

# 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-2-ID-4FT-B-H-835-WSO-ITL89456.011.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

[TEST]ITL89456.011 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[TESTDATE]07/19/17  
[ISSUEDATE]08/23/17  
[MANUFAC]FINELITE, INC.  
[LUMCAT]HP-2-ID-4ft-B-H-835-WSO  
[INPUT\_ELECTRICAL]120.0 VOLTS, 45.8 WATTS  
[INPUT\_ELECTRICAL]277.0 VOLTS, 48.2 WATTS  
[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL89456. 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]4643

**CHARACTERISTICS**

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4643
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	101
Total Luminaire Watts	45.8
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)	0.18 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	13259	12507	11773
55	11693	11014	10273
65	10170	9611	8997
75	8531	8212	7756
85	6638	6503	6097

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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	1136.311	1136.311	1136.311	1136.311	1136.311
2.5	1134.756	1134.756	1133.978	1133.978	1134.756
5.0	1128.534	1127.756	1126.200	1125.422	1125.422
7.5	1119.200	1118.423	1114.534	1111.423	1112.201
10.0	1108.312	1102.867	1098.201	1095.090	1094.312
12.5	1089.645	1084.201	1078.757	1074.090	1071.757
15.0	1070.201	1059.313	1056.979	1048.424	1043.757
17.5	1046.091	1032.091	1027.424	1016.536	1010.314
20.0	1018.091	1002.536	996.314	983.092	974.537
22.5	986.981	970.648	960.537	945.759	937.204
25.0	951.981	936.426	923.204	906.093	896.760
27.5	918.538	898.316	883.538	864.872	855.539
30.0	878.872	859.428	841.539	821.317	811.206
32.5	838.428	818.984	800.318	777.763	767.652
35.0	795.651	776.207	756.763	732.652	722.541
37.5	752.096	733.430	713.208	688.320	678.987
40.0	706.986	689.098	668.876	643.210	633.876
42.5	661.876	645.543	626.099	599.655	590.322
45.0	617.543	601.211	582.544	557.656	548.323
47.5	572.433	557.656	539.767	514.879	506.324
50.0	528.101	514.879	497.768	474.435	465.102
52.5	485.324	473.657	456.547	434.769	426.214
55.0	441.769	433.214	416.103	395.881	388.103
57.5	400.548	392.770	377.215	358.549	351.549
60.0	360.104	353.882	339.882	322.772	316.549
62.5	321.216	314.994	303.327	288.550	282.328
65.0	283.106	276.884	267.550	255.106	250.440
67.5	246.551	241.884	233.329	223.218	218.551
70.0	211.551	208.440	200.663	192.107	188.996
72.5	177.330	175.774	169.552	163.330	160.997
75.0	145.442	144.664	139.997	135.331	132.220
77.5	115.887	115.109	111.220	108.887	106.553
80.0	87.887	87.109	84.776	82.443	80.887
82.5	62.221	62.221	60.666	59.110	56.777
85.0	38.110	38.110	37.333	35.777	34.999
87.5	15.555	15.555	14.777	13.222	13.222
90.0	0.000	0.000	0.000	0.000	0.000
92.5	9.263	15.953	15.953	15.438	15.438
95.0	24.186	42.712	42.712	35.507	34.993
97.5	40.653	69.985	85.938	61.752	58.150
100.0	57.635	91.084	170.846	99.317	87.482
102.5	76.160	111.153	236.200	175.478	139.456
105.0	94.171	132.766	273.766	286.116	235.686
107.5	112.182	153.865	296.923	385.948	359.704
110.0	130.193	173.419	317.507	444.612	449.244
112.5	148.204	192.459	341.693	483.207	502.762
115.0	166.730	210.470	370.510	510.995	539.298
117.5	185.255	228.481	401.901	537.240	567.601
120.0	203.781	247.521	427.630	565.028	595.904
122.5	220.762	263.474	446.156	604.138	625.750
125.0	236.715	278.912	456.448	646.849	668.462
127.5	251.638	293.321	462.623	675.667	715.805
130.0	263.988	305.671	466.225	687.502	749.769
132.5	276.339	316.992	467.255	682.871	760.575

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CANDELA TABULATION - (Cont.)

