

# 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-S-H-835-WSO-DSO-ITL89033-ITL92993.014.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL89033 and ITL92993.014 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-S-H-835-WSO-DSO

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 42.1 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 43.7 WATTS

[OTHER]see [www.finelite.com](http://www.finelite.com) for source files ITL89033 and ITL92293. 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]4688

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4688
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	111
Total Luminaire Watts	42.1
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	1.18
Spacing Criterion (90-270)	1.48
Spacing Criterion (Diagonal)	1.46
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

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-4-ID-4FT-S-H-835-WSO-DSO-ITL89033-ITL92993.014.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>	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>	6.550	11.463	12.281	12.281	12.281
<b>95.0</b>	18.422	32.750	33.569	26.200	26.200
<b>97.5</b>	32.341	55.675	85.969	53.628	46.669
<b>100.0</b>	48.716	76.144	136.322	100.707	79.010
<b>102.5</b>	68.366	92.928	201.413	155.972	126.907
<b>105.0</b>	86.378	110.941	251.357	241.123	193.226
<b>107.5</b>	104.800	128.953	274.282	352.882	296.798
<b>110.0</b>	122.403	145.738	285.335	445.810	424.932
<b>112.5</b>	140.416	162.113	298.435	484.292	509.673
<b>115.0</b>	157.610	177.669	320.541	496.164	541.604
<b>117.5</b>	171.529	191.997	338.145	501.895	553.476
<b>120.0</b>	184.219	205.916	349.607	524.411	562.073
<b>122.5</b>	195.272	219.425	356.976	552.248	588.683
<b>125.0</b>	205.916	231.297	362.298	567.395	619.795
<b>127.5</b>	215.741	241.941	366.392	567.804	636.170
<b>130.0</b>	223.929	251.357	369.666	557.980	633.305
<b>132.5</b>	232.526	260.363	372.532	544.470	618.158

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-4-ID-4FT-S-H-835-WSO-DSO-ITL89033-ITL92993.014.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	240.713	268.551	374.579	529.732	598.508
<b>137.5</b>	248.491	275.919	375.398	513.767	575.992
<b>140.0</b>	256.679	282.879	375.807	497.801	552.248
<b>142.5</b>	264.866	289.429	375.398	481.017	528.504
<b>145.0</b>	273.463	295.979	373.351	465.461	505.170
<b>147.5</b>	280.423	301.301	370.485	449.904	482.654
<b>150.0</b>	287.791	306.623	367.620	434.757	462.185
<b>152.5</b>	295.160	311.126	364.345	420.020	443.354
<b>155.0</b>	301.710	315.629	361.070	406.101	424.523
<b>157.5</b>	307.851	319.313	356.976	393.410	407.738
<b>160.0</b>	313.582	322.998	353.701	381.948	392.592
<b>162.5</b>	318.495	325.863	349.607	371.304	379.491
<b>165.0</b>	323.407	328.320	345.923	361.888	368.029
<b>167.5</b>	327.091	330.366	342.648	353.701	358.204
<b>170.0</b>	329.957	332.413	340.192	347.151	349.607
<b>172.5</b>	332.004	333.641	338.145	341.829	343.466
<b>175.0</b>	334.051	334.460	336.098	337.735	338.963
<b>177.5</b>	334.870	334.870	335.279	335.688	335.688
<b>180.0</b>	335.279	335.279	335.279	335.279	335.279

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-4-ID-4FT-S-H-835-WSO-DSO-ITL89033-ITL92993.014.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	365.40	N.A.	7.80
0-30	790.11	N.A.	16.90
0-40	1310.26	N.A.	27.90
0-60	2319.35	N.A.	49.50
0-80	2870.25	N.A.	61.20
0-90	2927.26	N.A.	62.40
10-90	2834.61	N.A.	60.50
20-40	944.85	N.A.	20.20
20-50	1480.74	N.A.	31.60
40-70	1360.04	N.A.	29.00
60-80	550.90	N.A.	11.80
70-80	199.96	N.A.	4.30
80-90	57.01	N.A.	1.20
90-110	238.04	N.A.	5.10
90-120	567.04	N.A.	12.10
90-130	915.86	N.A.	19.50
90-150	1463.12	N.A.	31.20
90-180	1761.17	N.A.	37.60
110-180	1523.13	N.A.	32.50
0-180	4688.43	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	39.67
100-110	198.38
110-120	329.00
120-130	348.82
130-140	307.81
140-150	239.44
150-160	167.63
160-170	98.21
170-180	32.21

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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

