

# 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 : HP-4-ID-4FT-S-B-835-WSO-ITL89033.013-GONIOPHOTOMETRY.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL89033.013-GONIOPHOTOMETRY Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]03/27/17

[ISSUEDATE]03/08/17

[MANUFAC]FINELITE, INC.

[LUMCAT]FINELITE HP-4-ID-4ft-S-B-835-WSO

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 32.6 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 35.2 WATTS

[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL89033. 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)

[\_ABSOLUTE]LUMENS]3653

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3653
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	112
Total Luminaire Watts	32.6
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
Luminous Length (0-180)	4.00 ft
Luminous Width (90-270)	0.32 ft
Luminous Height	0.00 ft

### LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	5157	5108	5048
55	4871	4796	4744
65	4522	4441	4390
75	4056	4006	3973
85	3441	3294	3392

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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	709.208	709.208	709.208	709.208	709.208
2.5	708.179	708.179	708.179	708.179	708.179
5.0	705.091	705.091	704.576	705.091	705.091
7.5	700.459	699.944	699.944	700.459	700.459
10.0	694.283	692.739	692.739	693.768	692.739
12.5	686.048	682.960	685.019	685.019	682.960
15.0	676.270	671.123	673.697	674.211	671.638
17.5	664.433	662.374	661.345	661.345	658.256
20.0	651.566	643.331	646.419	645.905	643.331
22.5	633.553	627.891	633.553	628.921	626.862
25.0	616.054	609.363	612.451	610.907	609.363
27.5	597.526	591.350	595.467	591.865	589.806
30.0	577.454	571.278	573.851	571.793	569.220
32.5	556.353	550.177	552.236	550.177	547.604
35.0	534.222	528.561	530.105	527.532	524.958
37.5	510.548	504.886	506.945	504.886	501.798
40.0	487.388	481.726	482.241	480.182	477.609
42.5	462.684	458.052	458.567	455.478	453.420
45.0	437.980	432.833	433.863	430.775	428.716
47.5	412.761	407.100	408.129	404.012	403.497
50.0	387.028	382.396	382.396	379.308	377.764
52.5	361.810	356.663	356.663	353.575	352.546
55.0	335.562	330.930	330.415	327.327	326.812
57.5	308.799	304.167	304.167	301.594	300.564
60.0	282.551	277.919	277.919	275.346	274.831
62.5	256.303	251.671	251.671	249.613	248.583
65.0	229.541	224.909	225.423	223.879	222.850
67.5	202.778	198.661	199.175	198.661	197.117
70.0	176.530	173.442	173.442	172.927	171.898
72.5	150.797	148.224	148.224	148.224	147.194
75.0	126.093	123.520	124.549	124.034	123.520
77.5	101.904	99.845	100.874	100.360	100.360
80.0	78.744	77.714	78.229	77.714	77.714
82.5	57.128	56.099	56.099	56.099	57.128
85.0	36.027	34.997	34.483	34.483	35.512
87.5	15.440	14.925	14.925	14.411	14.925
90.0	0.000	0.000	0.000	0.000	0.000
92.5	6.550	11.463	12.281	12.281	12.281
95.0	18.422	32.750	33.569	26.200	26.200
97.5	32.341	55.675	85.969	53.628	46.669
100.0	48.716	76.144	136.322	100.707	79.010
102.5	68.366	92.928	201.413	155.972	126.907
105.0	86.378	110.941	251.357	241.123	193.226
107.5	104.800	128.953	274.282	352.882	296.798
110.0	122.403	145.738	285.335	445.810	424.932
112.5	140.416	162.113	298.435	484.292	509.673
115.0	157.610	177.669	320.541	496.164	541.604
117.5	171.529	191.997	338.145	501.895	553.476
120.0	184.219	205.916	349.607	524.411	562.073
122.5	195.272	219.425	356.976	552.248	588.683
125.0	205.916	231.297	362.298	567.395	619.795
127.5	215.741	241.941	366.392	567.804	636.170
130.0	223.929	251.357	369.666	557.980	633.305
132.5	232.526	260.363	372.532	544.470	618.158