135.0	287.145	326.255	466.740	668.462	749.769
137.5	296.923	335.003	465.196	648.908	727.126
140.0	306.700	342.722	462.623	627.294	698.309
142.5	315.963	349.926	459.021	603.108	667.433
145.0	325.740	356.616	455.419	579.951	636.043
147.5	333.974	361.762	451.302	556.280	604.138
150.0	342.207	367.423	446.156	535.181	574.291
152.5	349.926	371.539	439.981	515.112	546.503
155.0	357.131	374.627	433.806	495.557	520.773
157.5	363.820	378.744	428.145	477.546	497.616
160.0	369.481	381.317	421.455	460.050	476.003
162.5	374.627	383.375	414.766	445.127	455.933
165.0	378.744	385.433	408.076	430.718	438.952
167.5	382.346	386.977	402.930	418.368	424.028
170.0	385.433	388.521	399.328	408.590	412.193
172.5	386.977	389.550	395.211	400.357	403.444
175.0	389.036	390.065	392.638	395.211	396.240
177.5	390.065	390.065	391.094	391.094	391.609
180.0	390.579	390.579	390.579	390.579	390.579

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	403.36	N.A.	8.70
0-30	827.58	N.A.	17.80
0-40	1300.32	N.A.	28.00
0-60	2120.49	N.A.	45.70
0-80	2533.93	N.A.	54.60
0-90	2575.86	N.A.	55.50
10-90	2469.18	N.A.	53.20
20-40	896.96	N.A.	19.30
20-50	1345.34	N.A.	29.00
40-70	1085.08	N.A.	23.40
60-80	413.44	N.A.	8.90
70-80	148.53	N.A.	3.20
80-90	41.93	N.A.	0.90
90-110	270.57	N.A.	5.80
90-120	627.55	N.A.	13.50
90-130	1035.61	N.A.	22.30
90-150	1711.31	N.A.	36.90
90-180	2067.55	N.A.	44.50
110-180	1796.98	N.A.	38.70
0-180	4643.41	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	106.68
10-20	296.68
20-30	424.22
30-40	472.74
40-50	448.38
50-60	371.80
60-70	264.90
70-80	148.53
80-90	41.93
90-100	47.20
100-110	223.37
110-120	356.98
120-130	408.06
130-140	381.39
140-150	294.32
150-160	202.31
160-170	116.26
170-180	37.67

