

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-H-835-RT-RB-RE-ITL93794.003.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL93794.003 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-H-835-RT-RB-RE
[INPUT_ELECTRICAL]120.0 VOLTS, 52.9 WATTS
[INPUT_ELECTRICAL]277.0 VOLTS, 53.4 WATTS
[ABSOLUTE LUMENS]6603
[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	6604
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	125
Total Luminaire Watts	52.9
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	12393	11256	11122
55	11671	10347	10466
65	10736	9551	10214
75	9588	9438	11156
85	7692	12664	15446

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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	1038.403	1038.403	1038.403	1038.403	1038.403
2.5	1036.847	1036.847	1036.847	1036.847	1036.847
5.0	1032.180	1032.958	1032.958	1033.736	1033.736
7.5	1025.958	1025.180	1026.735	1027.513	1028.291
10.0	1015.846	1015.068	1018.957	1020.513	1019.735
12.5	1004.956	1001.845	1007.290	1010.401	1009.623
15.0	990.177	985.510	994.067	997.956	997.178
17.5	973.843	966.843	978.510	983.955	982.399
20.0	952.842	947.397	959.064	966.843	966.065
22.5	931.062	925.618	938.841	947.397	945.841
25.0	905.394	900.727	917.061	924.840	926.395
27.5	879.726	875.059	892.171	900.727	902.283
30.0	850.946	847.057	866.502	876.614	877.392
32.5	819.833	818.277	836.945	848.612	850.946
35.0	789.497	787.942	808.165	819.055	822.944
37.5	756.828	756.051	777.052	789.497	793.386
40.0	721.048	723.382	743.605	759.162	763.051
42.5	686.046	689.935	710.937	727.271	732.716
45.0	651.821	654.155	677.490	693.046	700.825
47.5	613.708	618.375	642.487	660.378	668.934
50.0	575.594	581.817	605.929	626.931	637.043
52.5	538.258	545.259	570.927	595.040	605.152
55.0	500.145	505.589	534.369	561.593	574.816
57.5	462.031	468.254	498.589	529.702	543.703
60.0	420.028	430.140	462.031	500.145	514.923
62.5	381.137	392.026	428.584	469.809	487.699
65.0	341.467	353.135	396.693	441.030	461.253
67.5	303.354	315.799	365.580	416.139	437.140
70.0	264.462	280.019	335.245	392.026	414.583
72.5	227.126	245.794	308.021	371.803	395.138
75.0	189.790	211.570	284.686	353.135	379.581
77.5	154.010	181.234	265.240	338.356	364.802
80.0	119.008	154.788	247.350	325.133	353.135
82.5	86.339	133.009	235.682	315.799	344.579
85.0	55.226	117.452	226.348	308.021	337.578
87.5	23.335	108.896	220.904	304.131	335.245
90.0	0.000	105.785	219.348	303.354	333.689
92.5	28.002	110.452	223.237	306.465	337.578
95.0	61.449	121.341	230.238	311.910	343.023
97.5	94.117	138.454	240.349	320.466	350.801
100.0	127.564	164.122	254.350	333.689	360.913
102.5	162.566	192.124	273.018	346.912	374.136
105.0	202.236	223.237	296.353	364.024	390.471
107.5	239.572	256.684	322.022	384.248	408.361
110.0	278.463	294.798	350.023	408.361	429.362
112.5	317.355	333.689	380.359	434.029	453.475
115.0	358.580	371.803	413.028	460.475	480.699
117.5	402.138	410.694	448.030	490.033	507.923
120.0	441.807	450.364	485.366	521.924	536.703
122.5	480.699	489.255	521.924	554.593	567.038
125.0	522.702	527.369	560.038	586.484	597.373
127.5	563.927	568.594	597.373	618.375	630.820
130.0	602.818	609.819	633.931	652.599	661.933
132.5	644.043	651.044	669.712	689.157	696.158

IES INDOOR REPORT**PHOTOMETRIC FILENAME : HPO-P-ID-4FT-H-H-835-RT-RB-RE-ITL93794.003.IES****CANDELA TABULATION - (Cont.)**