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-4-ID-4FT-S-B-835-WSO-ITL89033.013-GONIOPHOTOMETRY.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	240.713	268.551	374.579	529.732	598.508
<b>137.5</b>	248.491	275.919	375.398	513.767	575.992
<b>140.0</b>	256.679	282.879	375.807	497.801	552.248
<b>142.5</b>	264.866	289.429	375.398	481.017	528.504
<b>145.0</b>	273.463	295.979	373.351	465.461	505.170
<b>147.5</b>	280.423	301.301	370.485	449.904	482.654
<b>150.0</b>	287.791	306.623	367.620	434.757	462.185
<b>152.5</b>	295.160	311.126	364.345	420.020	443.354
<b>155.0</b>	301.710	315.629	361.070	406.101	424.523
<b>157.5</b>	307.851	319.313	356.976	393.410	407.738
<b>160.0</b>	313.582	322.998	353.701	381.948	392.592
<b>162.5</b>	318.495	325.863	349.607	371.304	379.491
<b>165.0</b>	323.407	328.320	345.923	361.888	368.029
<b>167.5</b>	327.091	330.366	342.648	353.701	358.204
<b>170.0</b>	329.957	332.413	340.192	347.151	349.607
<b>172.5</b>	332.004	333.641	338.145	341.829	343.466
<b>175.0</b>	334.051	334.460	336.098	337.735	338.963
<b>177.5</b>	334.870	334.870	335.279	335.688	335.688
<b>180.0</b>	335.279	335.279	335.279	335.279	335.279

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-4-ID-4FT-S-B-835-WSO-ITL89033.013-GONIOPHOTOMETRY.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	256.79	N.A.	7.00
0-30	538.58	N.A.	14.70
0-40	869.30	N.A.	23.80
0-60	1497.93	N.A.	41.00
0-80	1852.46	N.A.	50.70
0-90	1891.94	N.A.	51.80
10-90	1825.01	N.A.	50.00
20-40	612.51	N.A.	16.80
20-50	946.15	N.A.	25.90
40-70	851.57	N.A.	23.30
60-80	354.53	N.A.	9.70
70-80	131.59	N.A.	3.60
80-90	39.48	N.A.	1.10
90-110	238.04	N.A.	6.50
90-120	567.04	N.A.	15.50
90-130	915.86	N.A.	25.10
90-150	1463.12	N.A.	40.10
90-180	1761.17	N.A.	48.20
110-180	1523.13	N.A.	41.70
0-180	3653.11	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	66.93
10-20	189.87
20-30	281.79
30-40	330.72
40-50	333.64
50-60	294.99
60-70	222.94
70-80	131.59
80-90	39.48
90-100	39.67
100-110	198.38
110-120	329.00
120-130	348.82
130-140	307.81
140-150	239.44
150-160	167.63
160-170	98.21
170-180	32.21

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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

