

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-ID-4FT-H-B-835-RT-RB-RE-ITL93794.008.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL93794.008 Family Correlation File
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.
[ISSUEDATE]08/19/20
[TESTDATE]09/04/20
[MANUFAC]FINELITE, INC.
[LUMCAT]FINELITE HPO-P-ID-4ft-H-B-835-RT-RB-RE
[INPUT_ELECTRICAL]120.0 VOLTS, 43.6 WATTS
[INPUT_ELECTRICAL]277.0 VOLTS, 44.7 WATTS
[ABSOLUTE LUMENS]5518
[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

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5518
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	127
Total Luminaire Watts	43.6
Ballast Factor	1.00
CIE Type	Semi-Indirect
Spacing Criterion (0-180)	N.A.
Spacing Criterion (90-270)	N.A.
Spacing Criterion (Diagonal)	N.A.
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	8199	7447	7358
55	7721	6845	6924
65	7103	6319	6758
75	6343	6244	7381
85	5089	8378	10219

CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0.0	686.998	686.998	686.998	686.998	686.998
2.5	685.969	685.969	685.969	685.969	685.969
5.0	682.881	683.396	683.396	683.911	683.911
7.5	678.764	678.250	679.279	679.794	680.308
10.0	672.075	671.560	674.133	675.162	674.648
12.5	664.870	662.812	666.414	668.472	667.958
15.0	655.093	652.005	657.666	660.239	659.724
17.5	644.286	639.654	647.374	650.976	649.947
20.0	630.392	626.789	634.509	639.654	639.140
22.5	615.983	612.380	621.129	626.789	625.760
25.0	599.001	595.913	606.720	611.866	612.895
27.5	582.019	578.931	590.252	595.913	596.942
30.0	562.978	560.405	573.270	579.960	580.475
32.5	542.394	541.365	553.716	561.434	562.978
35.0	522.324	521.295	534.675	541.880	544.452
37.5	500.711	500.197	514.091	522.324	524.898
40.0	477.039	478.583	491.963	502.255	504.828
42.5	453.882	456.455	470.349	481.156	484.758
45.0	431.239	432.783	448.221	458.513	463.659
47.5	406.024	409.111	425.064	436.900	442.561
50.0	380.808	384.925	400.878	414.772	421.462
52.5	356.107	360.738	377.720	393.673	400.363
55.0	330.891	334.493	353.534	371.545	380.293
57.5	305.676	309.792	329.862	350.446	359.709
60.0	277.887	284.577	305.676	330.891	340.669
62.5	252.157	259.361	283.548	310.822	322.658
65.0	225.912	233.631	262.449	291.781	305.161
67.5	200.696	208.930	241.864	275.314	289.208
70.0	174.966	185.258	221.795	259.361	274.285
72.5	150.265	162.615	203.784	245.981	261.420
75.0	125.564	139.973	188.346	233.631	251.127
77.5	101.892	119.903	175.481	223.853	241.350
80.0	78.735	102.406	163.644	215.105	233.631
82.5	57.121	87.998	155.925	208.930	227.970
85.0	36.537	77.705	149.750	203.784	223.339
87.5	15.438	72.045	146.148	201.211	221.795
90.0	0.000	105.772	219.322	303.318	333.650
92.5	27.999	110.439	223.211	306.429	337.538
95.0	61.441	121.327	230.211	311.873	342.983
97.5	94.106	138.438	240.321	320.428	350.760
100.0	127.549	164.103	254.321	333.650	360.871
102.5	162.547	192.101	272.986	346.871	374.092
105.0	202.212	223.211	296.318	363.982	390.425
107.5	239.543	256.654	321.984	384.203	408.313
110.0	278.430	294.763	349.982	408.313	429.312
112.5	317.317	333.650	380.314	433.978	453.422
115.0	358.537	371.759	412.979	460.421	480.642
117.5	402.091	410.646	447.977	489.975	507.863
120.0	441.755	450.311	485.309	521.862	536.640
122.5	480.642	489.197	521.862	554.528	566.971
125.0	522.640	527.307	559.972	586.415	597.303
127.5	563.860	568.527	597.303	618.302	630.746
130.0	602.747	609.747	633.857	652.523	661.856
132.5	643.967	650.967	669.633	689.076	696.076

IES INDOOR REPORT**PHOTOMETRIC FILENAME : HPO-P-ID-4FT-H-B-835-RT-RB-RE-ITL93794.008.IES****CANDELA TABULATION - (Cont.)**

