

# 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-DSO-ITL89456-ITL94139.011.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL89456-ITL94139.011 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-H-835-WSO-DSO

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 45.4 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 47.0 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]4614

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4614
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	102
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
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	10756	13595	13962
55	9780	12518	12518
65	8774	11122	10814
75	7803	9491	8989
85	6775	7182	6504

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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	907.008	907.008	907.008	907.008	907.008
2.5	905.452	905.452	906.230	907.785	907.785
5.0	900.785	901.562	905.452	909.341	910.897
7.5	892.228	895.339	902.340	910.897	915.564
10.0	881.338	885.227	900.785	917.120	922.565
12.5	868.114	872.781	899.229	921.787	928.010
15.0	850.222	858.001	894.562	923.343	931.122
17.5	831.553	841.666	888.338	923.343	932.678
20.0	808.217	822.997	880.560	919.454	929.566
22.5	783.325	801.216	867.336	910.897	922.565
25.0	755.321	779.435	852.556	899.229	910.119
27.5	727.317	756.099	835.443	882.893	893.784
30.0	696.980	731.207	813.662	861.113	869.669
32.5	665.865	703.203	791.104	836.221	843.221
35.0	633.194	673.644	765.433	805.883	810.551
37.5	601.301	644.084	735.096	772.434	774.768
40.0	567.074	612.969	702.425	736.652	735.096
42.5	534.403	580.298	668.976	696.202	693.091
45.0	500.954	546.849	633.194	654.975	650.307
47.5	468.284	513.400	594.300	612.191	607.524
50.0	434.057	479.174	554.628	567.852	560.073
52.5	400.608	443.391	514.178	524.291	516.512
55.0	369.493	408.387	472.951	479.174	472.951
57.5	336.822	373.382	431.723	435.613	425.500
60.0	305.707	337.600	390.495	393.607	383.495
62.5	276.147	303.373	350.824	350.046	342.267
65.0	244.254	270.702	309.596	308.818	301.039
67.5	216.250	237.253	270.702	268.368	260.590
70.0	187.469	205.360	233.364	229.475	222.474
72.5	159.465	174.245	196.804	192.914	186.691
75.0	133.017	143.908	161.799	157.910	153.242
77.5	108.125	115.904	128.350	124.461	120.571
80.0	84.789	88.678	98.013	93.346	90.234
82.5	62.230	63.786	68.453	65.342	63.008
85.0	38.894	40.450	41.228	38.894	37.338
87.5	17.891	17.891	16.335	15.558	14.002
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-H-835-WSO-DSO-ITL89456-ITL94139.011.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-H-835-WSO-DSO-ITL89456-ITL94139.011.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	338.20	N.A.	7.30
0-30	725.47	N.A.	15.70
0-40	1188.76	N.A.	25.80
0-60	2051.46	N.A.	44.50
0-80	2500.92	N.A.	54.20
0-90	2546.37	N.A.	55.20
10-90	2460.09	N.A.	53.30
20-40	850.56	N.A.	18.40
20-50	1315.01	N.A.	28.50
40-70	1150.84	N.A.	24.90
60-80	449.46	N.A.	9.70
70-80	161.32	N.A.	3.50
80-90	45.45	N.A.	1.00
90-110	270.61	N.A.	5.90
90-120	627.65	N.A.	13.60
90-130	1035.78	N.A.	22.40
90-150	1711.6	N.A.	37.10
90-180	2067.9	N.A.	44.80
110-180	1797.28	N.A.	39.00
0-180	4614.27	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	86.28
10-20	251.92
20-30	387.27
30-40	463.29
40-50	464.46
50-60	398.24
60-70	288.14
70-80	161.32
80-90	45.45
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

