

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-B-B-8TW-RT-RB-RE-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, 37.7 WATTS

[_INPUT_ELECTRICAL]277.0 VOLTS, 39.6 WATTS

[_ABSOLUTE]LUMENS]4369

[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	4370
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	116
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 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>
0.0	687.095	687.095	687.095	687.095	687.095
2.5	686.066	686.066	686.066	686.066	686.066
5.0	682.978	683.493	683.493	684.007	684.007
7.5	678.861	678.346	679.375	679.890	680.405
10.0	672.170	671.655	674.228	675.258	674.743
12.5	664.964	662.905	666.508	668.567	668.052
15.0	655.185	652.097	657.759	660.332	659.817
17.5	644.377	639.745	647.465	651.068	650.039
20.0	630.481	626.878	634.598	639.745	639.230
22.5	616.070	612.467	621.217	626.878	625.849
25.0	599.085	595.997	606.806	611.952	612.982
27.5	582.101	579.013	590.336	595.997	597.027
30.0	563.058	560.485	573.351	580.042	580.557
32.5	542.471	541.441	553.794	561.514	563.058
35.0	522.398	521.369	534.751	541.956	544.530
37.5	500.782	500.267	514.164	522.398	524.972
40.0	477.107	478.651	492.032	502.326	504.899
42.5	453.946	456.520	470.416	481.224	484.827
45.0	431.300	432.844	448.285	458.578	463.725
47.5	406.081	409.169	425.124	436.962	442.623
50.0	380.862	384.979	400.934	414.831	421.521
52.5	356.157	360.789	377.774	393.729	400.420
55.0	330.938	334.541	353.584	371.598	380.347
57.5	305.719	309.836	329.909	350.496	359.760
60.0	277.926	284.617	305.719	330.938	340.717
62.5	252.192	259.398	283.588	310.866	322.703
65.0	225.944	233.664	262.486	291.823	305.204
67.5	200.724	208.959	241.899	275.353	289.249
70.0	174.991	185.284	221.826	259.398	274.323
72.5	150.286	162.638	203.813	246.016	261.457
75.0	125.581	139.992	188.372	233.664	251.163
77.5	101.906	119.920	175.505	223.885	241.384
80.0	78.746	102.421	163.668	215.135	233.664
82.5	57.129	88.010	155.947	208.959	228.002
85.0	36.542	77.716	149.771	203.813	223.370
87.5	15.440	72.055	146.169	201.239	221.826
90.0	0.000	69.996	145.139	200.724	220.797
92.5	18.528	73.084	147.713	202.783	223.370
95.0	40.660	80.290	152.345	206.386	226.973
97.5	62.276	91.613	159.036	212.047	232.120
100.0	84.407	108.597	168.300	220.797	238.811
102.5	107.568	127.126	180.652	229.546	247.560
105.0	133.816	147.713	196.092	240.869	258.368
107.5	158.521	169.844	213.077	254.251	270.206
110.0	184.255	195.063	231.605	270.206	284.102
112.5	209.989	220.797	251.678	287.190	300.057
115.0	237.267	246.016	273.294	304.689	318.071
117.5	266.089	271.750	296.455	324.247	336.085
120.0	292.337	297.999	321.159	345.349	355.128
122.5	318.071	323.733	345.349	366.966	375.200
125.0	345.864	348.952	370.568	388.067	395.273
127.5	373.142	376.230	395.273	409.169	417.404
130.0	398.876	403.508	419.463	431.815	437.991
132.5	426.154	430.786	443.138	456.005	460.637

IES INDOOR REPORT**PHOTOMETRIC FILENAME : HPO-P-ID-4FT-B-B-8TW-RT-RB-RE-ITL93794.902.IES****CANDELA TABULATION - (Cont.)**

135.0	451.373	453.946	465.784	478.651	483.283
137.5	478.136	476.592	489.974	501.297	507.987
140.0	501.297	498.723	511.590	522.913	530.119
142.5	523.428	521.884	533.207	546.588	550.706
145.0	546.074	542.985	555.852	567.175	571.293
147.5	567.690	563.573	577.469	586.218	589.307
150.0	587.762	583.130	597.541	604.747	608.350
152.5	606.291	603.203	616.070	622.246	624.819
155.0	623.790	620.702	632.539	637.686	640.774
157.5	641.804	638.201	649.524	652.612	655.185
160.0	656.729	653.127	662.905	664.964	667.023
162.5	669.082	667.538	674.228	677.316	677.316
165.0	679.890	678.346	684.522	686.581	685.551
167.5	689.154	688.125	692.757	694.816	694.301
170.0	696.874	696.360	699.448	700.477	700.477
172.5	702.536	703.565	704.594	705.109	705.624
175.0	707.682	707.682	708.197	708.197	708.197
177.5	709.741	709.741	710.256	709.741	710.256
180.0	710.771	710.771	710.771	710.771	710.771