135.0	682.077	685.965	703.853	723.297	730.296
137.5	722.519	720.186	740.407	757.517	767.628
140.0	757.517	753.629	773.072	790.182	801.071
142.5	790.960	788.627	805.737	825.958	832.180
145.0	825.181	820.514	839.958	857.068	863.290
147.5	857.846	851.624	872.623	885.844	890.511
150.0	888.177	881.178	902.954	913.843	919.287
152.5	916.176	911.510	930.953	940.286	944.175
155.0	942.619	937.953	955.841	963.618	968.284
157.5	969.840	964.396	981.506	986.172	990.061
160.0	992.394	986.950	1001.727	1004.838	1007.949
162.5	1011.060	1008.727	1018.837	1023.504	1023.504
165.0	1027.393	1025.059	1034.392	1037.503	1035.948
167.5	1041.392	1039.836	1046.836	1049.947	1049.169
170.0	1053.058	1052.280	1056.947	1058.502	1058.502
172.5	1061.613	1063.169	1064.724	1065.502	1066.280
175.0	1069.390	1069.390	1070.168	1070.168	1070.168
177.5	1072.502	1072.502	1073.279	1072.502	1073.279
180.0	1074.057	1074.057	1074.057	1074.057	1074.057

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	250.23	N.A.	4.50
0-30	529.03	N.A.	9.60
0-40	862.34	N.A.	15.60
0-60	1523.91	N.A.	27.60
0-80	1985.24	N.A.	36.00
0-90	2149.65	N.A.	39.00
10-90	2084.72	N.A.	37.80
20-40	612.11	N.A.	11.10
20-50	956.86	N.A.	17.30
40-70	923.23	N.A.	16.70
60-80	461.33	N.A.	8.40
70-80	199.67	N.A.	3.60
80-90	164.41	N.A.	3.00
90-110	552.57	N.A.	10.00
90-120	966.04	N.A.	17.50
90-130	1466.19	N.A.	26.60
90-150	2536.04	N.A.	46.00
90-180	3368.41	N.A.	61.00
110-180	2815.84	N.A.	51.00
0-180	5518.06	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	64.92
10-20	185.30
20-30	278.80
30-40	333.31
40-50	344.75
50-60	316.82
60-70	261.66
70-80	199.67
80-90	164.41
90-100	239.00
100-110	313.57
110-120	413.47
120-130	500.15
130-140	544.22
140-150	525.63
150-160	439.41
160-170	291.28
170-180	101.68

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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	105	105	105	105	95	95	95	95	77	77	77	61	61	61	46	46	46	39
1	94	89	85	81	85	81	78	74	66	63	61	52	50	48	39	38	37	31
2	85	78	71	66	77	71	65	60	57	53	50	45	42	40	34	32	30	25
3	78	68	60	54	70	62	55	50	50	45	41	40	36	33	30	27	25	21
4	71	60	52	46	64	55	48	42	44	39	35	35	31	28	26	24	22	18
5	65	53	45	39	59	49	41	36	40	34	30	31	27	24	24	21	19	15
6	60	48	39	34	54	43	36	31	36	30	26	28	24	21	21	19	16	13
7	55	43	35	29	50	39	32	27	32	27	23	26	22	19	19	17	14	12
8	51	39	31	26	46	36	29	24	29	24	20	23	19	16	18	15	13	10
9	48	35	28	23	43	32	26	21	27	22	18	21	18	15	16	14	12	9
10	44	32	25	20	40	30	23	19	25	20	16	20	16	13	15	13	11	8

