

# 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-4-ID-4FT-B-H-835-WSO-DSO-ITL89033-ITL92993.011.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL89033 and ITL92993.011 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]03/27/17

[ISSUEDATE]08/04/2020

[MANUFAC]FINELITE, INC.

[LUMCAT]FINELITE HP-4-ID-4ft-B-H-835-WSO-DSO

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 46.0 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 47.4 WATTS

[OTHER]see [www.finelite.com](http://www.finelite.com) for source files ITL89033 and ITL92993. 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]5141

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5141
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	112
Total Luminaire Watts	46
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)	0.32 ft
Luminous Height	0.00 ft

### LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	6475	8517	9287
55	5961	8095	8671
65	5455	7386	7769
75	4904	6430	6581
85	4310	5053	4904

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	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
<b>0.0</b>	972.296	972.296	972.296	972.296	972.296
<b>2.5</b>	969.963	970.741	972.296	973.074	973.852
<b>5.0</b>	965.296	966.851	971.518	976.185	977.741
<b>7.5</b>	956.740	961.407	970.741	980.075	983.186
<b>10.0</b>	946.628	951.295	968.407	986.297	991.742
<b>12.5</b>	936.516	940.405	966.851	994.854	1001.854
<b>15.0</b>	923.293	936.516	966.073	1001.076	1009.632
<b>17.5</b>	894.513	908.514	965.296	1003.410	1015.855
<b>20.0</b>	870.400	887.512	963.740	1003.410	1017.411
<b>22.5</b>	846.287	866.510	945.072	1000.298	1016.633
<b>25.0</b>	819.062	848.620	931.071	993.298	1011.188
<b>27.5</b>	786.393	822.952	916.292	983.186	1000.298
<b>30.0</b>	755.280	794.172	898.402	968.407	983.964
<b>32.5</b>	722.611	767.725	881.289	951.295	963.740
<b>35.0</b>	689.941	738.945	852.509	927.960	937.294
<b>37.5</b>	654.939	707.054	824.507	893.735	906.180
<b>40.0</b>	622.270	674.385	793.394	857.954	871.955
<b>42.5</b>	584.933	642.493	759.947	822.174	832.286
<b>45.0</b>	549.931	606.713	723.388	779.393	788.727
<b>47.5</b>	515.706	570.932	686.052	737.389	745.946
<b>50.0</b>	479.925	534.374	645.605	693.831	696.942
<b>52.5</b>	444.145	497.816	601.268	646.383	647.938
<b>55.0</b>	410.698	459.702	557.709	595.045	597.379
<b>57.5</b>	377.251	422.365	512.595	546.042	546.819
<b>60.0</b>	343.026	384.252	466.702	496.260	497.038
<b>62.5</b>	308.801	348.471	420.032	447.256	444.923
<b>65.0</b>	276.910	310.357	374.917	395.141	394.363
<b>67.5</b>	245.797	273.021	329.803	346.915	345.360
<b>70.0</b>	212.350	237.240	285.466	297.912	294.022
<b>72.5</b>	182.792	202.238	241.907	251.241	248.130
<b>75.0</b>	152.456	168.791	199.904	206.127	204.571
<b>77.5</b>	124.454	135.344	159.457	164.124	162.568
<b>80.0</b>	96.452	105.008	121.343	124.454	120.565
<b>82.5</b>	70.783	75.450	85.562	87.118	84.006
<b>85.0</b>	45.114	47.448	52.893	51.337	51.337
<b>87.5</b>	21.002	21.002	21.779	20.224	19.446
<b>90.0</b>	0.000	0.000	0.000	0.000	0.000
<b>92.5</b>	8.235	14.411	15.440	15.440	15.440
<b>95.0</b>	23.160	41.173	42.203	32.939	32.939
<b>97.5</b>	40.658	69.994	108.080	67.421	58.672
<b>100.0</b>	61.245	95.728	171.383	126.608	99.330
<b>102.5</b>	85.949	116.829	253.215	196.087	159.546
<b>105.0</b>	108.594	139.474	316.004	303.138	242.922
<b>107.5</b>	131.754	162.119	344.826	443.641	373.132
<b>110.0</b>	153.885	183.221	358.721	560.470	534.222
<b>112.5</b>	176.530	203.807	375.191	608.849	640.758
<b>115.0</b>	198.146	223.365	402.983	623.774	680.902
<b>117.5</b>	215.645	241.378	425.113	630.979	695.827
<b>120.0</b>	231.599	258.877	439.524	659.286	706.635
<b>122.5</b>	245.495	275.860	448.788	694.283	740.088
<b>125.0</b>	258.877	290.786	455.478	713.326	779.203
<b>127.5</b>	271.228	304.167	460.625	713.840	799.789
<b>130.0</b>	281.522	316.004	464.743	701.488	796.187
<b>132.5</b>	292.330	327.327	468.345	684.505	777.144

