

# 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-H-837-XXIC-WSO-ITL89456-ITL94139.201.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL89456-ITL94139.201 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]07/19/17

[ISSUEDATE]05/03/2021

[MANUFAC]FINELITE, INC.

[LUMCAT]HP-2-ID-4ft-H-H-837-XXIC-WSO-DSO

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 53.7 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 54.0 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]5500

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5501
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	102
Total Luminaire Watts	53.7
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	10433	13187	13544
55	9487	12143	12143
65	8511	10788	10490
75	7569	9206	8719
85	6572	6966	6309

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-4FT-H-H-837-XXIC-WSO-DSO-ITL89456-ITL94139.201.IES****CANDELA TABULATION**

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
<b>0.0</b>	879.797	879.797	879.797	879.797	879.797
<b>2.5</b>	878.288	878.288	879.043	880.552	880.552
<b>5.0</b>	873.761	874.516	878.288	882.061	883.570
<b>7.5</b>	865.461	868.479	875.270	883.570	888.097
<b>10.0</b>	854.897	858.670	873.761	889.607	894.888
<b>12.5</b>	842.070	846.597	872.252	894.134	900.170
<b>15.0</b>	824.716	832.261	867.725	895.643	903.188
<b>17.5</b>	806.607	816.416	861.688	895.643	904.697
<b>20.0</b>	783.970	798.307	854.143	891.870	901.679
<b>22.5</b>	759.825	777.180	841.316	883.570	894.888
<b>25.0</b>	732.661	756.052	826.979	872.252	882.816
<b>27.5</b>	705.498	733.416	810.379	856.407	866.970
<b>30.0</b>	676.071	709.271	789.252	835.279	843.579
<b>32.5</b>	645.889	682.107	767.371	811.134	817.925
<b>35.0</b>	614.198	653.434	742.471	781.707	786.234
<b>37.5</b>	583.262	624.762	713.043	749.261	751.525
<b>40.0</b>	550.062	594.580	681.353	714.552	713.043
<b>42.5</b>	518.371	562.889	648.907	675.316	672.298
<b>45.0</b>	485.926	530.444	614.198	635.325	630.798
<b>47.5</b>	454.235	497.998	576.471	593.825	589.298
<b>50.0</b>	421.035	464.799	537.989	550.817	543.271
<b>52.5</b>	388.590	430.090	498.753	508.562	501.017
<b>55.0</b>	358.408	396.135	458.762	464.799	458.762
<b>57.5</b>	326.717	362.181	418.772	422.544	412.735
<b>60.0</b>	296.536	327.472	378.781	381.799	371.990
<b>62.5</b>	267.863	294.272	340.299	339.544	331.999
<b>65.0</b>	236.927	262.581	300.308	299.554	292.008
<b>67.5</b>	209.763	230.136	262.581	260.317	252.772
<b>70.0</b>	181.845	199.199	226.363	222.590	215.799
<b>72.5</b>	154.681	169.018	190.899	187.127	181.090
<b>75.0</b>	129.027	139.590	156.945	153.172	148.645
<b>77.5</b>	104.882	112.427	124.500	120.727	116.954
<b>80.0</b>	82.245	86.018	95.072	90.545	87.527
<b>82.5</b>	60.363	61.873	66.400	63.382	61.118
<b>85.0</b>	37.727	39.236	39.991	37.727	36.218
<b>87.5</b>	17.354	17.354	15.845	15.091	13.582
<b>90.0</b>	0.000	0.000	0.000	0.000	0.000
<b>92.5</b>	13.580	23.387	23.387	22.633	22.633
<b>95.0</b>	35.458	62.617	62.617	52.055	51.300
<b>97.5</b>	59.599	102.601	125.988	90.530	85.249
<b>100.0</b>	84.495	133.532	250.467	145.603	128.251
<b>102.5</b>	111.654	162.954	346.278	257.256	204.447
<b>105.0</b>	138.058	194.640	401.350	419.456	345.523
<b>107.5</b>	164.463	225.571	435.299	565.813	527.338
<b>110.0</b>	190.868	254.239	465.476	651.817	658.607
<b>112.5</b>	217.272	282.152	500.933	708.398	737.066
<b>115.0</b>	244.431	308.557	543.181	749.137	790.630
<b>117.5</b>	271.590	334.961	589.200	787.612	832.123
<b>120.0</b>	298.749	362.875	626.921	828.350	873.615
<b>122.5</b>	323.645	386.262	654.080	885.686	917.372
<b>125.0</b>	347.032	408.894	669.168	948.303	979.988
<b>127.5</b>	368.910	430.018	678.221	990.550	1049.395
<b>130.0</b>	387.016	448.124	683.502	1007.902	1099.186
<b>132.5</b>	405.122	464.721	685.011	1001.112	1115.029