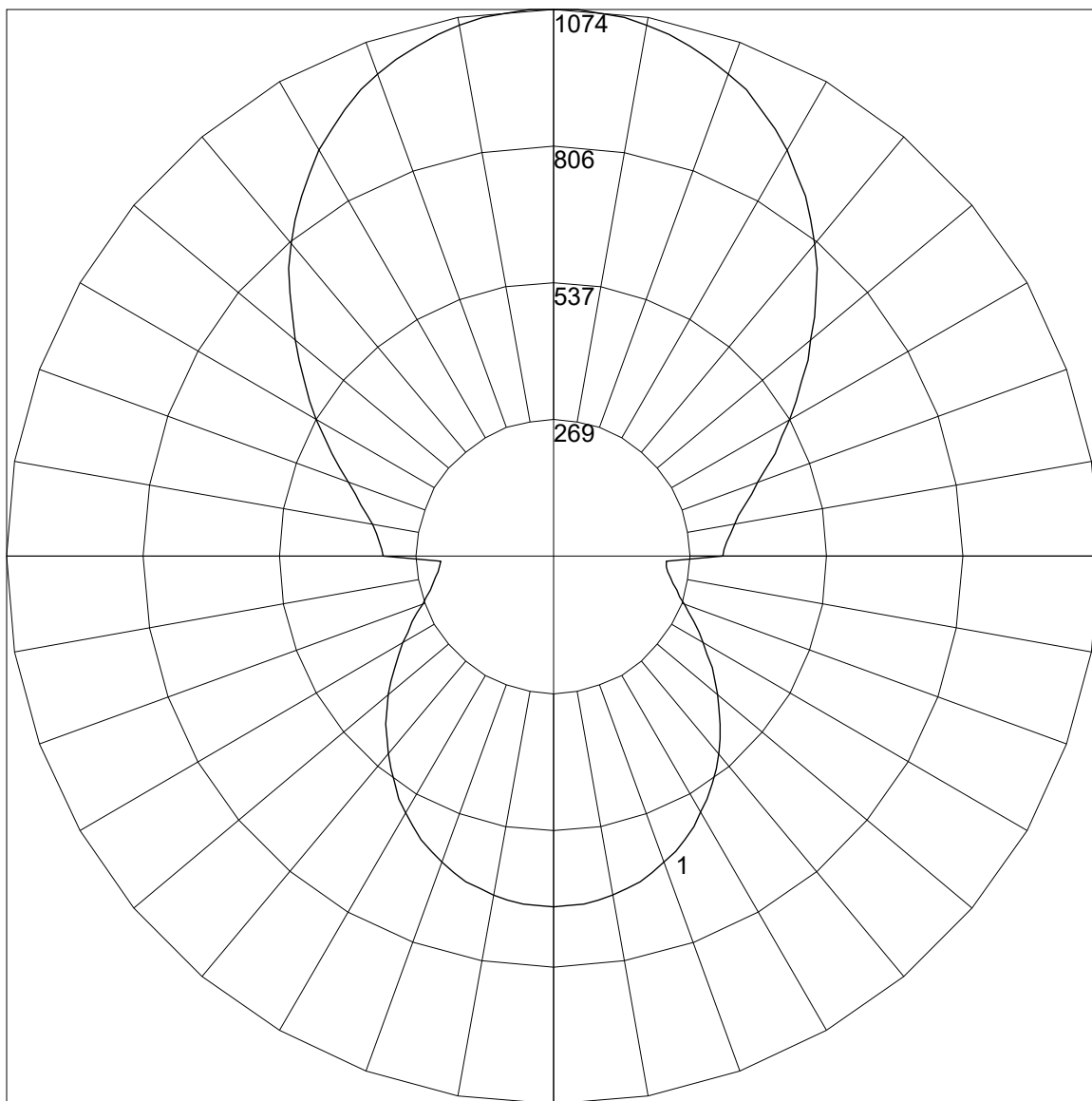
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UGR TABLE - CORRECTED

Reflectances											
Ceiling Cavity	70	70	50	50	30	70	70	50	50	30	
Walls	50	30	50	30	30	50	30	50	30	30	
Floor Cavity	20	20	20	20	20	20	20	20	20	20	
Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	12.9	13.7	13.9	14.7	16.1	14.4	15.2	15.4	16.2	17.6
	3H	14.5	15.2	15.5	16.2	17.7	16.9	17.6	17.9	18.7	20.1
	4H	15.0	15.7	16.1	16.8	18.2	18.2	18.9	19.3	20.0	21.4
	6H	15.4	16.0	16.5	17.1	18.5	19.7	20.4	20.8	21.4	22.9
	8H	15.5	16.1	16.6	17.2	18.6	20.6	21.2	21.7	22.3	23.7
	12H	15.5	16.1	16.6	17.2	18.7	21.6	22.2	22.7	23.3	24.7
4H	2H	13.6	14.3	14.7	15.4	16.8	14.8	15.5	15.9	16.5	18.0
	3H	15.4	16.0	16.5	17.1	18.5	17.5	18.1	18.6	19.2	20.7
	4H	16.1	16.6	17.2	17.7	19.2	19.1	19.6	20.1	20.7	22.1
	6H	16.6	17.1	17.7	18.2	19.6	20.8	21.3	21.9	22.4	23.8
	8H	16.8	17.2	17.9	18.3	19.8	21.8	22.2	22.9	23.3	24.8
	12H	16.9	17.3	18.0	18.4	19.9	22.9	23.3	24.0	24.4	25.9
8H	4H	16.8	17.2	17.8	18.3	19.8	19.3	19.7	20.4	20.8	22.3
	6H	17.5	17.9	18.6	19.0	20.5	21.2	21.6	22.3	22.7	24.2
	8H	17.8	18.1	18.9	19.2	20.7	22.4	22.7	23.5	23.9	25.4
	12H	18.0	18.2	19.1	19.4	20.9	23.8	24.1	24.9	25.2	26.7
12H	4H	17.0	17.4	18.1	18.5	20.0	19.3	19.7	20.4	20.8	22.3
	6H	17.8	18.2	19.0	19.3	20.8	21.3	21.6	22.4	22.7	24.2
	8H	18.2	18.5	19.4	19.6	21.2	22.5	22.8	23.7	23.9	25.5

Maximum UGR = 26.7

POLAR GRAPH



Maximum Candela = 1074.057 Located At Horizontal Angle = 0, Vertical Angle = 180
1 - Vertical Plane Through Horizontal Angles (90 - 270)