

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-S-H-835-RT-RB-RE-ITL93794.014.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL93794.014 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-S-H-835-RT-RB-RE
[INPUT_ELECTRICAL]120.0 VOLTS, 40.0 WATTS
[INPUT_ELECTRICAL]277.0 VOLTS, 41.3 WATTS
[ABSOLUTE LUMENS]5008
[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	5008
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	125
Total Luminaire Watts	40
Ballast Factor	1.00
CIE Type	Semi-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	12441	11300	11165
55	11717	10387	10507
65	10778	9588	10254
75	9626	9475	11200
85	7722	12713	15506

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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	1042.475	1042.475	1042.475	1042.475	1042.475
2.5	1040.913	1040.913	1040.913	1040.913	1040.913
5.0	1036.228	1037.008	1037.008	1037.789	1037.789
7.5	1029.981	1029.200	1030.762	1031.542	1032.323
10.0	1019.829	1019.048	1022.953	1024.514	1023.734
12.5	1008.897	1005.773	1011.239	1014.363	1013.582
15.0	994.060	989.375	997.965	1001.869	1001.088
17.5	977.662	970.634	982.347	987.813	986.251
20.0	956.578	951.112	962.825	970.634	969.853
22.5	934.713	929.247	942.522	951.112	949.550
25.0	908.944	904.259	920.657	928.466	930.028
27.5	883.175	878.490	895.669	904.259	905.821
30.0	854.283	850.378	869.900	880.052	880.832
32.5	823.047	821.486	840.227	851.940	854.283
35.0	792.593	791.031	811.334	822.266	826.171
37.5	759.796	759.015	780.099	792.593	796.497
40.0	723.876	726.218	746.521	762.139	766.043
42.5	688.736	692.640	713.724	730.123	735.589
45.0	654.377	656.720	680.146	695.764	703.573
47.5	616.114	620.799	645.007	662.967	671.557
50.0	577.851	584.098	608.305	629.389	639.541
52.5	540.369	547.397	573.166	597.373	607.524
55.0	502.106	507.572	536.465	563.795	577.070
57.5	463.843	470.090	500.544	531.779	545.835
60.0	421.675	431.827	463.843	502.106	516.942
62.5	382.631	393.563	430.265	471.651	489.612
65.0	342.806	354.519	398.249	442.759	463.062
67.5	304.543	317.037	367.014	417.771	438.854
70.0	265.499	281.117	336.559	393.563	416.209
72.5	228.017	246.758	309.228	373.261	396.687
75.0	190.535	212.399	285.802	354.519	381.069
77.5	154.614	181.945	266.280	339.683	366.233
80.0	119.475	155.395	248.320	326.408	354.519
82.5	86.678	133.530	236.607	317.037	345.930
85.0	55.443	117.913	227.236	309.228	338.902
87.5	23.426	109.323	221.770	305.324	336.559
90.0	0.000	55.675	115.444	159.656	175.622
92.5	14.738	58.131	117.490	161.293	177.668
95.0	32.341	63.862	121.175	164.159	180.534
97.5	49.534	72.869	126.497	168.662	184.628
100.0	67.137	86.378	133.865	175.622	189.950
102.5	85.559	101.115	143.690	182.581	196.909
105.0	106.437	117.490	155.972	191.587	205.506
107.5	126.087	135.094	169.481	202.231	214.922
110.0	146.556	155.153	184.218	214.922	225.975
112.5	167.025	175.622	200.184	228.431	238.665
115.0	188.721	195.681	217.378	242.350	252.993
117.5	211.647	216.150	235.800	257.906	267.321
120.0	232.525	237.028	255.450	274.690	282.468
122.5	252.993	257.496	274.690	291.884	298.434
125.0	275.099	277.556	294.750	308.668	314.399
127.5	296.796	299.253	314.399	325.452	332.002
130.0	317.265	320.949	333.640	343.465	348.377
132.5	338.962	342.646	352.471	362.706	366.390

IES INDOOR REPORT**PHOTOMETRIC FILENAME : HPO-P-ID-4FT-S-H-835-RT-RB-RE-ITL93794.014.IES****CANDELA TABULATION - (Cont.)**