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<b>135.0</b>	420.965	478.301	684.257	979.988	1099.186
<b>137.5</b>	435.299	491.126	681.993	951.320	1065.992
<b>140.0</b>	449.633	502.442	678.221	919.635	1023.745
<b>142.5</b>	463.212	513.004	672.940	884.177	978.480
<b>145.0</b>	477.546	522.811	667.660	850.228	932.460
<b>147.5</b>	489.617	530.355	661.624	815.525	885.686
<b>150.0</b>	501.688	538.654	654.080	784.594	841.930
<b>152.5</b>	513.004	544.689	645.027	755.172	801.191
<b>155.0</b>	523.566	549.216	635.974	726.504	763.471
<b>157.5</b>	533.373	555.251	627.675	700.099	729.522
<b>160.0</b>	541.672	559.023	617.868	674.449	697.836
<b>162.5</b>	549.216	562.041	608.061	652.571	668.414
<b>165.0</b>	555.251	565.059	598.253	631.447	643.518
<b>167.5</b>	560.532	567.322	590.709	613.341	621.640
<b>170.0</b>	565.059	569.585	585.428	599.008	604.288
<b>172.5</b>	567.322	571.094	579.393	586.937	591.463
<b>175.0</b>	570.340	571.848	575.621	579.393	580.901
<b>177.5</b>	571.848	571.848	573.357	573.357	574.112
<b>180.0</b>	572.603	572.603	572.603	572.603	572.603

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-4FT-H-H-837-XXIC-WSO-DSO-ITL89456-ITL94139.201.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	328.05	N.A.	6.00
0-30	703.71	N.A.	12.80
0-40	1153.09	N.A.	21.00
0-60	1989.92	N.A.	36.20
0-80	2425.89	N.A.	44.10
0-90	2469.98	N.A.	44.90
10-90	2386.29	N.A.	43.40
20-40	825.04	N.A.	15.00
20-50	1275.56	N.A.	23.20
40-70	1116.32	N.A.	20.30
60-80	435.97	N.A.	7.90
70-80	156.48	N.A.	2.80
80-90	44.09	N.A.	0.80
90-110	396.66	N.A.	7.20
90-120	920.00	N.A.	16.70
90-130	1518.24	N.A.	27.60
90-150	2508.84	N.A.	45.60
90-180	3031.1	N.A.	55.10
110-180	2634.44	N.A.	47.90
0-180	5501.08	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	83.69
10-20	244.36
20-30	375.65
30-40	449.39
40-50	450.52
50-60	386.30
60-70	279.50
70-80	156.48
80-90	44.09
90-100	69.19
100-110	327.47
110-120	523.34
120-130	598.23
130-140	559.13
140-150	431.48
150-160	296.59
160-170	170.44
170-180	55.22

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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

