

# 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-B-835-RT-RB-RE-ITL93794.015.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

[TEST]ITL93794.015 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-B-835-RT-RB-RE  
[INPUT\_ELECTRICAL]120.0 VOLTS, 30.7 WATTS  
[INPUT\_ELECTRICAL]277.0 VOLTS, 32.6 WATTS  
[ABSOLUTE LUMENS]3913  
[OTHER]see [www.finelite.com](http://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](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	3913
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	127
Total Luminaire Watts	30.7
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	8210	7458	7368
55	7732	6855	6934
65	7113	6328	6767
75	6352	6253	7391
85	5096	8390	10233

CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0.0	687.968	687.968	687.968	687.968	687.968
2.5	686.937	686.937	686.937	686.937	686.937
5.0	683.845	684.361	684.361	684.876	684.876
7.5	679.723	679.207	680.238	680.753	681.269
10.0	673.023	672.508	675.085	676.115	675.600
12.5	665.809	663.747	667.355	669.416	668.901
15.0	656.017	652.925	658.594	661.171	660.655
17.5	645.195	640.557	648.287	651.895	650.864
20.0	631.281	627.674	635.404	640.557	640.042
22.5	616.852	613.245	622.005	627.674	626.644
25.0	599.846	596.754	607.576	612.730	613.760
27.5	582.840	579.748	591.086	596.754	597.785
30.0	563.773	561.196	574.080	580.779	581.294
32.5	543.160	542.129	554.497	562.227	563.773
35.0	523.062	522.031	535.430	542.644	545.221
37.5	501.418	500.902	514.817	523.062	525.638
40.0	477.713	479.259	492.657	502.964	505.541
42.5	454.523	457.099	471.013	481.835	485.443
45.0	431.848	433.394	448.854	459.161	464.314
47.5	406.597	409.689	425.664	437.517	443.185
50.0	381.346	385.468	401.443	415.357	422.057
52.5	356.610	361.248	378.253	394.229	400.928
55.0	331.358	334.966	354.033	372.070	380.830
57.5	306.107	310.230	330.328	350.941	360.217
60.0	278.279	284.978	306.107	331.358	341.150
62.5	252.513	259.727	283.948	311.260	323.113
65.0	226.231	233.961	262.819	292.193	305.592
67.5	200.979	209.225	242.206	275.702	289.616
70.0	175.213	185.519	222.108	259.727	274.672
72.5	150.477	162.845	204.071	246.329	261.788
75.0	125.741	140.170	188.611	233.961	251.482
77.5	102.036	120.072	175.728	224.169	241.691
80.0	78.846	102.551	163.875	215.409	233.961
82.5	57.202	88.122	156.145	209.225	228.292
85.0	36.589	77.815	149.962	204.071	223.654
87.5	15.460	72.147	146.354	201.495	222.108
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-B-835-RT-RB-RE-ITL93794.015.IES****CANDELA TABULATION - (Cont.)**

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

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	250.58	N.A.	6.40
0-30	529.77	N.A.	13.50
0-40	863.56	N.A.	22.10
0-60	1526.06	N.A.	39.00
0-80	1988.04	N.A.	50.80
0-90	2139.74	N.A.	54.70
10-90	2074.72	N.A.	53.00
20-40	612.98	N.A.	15.70
20-50	958.22	N.A.	24.50
40-70	924.53	N.A.	23.60
60-80	461.98	N.A.	11.80
70-80	199.95	N.A.	5.10
80-90	151.70	N.A.	3.90
90-110	290.85	N.A.	7.40
90-120	508.49	N.A.	13.00
90-130	771.75	N.A.	19.70
90-150	1334.88	N.A.	34.10
90-180	1773.01	N.A.	45.30
110-180	1482.16	N.A.	37.90
0-180	3912.75	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	65.02
10-20	185.57
20-30	279.19
30-40	333.79
40-50	345.24
50-60	317.27
60-70	262.03
70-80	199.95
80-90	151.70
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

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : HPO-P-ID-4FT-S-B-835-RT-RB-RE-ITL93794.015.IES

## 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	108	108	108	108	100	100	100	100	86	86	86	73	73	73	60	60	60	55
1	97	92	88	84	90	86	82	78	73	70	68	62	60	58	51	50	48	43
2	88	80	73	68	81	74	68	63	63	59	55	54	50	47	44	42	40	35
3	80	70	62	56	74	65	58	52	56	50	46	47	43	39	39	36	33	29
4	73	62	53	47	67	57	50	44	49	43	39	42	37	34	35	31	28	25
5	67	55	46	40	62	51	43	38	44	38	33	37	33	29	31	27	25	21
6	62	49	41	35	57	46	38	33	40	33	29	34	29	25	28	24	22	19
7	57	44	36	30	53	41	34	29	36	30	25	31	26	22	26	22	19	16
8	53	40	32	27	49	38	30	25	33	27	23	28	23	20	24	20	17	15
9	49	37	29	24	46	34	27	23	30	24	20	26	21	18	22	18	15	13
10	46	34	26	21	43	32	25	20	28	22	18	24	19	16	20	17	14	12