135.0	359.021	361.068	370.484	380.718	384.402
137.5	380.309	379.081	389.724	398.731	404.052
140.0	398.731	396.684	406.918	415.924	421.656
142.5	416.334	415.106	424.112	434.755	438.031
145.0	434.346	431.890	442.124	451.130	454.406
147.5	451.540	448.265	459.318	466.277	468.734
150.0	467.505	463.821	475.284	481.015	483.880
152.5	482.243	479.787	490.021	494.933	496.980
155.0	496.162	493.705	503.121	507.215	509.671
157.5	510.490	507.624	516.630	519.087	521.134
160.0	522.362	519.496	527.274	528.912	530.549
162.5	532.187	530.958	536.280	538.737	538.737
165.0	540.783	539.555	544.468	546.105	545.287
167.5	548.152	547.333	551.018	552.655	552.246
170.0	554.293	553.883	556.340	557.158	557.158
172.5	558.796	559.615	560.433	560.843	561.252
175.0	562.890	562.890	563.299	563.299	563.299
177.5	564.527	564.527	564.937	564.527	564.937
180.0	565.346	565.346	565.346	565.346	565.346

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	379.70	N.A.	7.60
0-30	802.76	N.A.	16.00
0-40	1308.55	N.A.	26.10
0-60	2312.43	N.A.	46.20
0-80	3012.47	N.A.	60.20
0-90	3234.95	N.A.	64.60
10-90	3136.43	N.A.	62.60
20-40	928.84	N.A.	18.50
20-50	1451.98	N.A.	29.00
40-70	1400.94	N.A.	28.00
60-80	700.04	N.A.	14.00
70-80	302.99	N.A.	6.10
80-90	222.48	N.A.	4.40
90-110	290.85	N.A.	5.80
90-120	508.49	N.A.	10.20
90-130	771.75	N.A.	15.40
90-150	1334.88	N.A.	26.70
90-180	1773.01	N.A.	35.40
110-180	1482.16	N.A.	29.60
0-180	5007.96	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	98.52
10-20	281.19
20-30	423.06
30-40	505.78
40-50	523.14
50-60	480.75
60-70	397.05
70-80	302.99
80-90	222.48
90-100	125.80
100-110	165.05
110-120	217.63
120-130	263.26
130-140	286.46
140-150	276.67
150-160	231.29
160-170	153.32
170-180	53.52

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	111	111	111	111	104	104	104	104	91	91	91	80	80	80	70	70	70	65
1	99	94	90	85	93	88	84	81	78	75	72	68	66	63	59	57	55	51
2	90	82	75	69	84	77	70	65	67	63	58	59	55	52	51	48	46	42
3	82	71	63	57	76	67	60	54	59	53	49	52	47	43	45	41	38	35
4	75	63	54	48	70	59	51	45	52	46	41	46	41	37	40	36	33	29
5	69	56	47	41	64	53	45	39	47	40	35	41	36	32	36	32	28	25
6	63	50	42	35	59	47	40	34	42	36	31	37	32	28	32	28	25	22
7	58	45	37	31	55	43	35	30	38	32	27	34	28	24	30	25	22	19
8	54	41	33	27	51	39	31	26	35	29	24	31	26	22	27	23	20	17
9	51	38	30	24	47	36	28	23	32	26	22	28	23	20	25	21	18	16
10	47	35	27	22	44	33	26	21	29	24	19	26	21	18	23	19	16	14

