

# 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-S-835-WSO-DSO-ITL89033-ITL92993.010.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL89033 and ITL92993.010 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-S-835-WSO-DSO

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 32.4 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 34.7 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]3754

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3754
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	116
Total Luminaire Watts	32.4
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)	0.32 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	3407	4481	4886
55	3136	4259	4562
65	2870	3886	4088
75	2580	3383	3462
85	2267	2658	2580

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-4-ID-4FT-B-S-835-WSO-DSO-ITL89033-ITL92993.010.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>	511.560	511.560	511.560	511.560	511.560
<b>2.5</b>	510.332	510.741	511.560	511.969	512.379
<b>5.0</b>	507.877	508.695	511.151	513.606	514.425
<b>7.5</b>	503.375	505.830	510.741	515.653	517.289
<b>10.0</b>	498.055	500.510	509.514	518.927	521.791
<b>12.5</b>	492.735	494.781	508.695	523.428	527.111
<b>15.0</b>	485.777	492.735	508.286	526.702	531.204
<b>17.5</b>	470.635	478.002	507.877	527.930	534.478
<b>20.0</b>	457.949	466.952	507.058	527.930	535.296
<b>22.5</b>	445.262	455.902	497.236	526.293	534.887
<b>25.0</b>	430.938	446.490	489.870	522.610	532.022
<b>27.5</b>	413.750	432.984	482.094	517.289	526.293
<b>30.0</b>	397.380	417.842	472.681	509.514	517.699
<b>32.5</b>	380.191	403.928	463.678	500.510	507.058
<b>35.0</b>	363.003	388.786	448.536	488.233	493.144
<b>37.5</b>	344.587	372.006	433.803	470.226	476.774
<b>40.0</b>	327.398	354.818	417.433	451.401	458.767
<b>42.5</b>	307.755	338.039	399.835	432.575	437.895
<b>45.0</b>	289.338	319.213	380.601	410.067	414.978
<b>47.5</b>	271.331	300.388	360.957	387.967	392.469
<b>50.0</b>	252.506	281.153	339.676	365.049	366.686
<b>52.5</b>	233.681	261.919	316.349	340.085	340.904
<b>55.0</b>	216.083	241.866	293.431	313.075	314.303
<b>57.5</b>	198.485	222.222	269.694	287.292	287.701
<b>60.0</b>	180.478	202.168	245.549	261.100	261.510
<b>62.5</b>	162.471	183.343	220.994	235.318	234.090
<b>65.0</b>	145.692	163.290	197.257	207.898	207.489
<b>67.5</b>	129.322	143.646	173.521	182.525	181.706
<b>70.0</b>	111.725	124.821	150.194	156.742	154.696
<b>72.5</b>	96.173	106.404	127.276	132.187	130.550
<b>75.0</b>	80.213	88.807	105.177	108.451	107.632
<b>77.5</b>	65.480	71.209	83.896	86.351	85.533
<b>80.0</b>	50.747	55.248	63.843	65.480	63.433
<b>82.5</b>	37.242	39.697	45.017	45.836	44.199
<b>85.0</b>	23.736	24.964	27.829	27.010	27.010
<b>87.5</b>	11.050	11.050	11.459	10.640	10.231
<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-S-835-WSO-DSO-ITL89033-ITL92993.010.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

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-4-ID-4FT-B-S-835-WSO-DSO-ITL89033-ITL92993.010.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	192.25	N.A.	5.10
0-30	415.71	N.A.	11.10
0-40	689.37	N.A.	18.40
0-60	1220.29	N.A.	32.50
0-80	1510.14	N.A.	40.20
0-90	1540.14	N.A.	41.00
10-90	1491.39	N.A.	39.70
20-40	497.12	N.A.	13.20
20-50	779.07	N.A.	20.80
40-70	715.56	N.A.	19.10
60-80	289.85	N.A.	7.70
70-80	105.20	N.A.	2.80
80-90	30.00	N.A.	0.80
90-110	299.27	N.A.	8.00
90-120	712.88	N.A.	19.00
90-130	1151.42	N.A.	30.70
90-150	1839.42	N.A.	49.00
90-180	2214.13	N.A.	59.00
110-180	1914.87	N.A.	51.00
0-180	3754.27	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	48.75
10-20	143.50
20-30	223.45
30-40	273.67
40-50	281.95
50-60	248.97
60-70	184.64
70-80	105.20
80-90	30.00
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

