

# 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 : HO4-ID-RO-4FT-B-H-835-TG-ITL90233.012.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL90233.012 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[ISSUEDATE]03/23/18

[TESTDATE]03/06/18

[MANUFAC]FINELITE, INC.

[LUMCAT]FINELITE HO4-ID-RO-4ft-B-H-835-TG

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 45.4 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 47.5 WATTS

[\_ABSOLUTE]LUMENS]5368

[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL90233. 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	5368
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	118
Total Luminaire Watts	45.4
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)	0.25 ft
Luminous Height	0.18 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	9876	6294	5594
55	9724	5565	4817
65	9468	4805	4525
75	8884	4556	4266
85	6908	2497	747

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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	938.982	938.982	938.982	938.982	938.982
2.5	938.228	937.474	934.460	932.199	932.199
5.0	936.721	932.199	926.924	923.156	921.649
7.5	932.953	925.417	917.881	911.852	911.852
10.0	927.678	915.620	906.577	900.548	899.041
12.5	920.895	903.562	894.519	887.737	884.723
15.0	912.606	890.751	881.708	874.172	871.158
17.5	902.809	876.433	866.636	859.854	856.086
20.0	891.505	861.361	851.564	844.028	841.014
22.5	877.187	844.782	834.985	828.203	825.188
25.0	861.361	825.942	816.899	810.870	808.609
27.5	844.028	807.102	798.813	792.784	790.523
30.0	825.188	786.755	778.465	773.944	772.437
32.5	804.088	764.901	758.118	753.597	752.090
35.0	782.233	742.293	736.264	733.250	731.742
37.5	760.379	718.931	714.410	712.149	710.642
40.0	734.003	694.063	690.295	688.787	688.034
42.5	706.874	667.687	665.426	664.672	661.658
45.0	678.991	640.557	640.557	639.050	636.036
47.5	648.847	611.921	614.181	610.413	607.399
50.0	617.196	583.284	587.052	582.530	577.255
52.5	585.545	553.894	559.169	552.386	546.358
55.0	552.386	523.750	529.025	519.982	524.503
57.5	516.967	492.852	497.374	498.881	505.663
60.0	481.548	461.201	464.969	480.041	489.084
62.5	446.883	429.550	433.318	462.708	472.505
65.0	408.449	396.392	410.710	445.376	455.926
67.5	370.770	363.234	389.610	428.797	440.854
70.0	331.583	330.075	370.770	412.971	424.275
72.5	290.888	294.656	352.683	395.638	405.435
75.0	250.194	263.759	333.843	375.291	382.074
77.5	208.746	240.397	312.743	347.408	349.669
80.0	167.298	219.297	285.613	304.453	298.424
82.5	125.851	198.196	241.905	229.093	206.486
85.0	85.156	169.559	146.951	84.403	56.520
87.5	47.477	88.171	58.781	45.969	36.173
90.0	24.115	55.766	48.984	38.433	30.144
92.5	27.926	52.361	48.372	42.886	37.401
95.0	47.873	71.311	68.817	63.332	58.345
97.5	67.321	90.759	89.762	84.775	79.788
100.0	87.268	113.199	112.202	107.714	102.727
102.5	110.706	137.136	136.139	132.149	126.664
105.0	136.139	163.067	161.072	157.582	151.598
107.5	163.067	188.500	187.502	183.014	177.529
110.0	190.993	214.431	215.428	210.441	204.457
112.5	220.914	239.365	245.349	238.866	232.383
115.0	250.834	268.288	275.269	267.789	261.306
117.5	281.752	299.704	306.187	298.208	291.227
120.0	313.667	330.124	337.105	328.628	321.147
122.5	346.580	360.543	368.023	360.044	350.569
125.0	379.493	392.458	398.442	391.959	381.487
127.5	412.904	423.875	426.867	423.875	413.403
130.0	446.315	455.790	459.281	455.790	445.318
132.5	480.724	488.204	493.191	487.705	477.732

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CANDELA TABULATION - (Cont.)

135.0	514.135	519.621	525.605	519.621	510.146
137.5	547.546	552.035	555.525	550.539	542.061
140.0	580.459	582.454	586.443	580.459	572.979
142.5	612.873	612.873	616.364	610.380	603.897
145.0	643.791	642.295	645.287	640.300	634.316
147.5	672.714	669.223	672.714	669.223	662.741
150.0	700.640	697.648	701.139	697.149	691.664
152.5	727.070	722.083	727.070	722.582	716.598
155.0	751.505	745.521	751.006	746.518	743.028
157.5	773.447	767.961	771.951	767.961	765.468
160.0	793.892	787.908	793.394	788.906	786.911
162.5	811.845	806.359	811.346	806.858	804.863
165.0	827.304	823.314	825.808	823.314	820.821
167.5	840.269	837.776	838.773	837.776	836.280
170.0	851.240	849.744	850.243	849.744	848.747
172.5	859.219	859.718	858.720	858.720	858.720
175.0	865.702	865.702	865.702	865.702	865.203
177.5	869.691	869.691	869.691	869.193	869.193
180.0	870.689	870.689	870.689	870.689	870.689

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	337.72	N.A.	6.30
0-30	717.01	N.A.	13.40
0-40	1181.81	N.A.	22.00
0-60	2152.4	N.A.	40.10
0-80	2909.04	N.A.	54.20
0-90	3055.19	N.A.	56.90
10-90	2967.2	N.A.	55.30
20-40	844.09	N.A.	15.70
20-50	1341.08	N.A.	25.00
40-70	1388.66	N.A.	25.90
60-80	756.64	N.A.	14.10
70-80	338.57	N.A.	6.30
80-90	146.15	N.A.	2.70
90-110	238.63	N.A.	4.40
90-120	503.64	N.A.	9.40
90-130	853.20	N.A.	15.90
90-150	1654.72	N.A.	30.80
90-180	2313.27	N.A.	43.10
110-180	2074.64	N.A.	38.60
0-180	5368.45	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

