

# 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-P-D-4FT-B-8TW-RB-ITL93794.902.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

[TEST]ITL93794.902 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[ISSUEDATE]08/19/20  
[TESTDATE]09/08/20  
[MANUFAC]FINELITE, INC.  
[LUMCAT]FINELITE HPO-P-ID-4ft-B-B-8TW-RT-RB-RE  
[OTHER]ies file is based on 3500K; see luminaire tech sheet at  
www.finelite.com for lumen adjustment factors for other CCT's & CRI's  
[ INPUT\_ELECTRICAL]120.0 VOLTS, 18.9 WATTS  
[ INPUT\_ELECTRICAL]277.0 VOLTS, 19.8 WATTS  
[ ABSOLUTE LUMENS]2140  
[OTHER]see www.finelite.com for source file ITL93794. 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)  
[ CONVERT] Photometric web converted from original test data

**CHARACTERISTICS**

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2141
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	113
Total Luminaire Watts	18.9
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.22
Spacing Criterion (90-270)	1.26
Spacing Criterion (Diagonal)	1.36
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	4.00 ft
Luminous Width (90-270)	0.20 ft
Luminous Height	0.04 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	8200	7448	7359
55	7723	6846	6925
65	7104	6320	6759
75	6344	6245	7382
85	5089	8379	10220

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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>
<b>0.0</b>	687.095	687.095	687.095	687.095	687.095
<b>2.5</b>	686.066	686.066	686.066	686.066	686.066
<b>5.0</b>	682.978	683.493	683.493	684.007	684.007
<b>7.5</b>	678.861	678.346	679.375	679.890	680.405
<b>10.0</b>	672.170	671.655	674.228	675.258	674.743
<b>12.5</b>	664.964	662.905	666.508	668.567	668.052
<b>15.0</b>	655.185	652.097	657.759	660.332	659.817
<b>17.5</b>	644.377	639.745	647.465	651.068	650.039
<b>20.0</b>	630.481	626.878	634.598	639.745	639.230
<b>22.5</b>	616.070	612.467	621.217	626.878	625.849
<b>25.0</b>	599.085	595.997	606.806	611.952	612.982
<b>27.5</b>	582.101	579.013	590.336	595.997	597.027
<b>30.0</b>	563.058	560.485	573.351	580.042	580.557
<b>32.5</b>	542.471	541.441	553.794	561.514	563.058
<b>35.0</b>	522.398	521.369	534.751	541.956	544.530
<b>37.5</b>	500.782	500.267	514.164	522.398	524.972
<b>40.0</b>	477.107	478.651	492.032	502.326	504.899
<b>42.5</b>	453.946	456.520	470.416	481.224	484.827
<b>45.0</b>	431.300	432.844	448.285	458.578	463.725
<b>47.5</b>	406.081	409.169	425.124	436.962	442.623
<b>50.0</b>	380.862	384.979	400.934	414.831	421.521
<b>52.5</b>	356.157	360.789	377.774	393.729	400.420
<b>55.0</b>	330.938	334.541	353.584	371.598	380.347
<b>57.5</b>	305.719	309.836	329.909	350.496	359.760
<b>60.0</b>	277.926	284.617	305.719	330.938	340.717
<b>62.5</b>	252.192	259.398	283.588	310.866	322.703
<b>65.0</b>	225.944	233.664	262.486	291.823	305.204
<b>67.5</b>	200.724	208.959	241.899	275.353	289.249
<b>70.0</b>	174.991	185.284	221.826	259.398	274.323
<b>72.5</b>	150.286	162.638	203.813	246.016	261.457
<b>75.0</b>	125.581	139.992	188.372	233.664	251.163
<b>77.5</b>	101.906	119.920	175.505	223.885	241.384
<b>80.0</b>	78.746	102.421	163.668	215.135	233.664
<b>82.5</b>	57.129	88.010	155.947	208.959	228.002
<b>85.0</b>	36.542	77.716	149.771	203.813	223.370
<b>87.5</b>	15.440	72.055	146.169	201.239	221.826
<b>90.0</b>	0.000	69.996	145.139	200.724	220.797

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	250.26	N.A.	11.70
0-30	529.10	N.A.	24.70
0-40	862.46	N.A.	40.30
0-60	1524.13	N.A.	71.20
0-80	1985.52	N.A.	92.70
0-90	2140.73	N.A.	100.00
10-90	2075.8	N.A.	97.00
20-40	612.20	N.A.	28.60
20-50	957.00	N.A.	44.70
40-70	923.36	N.A.	43.10
60-80	461.39	N.A.	21.60
70-80	199.70	N.A.	9.30
80-90	155.21	N.A.	7.30
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	2140.73	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	64.93
10-20	185.33
20-30	278.84
30-40	333.36
40-50	344.80
50-60	316.86
60-70	261.70
70-80	199.70
80-90	155.21
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