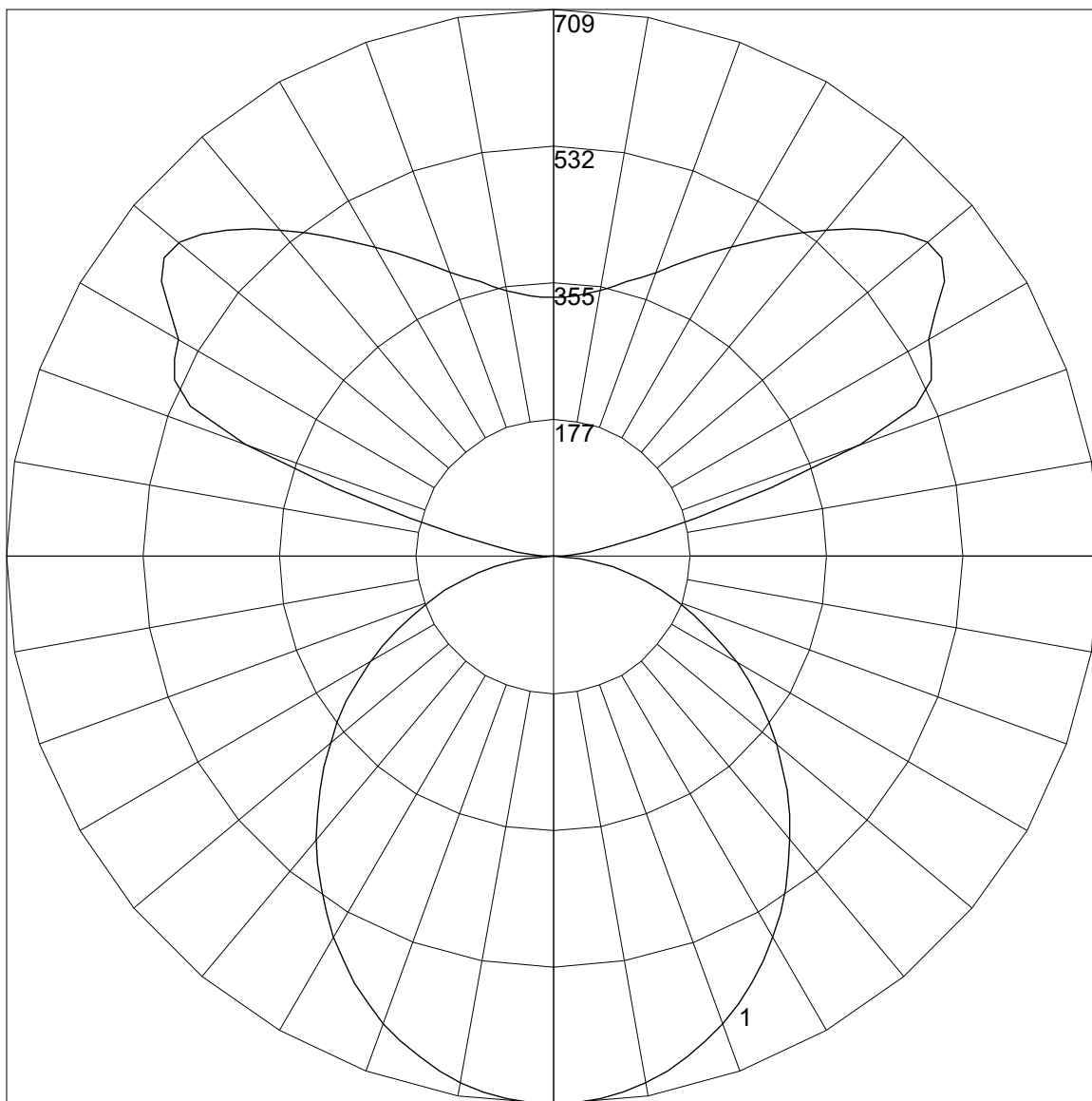
Effective Floor Cavity Reflectance 0.20

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	108	108	108	108	99	99	99	99	84	84	84	70	70	70	58	58	58	52
1	98	94	90	86	90	87	83	80	74	71	69	62	60	58	51	50	49	43
2	89	82	75	70	82	76	70	66	65	60	57	54	51	49	45	43	41	36
3	81	72	64	58	75	67	60	55	57	52	48	48	44	41	39	37	35	31
4	74	63	55	49	68	59	52	46	50	45	41	43	38	35	35	32	30	26
5	68	57	48	42	63	53	45	40	45	39	35	38	34	30	32	28	26	23
6	63	51	43	37	58	47	40	35	41	35	31	35	30	27	29	25	23	20
7	58	46	38	32	54	43	35	30	37	31	27	31	27	24	26	23	20	18
8	54	42	34	28	50	39	32	27	34	28	24	29	24	21	24	21	18	16
9	50	38	30	25	46	35	29	24	31	25	21	26	22	19	22	19	16	14
10	47	35	28	23	43	33	26	22	28	23	19	24	20	17	21	17	15	13

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POLAR GRAPH



Maximum Candela = 709.208 Located At Horizontal Angle = 0, Vertical Angle = 0

# 1 - Vertical Plane Through Horizontal Angles (90 - 270)