

# 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-F-DAO-ITL85125-ITL94331.011.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL85125-ITL94331.011 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]08/06/15

[ISSUEDATE]08/26/2021

[MANUFAC]FINELITE, INC.

[LUMCAT]HP-4-ID-4ft-B-H-835-F-DAO

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 46.9 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 48.9 WATTS

[\_ABSOLUTE]LUMENS]5172

[\_CONVERT] Photometric web converted from original test data

[OTHER]see [www.finelite.com](http://www.finelite.com) for source files ITL85125 and ITL94331. 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)

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5172
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	110
Total Luminaire Watts	46.9
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	9332	9634	7986
55	8016	8569	7101
65	6711	7294	6190
75	5404	5980	5354
85	4235	4607	4681

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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>	<u>112.5</u>	<u>135.0</u>	<u>157.5</u>	<u>180.0</u>
0.0	1207.155	1207.155	1207.155	1207.155	1207.155	1207.155	1207.155	1207.155	1207.155
2.5	1232.045	1230.489	1224.267	1215.711	1206.377	1195.488	1187.710	1181.487	1179.154
5.0	1251.490	1248.379	1237.489	1220.378	1200.155	1180.709	1162.042	1151.931	1148.042
7.5	1266.268	1260.823	1246.045	1220.378	1190.043	1159.709	1134.041	1120.041	1114.596
10.0	1276.380	1271.713	1249.156	1215.711	1177.598	1136.375	1106.040	1086.595	1077.261
12.5	1279.491	1275.602	1249.156	1206.377	1162.820	1109.929	1075.706	1051.594	1041.482
15.0	1276.380	1271.713	1243.712	1192.377	1141.819	1080.373	1043.038	1015.815	1004.925
17.5	1266.268	1262.379	1233.600	1176.043	1117.707	1049.260	1005.703	980.036	966.813
20.0	1249.156	1246.823	1218.044	1152.708	1091.262	1014.259	969.146	942.701	931.034
22.5	1225.822	1223.489	1197.043	1128.597	1063.261	977.702	934.145	905.366	896.810
25.0	1196.266	1195.488	1171.376	1100.595	1029.037	941.145	896.810	870.365	863.365
27.5	1161.264	1161.264	1139.486	1067.928	993.258	903.033	857.142	836.141	827.586
30.0	1120.818	1123.152	1103.707	1032.149	953.590	861.809	821.363	801.140	795.696
32.5	1075.706	1078.817	1064.039	994.814	912.366	822.141	783.251	766.139	763.805
35.0	1022.815	1030.593	1022.037	952.035	868.031	780.139	746.694	733.471	730.360
37.5	971.480	980.813	973.035	906.922	821.363	738.916	708.581	700.803	700.025
40.0	913.922	927.145	924.034	860.253	776.250	696.136	670.469	665.802	669.691
42.5	857.142	866.476	873.476	812.807	729.582	654.913	633.912	633.912	637.023
45.0	792.584	808.140	818.252	759.139	678.247	612.133	597.355	602.022	605.911
47.5	733.471	750.583	762.250	708.581	631.578	571.687	558.465	568.576	576.354
50.0	673.580	688.358	704.692	658.024	582.577	531.242	522.686	535.131	543.686
52.5	614.467	627.689	647.912	603.577	534.353	486.907	486.129	500.907	511.019
55.0	552.242	570.132	590.355	549.909	489.240	448.016	449.572	467.461	479.129
57.5	496.240	511.019	532.797	499.351	442.572	407.570	413.015	434.016	445.683
60.0	438.683	456.572	478.351	449.572	399.014	369.458	375.680	396.681	409.126
62.5	388.125	400.570	424.682	398.237	357.013	331.345	341.457	362.458	374.902
65.0	340.679	351.568	370.236	350.013	314.234	296.344	304.122	327.456	339.123
67.5	290.899	300.233	319.678	304.900	273.788	259.787	270.676	292.455	300.233
70.0	248.898	255.898	273.010	260.565	237.231	224.786	235.675	255.898	264.454
72.5	205.341	213.119	228.675	217.786	201.452	191.340	203.007	219.341	228.675
75.0	168.006	174.229	185.896	178.895	166.450	160.228	169.562	185.118	192.896
77.5	133.783	137.672	147.005	143.116	133.783	129.116	138.449	150.117	154.783
80.0	101.115	104.226	111.226	110.448	102.670	100.337	107.337	117.449	120.560
82.5	71.558	72.336	77.781	77.003	74.669	73.114	77.781	84.003	87.114
85.0	44.335	44.335	48.224	48.224	49.002	46.668	49.780	52.113	54.446
87.5	17.112	18.667	20.223	21.779	22.556	21.779	22.556	23.334	24.112
90.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
92.5	15.438	16.467	17.496	19.555	20.069	19.555	17.496	16.467	15.438
95.0	36.536	37.051	39.109	41.682	42.197	41.682	39.109	37.051	36.536
97.5	59.178	59.693	62.266	64.839	64.324	64.839	62.266	59.693	59.178
100.0	82.335	83.364	85.937	88.510	87.995	88.510	85.937	83.364	82.335
102.5	106.006	108.065	110.637	113.210	113.210	113.210	110.637	108.065	106.006
105.0	132.250	134.309	136.882	138.940	138.426	138.940	136.882	134.309	132.250
107.5	160.038	161.582	163.126	165.184	165.184	165.184	163.126	161.582	160.038
110.0	189.885	189.885	191.429	193.487	192.972	193.487	191.429	189.885	189.885
112.5	219.731	218.702	220.760	223.848	221.275	223.848	220.760	218.702	219.731
115.0	249.578	248.548	249.578	252.151	250.092	252.151	249.578	248.548	249.578
117.5	279.424	279.939	280.453	280.968	279.424	280.968	280.453	279.939	279.424
120.0	309.785	310.814	310.300	309.785	308.756	309.785	310.300	310.814	309.785
122.5	340.661	341.690	341.690	340.146	338.602	340.146	341.690	341.690	340.661
125.0	372.051	373.595	373.595	370.507	368.963	370.507	373.595	373.595	372.051
127.5	403.441	404.470	405.499	400.868	397.780	400.868	405.499	404.470	403.441
130.0	433.802	434.316	435.346	432.258	429.685	432.258	435.346	434.316	433.802
132.5	464.677	464.163	464.677	462.619	459.532	462.619	464.677	464.163	464.677