IES INDOOR REPORT**PHOTOMETRIC FILENAME : HPO-P-ID-4FT-B-B-8TW-RT-RB-RE-ITL93794.902.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	250.26	N.A.	5.70
0-30	529.10	N.A.	12.10
0-40	862.46	N.A.	19.70
0-60	1524.13	N.A.	34.90
0-80	1985.52	N.A.	45.40
0-90	2140.73	N.A.	49.00
10-90	2075.8	N.A.	47.50
20-40	612.20	N.A.	14.00
20-50	957.00	N.A.	21.90
40-70	923.36	N.A.	21.10
60-80	461.39	N.A.	10.60
70-80	199.70	N.A.	4.60
80-90	155.21	N.A.	3.60
90-110	365.67	N.A.	8.40
90-120	639.29	N.A.	14.60
90-130	970.27	N.A.	22.20
90-150	1678.25	N.A.	38.40
90-180	2229.09	N.A.	51.00
110-180	1863.42	N.A.	42.60
0-180	4369.82	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	158.16
100-110	207.51
110-120	273.62
120-130	330.98
130-140	360.14
140-150	347.84
150-160	290.79
160-170	192.76
170-180	67.29

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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	96	91	87	83	88	84	80	77	71	68	65	58	56	54	47	45	44	39
2	87	79	73	67	80	73	67	62	61	57	53	50	47	44	40	38	36	31
3	79	69	61	55	73	64	57	52	54	48	44	44	40	37	36	33	30	26
4	72	61	53	46	66	56	49	43	48	42	37	39	35	32	32	29	26	22
5	66	54	46	40	61	50	43	37	42	37	32	35	31	27	28	25	22	19
6	61	49	40	34	56	45	38	32	38	32	28	32	27	24	26	22	20	17
7	56	44	36	30	52	41	33	28	35	29	24	29	24	21	23	20	17	15
8	52	40	32	26	48	37	30	25	31	26	22	26	22	19	22	18	16	13
9	49	36	29	23	45	34	27	22	29	23	19	24	20	17	20	16	14	12
10	45	33	26	21	42	31	24	20	26	21	17	22	18	15	18	15	13	11

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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

