

# 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-V-835-RT-RB-RE-ITL93794.010.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL93794.010 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-V-835-RT-RB-RE

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 51.7 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 52.6 WATTS

[\_ABSOLUTE]LUMENS]6371

[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	6371
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	123
Total Luminaire Watts	51.7
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	15932	14471	14298
55	15005	13302	13456
65	13802	12279	13132
75	12327	12134	14343
85	9888	16281	19858

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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	1335.000	1335.000	1335.000	1335.000	1335.000
2.5	1333.000	1333.000	1333.000	1333.000	1333.000
5.0	1327.000	1328.000	1328.000	1329.000	1329.000
7.5	1319.000	1318.000	1320.000	1321.000	1322.000
10.0	1306.000	1305.000	1310.000	1312.000	1311.000
12.5	1292.000	1288.000	1295.000	1299.000	1298.000
15.0	1273.000	1267.000	1278.000	1283.000	1282.000
17.5	1252.000	1243.000	1258.000	1265.000	1263.000
20.0	1225.000	1218.000	1233.000	1243.000	1242.000
22.5	1197.000	1190.000	1207.000	1218.000	1216.000
25.0	1164.000	1158.000	1179.000	1189.000	1191.000
27.5	1131.000	1125.000	1147.000	1158.000	1160.000
30.0	1094.000	1089.000	1114.000	1127.000	1128.000
32.5	1054.000	1052.000	1076.000	1091.000	1094.000
35.0	1015.000	1013.000	1039.000	1053.000	1058.000
37.5	973.000	972.000	999.000	1015.000	1020.000
40.0	927.000	930.000	956.000	976.000	981.000
42.5	882.000	887.000	914.000	935.000	942.000
45.0	838.000	841.000	871.000	891.000	901.000
47.5	789.000	795.000	826.000	849.000	860.000
50.0	740.000	748.000	779.000	806.000	819.000
52.5	692.000	701.000	734.000	765.000	778.000
55.0	643.000	650.000	687.000	722.000	739.000
57.5	594.000	602.000	641.000	681.000	699.000
60.0	540.000	553.000	594.000	643.000	662.000
62.5	490.000	504.000	551.000	604.000	627.000
65.0	439.000	454.000	510.000	567.000	593.000
67.5	390.000	406.000	470.000	535.000	562.000
70.0	340.000	360.000	431.000	504.000	533.000
72.5	292.000	316.000	396.000	478.000	508.000
75.0	244.000	272.000	366.000	454.000	488.000
77.5	198.000	233.000	341.000	435.000	469.000
80.0	153.000	199.000	318.000	418.000	454.000
82.5	111.000	171.000	303.000	406.000	443.000
85.0	71.000	151.000	291.000	396.000	434.000
87.5	30.000	140.000	284.000	391.000	431.000
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-V-835-RT-RB-RE-ITL93794.010.IES****CANDELA TABULATION - (Cont.)**

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

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HPO-P-ID-4FT-B-V-835-RT-RB-RE-ITL93794.010.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	486.25	N.A.	7.60
0-30	1028.02	N.A.	16.10
0-40	1675.73	N.A.	26.30
0-60	2961.32	N.A.	46.50
0-80	3857.79	N.A.	60.60
0-90	4142.36	N.A.	65.00
10-90	4016.19	N.A.	63.00
20-40	1189.48	N.A.	18.70
20-50	1859.41	N.A.	29.20
40-70	1794.05	N.A.	28.20
60-80	896.47	N.A.	14.10
70-80	388.01	N.A.	6.10
80-90	284.57	N.A.	4.50
90-110	365.62	N.A.	5.70
90-120	639.20	N.A.	10.00
90-130	970.13	N.A.	15.20
90-150	1678.02	N.A.	26.30
90-180	2228.77	N.A.	35.00
110-180	1863.16	N.A.	29.20
0-180	6371.13	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	126.16
10-20	360.09
20-30	541.77
30-40	647.71
40-50	669.93
50-60	615.65
60-70	508.46
70-80	388.01
80-90	284.57
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	111	111	111	111	104	104	104	104	92	92	92	80	80	80	70	70	70	65
1	99	94	90	86	93	89	85	81	78	75	72	68	66	64	59	57	56	51
2	90	82	75	69	84	77	71	65	68	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	42	38	35
4	75	63	54	48	70	59	52	46	52	46	41	46	41	37	40	36	33	30
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	33	28	25	22
7	58	45	37	31	55	43	35	30	38	32	27	34	29	25	30	25	22	20
8	54	41	33	27	51	39	32	26	35	29	24	31	26	22	27	23	20	17
9	51	38	30	24	47	36	28	23	32	26	22	29	23	20	25	21	18	16
10	47	35	27	22	44	33	26	21	30	24	19	26	21	18	23	19	16	14