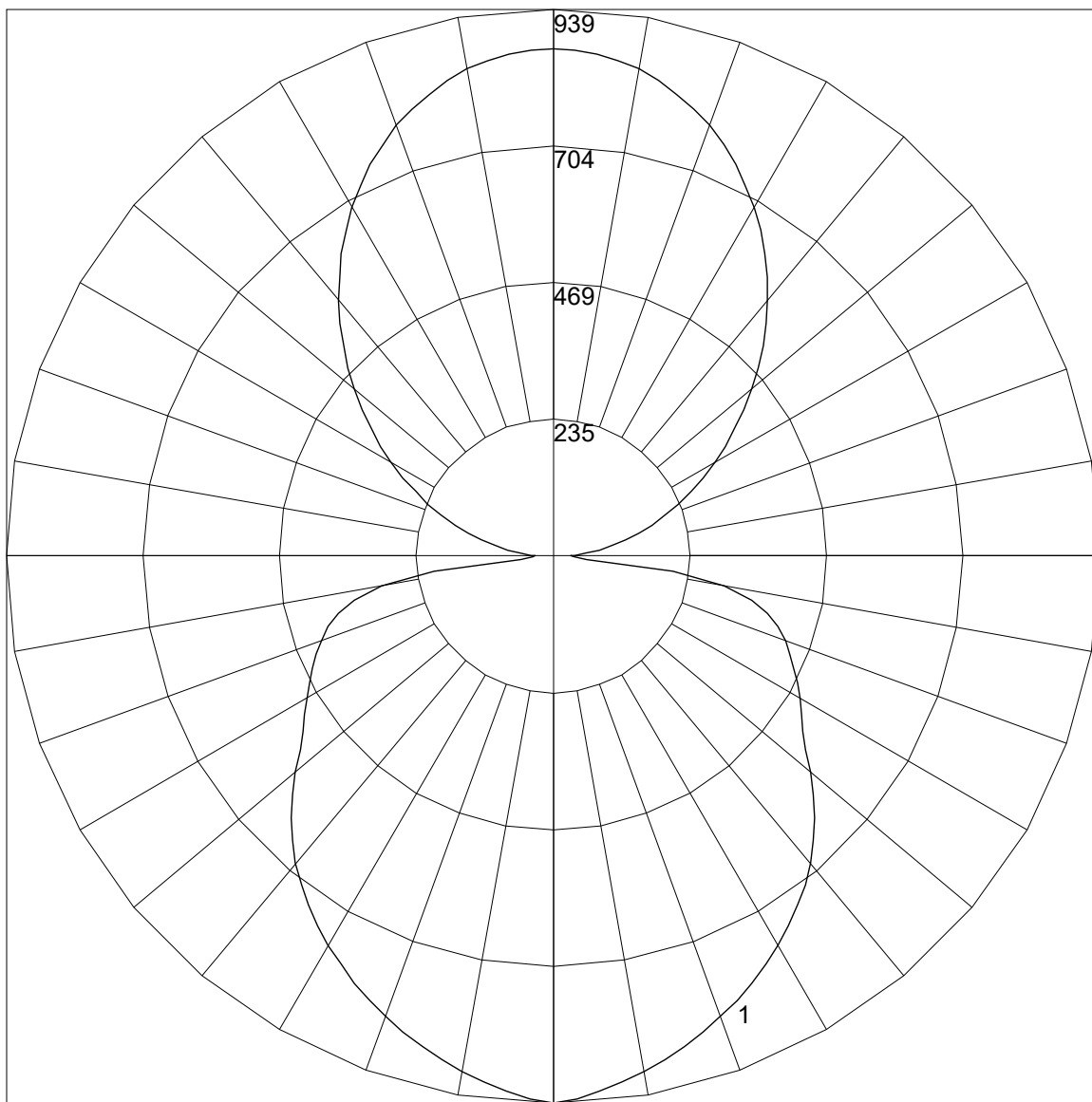
Zone	Lumens
0-10	87.99
10-20	249.73
20-30	379.29
30-40	464.80
40-50	496.99
50-60	473.60
60-70	418.07
70-80	338.57
80-90	146.15
90-100	72.93
100-110	165.70
110-120	265.01
120-130	349.56
130-140	400.38
140-150	401.13
150-160	344.10
160-170	232.33
170-180	82.13

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	109	109	109	109	101	101	101	101	87	87	87	74	74	74	62	62	62	57
1	98	93	89	85	91	87	83	79	75	72	69	63	61	59	53	52	50	45
2	89	80	74	68	82	75	69	64	64	60	56	55	51	48	46	43	41	37
3	80	70	62	56	74	65	58	52	56	51	46	48	44	40	40	37	34	30
4	73	62	53	47	68	58	50	44	50	44	39	42	38	34	35	32	29	25
5	67	55	46	40	62	51	43	38	44	38	33	38	33	29	32	28	25	22
6	62	49	40	34	57	46	38	32	40	33	29	34	29	25	29	25	22	19
7	57	44	36	30	53	41	34	28	36	30	25	31	26	22	26	22	19	17
8	53	40	32	26	49	38	30	25	33	27	22	28	23	20	24	20	17	15
9	49	37	29	23	46	34	27	22	30	24	20	26	21	18	22	18	15	13
10	46	33	26	21	43	31	25	20	28	22	18	24	19	16	20	17	14	12

POLAR GRAPH



Maximum Candela = 938.982 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)