

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-H-835-RT-RB-RE-ITL93794.011.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL93794.011 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-B-H-835-RT-RB-RE
[INPUT_ELECTRICAL]120.0 VOLTS, 43.6 WATTS
[INPUT_ELECTRICAL]277.0 VOLTS, 44.7 WATTS
[ABSOLUTE LUMENS]5454
[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	5454
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	125
Total Luminaire Watts	43.6
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	12391	11255	11120
55	11670	10345	10465
65	10734	9550	10213
75	9587	9437	11155
85	7691	12662	15444

CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0.0	1038.281	1038.281	1038.281	1038.281	1038.281
2.5	1036.726	1036.726	1036.726	1036.726	1036.726
5.0	1032.059	1032.837	1032.837	1033.614	1033.614
7.5	1025.837	1025.059	1026.615	1027.393	1028.170
10.0	1015.726	1014.949	1018.837	1020.393	1019.615
12.5	1004.838	1001.727	1007.171	1010.282	1009.505
15.0	990.061	985.395	993.950	997.838	997.061
17.5	973.729	966.729	978.395	983.839	982.284
20.0	952.730	947.285	958.952	966.729	965.951
22.5	930.953	925.509	938.730	947.285	945.730
25.0	905.288	900.621	916.954	924.731	926.287
27.5	879.622	874.956	892.066	900.621	902.177
30.0	850.846	846.957	866.401	876.511	877.289
32.5	819.736	818.181	836.847	848.513	850.846
35.0	789.405	787.849	808.070	818.959	822.847
37.5	756.740	755.962	776.961	789.405	793.293
40.0	720.964	723.297	743.518	759.073	762.962
42.5	685.965	689.854	710.853	727.186	732.630
45.0	651.745	654.078	677.410	692.965	700.742
47.5	613.636	618.302	642.412	660.300	668.855
50.0	575.527	581.748	605.858	626.857	636.968
52.5	538.195	545.195	570.860	594.970	605.081
55.0	500.086	505.530	534.306	561.527	574.749
57.5	461.977	468.199	498.530	529.640	543.639
60.0	419.979	430.089	461.977	500.086	514.863
62.5	381.092	391.980	428.534	469.754	487.642
65.0	341.427	353.093	396.647	440.978	461.199
67.5	303.318	315.762	365.537	416.090	437.089
70.0	264.431	279.986	335.205	391.980	414.535
72.5	227.100	245.765	307.985	371.759	395.091
75.0	189.768	211.545	284.652	353.093	379.536
77.5	153.992	181.213	265.209	338.316	364.759
80.0	118.994	154.770	247.321	325.095	353.093
82.5	86.329	132.993	235.655	315.762	344.538
85.0	55.219	117.439	226.322	307.985	337.538
87.5	23.332	108.883	220.878	304.096	335.205
90.0	0.000	69.986	145.119	200.696	220.766
92.5	18.526	73.074	147.692	202.755	223.339
95.0	40.654	80.278	152.323	206.357	226.941
97.5	62.267	91.600	159.013	212.017	232.087
100.0	84.395	108.582	168.276	220.766	238.777
102.5	107.552	127.108	180.626	229.514	247.525
105.0	133.797	147.692	196.065	240.835	258.332
107.5	158.499	169.820	213.047	254.215	270.168
110.0	184.229	195.035	231.572	270.168	284.062
112.5	209.959	220.766	251.642	287.150	300.015
115.0	237.233	245.981	273.255	304.646	318.026
117.5	266.051	271.712	296.413	324.201	336.037
120.0	292.296	297.957	321.114	345.300	355.078
122.5	318.026	323.687	345.300	366.914	375.147
125.0	345.815	348.902	370.516	388.012	395.217
127.5	373.089	376.177	395.217	409.111	417.345
130.0	398.819	403.451	419.403	431.754	437.929
132.5	426.093	430.725	443.075	455.940	460.572

IES INDOOR REPORT**PHOTOMETRIC FILENAME : HPO-P-ID-4FT-B-H-835-RT-RB-RE-ITL93794.011.IES****CANDELA TABULATION - (Cont.)**