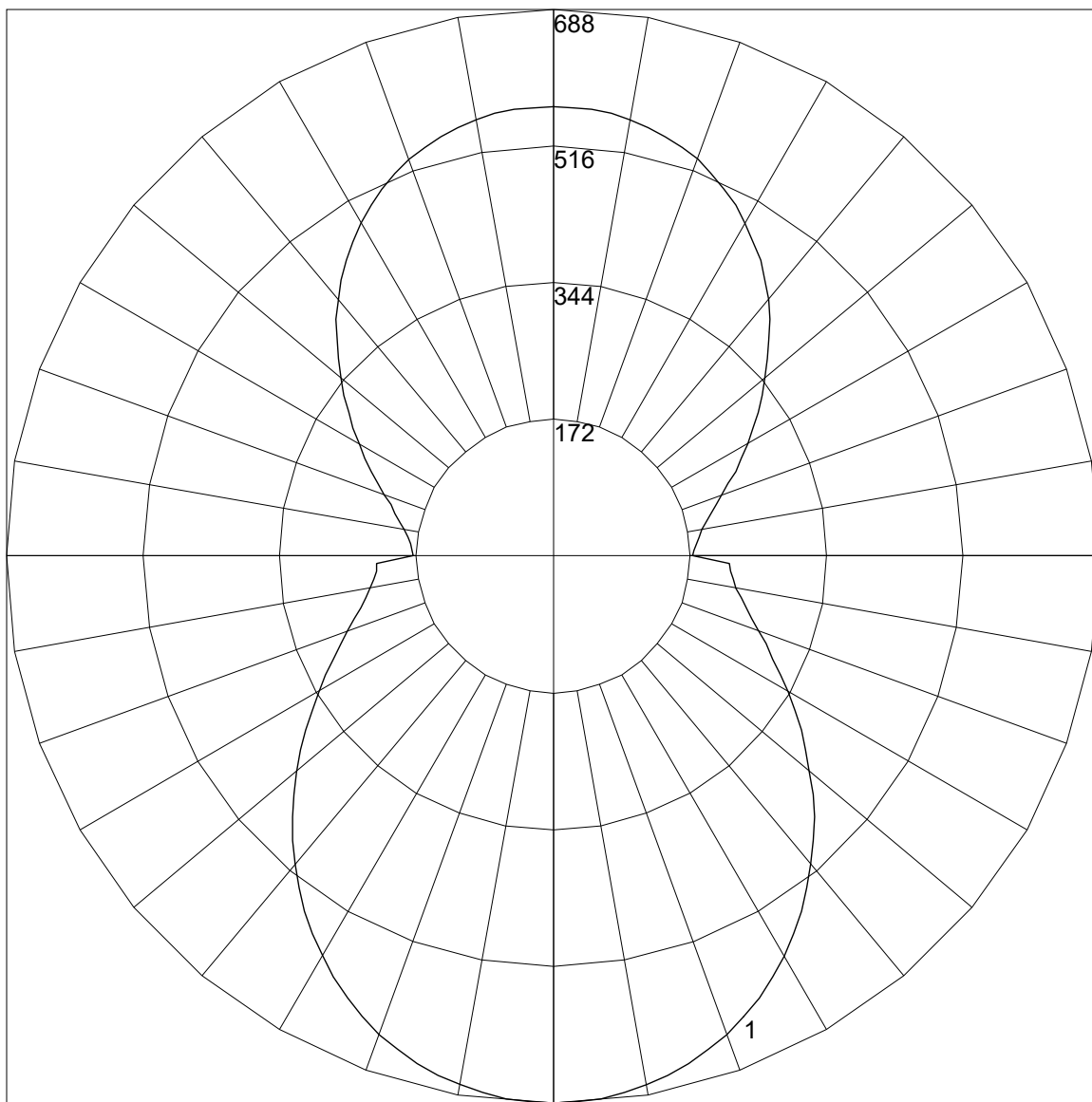
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**UGR TABLE - CORRECTED**

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	14.4	15.4	15.4	16.3	17.5	15.9	16.9	16.8	17.8	19.0
	3H	16.0	16.9	16.9	17.8	19.0	18.4	19.3	19.4	20.3	21.5
	4H	16.6	17.4	17.5	18.4	19.6	19.8	20.6	20.7	21.6	22.8
	6H	17.0	17.7	17.9	18.7	19.9	21.3	22.1	22.3	23.0	24.3
	8H	17.1	17.8	18.0	18.8	20.0	22.2	22.9	23.1	23.9	25.1
	12H	17.1	17.8	18.1	18.8	20.1	23.2	23.9	24.2	24.9	26.1
4H	2H	15.2	16.0	16.1	17.0	18.2	16.4	17.2	17.3	18.1	19.4
	3H	17.0	17.7	18.0	18.7	19.9	19.1	19.8	20.1	20.8	22.0
	4H	17.7	18.3	18.7	19.3	20.6	20.7	21.3	21.6	22.3	23.5
	6H	18.2	18.8	19.2	19.8	21.0	22.4	23.0	23.4	24.0	25.2
	8H	18.4	18.9	19.3	19.9	21.2	23.4	23.9	24.4	24.9	26.2
	12H	18.5	19.0	19.5	20.0	21.2	24.6	25.0	25.5	26.0	27.3
8H	4H	18.4	18.9	19.3	19.9	21.2	20.9	21.4	21.8	22.4	23.7
	6H	19.1	19.5	20.1	20.6	21.8	22.8	23.3	23.8	24.3	25.6
	8H	19.4	19.8	20.4	20.8	22.1	24.0	24.4	25.0	25.4	26.7
	12H	19.6	19.9	20.6	20.9	22.3	25.4	25.8	26.4	26.8	28.1
12H	4H	18.6	19.1	19.6	20.1	21.4	20.9	21.4	21.9	22.4	23.6
	6H	19.5	19.9	20.5	20.9	22.2	22.9	23.3	23.9	24.3	25.6
	8H	19.9	20.2	20.9	21.2	22.6	24.1	24.5	25.2	25.5	26.9

Maximum UGR = 28.1

POLAR GRAPH



Maximum Candela = 687.968 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)