

# 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-B-835-WSO-DSO-ABL-8H-ITL89456-ITL94139.208.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL89456-ITL94139.208 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]07/19/17

[ISSUEDATE]06/23/2021

[MANUFAC]FINELITE, INC.

[LUMCAT]HP-2-ID-4ft-H-B-835-WSO-DSO-ABL-8H

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 45.6 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 47.4 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]4809

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4809
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	105
Total Luminaire Watts	45.6
Ballast Factor	1.00
CIE Type	Semi-Indirect
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	7114	8992	9235
55	6469	8280	8280
65	5804	7356	7153
75	5161	6278	5946
85	4481	4750	4302



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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	599.922	599.922	599.922	599.922	599.922
2.5	598.893	598.893	599.407	600.436	600.436
5.0	595.806	596.320	598.893	601.465	602.494
7.5	590.146	592.204	596.835	602.494	605.581
10.0	582.943	585.515	595.806	606.611	610.212
12.5	574.196	577.283	594.777	609.698	613.814
15.0	562.362	567.508	591.690	610.727	615.872
17.5	550.014	556.703	587.573	610.727	616.901
20.0	534.579	544.354	582.428	608.154	614.843
22.5	518.114	529.948	573.682	602.494	610.212
25.0	499.592	515.542	563.906	594.777	601.980
27.5	481.069	500.106	552.587	583.972	591.175
30.0	461.003	483.642	538.180	569.566	575.225
32.5	440.423	465.120	523.259	553.101	557.732
35.0	418.813	445.568	506.281	533.035	536.122
37.5	397.718	426.017	486.214	510.911	512.455
40.0	375.080	405.436	464.605	487.243	486.214
42.5	353.470	383.827	442.481	460.489	458.431
45.0	331.346	361.702	418.813	433.220	430.133
47.5	309.737	339.578	393.088	404.921	401.834
50.0	287.098	316.940	366.848	375.594	370.449
52.5	264.974	293.272	340.093	346.782	341.636
55.0	244.393	270.119	312.824	316.940	312.824
57.5	222.784	246.966	285.555	288.127	281.438
60.0	202.203	223.298	258.285	260.343	253.655
62.5	182.652	200.660	232.045	231.531	226.386
65.0	161.557	179.050	204.776	204.262	199.116
67.5	143.035	156.926	179.050	177.507	172.362
70.0	123.998	135.831	154.354	151.781	147.151
72.5	105.475	115.251	130.172	127.599	123.483
75.0	87.982	95.185	107.019	104.446	101.359
77.5	71.517	76.662	84.895	82.322	79.749
80.0	56.082	58.654	64.829	61.742	59.684
82.5	41.161	42.190	45.277	43.219	41.675
85.0	25.726	26.755	27.269	25.726	24.697
87.5	11.834	11.834	10.805	10.290	9.261
90.0	0.000	0.000	0.000	0.000	0.000
92.5	13.999	24.110	24.110	23.332	23.332
95.0	36.554	64.553	64.553	53.665	52.887
97.5	61.442	105.774	129.884	93.330	87.886
100.0	87.108	137.662	258.213	150.106	132.218
102.5	115.107	167.994	356.987	265.213	210.770
105.0	142.328	200.660	413.763	432.429	356.209
107.5	169.549	232.547	448.762	583.313	543.647
110.0	196.771	262.102	479.872	671.976	678.976
112.5	223.992	290.878	516.426	730.307	759.862
115.0	251.991	318.100	559.980	772.306	815.082
117.5	279.990	345.321	607.423	811.971	857.858
120.0	307.989	374.098	646.310	853.970	900.635
122.5	333.655	398.208	674.309	913.078	945.744
125.0	357.765	421.541	689.864	977.632	1010.297
127.5	380.320	443.317	699.197	1021.186	1081.850
130.0	398.986	461.983	704.641	1039.074	1133.182
132.5	417.652	479.094	706.197	1032.074	1149.514



