

# 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-H-V-835-WSO-ITL89456.009.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

[TEST]ITL89456.009 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[TESTDATE]07/19/17  
[ISSUEDATE]08/23/17  
[MANUFAC]FINELITE, INC.  
[LUMCAT]HP-2-ID-4ft-H-V-835-WSO  
[INPUT\_ELECTRICAL]120.0 VOLTS, 64.1 WATTS  
[INPUT\_ELECTRICAL]277.0 VOLTS, 66.0 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]6437

**CHARACTERISTICS**

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	6437
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	100
Total Luminaire Watts	64.1
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	17048	16081	15137
55	15034	14161	13208
65	13076	12358	11567
75	10969	10559	9972
85	8535	8361	7839

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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	1461.000	1461.000	1461.000	1461.000	1461.000
2.5	1459.000	1459.000	1458.000	1458.000	1459.000
5.0	1451.000	1450.000	1448.000	1447.000	1447.000
7.5	1439.000	1438.000	1433.000	1429.000	1430.000
10.0	1425.000	1418.000	1412.000	1408.000	1407.000
12.5	1401.000	1394.000	1387.000	1381.000	1378.000
15.0	1376.000	1362.000	1359.000	1348.000	1342.000
17.5	1345.000	1327.000	1321.000	1307.000	1299.000
20.0	1309.000	1289.000	1281.000	1264.000	1253.000
22.5	1269.000	1248.000	1235.000	1216.000	1205.000
25.0	1224.000	1204.000	1187.000	1165.000	1153.000
27.5	1181.000	1155.000	1136.000	1112.000	1100.000
30.0	1130.000	1105.000	1082.000	1056.000	1043.000
32.5	1078.000	1053.000	1029.000	1000.000	987.000
35.0	1023.000	998.000	973.000	942.000	929.000
37.5	967.000	943.000	917.000	885.000	873.000
40.0	909.000	886.000	860.000	827.000	815.000
42.5	851.000	830.000	805.000	771.000	759.000
45.0	794.000	773.000	749.000	717.000	705.000
47.5	736.000	717.000	694.000	662.000	651.000
50.0	679.000	662.000	640.000	610.000	598.000
52.5	624.000	609.000	587.000	559.000	548.000
55.0	568.000	557.000	535.000	509.000	499.000
57.5	515.000	505.000	485.000	461.000	452.000
60.0	463.000	455.000	437.000	415.000	407.000
62.5	413.000	405.000	390.000	371.000	363.000
65.0	364.000	356.000	344.000	328.000	322.000
67.5	317.000	311.000	300.000	287.000	281.000
70.0	272.000	268.000	258.000	247.000	243.000
72.5	228.000	226.000	218.000	210.000	207.000
75.0	187.000	186.000	180.000	174.000	170.000
77.5	149.000	148.000	143.000	140.000	137.000
80.0	113.000	112.000	109.000	106.000	104.000
82.5	80.000	80.000	78.000	76.000	73.000
85.0	49.000	49.000	48.000	46.000	45.000
87.5	20.000	20.000	19.000	17.000	17.000
90.0	0.000	0.000	0.000	0.000	0.000
92.5	14.000	24.111	24.111	23.333	23.333
95.0	36.555	64.554	64.554	53.666	52.888
97.5	61.443	105.776	129.886	93.332	87.887
100.0	87.109	137.664	258.217	150.108	132.220
102.5	115.109	167.997	356.993	265.217	210.774
105.0	142.331	200.663	413.770	432.436	356.215
107.5	169.552	232.551	448.769	583.322	543.656
110.0	196.774	262.106	479.880	671.987	678.987
112.5	223.996	290.883	516.434	730.319	759.874
115.0	251.995	318.105	559.989	772.318	815.095
117.5	279.995	345.327	607.433	811.984	857.872
120.0	307.994	374.104	646.321	853.983	900.649
122.5	333.660	398.214	674.320	913.093	945.759
125.0	357.771	421.547	689.875	977.648	1010.314
127.5	380.326	443.325	699.209	1021.202	1081.868
130.0	398.992	461.991	704.653	1039.091	1133.200
132.5	417.659	479.102	706.208	1032.091	1149.533