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-4-ID-4FT-B-H-835-WSO-DSO-ITL89033-ITL92993.011.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	302.623	337.620	470.918	665.976	752.440
<b>137.5</b>	312.402	346.884	471.948	645.905	724.134
<b>140.0</b>	322.695	355.634	472.462	625.833	694.283
<b>142.5</b>	332.988	363.868	471.948	604.731	664.433
<b>145.0</b>	343.796	372.103	469.375	585.174	635.097
<b>147.5</b>	352.546	378.793	465.772	565.617	606.790
<b>150.0</b>	361.810	385.484	462.169	546.574	581.057
<b>152.5</b>	371.074	391.145	458.052	528.046	557.382
<b>155.0</b>	379.308	396.807	453.935	510.548	533.708
<b>157.5</b>	387.028	401.439	448.788	494.593	512.606
<b>160.0</b>	394.233	406.071	444.671	480.182	493.564
<b>162.5</b>	400.409	409.673	439.524	466.801	477.094
<b>165.0</b>	406.585	412.761	434.892	454.964	462.684
<b>167.5</b>	411.217	415.335	430.775	444.671	450.332
<b>170.0</b>	414.820	417.908	427.687	436.436	439.524
<b>172.5</b>	417.393	419.452	425.113	429.745	431.804
<b>175.0</b>	419.967	420.481	422.540	424.599	426.143
<b>177.5</b>	420.996	420.996	421.511	422.025	422.025
<b>180.0</b>	421.511	421.511	421.511	421.511	421.511

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Zone	Lumens	%Lamp	%Fixt
0-20	365.40	N.A.	7.10
0-30	790.11	N.A.	15.40
0-40	1310.26	N.A.	25.50
0-60	2319.35	N.A.	45.10
0-80	2870.25	N.A.	55.80
0-90	2927.26	N.A.	56.90
10-90	2834.61	N.A.	55.10
20-40	944.85	N.A.	18.40
20-50	1480.74	N.A.	28.80
40-70	1360.04	N.A.	26.50
60-80	550.90	N.A.	10.70
70-80	199.96	N.A.	3.90
80-90	57.01	N.A.	1.10
90-110	299.27	N.A.	5.80
90-120	712.88	N.A.	13.90
90-130	1151.42	N.A.	22.40
90-150	1839.42	N.A.	35.80
90-180	2214.13	N.A.	43.10
110-180	1914.87	N.A.	37.20
0-180	5141.39	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	92.65
10-20	272.75
20-30	424.71
30-40	520.14
40-50	535.89
50-60	473.21
60-70	350.94
70-80	199.96
80-90	57.01
90-100	49.87
100-110	249.40
110-120	413.61
120-130	438.54
130-140	386.98
140-150	301.02
150-160	210.75
160-170	123.47
170-180	40.50

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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

