

# 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-B-835-WSO-DSO-ITL89033-ITL92993.002.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL89033 and ITL92993.002 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-B-835-WSO-DSO

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 36.3 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 38.3 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]4151

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4151
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	114
Total Luminaire Watts	36.3
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	4285	5636	6146
55	3945	5357	5738
65	3610	4888	5141
75	3245	4255	4355
85	2852	3344	3245

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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	643.436	643.436	643.436	643.436	643.436
2.5	641.892	642.407	643.436	643.951	644.466
5.0	638.803	639.833	642.922	646.010	647.039
7.5	633.141	636.230	642.407	648.584	650.643
10.0	626.449	629.538	640.862	652.702	656.305
12.5	619.758	622.332	639.833	658.364	662.997
15.0	611.007	619.758	639.318	662.482	668.144
17.5	591.961	601.227	638.803	664.026	672.262
20.0	576.004	587.329	637.774	664.026	673.292
22.5	560.047	573.430	625.420	661.967	672.777
25.0	542.031	561.591	616.154	657.335	669.174
27.5	520.411	544.604	606.374	650.643	661.967
30.0	499.821	525.559	594.535	640.862	651.158
32.5	478.202	508.057	583.211	629.538	637.774
35.0	456.582	489.012	564.165	614.096	620.273
37.5	433.419	467.907	545.634	591.447	599.683
40.0	411.799	446.287	525.044	567.768	577.034
42.5	387.091	425.183	502.910	544.090	550.781
45.0	363.928	401.504	478.717	515.779	521.956
47.5	341.279	377.826	454.009	487.982	493.644
50.0	317.600	353.633	427.242	459.156	461.215
52.5	293.922	329.439	397.901	427.756	428.786
55.0	271.788	304.217	369.075	393.783	395.327
57.5	249.653	279.509	339.220	361.354	361.869
60.0	227.004	254.286	308.849	328.410	328.925
62.5	204.355	230.608	277.964	295.981	294.436
65.0	183.251	205.385	248.109	261.493	260.978
67.5	162.661	180.677	218.254	229.578	228.549
70.0	140.526	156.998	188.913	197.149	194.575
72.5	120.966	133.835	160.087	166.264	164.205
75.0	100.891	111.701	132.291	136.409	135.379
77.5	82.360	89.566	105.523	108.612	107.582
80.0	63.829	69.491	80.301	82.360	79.786
82.5	46.842	49.931	56.622	57.652	55.593
85.0	29.855	31.400	35.003	33.973	33.973
87.5	13.898	13.898	14.413	13.383	12.869
90.0	0.000	0.000	0.000	0.000	0.000
92.5	8.235	14.411	15.440	15.440	15.440
95.0	23.160	41.173	42.203	32.939	32.939
97.5	40.658	69.994	108.080	67.421	58.672
100.0	61.245	95.728	171.383	126.608	99.330
102.5	85.949	116.829	253.215	196.087	159.546
105.0	108.594	139.474	316.004	303.138	242.922
107.5	131.754	162.119	344.826	443.641	373.132
110.0	153.885	183.221	358.721	560.470	534.222
112.5	176.530	203.807	375.191	608.849	640.758
115.0	198.146	223.365	402.983	623.774	680.902
117.5	215.645	241.378	425.113	630.979	695.827
120.0	231.599	258.877	439.524	659.286	706.635
122.5	245.495	275.860	448.788	694.283	740.088
125.0	258.877	290.786	455.478	713.326	779.203
127.5	271.228	304.167	460.625	713.840	799.789
130.0	281.522	316.004	464.743	701.488	796.187
132.5	292.330	327.327	468.345	684.505	777.144

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-4-ID-4FT-B-B-835-WSO-DSO-ITL89033-ITL92993.002.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-B-835-WSO-DSO-ITL89033-ITL92993.002.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	241.81	N.A.	5.80
0-30	522.87	N.A.	12.60
0-40	867.09	N.A.	20.90
0-60	1534.88	N.A.	37.00
0-80	1899.44	N.A.	45.80
0-90	1937.17	N.A.	46.70
10-90	1875.86	N.A.	45.20
20-40	625.28	N.A.	15.10
20-50	979.91	N.A.	23.60
40-70	900.03	N.A.	21.70
60-80	364.57	N.A.	8.80
70-80	132.33	N.A.	3.20
80-90	37.73	N.A.	0.90
90-110	299.27	N.A.	7.20
90-120	712.88	N.A.	17.20
90-130	1151.42	N.A.	27.70
90-150	1839.42	N.A.	44.30
90-180	2214.13	N.A.	53.30
110-180	1914.87	N.A.	46.10
0-180	4151.31	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	61.32
10-20	180.50
20-30	281.06
30-40	344.22
40-50	354.63
50-60	313.15
60-70	232.24
70-80	132.33
80-90	37.73
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