135.0	451.309	453.882	465.718	478.583	483.214
137.5	478.068	476.525	489.904	501.226	507.916
140.0	501.226	498.653	511.518	522.839	530.044
142.5	523.354	521.810	533.131	546.511	550.628
145.0	545.996	542.909	555.774	567.095	571.212
147.5	567.610	563.493	577.387	586.136	589.223
150.0	587.679	583.048	597.457	604.661	608.264
152.5	606.205	603.118	615.983	622.158	624.731
155.0	623.702	620.614	632.450	637.596	640.684
157.5	641.713	638.111	649.432	652.520	655.093
160.0	656.636	653.034	662.812	664.870	666.929
162.5	668.987	667.443	674.133	677.221	677.221
165.0	679.794	678.250	684.425	686.484	685.454
167.5	689.057	688.028	692.659	694.717	694.203
170.0	696.776	696.261	699.349	700.378	700.378
172.5	702.436	703.466	704.495	705.009	705.524
175.0	707.582	707.582	708.097	708.097	708.097
177.5	709.641	709.641	710.155	709.641	710.155
180.0	710.670	710.670	710.670	710.670	710.670

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	378.18	N.A.	6.90
0-30	799.53	N.A.	14.70
0-40	1303.28	N.A.	23.90
0-60	2303.13	N.A.	42.20
0-80	3000.35	N.A.	55.00
0-90	3225.68	N.A.	59.10
10-90	3127.56	N.A.	57.30
20-40	925.10	N.A.	17.00
20-50	1446.14	N.A.	26.50
40-70	1395.3	N.A.	25.60
60-80	697.22	N.A.	12.80
70-80	301.77	N.A.	5.50
80-90	225.33	N.A.	4.10
90-110	365.62	N.A.	6.70
90-120	639.20	N.A.	11.70
90-130	970.13	N.A.	17.80
90-150	1678.02	N.A.	30.80
90-180	2228.77	N.A.	40.90
110-180	1863.16	N.A.	34.20
0-180	5454.45	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	98.12
10-20	280.06
20-30	421.36
30-40	503.75
40-50	521.03
50-60	478.82
60-70	395.45
70-80	301.77
80-90	225.33
90-100	158.14
100-110	207.48
110-120	273.58
120-130	330.94
130-140	360.09
140-150	347.79
150-160	290.75
160-170	192.73
170-180	67.28

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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	109	109	109	109	102	102	102	102	88	88	88	76	76	76	65	65	65	59
1	98	93	89	85	91	87	83	79	75	72	69	64	62	60	55	53	51	47
2	89	81	74	68	83	75	69	64	65	61	57	56	52	49	47	45	42	38
3	81	71	63	56	75	66	59	53	57	52	47	49	45	41	42	38	36	32
4	74	62	54	47	68	58	51	45	51	45	40	44	39	35	37	33	30	27
5	68	55	47	40	63	52	44	38	45	39	34	39	34	30	33	29	26	23
6	62	50	41	35	58	47	39	33	41	34	30	35	30	26	30	26	23	20
7	58	45	36	31	54	42	34	29	37	31	26	32	27	23	27	23	20	18
8	54	41	33	27	50	38	31	26	34	28	23	29	24	21	25	21	18	16
9	50	37	29	24	46	35	28	23	31	25	21	27	22	19	23	19	16	14
10	47	34	27	22	43	32	25	21	28	23	19	25	20	17	22	18	15	13