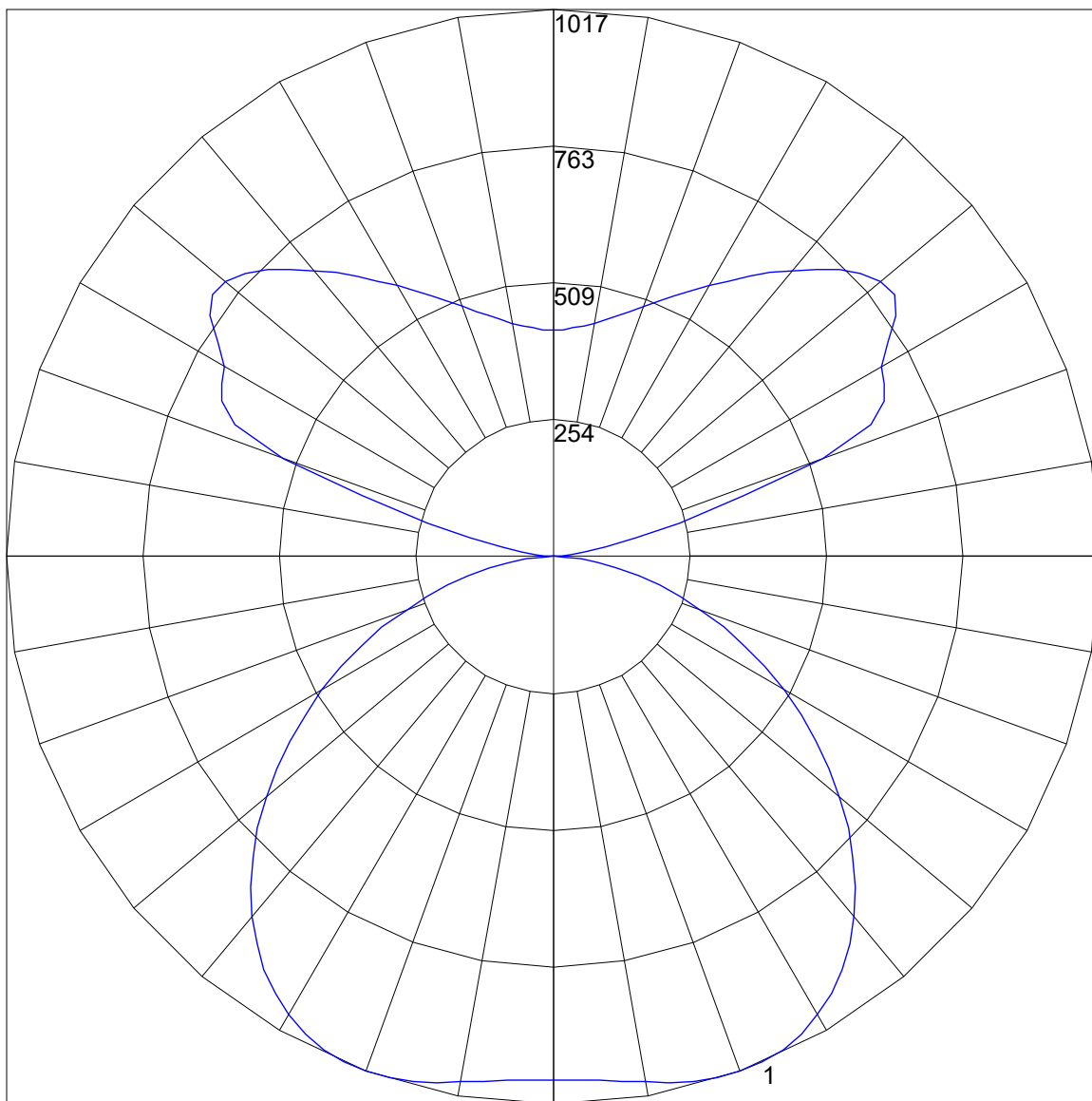
Effective Floor Cavity Reflectance 0.20

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	109	109	109	109	101	101	101	101	87	87	87	74	74	74	62	62	62	57
1	99	95	91	87	92	88	85	82	76	74	71	65	63	62	55	54	52	48
2	90	83	76	71	84	77	72	67	67	62	59	57	54	51	48	46	44	40
3	82	72	65	59	76	68	61	56	59	53	49	50	46	43	43	40	37	33
4	75	64	56	50	70	60	53	47	52	46	42	45	40	37	38	35	32	28
5	69	57	49	42	64	53	46	40	46	41	36	40	35	32	34	30	28	25
6	63	51	43	37	59	48	40	35	42	36	31	36	31	28	31	27	24	21
7	59	46	38	32	54	43	36	31	38	32	28	33	28	24	28	24	21	19
8	54	42	34	28	50	39	32	27	34	29	24	30	25	22	26	22	19	17
9	51	38	30	25	47	36	29	24	32	26	22	28	23	20	24	20	17	15
10	47	35	28	23	44	33	26	22	29	23	20	25	21	18	22	18	16	14

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POLAR GRAPH



Maximum Candela = 1017.411 Located At Horizontal Angle = 90, Vertical Angle = 20  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)