

# 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-DSO-ITL89456-ITL94139.010.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL89456-ITL94139.010 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]07/19/17

[ISSUEDATE]12/15/2020

[MANUFAC]FINELITE, INC.

[LUMCAT]HP-2-ID-4ft-B-V-835-WSO-DSO

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 53.7 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 55.9 WATTS

[OTHER]see [www.finelite.com](http://www.finelite.com) for source files ITL89456 and ITL94139. 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]5341

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5341
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	99
Total Luminaire Watts	53.7
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	1.16
Spacing Criterion (90-270)	1.40
Spacing Criterion (Diagonal)	1.42
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	13827	17477	17949
55	12573	16093	16093
65	11280	14298	13902
75	10031	12201	11556
85	8710	9232	8361

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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	1166.000	1166.000	1166.000	1166.000	1166.000
2.5	1164.000	1164.000	1165.000	1167.000	1167.000
5.0	1158.000	1159.000	1164.000	1169.000	1171.000
7.5	1147.000	1151.000	1160.000	1171.000	1177.000
10.0	1133.000	1138.000	1158.000	1179.000	1186.000
12.5	1116.000	1122.000	1156.000	1185.000	1193.000
15.0	1093.000	1103.000	1150.000	1187.000	1197.000
17.5	1069.000	1082.000	1142.000	1187.000	1199.000
20.0	1039.000	1058.000	1132.000	1182.000	1195.000
22.5	1007.000	1030.000	1115.000	1171.000	1186.000
25.0	971.000	1002.000	1096.000	1156.000	1170.000
27.5	935.000	972.000	1074.000	1135.000	1149.000
30.0	896.000	940.000	1046.000	1107.000	1118.000
32.5	856.000	904.000	1017.000	1075.000	1084.000
35.0	814.000	866.000	984.000	1036.000	1042.000
37.5	773.000	828.000	945.000	993.000	996.000
40.0	729.000	788.000	903.000	947.000	945.000
42.5	687.000	746.000	860.000	895.000	891.000
45.0	644.000	703.000	814.000	842.000	836.000
47.5	602.000	660.000	764.000	787.000	781.000
50.0	558.000	616.000	713.000	730.000	720.000
52.5	515.000	570.000	661.000	674.000	664.000
55.0	475.000	525.000	608.000	616.000	608.000
57.5	433.000	480.000	555.000	560.000	547.000
60.0	393.000	434.000	502.000	506.000	493.000
62.5	355.000	390.000	451.000	450.000	440.000
65.0	314.000	348.000	398.000	397.000	387.000
67.5	278.000	305.000	348.000	345.000	335.000
70.0	241.000	264.000	300.000	295.000	286.000
72.5	205.000	224.000	253.000	248.000	240.000
75.0	171.000	185.000	208.000	203.000	197.000
77.5	139.000	149.000	165.000	160.000	155.000
80.0	109.000	114.000	126.000	120.000	116.000
82.5	80.000	82.000	88.000	84.000	81.000
85.0	50.000	52.000	53.000	50.000	48.000
87.5	23.000	23.000	21.000	20.000	18.000
90.0	0.000	0.000	0.000	0.000	0.000
92.5	9.264	15.955	15.955	15.441	15.441
95.0	24.190	42.719	42.719	35.513	34.998
97.5	40.660	69.997	85.952	61.762	58.159
100.0	57.645	91.099	170.875	99.334	87.496
102.5	76.173	111.172	236.240	175.507	139.479
105.0	94.187	132.788	273.812	286.164	235.725
107.5	112.201	153.891	296.973	386.013	359.764
110.0	130.215	173.448	317.560	444.687	449.319
112.5	148.229	192.492	341.750	483.288	502.846
115.0	166.758	210.506	370.572	511.081	539.389
117.5	185.286	228.520	401.968	537.330	567.697
120.0	203.815	247.563	427.702	565.123	596.004
122.5	220.799	263.518	446.231	604.239	625.856
125.0	236.755	278.959	456.525	646.958	668.574
127.5	251.680	293.370	462.701	675.780	715.925
130.0	264.033	305.722	466.304	687.618	749.895
132.5	276.385	317.045	467.333	682.986	760.703