135.0	682.157	686.046	703.936	723.382	730.382
137.5	722.604	720.270	740.494	757.606	767.718
140.0	757.606	753.717	773.163	790.275	801.165
142.5	791.053	788.720	805.832	826.055	832.278
145.0	825.278	820.611	840.056	857.169	863.391
147.5	857.946	851.724	872.725	885.948	890.615
150.0	888.282	881.281	903.060	913.950	919.395
152.5	916.284	911.617	931.062	940.396	944.285
155.0	942.730	938.063	955.953	963.731	968.398
157.5	969.954	964.509	981.621	986.288	990.177
160.0	992.511	987.066	1001.845	1004.956	1008.068
162.5	1011.179	1008.845	1018.957	1023.624	1023.624
165.0	1027.513	1025.180	1034.514	1037.625	1036.069
167.5	1041.514	1039.959	1046.959	1050.070	1049.293
170.0	1053.182	1052.404	1057.071	1058.626	1058.626
172.5	1061.738	1063.293	1064.849	1065.627	1066.405
175.0	1069.516	1069.516	1070.294	1070.294	1070.294
177.5	1072.627	1072.627	1073.405	1072.627	1073.405
180.0	1074.183	1074.183	1074.183	1074.183	1074.183

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	378.22	N.A.	5.70
0-30	799.63	N.A.	12.10
0-40	1303.43	N.A.	19.70
0-60	2303.4	N.A.	34.90
0-80	3000.7	N.A.	45.40
0-90	3235.27	N.A.	49.00
10-90	3137.14	N.A.	47.50
20-40	925.21	N.A.	14.00
20-50	1446.31	N.A.	21.90
40-70	1395.47	N.A.	21.10
60-80	697.30	N.A.	10.60
70-80	301.80	N.A.	4.60
80-90	234.57	N.A.	3.60
90-110	552.64	N.A.	8.40
90-120	966.15	N.A.	14.60
90-130	1466.37	N.A.	22.20
90-150	2536.34	N.A.	38.40
90-180	3368.81	N.A.	51.00
110-180	2816.17	N.A.	42.60
0-180	6604.08	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	98.13
10-20	280.09
20-30	421.41
30-40	503.81
40-50	521.09
50-60	478.87
60-70	395.50
70-80	301.80
80-90	234.57
90-100	239.03
100-110	313.60
110-120	413.52
120-130	500.21
130-140	544.28
140-150	525.69
150-160	439.47
160-170	291.31
170-180	101.70

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

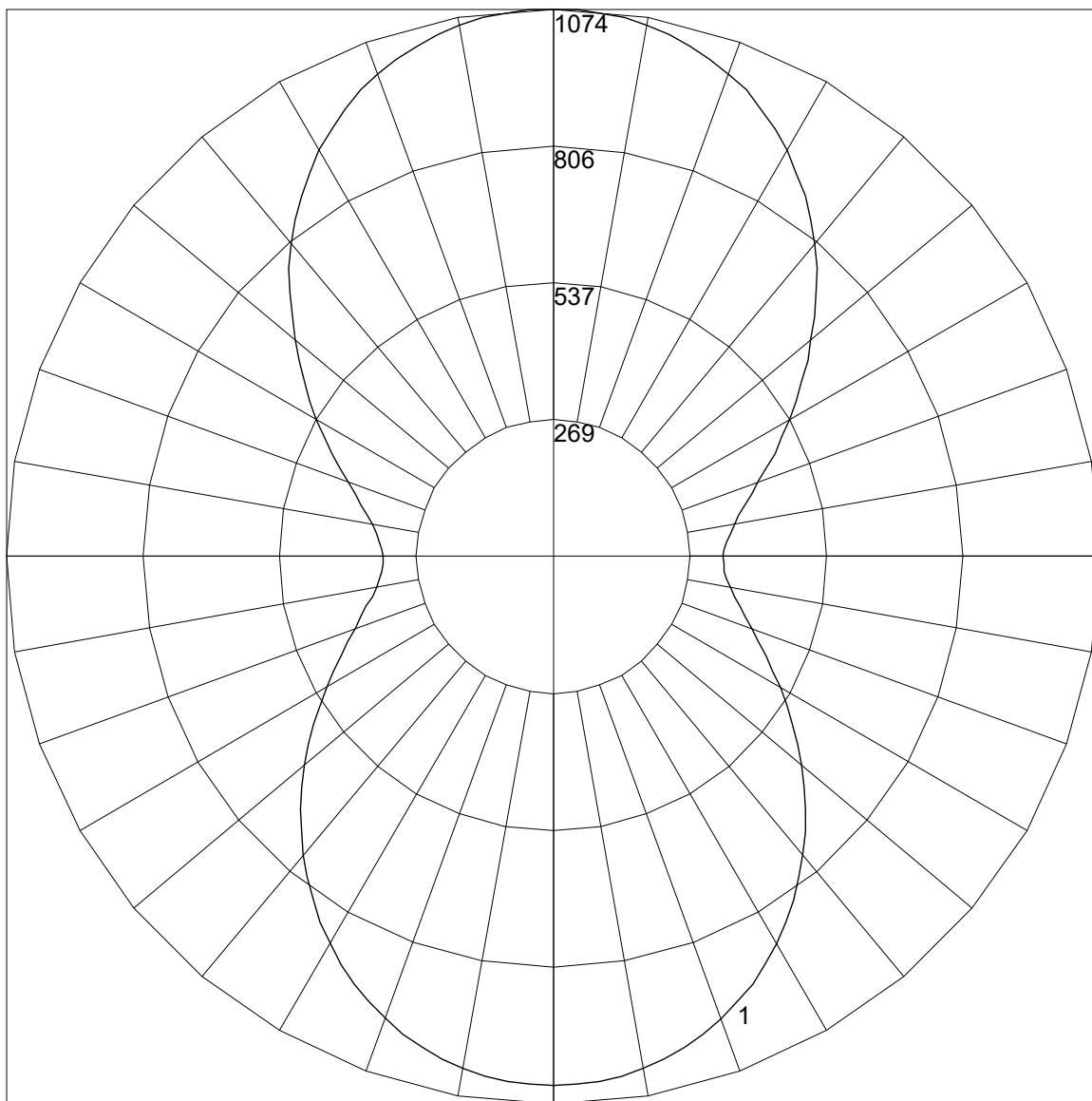
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UGR TABLE - CORRECTED