**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-4FT-H-B-835-WSO-DSO-ABL-8H-ITL89456-ITL94139.208.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	433.985	493.094	705.419	1010.297	1133.182
<b>137.5</b>	448.762	506.315	703.086	980.743	1098.961
<b>140.0</b>	463.539	517.981	699.197	948.077	1055.407
<b>142.5</b>	477.538	528.870	693.753	911.523	1008.742
<b>145.0</b>	492.316	538.981	688.309	876.524	961.299
<b>147.5</b>	504.760	546.758	682.087	840.748	913.078
<b>150.0</b>	517.204	555.313	674.309	808.860	867.969
<b>152.5</b>	528.870	561.535	664.976	778.528	825.971
<b>155.0</b>	539.759	566.202	655.643	748.973	787.083
<b>157.5</b>	549.869	572.424	647.088	721.752	752.084
<b>160.0</b>	558.424	576.313	636.977	695.308	719.419
<b>162.5</b>	566.202	579.424	626.866	672.754	689.087
<b>165.0</b>	572.424	582.535	616.756	650.977	663.421
<b>167.5</b>	577.868	584.868	608.978	632.311	640.866
<b>170.0</b>	582.535	587.201	603.534	617.534	622.978
<b>172.5</b>	584.868	588.757	597.312	605.090	609.756
<b>175.0</b>	587.979	589.534	593.423	597.312	598.867
<b>177.5</b>	589.534	589.534	591.090	591.090	591.868
<b>180.0</b>	590.312	590.312	590.312	590.312	590.312



**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-4FT-H-B-835-WSO-DSO-ABL-8H-ITL89456-ITL94139.208.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	223.70	N.A.	4.70
0-30	479.85	N.A.	10.00
0-40	786.28	N.A.	16.30
0-60	1356.9	N.A.	28.20
0-80	1654.18	N.A.	34.40
0-90	1684.25	N.A.	35.00
10-90	1627.18	N.A.	33.80
20-40	562.58	N.A.	11.70
20-50	869.79	N.A.	18.10
40-70	761.20	N.A.	15.80
60-80	297.29	N.A.	6.20
70-80	106.70	N.A.	2.20
80-90	30.07	N.A.	0.60
90-110	408.93	N.A.	8.50
90-120	948.46	N.A.	19.70
90-130	1565.19	N.A.	32.50
90-150	2586.44	N.A.	53.80
90-180	3124.85	N.A.	65.00
110-180	2715.92	N.A.	56.50
0-180	4809.09	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	57.07
10-20	166.63
20-30	256.15
30-40	306.43
40-50	307.21
50-60	263.41
60-70	190.59
70-80	106.70
80-90	30.07
90-100	71.33
100-110	337.60
110-120	539.53
120-130	616.74
130-140	576.42
140-150	444.83
150-160	305.77
160-170	175.71
170-180	56.93



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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