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UGR TABLE - CORRECTED

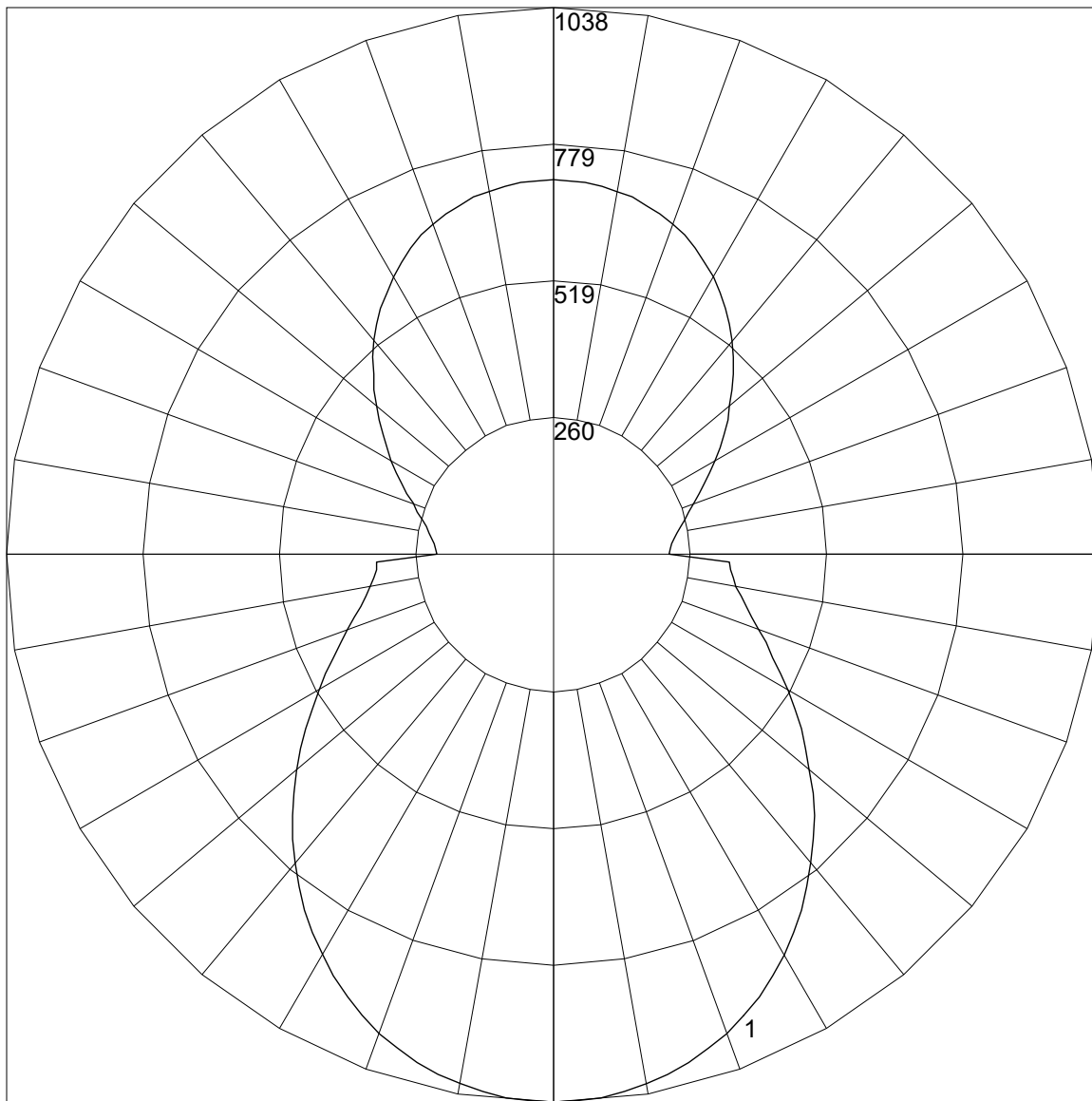
Reflectances

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	16.3	17.3	17.2	18.2	19.3	17.8	18.8	18.6	19.7	20.8
	3H	17.9	18.8	18.8	19.7	20.8	20.3	21.2	21.2	22.1	23.3
	4H	18.4	19.3	19.3	20.2	21.4	21.6	22.5	22.5	23.4	24.6
	6H	18.8	19.6	19.7	20.5	21.7	23.2	24.0	24.1	24.9	26.1
	8H	18.9	19.7	19.9	20.6	21.8	24.0	24.8	25.0	25.7	26.9
	12H	19.0	19.7	19.9	20.6	21.9	25.1	25.8	26.0	26.7	27.9
4H	2H	17.1	17.9	17.9	18.8	20.0	18.2	19.1	19.1	20.0	21.2
	3H	18.9	19.6	19.8	20.5	21.7	21.0	21.7	21.9	22.6	23.8
	4H	19.6	20.2	20.5	21.2	22.4	22.5	23.2	23.4	24.1	25.3
	6H	20.1	20.7	21.0	21.6	22.8	24.3	24.8	25.2	25.8	27.0
	8H	20.3	20.8	21.2	21.7	23.0	25.3	25.8	26.2	26.8	28.0
	12H	20.3	20.8	21.3	21.8	23.0	26.4	26.9	27.4	27.9	29.1
8H	4H	20.3	20.8	21.2	21.7	23.0	22.8	23.3	23.7	24.3	25.5
	6H	21.0	21.4	21.9	22.4	23.7	24.7	25.2	25.7	26.2	27.4
	8H	21.2	21.7	22.2	22.6	23.9	25.9	26.3	26.9	27.3	28.5
	12H	21.5	21.8	22.4	22.8	24.1	27.3	27.7	28.3	28.6	29.9
12H	4H	20.5	21.0	21.4	21.9	23.2	22.7	23.2	23.7	24.2	25.4
	6H	21.3	21.8	22.3	22.7	24.0	24.8	25.2	25.7	26.2	27.4
	8H	21.7	22.1	22.7	23.1	24.4	26.0	26.4	27.0	27.4	28.7

Maximum UGR = 29.9

POLAR GRAPH



Maximum Candela = 1038.281 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (90 - 270)