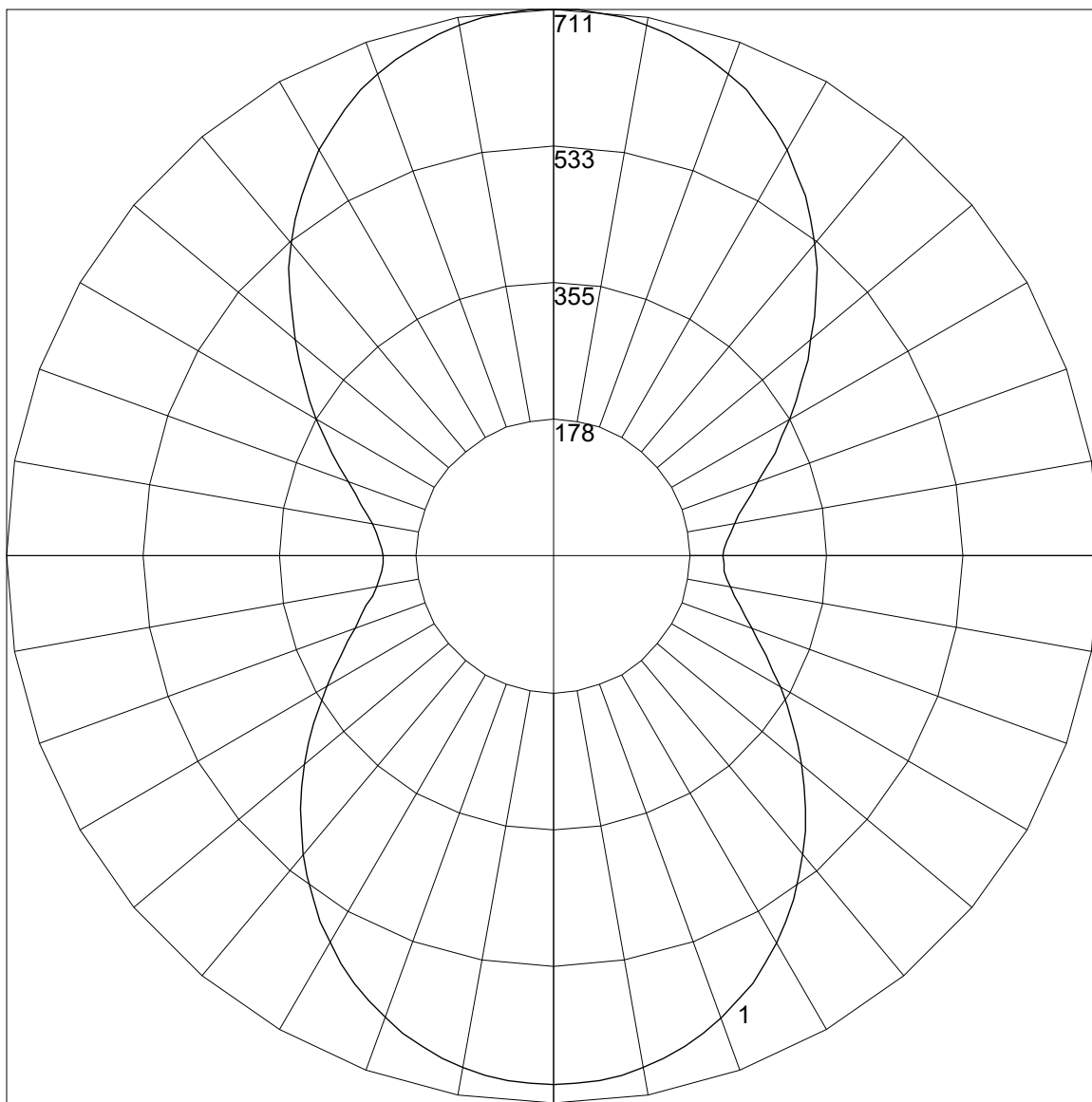
X=2H	Y=2H	13.9	14.8	14.9	15.8	17.1	15.4	16.3	16.4	17.3	18.6
	3H	15.5	16.3	16.5	17.3	18.6	17.9	18.7	18.9	19.7	21.0
	4H	16.1	16.8	17.0	17.8	19.1	19.3	20.0	20.2	21.0	22.3
	6H	16.5	17.2	17.4	18.2	19.5	20.8	21.5	21.8	22.5	23.8
	8H	16.5	17.2	17.5	18.2	19.6	21.7	22.3	22.6	23.3	24.7
	12H	16.6	17.2	17.6	18.3	19.6	22.7	23.3	23.7	24.3	25.7

UGR Viewed Endwise

4H	2H	14.7	15.4	15.7	16.4	17.7	15.8	16.6	16.8	17.6	18.9
	3H	16.5	17.1	17.5	18.2	19.5	18.6	19.2	19.6	20.3	21.6
	4H	17.2	17.8	18.2	18.8	20.1	20.1	20.7	21.1	21.7	23.1
	6H	17.7	18.2	18.7	19.2	20.6	21.9	22.4	22.9	23.4	24.8
	8H	17.8	18.3	18.9	19.4	20.7	22.9	23.3	23.9	24.4	25.7
	12H	17.9	18.4	19.0	19.4	20.8	24.0	24.5	25.1	25.5	26.9
8H	4H	17.8	18.3	18.9	19.4	20.7	20.3	20.8	21.4	21.9	23.2
	6H	18.6	19.0	19.6	20.0	21.4	22.3	22.7	23.4	23.8	25.2
	8H	18.8	19.2	19.9	20.3	21.6	23.5	23.9	24.5	24.9	26.3
	12H	19.0	19.4	20.1	20.4	21.8	24.9	25.2	25.9	26.3	27.7
12H	4H	18.1	18.5	19.1	19.6	20.9	20.3	20.8	21.4	21.8	23.2
	6H	18.9	19.3	20.0	20.4	21.7	22.4	22.7	23.4	23.8	25.2
	8H	19.3	19.6	20.4	20.7	22.1	23.6	23.9	24.7	25.0	26.4

Maximum UGR = 27.7

POLAR GRAPH



Maximum Candela = 710.771 Located At Horizontal Angle = 0, Vertical Angle = 180
1 - Vertical Plane Through Horizontal Angles (90 - 270)