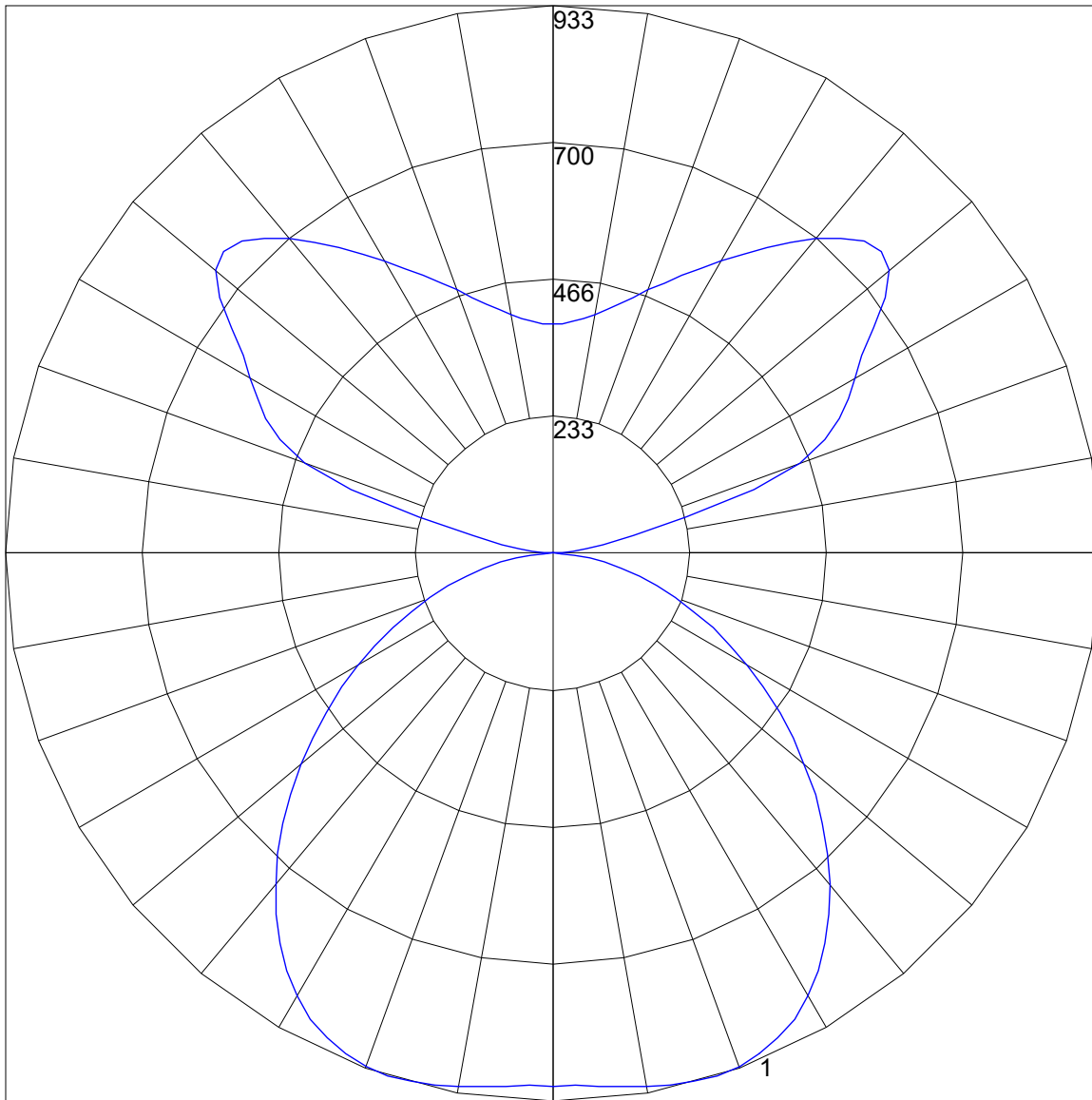
Effective Floor Cavity Reflectance 0.20

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	108	108	108	108	101	101	101	101	86	86	86	73	73	73	61	61	61	55
1	99	95	91	87	92	88	85	82	76	73	71	64	62	61	54	53	51	46
2	90	83	76	71	83	77	72	67	66	62	59	56	53	51	47	45	43	39
3	82	73	65	59	76	68	61	56	58	53	49	50	46	43	42	39	37	33
4	75	64	56	50	70	60	53	47	52	46	42	44	40	37	37	34	32	28
5	69	57	49	43	64	53	46	41	46	41	36	40	35	32	34	30	28	24
6	64	51	43	37	59	48	41	35	42	36	32	36	31	28	31	27	24	21
7	59	46	38	33	54	43	36	31	38	32	28	33	28	25	28	24	22	19
8	55	42	34	29	51	39	32	27	35	29	25	30	25	22	26	22	19	17
9	51	38	31	26	47	36	29	24	32	26	22	28	23	20	24	20	17	15
10	47	35	28	23	44	33	27	22	29	24	20	25	21	18	22	18	16	14

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POLAR GRAPH



Maximum Candela = 932.678 Located At Horizontal Angle = 90, Vertical Angle = 17.5  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)