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-4-ID-4FT-B-H-835-F-DAO-ITL85125-ITL94331.011.IES****CANDELA TABULATION - (Cont.)**

135.0	495.553	492.980	494.524	492.980	489.378	492.980	494.524	492.980	495.553
137.5	525.399	521.283	523.856	521.797	518.195	521.797	523.856	521.283	525.399
140.0	555.246	550.615	553.702	551.644	547.527	551.644	553.702	550.615	555.246
142.5	582.519	578.917	582.519	579.432	575.830	579.432	582.519	578.917	582.519
145.0	611.851	605.676	609.793	606.705	603.103	606.705	609.793	605.676	611.851
147.5	638.095	631.920	636.037	632.949	629.347	632.949	636.037	631.920	638.095
150.0	663.825	657.135	661.252	658.164	655.077	658.164	661.252	657.135	663.825
152.5	686.467	681.321	685.438	681.836	679.263	681.836	685.438	681.321	686.467
155.0	708.595	703.449	707.051	703.963	701.390	703.963	707.051	703.449	708.595
157.5	730.207	725.062	728.149	725.062	723.003	725.062	728.149	725.062	730.207
160.0	748.733	744.616	747.704	744.616	743.072	744.616	747.704	744.616	748.733
162.5	766.229	761.598	765.200	762.112	761.083	762.112	765.200	761.598	766.229
165.0	780.638	777.035	779.094	777.550	777.035	777.550	779.094	777.035	780.638
167.5	793.502	790.415	791.959	790.929	790.929	790.929	791.959	790.415	793.502
170.0	804.309	802.250	803.280	802.250	802.250	802.250	803.280	802.250	804.309
172.5	812.028	812.028	811.513	811.513	811.513	811.513	811.513	812.028	812.028
175.0	818.203	818.203	818.203	817.688	818.203	817.688	818.203	818.203	818.203
177.5	821.805	822.320	822.320	822.320	822.320	822.320	822.320	822.320	821.805
180.0	823.349	823.349	823.349	823.349	823.349	823.349	823.349	823.349	823.349

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-4-ID-4FT-B-H-835-F-DAO-ITL85125-ITL94331.011.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	435.32	N.A.	8.40
0-30	908.93	N.A.	17.60
0-40	1456.55	N.A.	28.20
0-60	2450.71	N.A.	47.40
0-80	2965.95	N.A.	57.30
0-90	3020.62	N.A.	58.40
10-90	2906.8	N.A.	56.20
20-40	1021.24	N.A.	19.70
20-50	1559.09	N.A.	30.10
40-70	1323.22	N.A.	25.60
60-80	515.24	N.A.	10.00
70-80	186.18	N.A.	3.60
80-90	54.67	N.A.	1.10
90-110	188.77	N.A.	3.70
90-120	436.67	N.A.	8.40
90-130	769.23	N.A.	14.90
90-150	1529.44	N.A.	29.60
90-180	2151.12	N.A.	41.60
110-180	1962.35	N.A.	37.90
0-180	5171.74	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	113.82
10-20	321.50
20-30	473.61
30-40	547.63
40-50	537.85
50-60	456.31
60-70	329.06
70-80	186.18
80-90	54.67
90-100	44.11
100-110	144.66
110-120	247.90
120-130	332.56
130-140	380.45
140-150	379.77
150-160	324.72
160-170	219.35
170-180	77.61