**IES INDOOR REPORT**  
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**CANDELA TABULATION - (Cont.)**

<b>135.0</b>	433.991	493.101	705.431	1010.314	1133.200
<b>137.5</b>	448.769	506.324	703.097	980.759	1098.978
<b>140.0</b>	463.546	517.990	699.209	948.093	1055.424
<b>142.5</b>	477.546	528.879	693.764	911.538	1008.758
<b>145.0</b>	492.324	538.990	688.320	876.538	961.315
<b>147.5</b>	504.768	546.767	682.098	840.761	913.093
<b>150.0</b>	517.212	555.322	674.320	808.873	867.983
<b>152.5</b>	528.879	561.545	664.987	778.540	825.984
<b>155.0</b>	539.767	566.211	655.654	748.985	787.096
<b>157.5</b>	549.878	572.433	647.098	721.764	752.096
<b>160.0</b>	558.433	576.322	636.987	695.320	719.430
<b>162.5</b>	566.211	579.433	626.877	672.765	689.098
<b>165.0</b>	572.433	582.544	616.766	650.987	663.432
<b>167.5</b>	577.878	584.878	608.988	632.321	640.876
<b>170.0</b>	582.544	587.211	603.544	617.543	622.988
<b>172.5</b>	584.878	588.766	597.322	605.099	609.766
<b>175.0</b>	587.989	589.544	593.433	597.322	598.877
<b>177.5</b>	589.544	589.544	591.100	591.100	591.877
<b>180.0</b>	590.322	590.322	590.322	590.322	590.322

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	518.61	N.A.	8.10
0-30	1064.05	N.A.	16.50
0-40	1671.87	N.A.	26.00
0-60	2726.4	N.A.	42.40
0-80	3257.97	N.A.	50.60
0-90	3311.88	N.A.	51.50
10-90	3174.72	N.A.	49.30
20-40	1153.26	N.A.	17.90
20-50	1729.75	N.A.	26.90
40-70	1395.13	N.A.	21.70
60-80	531.57	N.A.	8.30
70-80	190.97	N.A.	3.00
80-90	53.91	N.A.	0.80
90-110	408.94	N.A.	6.40
90-120	948.47	N.A.	14.70
90-130	1565.22	N.A.	24.30
90-150	2586.48	N.A.	40.20
90-180	3124.9	N.A.	48.50
110-180	2715.96	N.A.	42.20
0-180	6436.78	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