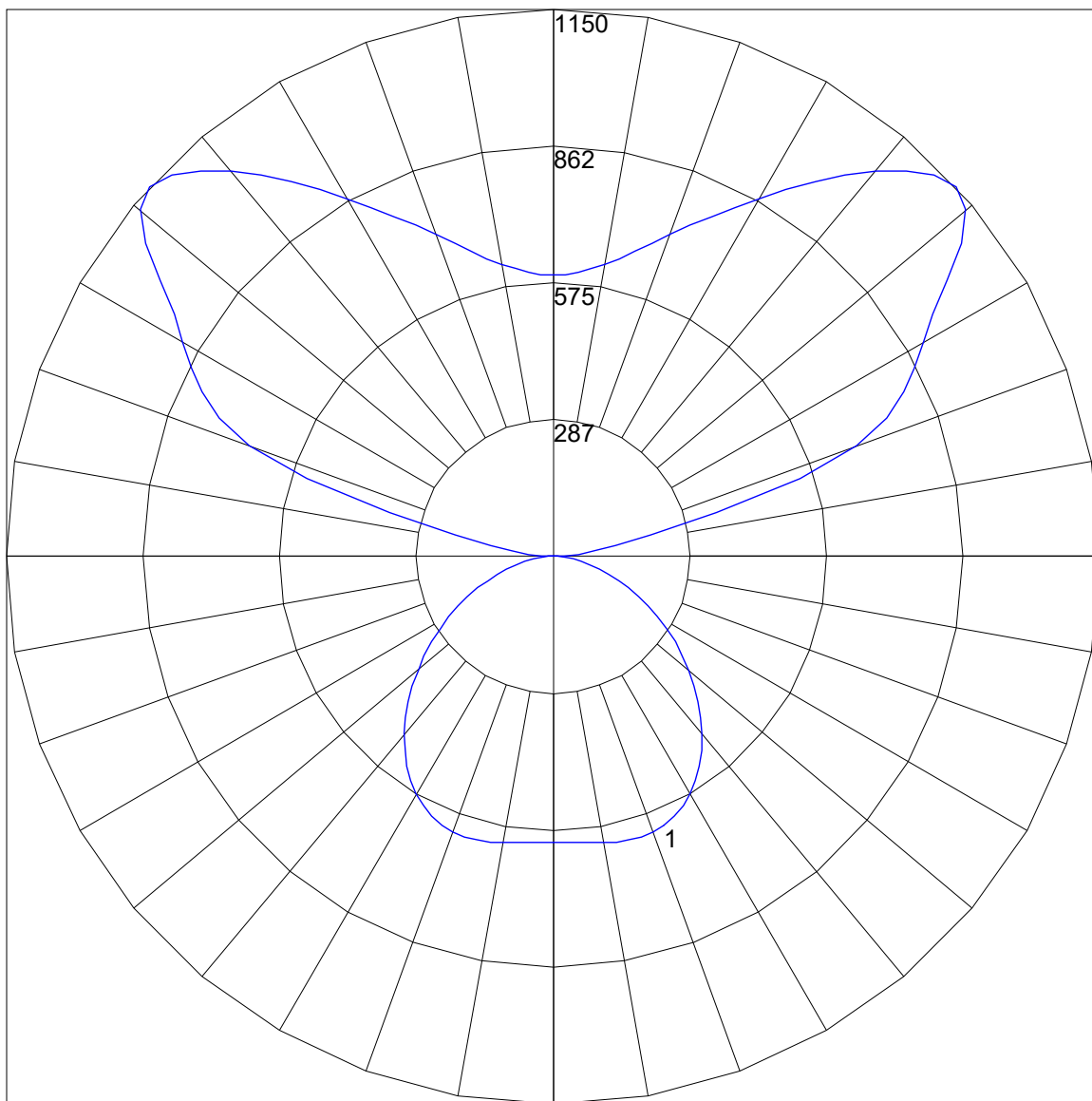
RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	104	104	104	104	94	94	94	94	75	75	75	58	58	58	42	42	42	35
1	94	90	86	83	85	82	78	76	66	63	61	51	50	48	37	37	36	29
2	86	79	73	68	77	71	66	62	57	54	51	45	42	40	33	31	30	25
3	78	69	62	56	71	63	57	52	51	46	43	39	36	34	29	27	26	21
4	72	61	53	47	64	55	49	44	45	40	36	35	32	29	26	24	22	18
5	66	54	46	41	59	49	43	37	40	35	31	31	28	25	23	21	19	16
6	60	49	41	35	54	44	37	32	36	31	27	28	25	22	21	19	17	14
7	56	44	36	31	50	40	33	28	33	27	24	26	22	19	19	17	15	12
8	52	40	32	27	47	36	30	25	30	25	21	23	20	17	18	15	13	11
9	48	36	29	24	43	33	26	22	27	22	19	22	18	15	16	14	12	10
10	45	33	26	21	40	30	24	20	25	20	17	20	16	14	15	13	11	9



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## POLAR GRAPH



Maximum Candela = 1149.514 Located At Horizontal Angle = 90, Vertical Angle = 132.5

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