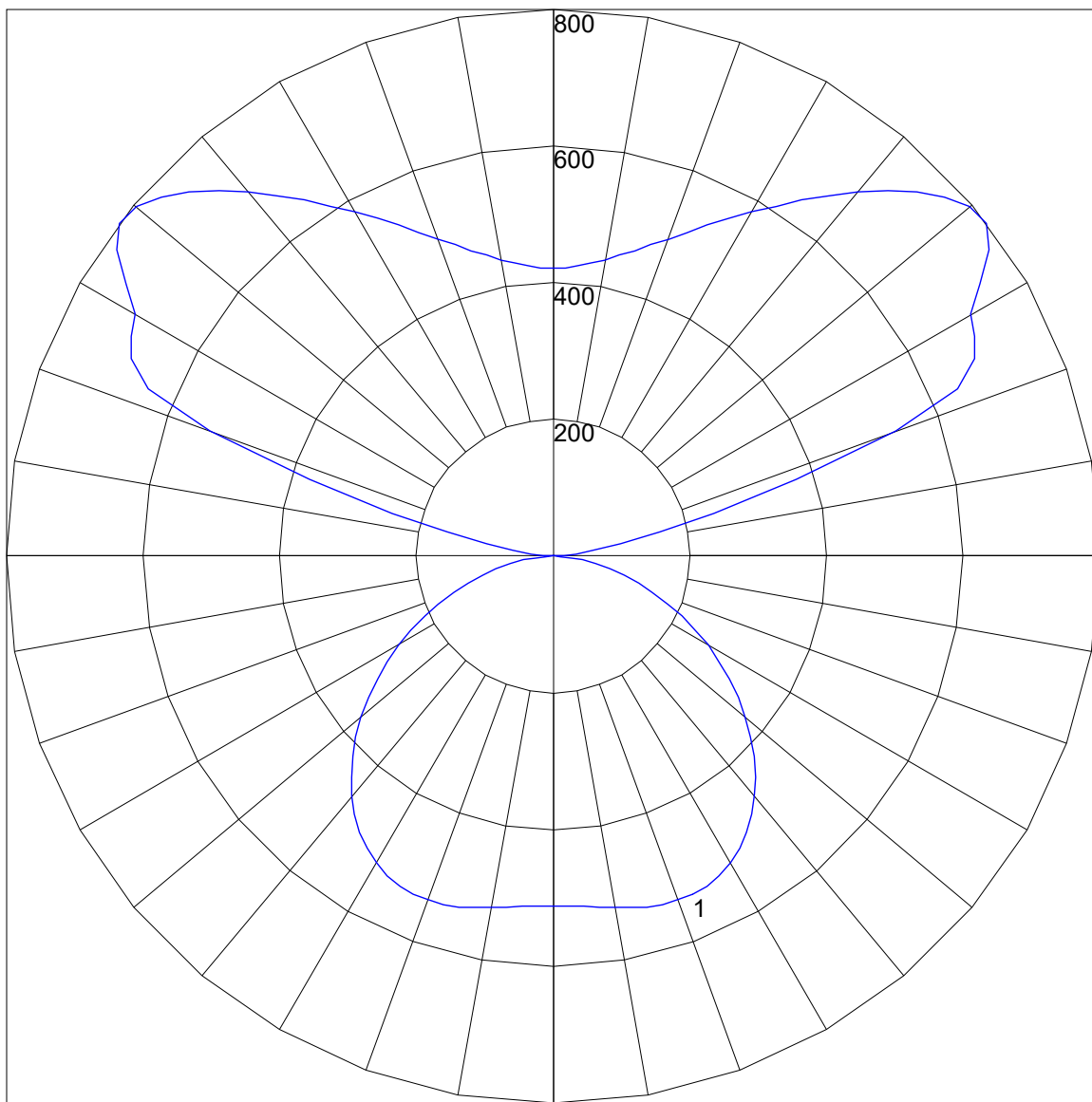
Effective Floor Cavity Reflectance 0.20

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	105	105	105	105	96	96	96	96	78	78	78	62	62	62	48	48	48	41
1	96	91	87	84	87	83	80	77	68	66	64	55	53	52	42	41	40	34
2	87	80	74	68	79	73	68	63	60	56	53	48	45	43	37	35	34	29
3	79	70	63	57	72	64	58	52	53	48	44	42	39	36	33	30	28	24
4	72	62	54	48	66	56	50	44	47	42	37	38	34	31	29	26	24	20
5	66	55	47	41	60	50	43	38	42	36	32	34	30	27	26	23	21	18
6	61	49	41	35	55	45	38	33	37	32	28	30	26	23	24	21	19	15
7	56	44	36	31	51	41	34	29	34	28	24	27	23	20	21	19	16	14
8	52	40	32	27	47	37	30	25	31	25	22	25	21	18	20	17	15	12
9	49	36	29	24	44	34	27	22	28	23	19	23	19	16	18	15	13	11
10	45	33	26	21	41	31	24	20	26	21	17	21	17	15	17	14	12	10

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## POLAR GRAPH



Maximum Candela = 799.789 Located At Horizontal Angle = 90, Vertical Angle = 127.5

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