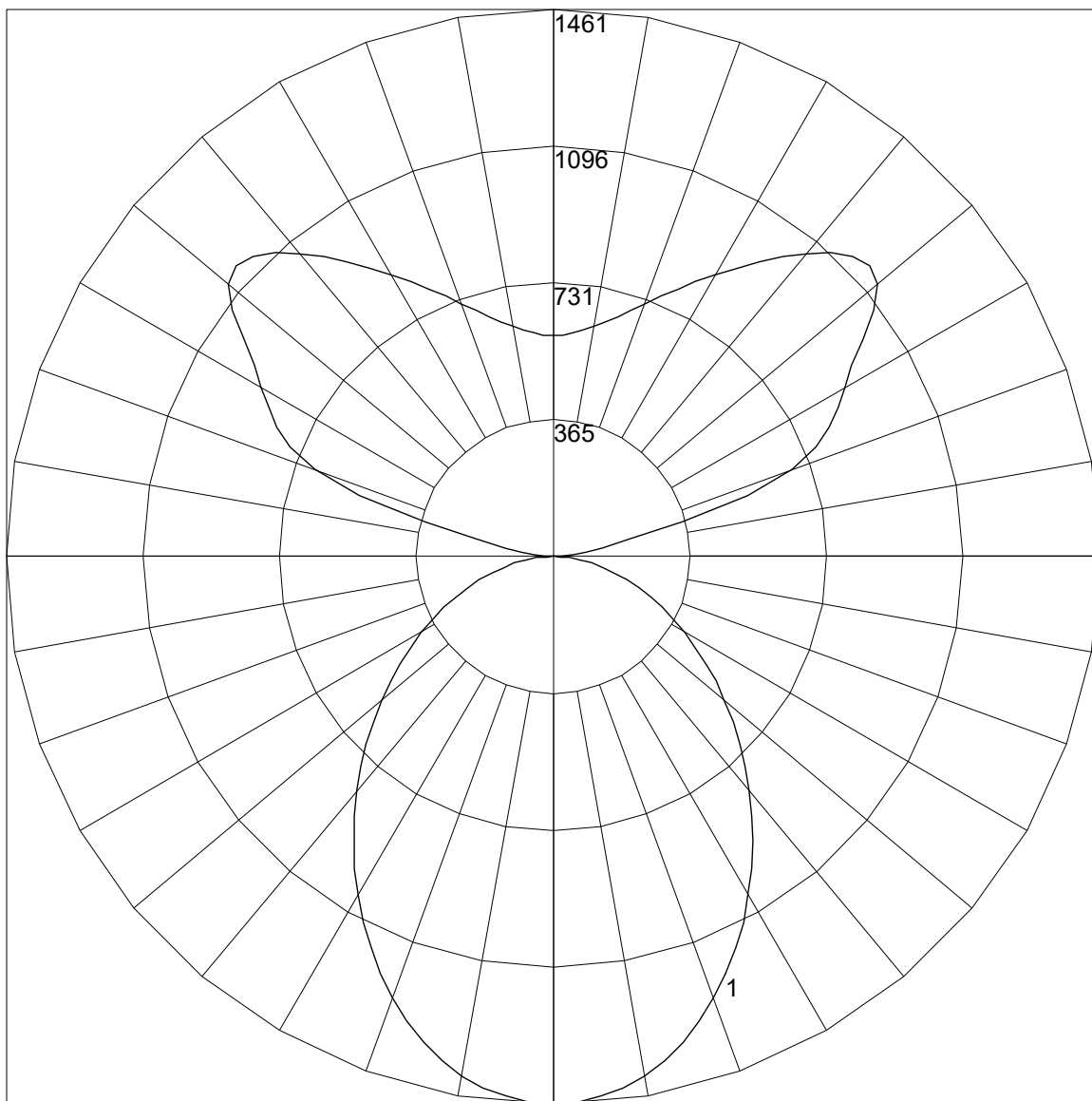
Zone	Lumens
0-10	137.16
10-20	381.45
20-30	545.44
30-40	607.82
40-50	576.50
50-60	478.03
60-70	340.60
70-80	190.97
80-90	53.91
90-100	71.33
100-110	337.61
110-120	539.53
120-130	616.75
130-140	576.43
140-150	444.83
150-160	305.77
160-170	175.72
170-180	56.93

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	107	107	107	107	99	99	99	99	84	84	84	70	70	70	57	57	57	51
1	98	94	90	87	91	87	84	81	74	72	70	62	60	59	51	50	49	44
2	90	82	76	71	83	76	71	67	65	61	58	55	52	50	45	43	42	37
3	82	73	65	60	76	67	61	56	58	53	49	49	45	42	40	38	36	32
4	75	64	57	51	69	60	53	48	51	46	42	44	40	36	36	33	31	27
5	69	58	50	44	64	54	47	41	46	41	36	39	35	32	33	30	27	24
6	64	52	44	38	59	48	41	36	42	36	32	36	31	28	30	27	24	21
7	59	47	39	33	54	44	37	32	38	32	28	32	28	25	27	24	21	19
8	55	43	35	30	51	40	33	28	35	29	25	30	25	22	25	22	19	17
9	51	39	32	27	47	37	30	25	32	26	23	27	23	20	23	20	18	15
10	48	36	29	24	44	34	27	23	29	24	20	25	21	18	22	18	16	14

POLAR GRAPH



Maximum Candela = 1461 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)