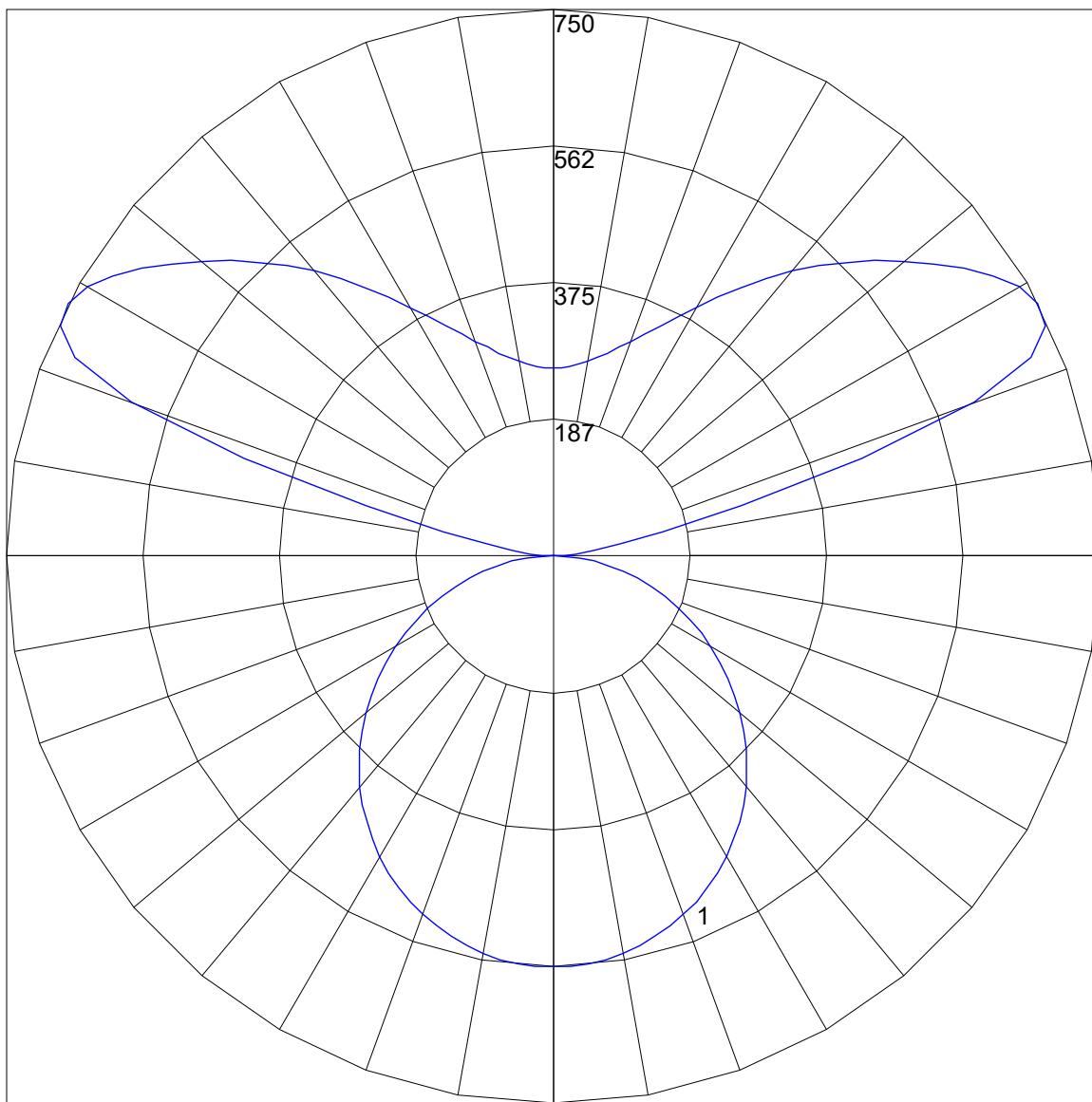
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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 = 749.501 Located At Horizontal Angle = 90, Vertical Angle = 117.5  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)