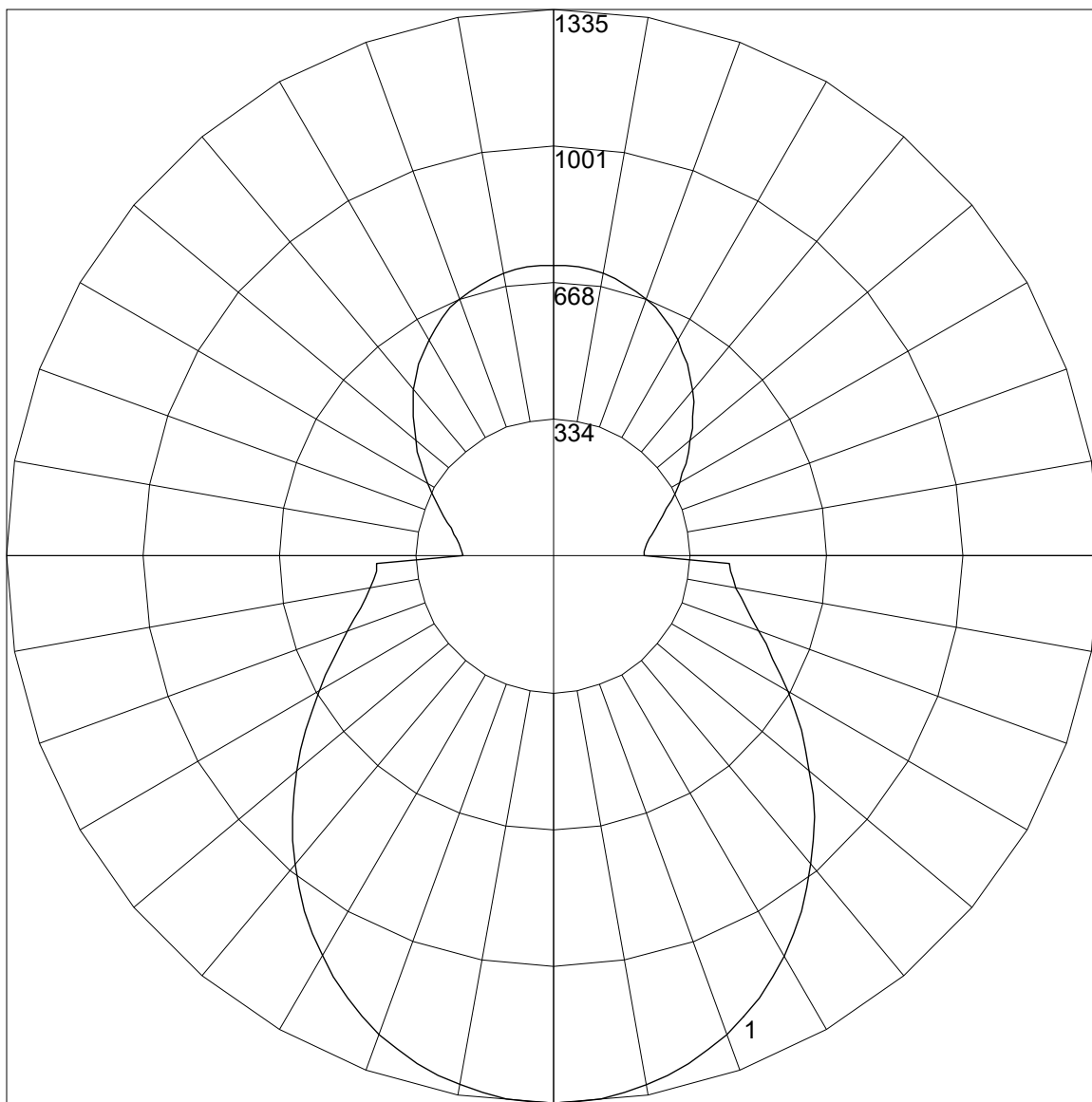
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**UGR TABLE - CORRECTED**

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	17.6	18.7	18.4	19.5	20.5	19.1	20.2	19.9	21.0	22.0
	3H	19.2	20.2	20.0	21.0	22.1	21.6	22.6	22.5	23.4	24.5
	4H	19.8	20.7	20.6	21.5	22.6	23.0	23.9	23.8	24.7	25.8
	6H	20.2	21.0	21.0	21.9	23.0	24.5	25.4	25.4	26.2	27.3
	8H	20.3	21.1	21.1	22.0	23.1	25.4	26.2	26.2	27.1	28.2
	12H	20.3	21.1	21.2	22.0	23.1	26.4	27.2	27.3	28.1	29.2
4H	2H	18.4	19.3	19.2	20.2	21.2	19.6	20.5	20.4	21.3	22.4
	3H	20.2	21.0	21.1	21.9	23.0	22.3	23.1	23.2	24.0	25.1
	4H	20.9	21.6	21.8	22.5	23.6	23.8	24.6	24.7	25.4	26.6
	6H	21.4	22.0	22.3	23.0	24.1	25.6	26.2	26.5	27.1	28.3
	8H	21.6	22.2	22.5	23.1	24.2	26.6	27.2	27.5	28.1	29.2
	12H	21.7	22.2	22.6	23.1	24.3	27.8	28.3	28.7	29.2	30.4
8H	4H	21.6	22.2	22.5	23.1	24.2	24.1	24.7	25.0	25.6	26.7
	6H	22.3	22.8	23.2	23.8	24.9	26.1	26.6	27.0	27.5	28.6
	8H	22.6	23.0	23.5	24.0	25.1	27.2	27.7	28.2	28.6	29.8
	12H	22.8	23.2	23.7	24.1	25.3	28.6	29.0	29.6	30.0	31.2
12H	4H	21.8	22.3	22.7	23.3	24.4	24.1	24.6	25.0	25.5	26.7
	6H	22.7	23.1	23.6	24.1	25.2	26.1	26.6	27.0	27.5	28.7
	8H	23.1	23.5	24.0	24.4	25.6	27.4	27.8	28.3	28.7	29.9

Maximum UGR = 31.2

POLAR GRAPH



Maximum Candela = 1335 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)