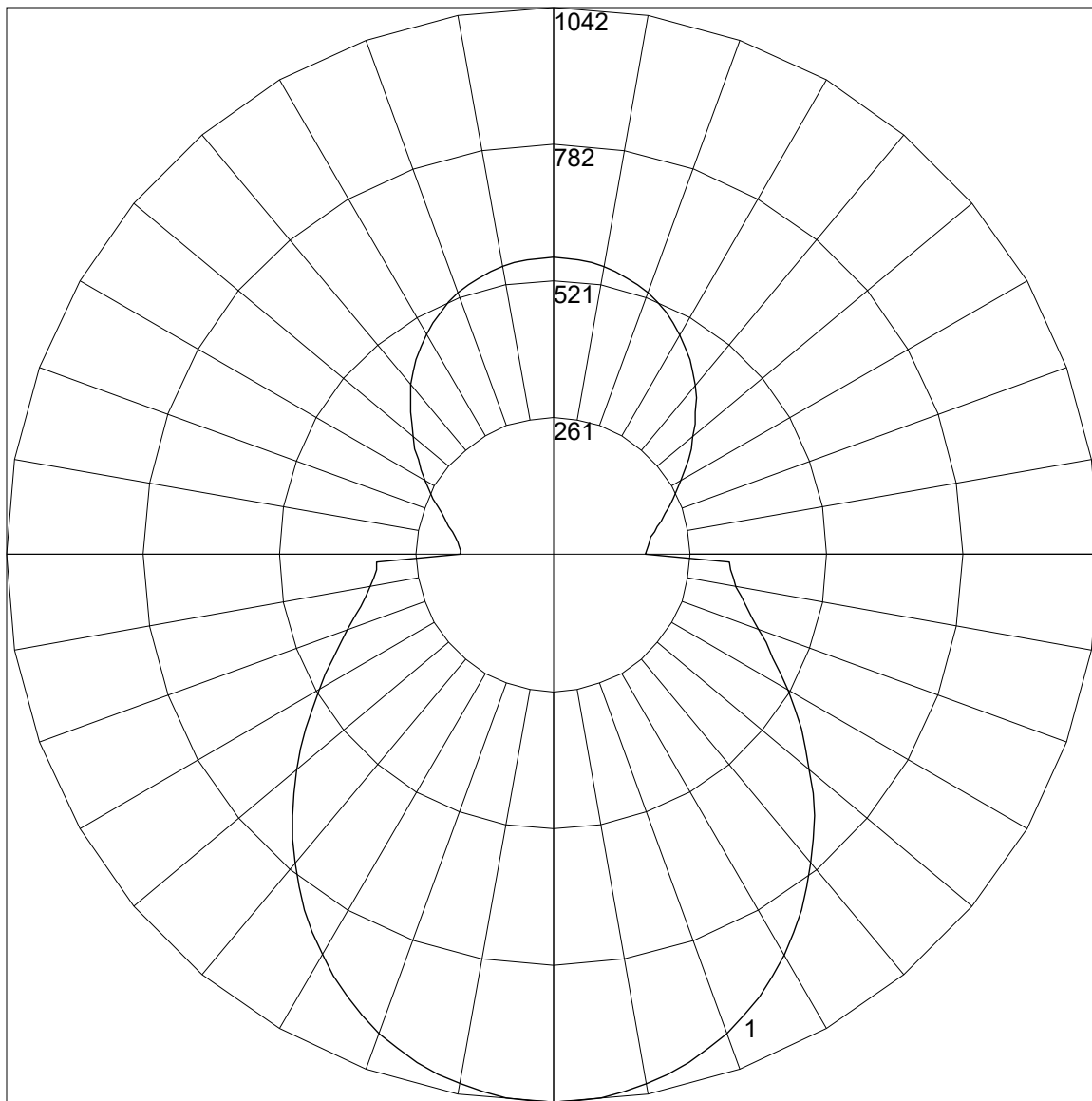
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UGR TABLE - CORRECTED

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	16.8	17.8	17.6	18.7	19.7	18.3	19.3	19.1	20.2	21.2
	3H	18.4	19.3	19.2	20.2	21.2	20.8	21.8	21.6	22.6	23.7
	4H	18.9	19.8	19.8	20.7	21.8	22.1	23.0	23.0	23.9	25.0
	6H	19.3	20.2	20.2	21.0	22.1	23.7	24.5	24.5	25.4	26.5
	8H	19.4	20.2	20.3	21.1	22.2	24.5	25.3	25.4	26.2	27.3
	12H	19.5	20.3	20.3	21.1	22.2	25.5	26.3	26.4	27.2	28.3
4H	2H	17.5	18.5	18.4	19.3	20.4	18.7	19.6	19.5	20.5	21.5
	3H	19.4	20.1	20.2	21.0	22.1	21.5	22.2	22.3	23.1	24.2
	4H	20.0	20.8	20.9	21.6	22.8	23.0	23.7	23.9	24.6	25.7
	6H	20.6	21.2	21.4	22.1	23.2	24.8	25.4	25.6	26.3	27.4
	8H	20.7	21.3	21.6	22.2	23.4	25.7	26.3	26.6	27.2	28.4
	12H	20.8	21.4	21.7	22.3	23.4	26.9	27.4	27.8	28.4	29.5
8H	4H	20.7	21.3	21.6	22.2	23.4	23.2	23.8	24.1	24.7	25.9
	6H	21.5	22.0	22.4	22.9	24.0	25.2	25.7	26.1	26.7	27.8
	8H	21.7	22.2	22.6	23.1	24.3	26.4	26.8	27.3	27.8	28.9
	12H	21.9	22.3	22.9	23.3	24.5	27.8	28.2	28.7	29.1	30.3
12H	4H	21.0	21.5	21.9	22.4	23.6	23.2	23.8	24.1	24.7	25.8
	6H	21.8	22.3	22.7	23.2	24.4	25.3	25.7	26.2	26.6	27.8
	8H	22.2	22.6	23.1	23.6	24.7	26.5	26.9	27.4	27.8	29.0

Maximum UGR = 30.3

POLAR GRAPH



Maximum Candela = 1042.475 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (90 - 270)