# IES INDOOR REPORT

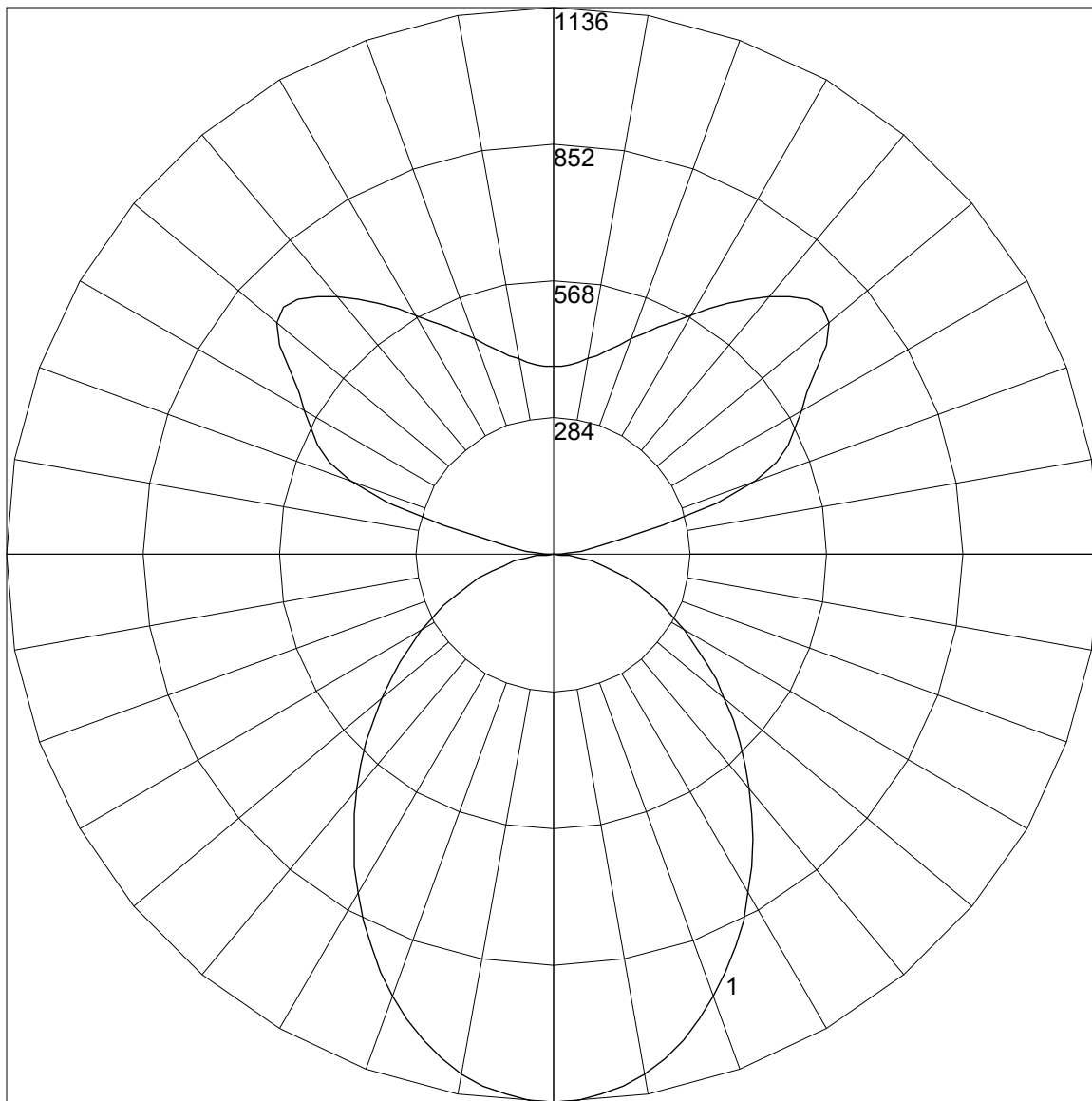
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	101	101	101	101	86	86	86	73	73	73	61	61	61	55
1	99	95	91	88	92	88	85	82	76	74	71	65	63	61	54	53	52	47
2	91	83	77	72	84	78	72	68	67	63	60	57	54	52	48	46	44	40
3	83	73	66	60	77	69	62	57	59	54	50	51	47	44	43	40	38	34
4	76	65	57	51	70	61	54	49	53	48	43	46	41	38	39	36	33	30
5	70	58	50	44	65	55	47	42	48	42	38	41	37	33	35	32	29	26
6	64	52	44	39	60	49	42	37	43	37	33	37	33	29	32	28	26	23
7	60	47	40	34	55	45	37	32	39	33	29	34	29	26	29	26	23	20
8	55	43	35	30	52	41	34	29	36	30	26	31	27	23	27	23	21	18
9	52	40	32	27	48	37	30	26	33	27	23	29	24	21	25	21	19	17
10	48	36	29	24	45	34	28	23	30	25	21	27	22	19	23	20	17	15

POLAR GRAPH



Maximum Candela = 1136.311 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)