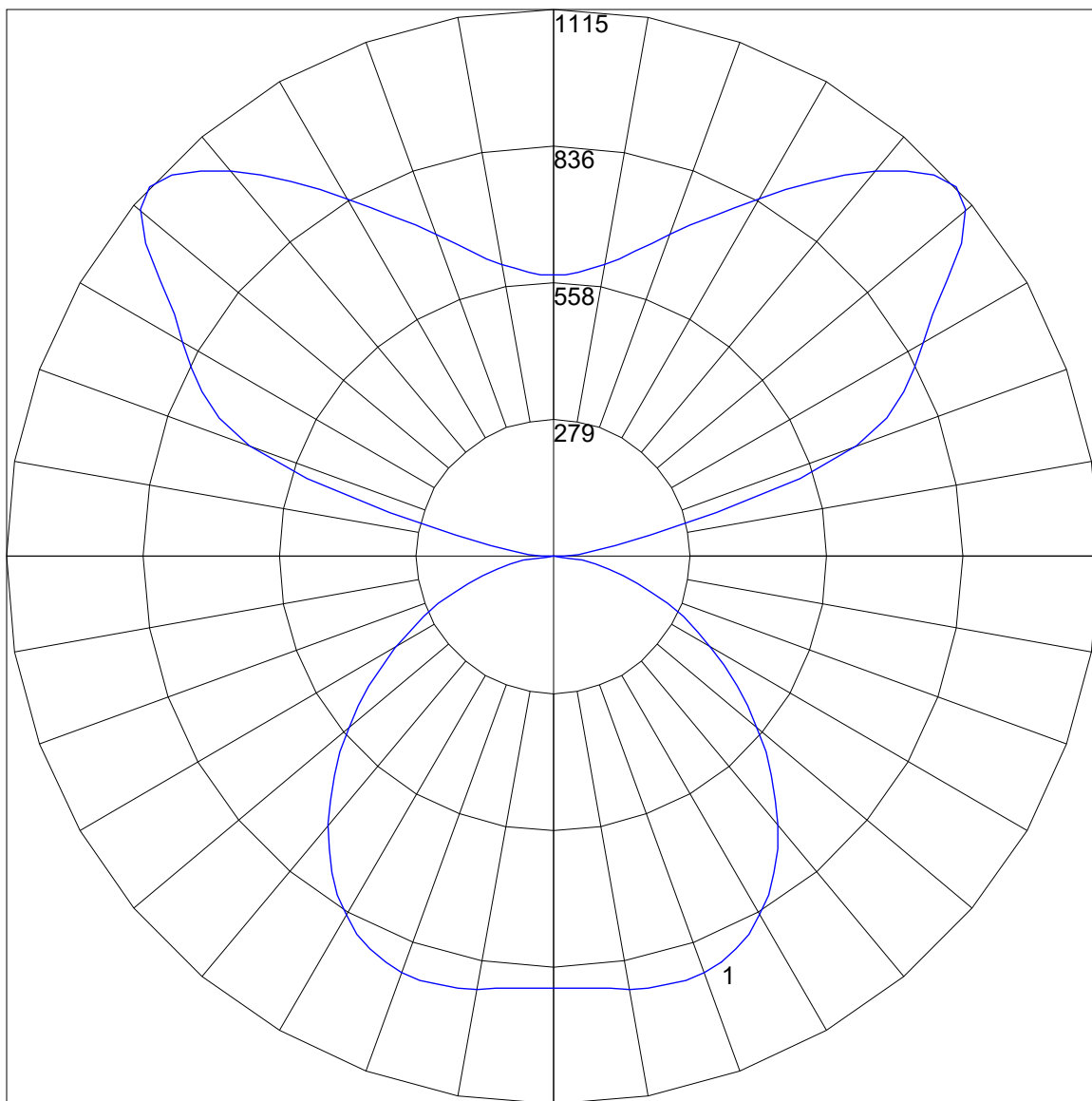
Effective Floor Cavity Reflectance 0.20

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	106	106	106	106	97	97	97	97	81	81	81	65	65	65	51	51	51	45
1	97	92	88	85	88	85	81	78	71	68	66	57	56	54	45	44	43	38
2	88	81	75	69	80	74	69	64	62	58	55	50	48	45	40	38	37	32
3	80	71	64	58	73	65	59	54	54	50	46	45	41	38	35	33	31	27
4	73	63	55	49	67	58	51	45	48	43	39	40	36	33	32	29	27	23
5	67	56	48	42	61	51	44	39	43	38	34	36	32	28	28	26	23	20
6	62	50	42	36	57	46	39	34	39	33	29	32	28	25	26	23	20	17
7	57	45	37	32	52	42	35	30	35	30	26	29	25	22	23	20	18	15
8	53	41	33	28	49	38	31	26	32	27	23	27	22	19	22	18	16	14
9	49	37	30	25	45	34	28	23	29	24	20	24	20	17	20	17	15	12
10	46	34	27	22	42	32	25	21	27	22	18	23	19	16	18	15	13	11

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## POLAR GRAPH



Maximum Candela = 1115.029 Located At Horizontal Angle = 90, Vertical Angle = 132.5

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