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-4FT-B-V-835-WSO-DSO-ITL89456-ITL94139.010.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	287.194	326.310	466.818	668.574	749.895
<b>137.5</b>	296.973	335.059	465.274	649.016	727.249
<b>140.0</b>	306.752	342.779	462.701	627.400	698.426
<b>142.5</b>	316.016	349.985	459.098	603.210	667.545
<b>145.0</b>	325.795	356.676	455.495	580.049	636.149
<b>147.5</b>	334.030	361.823	451.378	556.373	604.239
<b>150.0</b>	342.265	367.484	446.231	535.271	574.387
<b>152.5</b>	349.985	371.602	440.055	515.199	546.594
<b>155.0</b>	357.191	374.690	433.879	495.641	520.860
<b>157.5</b>	363.882	378.807	428.217	477.627	497.699
<b>160.0</b>	369.543	381.381	421.526	460.127	476.083
<b>162.5</b>	374.690	383.440	414.835	445.202	456.010
<b>165.0</b>	378.807	385.498	408.144	430.791	439.026
<b>167.5</b>	382.410	387.042	402.998	418.438	424.100
<b>170.0</b>	385.498	388.586	399.395	408.659	412.262
<b>172.5</b>	387.042	389.616	395.277	400.424	403.512
<b>175.0</b>	389.101	390.130	392.704	395.277	396.307
<b>177.5</b>	390.130	390.130	391.160	391.160	391.675
<b>180.0</b>	390.645	390.645	390.645	390.645	390.645

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-4FT-B-V-835-WSO-DSO-ITL89456-ITL94139.010.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	434.77	N.A.	8.10
0-30	932.63	N.A.	17.50
0-40	1528.2	N.A.	28.60
0-60	2637.24	N.A.	49.40
0-80	3215.04	N.A.	60.20
0-90	3273.48	N.A.	61.30
10-90	3162.56	N.A.	59.20
20-40	1093.43	N.A.	20.50
20-50	1690.51	N.A.	31.60
40-70	1479.46	N.A.	27.70
60-80	577.80	N.A.	10.80
70-80	207.38	N.A.	3.90
80-90	58.43	N.A.	1.10
90-110	270.61	N.A.	5.10
90-120	627.65	N.A.	11.80
90-130	1035.78	N.A.	19.40
90-150	1711.6	N.A.	32.00
90-180	2067.9	N.A.	38.70
110-180	1797.28	N.A.	33.60
0-180	5341.38	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	110.92
10-20	323.86
20-30	497.85
30-40	595.58
40-50	597.08
50-60	511.96
60-70	370.42
70-80	207.38
80-90	58.43
90-100	47.20
100-110	223.41
110-120	357.04
120-130	408.13
130-140	381.45
140-150	294.37
150-160	202.34
160-170	116.28
170-180	37.67

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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