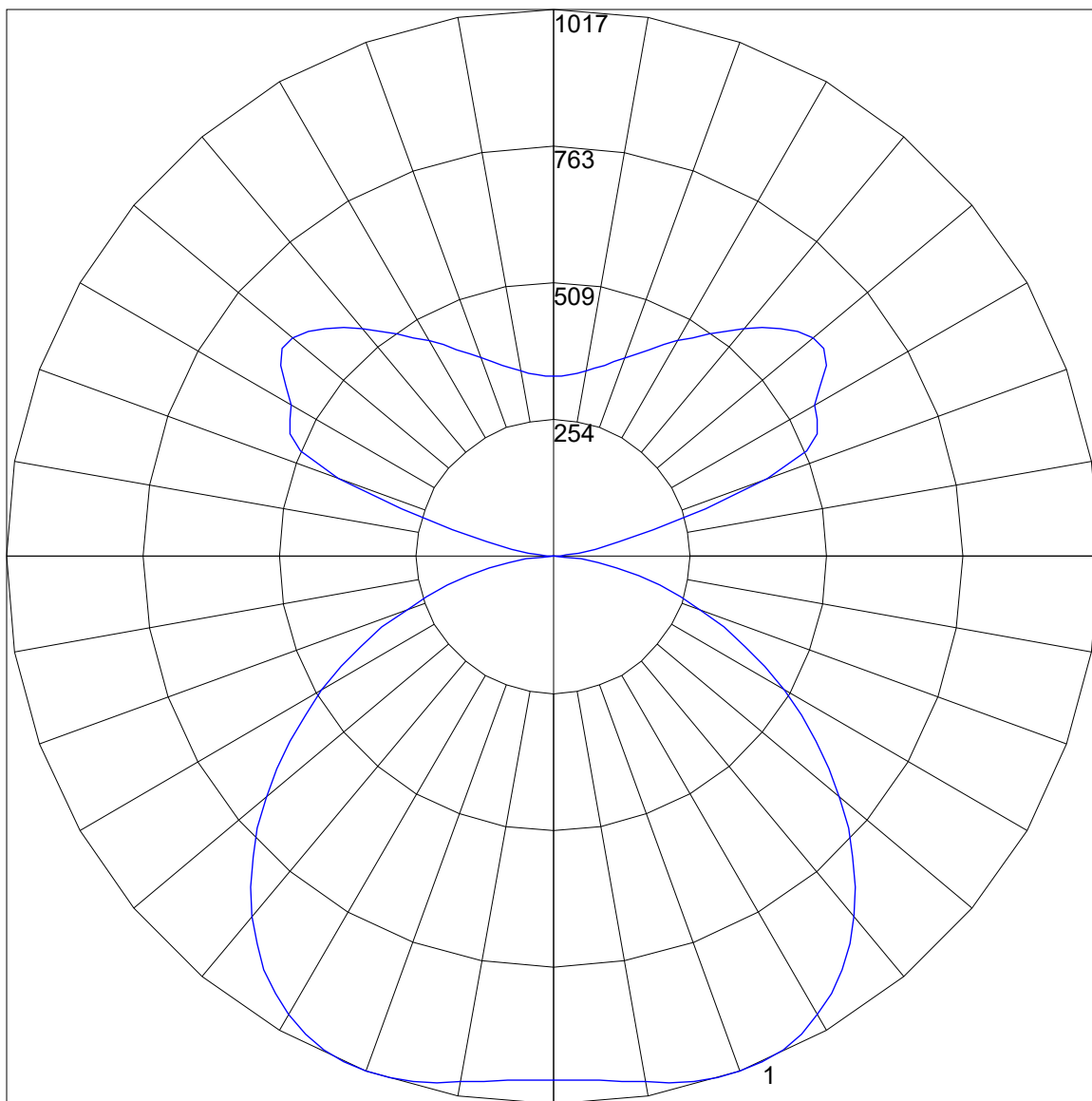
Effective Floor Cavity Reflectance 0.20

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	110	110	110	110	103	103	103	103	90	90	90	78	78	78	68	68	68	62
1	100	96	92	88	94	90	86	83	79	76	74	69	67	65	59	58	57	52
2	91	84	77	72	85	79	73	68	69	65	61	60	57	54	52	50	47	43
3	83	73	66	60	78	69	62	57	61	55	51	53	49	46	46	43	40	37
4	76	65	57	50	71	61	54	48	54	48	43	47	43	39	41	37	34	31
5	70	58	49	43	65	54	47	41	48	42	37	42	37	34	37	33	30	27
6	64	52	43	37	60	49	41	36	43	37	32	38	33	29	33	29	26	24
7	59	47	38	33	55	44	37	31	39	33	29	35	30	26	30	26	23	21
8	55	42	34	29	52	40	33	28	36	30	25	32	27	23	28	24	21	18
9	51	39	31	26	48	37	30	25	33	27	23	29	24	21	26	22	19	17
10	48	36	28	23	45	34	27	22	30	24	20	27	22	19	24	20	17	15

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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.)