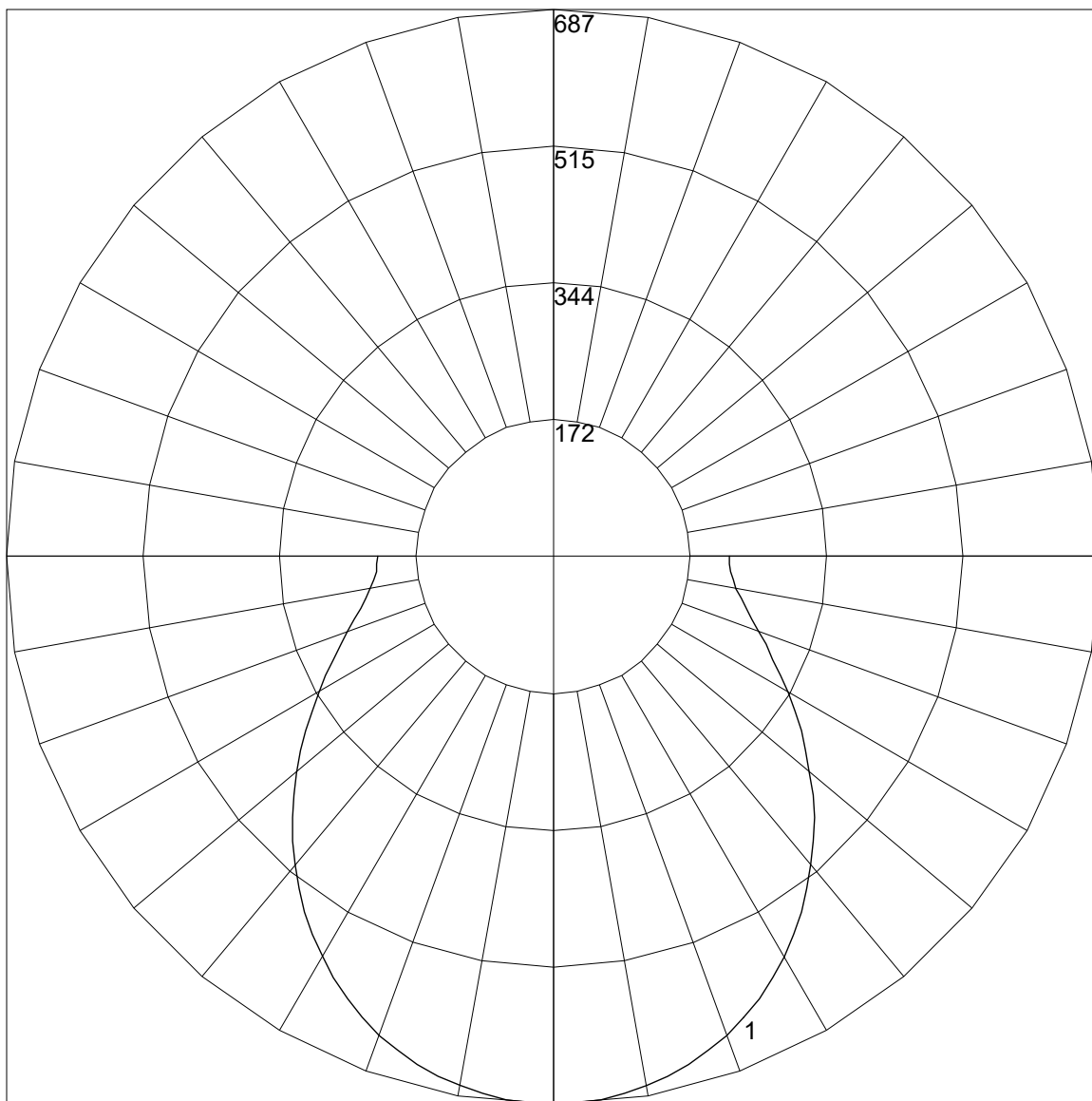
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	106	100	95	90	103	98	93	89	94	90	86	90	86	83	86	83	81	79
2	96	87	79	72	93	85	77	71	81	75	70	78	72	68	74	70	66	64
3	87	76	67	59	85	74	66	59	71	64	58	68	62	57	65	60	56	53
4	80	67	57	50	77	65	57	50	63	55	49	60	54	48	58	52	48	45
5	73	60	50	43	71	58	49	43	56	48	42	54	47	42	52	46	41	39
6	68	54	44	37	66	53	44	37	51	43	37	49	42	37	47	41	36	34
7	63	49	39	33	61	48	39	33	46	38	33	45	38	32	43	37	32	30
8	58	44	36	29	57	44	35	29	42	35	29	41	34	29	40	33	29	27
9	55	41	32	26	53	40	32	26	39	31	26	38	31	26	37	31	26	24
10	51	38	29	24	50	37	29	24	36	29	24	35	28	24	34	28	24	22

POLAR GRAPH



Maximum Candela = 687.095 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)