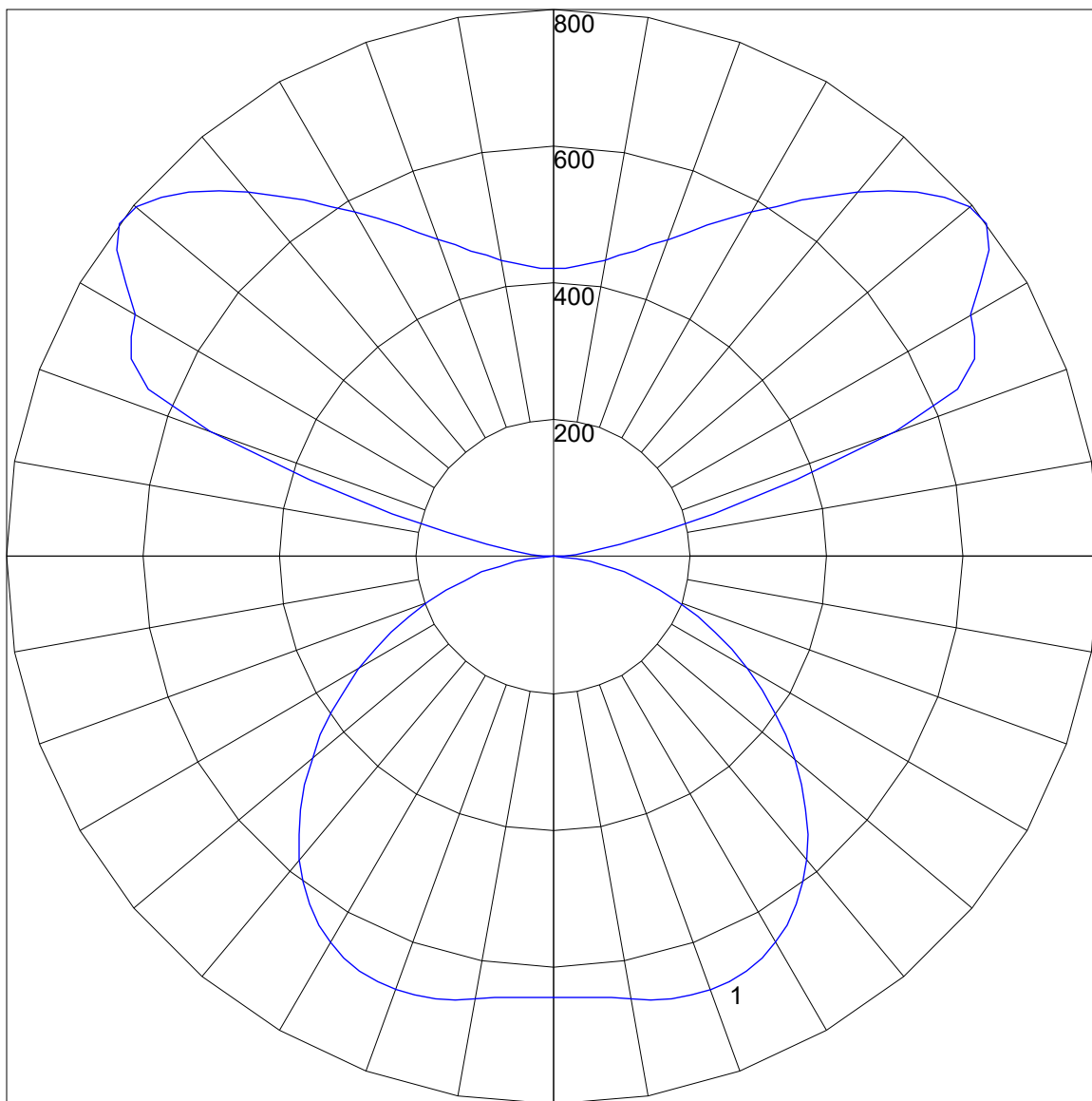
Effective Floor Cavity Reflectance 0.20

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	106	106	106	106	98	98	98	98	81	81	81	67	67	67	53	53	53	47
1	97	93	89	85	89	85	82	79	71	69	67	58	57	55	47	46	45	39
2	88	81	74	69	81	74	69	64	62	58	55	51	48	46	41	39	37	32
3	80	71	63	57	73	65	59	54	55	50	46	45	42	39	36	34	32	27
4	73	62	55	48	67	58	51	45	49	43	39	40	36	33	32	29	27	23
5	67	56	47	41	61	51	44	39	43	38	34	36	32	28	29	26	23	20
6	62	50	42	36	57	46	39	34	39	33	29	32	28	25	26	23	21	18
7	57	45	37	31	52	41	34	29	35	30	26	29	25	22	24	21	18	16
8	53	41	33	27	49	38	31	26	32	27	23	27	22	19	22	19	16	14
9	49	37	29	24	45	34	28	23	29	24	20	25	20	17	20	17	15	12
10	46	34	27	22	42	31	25	21	27	22	18	23	19	16	19	15	13	11

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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.)