

# 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-V-835-WSO-ITL89456.012.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

[TEST]ITL89456.012 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-V-835-WSO  
[INPUT\_ELECTRICAL]120.0 VOLTS, 54.3 WATTS  
[INPUT\_ELECTRICAL]277.0 VOLTS, 56.6 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]5379

**CHARACTERISTICS**

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5379
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	99
Total Luminaire Watts	54.3
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	1.16
Spacing Criterion (90-270)	1.10
Spacing Criterion (Diagonal)	1.24
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	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	518.61	N.A.	9.60
0-30	1064.05	N.A.	19.80
0-40	1671.87	N.A.	31.10
0-60	2726.4	N.A.	50.70
0-80	3257.97	N.A.	60.60
0-90	3311.88	N.A.	61.60
10-90	3174.72	N.A.	59.00
20-40	1153.26	N.A.	21.40
20-50	1729.75	N.A.	32.20
40-70	1395.13	N.A.	25.90
60-80	531.57	N.A.	9.90
70-80	190.97	N.A.	3.60
80-90	53.91	N.A.	1.00
90-110	270.57	N.A.	5.00
90-120	627.55	N.A.	11.70
90-130	1035.61	N.A.	19.30
90-150	1711.31	N.A.	31.80
90-180	2067.55	N.A.	38.40
110-180	1796.98	N.A.	33.40
0-180	5379.43	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	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

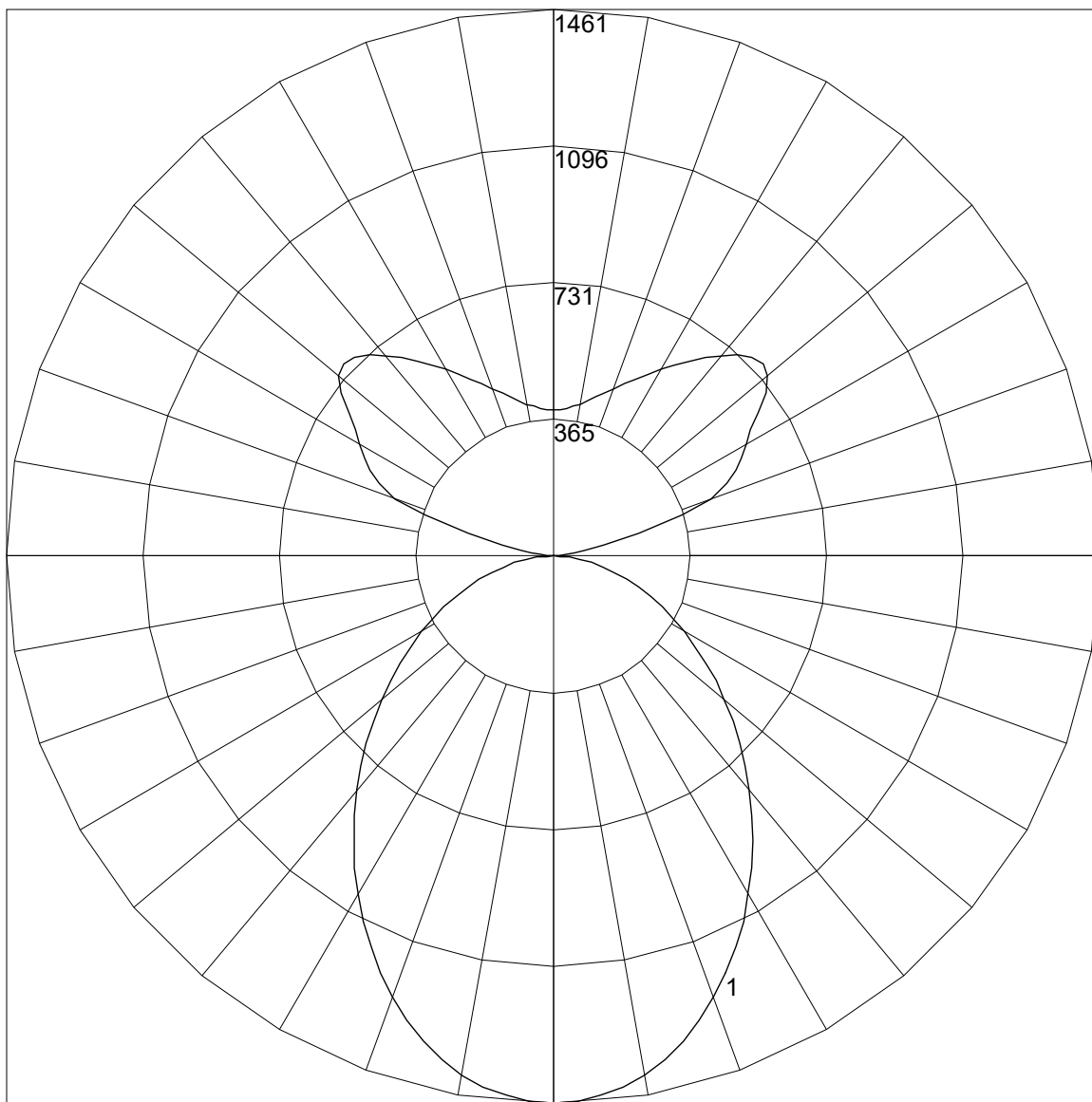
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67	62
1	101	96	92	89	94	90	87	84	79	77	74	69	67	65	59	58	57	52
2	92	84	78	73	86	79	74	69	70	66	62	61	58	55	53	50	48	44
3	84	75	67	61	78	70	64	58	62	57	53	54	50	47	47	44	42	38
4	77	66	58	52	72	62	55	50	55	50	45	48	44	41	42	39	36	33
5	71	59	51	45	66	56	49	43	50	44	39	44	39	35	38	35	32	29
6	66	53	45	39	61	50	43	38	45	39	34	40	35	31	35	31	28	25
7	61	48	40	35	57	46	38	33	41	35	31	36	31	28	32	28	25	23
8	56	44	36	31	53	42	35	30	37	31	27	33	28	25	29	25	23	20
9	53	40	33	28	49	38	31	27	34	29	25	31	26	23	27	23	20	18
10	49	37	30	25	46	35	29	24	32	26	22	28	24	21	25	21	19	17

POLAR GRAPH



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