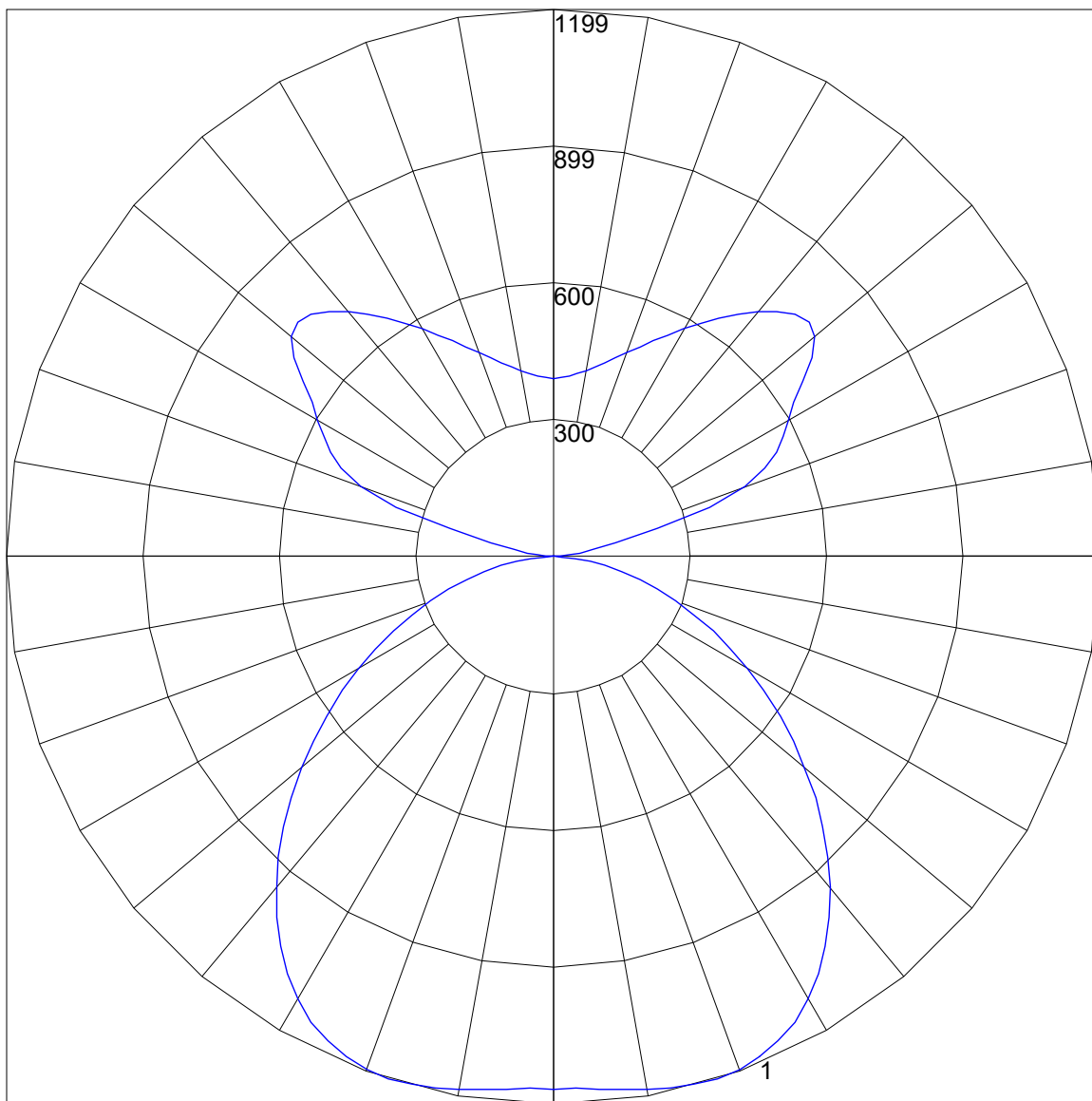
Effective Floor Cavity Reflectance 0.20

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	66	66	66	61
1	100	96	92	88	94	90	86	83	79	76	74	68	66	65	59	57	56	52
2	91	84	77	72	85	79	73	68	69	65	61	60	57	54	52	49	47	43
3	83	74	66	60	78	69	62	57	61	56	51	53	49	46	46	43	40	37
4	76	65	57	51	71	61	54	48	54	48	44	47	43	39	41	37	35	31
5	70	58	50	44	65	55	47	42	48	42	38	42	38	34	37	33	30	27
6	65	52	44	38	60	49	42	36	44	37	33	38	33	30	33	30	27	24
7	60	47	39	33	56	45	37	32	40	33	29	35	30	26	30	27	24	21
8	55	43	35	29	52	40	33	28	36	30	26	32	27	23	28	24	21	19
9	52	39	31	26	48	37	30	25	33	27	23	29	25	21	26	22	19	17
10	48	36	29	24	45	34	27	23	30	25	21	27	22	19	24	20	17	15

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## POLAR GRAPH



Maximum Candela = 1199 Located At Horizontal Angle = 90, Vertical Angle = 17.5

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