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					UGR Viewed Endwise				
X=2H	Y=2H	15.4	16.3	16.4	17.3	18.6	16.9	17.8	17.9	18.8	20.1
	3H	17.0	17.8	18.0	18.8	20.1	19.4	20.2	20.4	21.2	22.5
	4H	17.6	18.3	18.5	19.3	20.6	20.8	21.5	21.7	22.5	23.8
	6H	18.0	18.7	18.9	19.7	21.0	22.3	23.0	23.3	24.0	25.3
	8H	18.0	18.7	19.0	19.7	21.1	23.2	23.8	24.1	24.8	26.2
	12H	18.1	18.7	19.1	19.8	21.1	24.2	24.8	25.2	25.8	27.2
4H	2H	16.2	16.9	17.2	17.9	19.2	17.3	18.1	18.3	19.1	20.4
	3H	18.0	18.6	19.0	19.7	21.0	20.1	20.7	21.1	21.8	23.1
	4H	18.7	19.3	19.7	20.3	21.6	21.6	22.2	22.6	23.2	24.6
	6H	19.2	19.7	20.2	20.7	22.1	23.4	23.9	24.4	24.9	26.3
	8H	19.3	19.8	20.4	20.9	22.2	24.4	24.8	25.4	25.9	27.2
	12H	19.4	19.9	20.5	20.9	22.3	25.5	26.0	26.6	27.0	28.4
8H	4H	19.3	19.8	20.4	20.9	22.2	21.8	22.3	22.9	23.4	24.7
	6H	20.1	20.5	21.1	21.5	22.9	23.8	24.2	24.9	25.3	26.7
	8H	20.3	20.7	21.4	21.8	23.1	25.0	25.4	26.0	26.4	27.8
	12H	20.5	20.9	21.6	21.9	23.3	26.4	26.7	27.4	27.8	29.2
12H	4H	19.6	20.0	20.6	21.1	22.4	21.8	22.3	22.9	23.3	24.7
	6H	20.4	20.8	21.5	21.9	23.2	23.9	24.2	24.9	25.3	26.7
	8H	20.8	21.1	21.9	22.2	23.6	25.1	25.4	26.2	26.5	27.9

Maximum UGR = 29.2

POLAR GRAPH



Maximum Candela = 1074.183 Located At Horizontal Angle = 0, Vertical Angle = 180
1 - Vertical Plane Through Horizontal Angles (90 - 270)