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : HP-4-ID-4FT-B-H-835-F-DAO-ITL85125-ITL94331.011.IES

## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

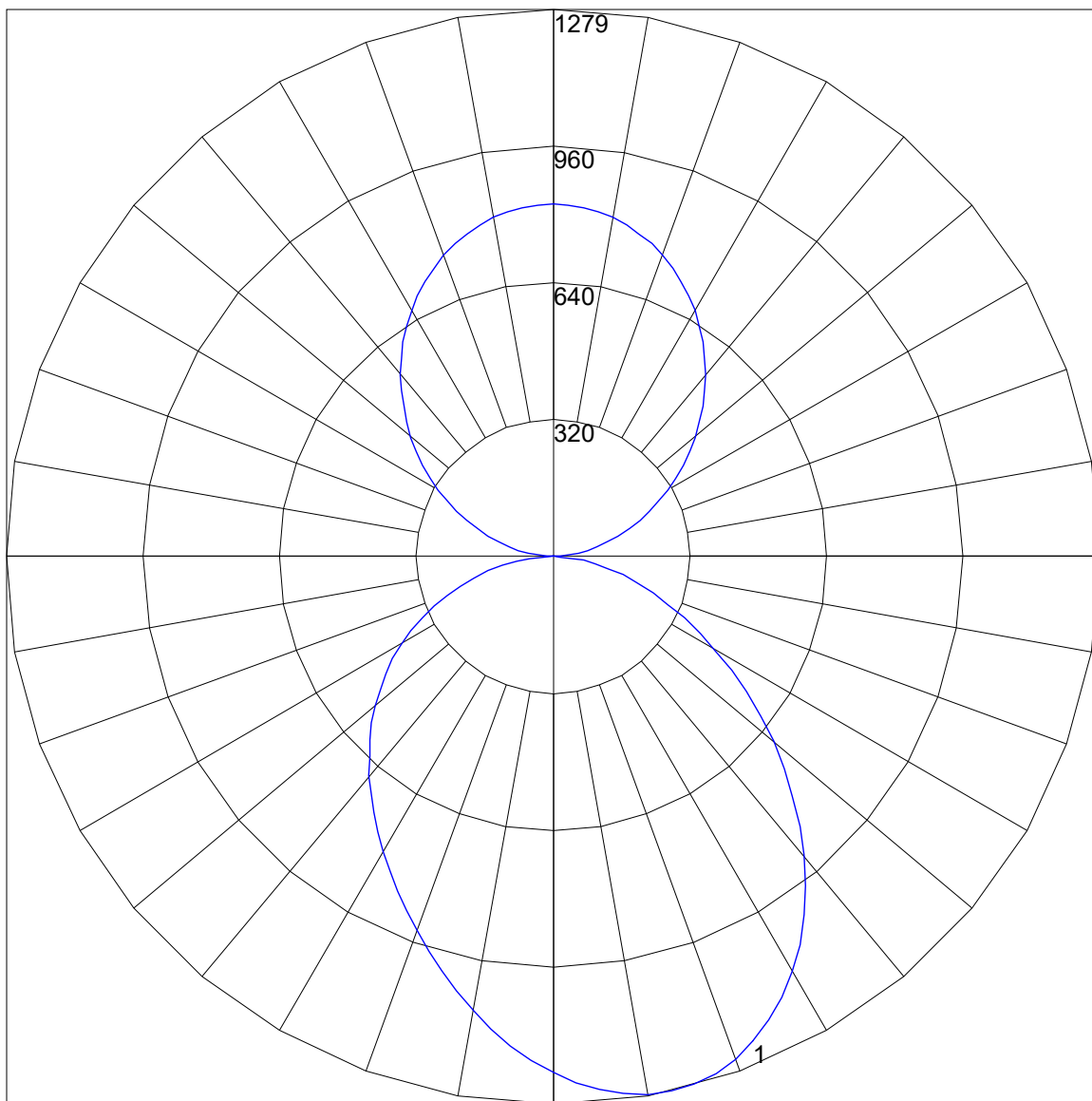
Effective Floor Cavity Reflectance 0.20

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	102	102	102	102	88	88	88	75	75	75	64	64	64	58
1	100	95	91	88	93	89	86	83	77	75	73	67	65	63	57	55	54	49
2	91	83	77	72	85	78	73	68	68	64	60	59	55	53	50	48	46	41
3	83	73	66	60	77	69	62	57	60	55	51	52	48	45	44	41	39	35
4	76	65	57	51	71	61	54	48	53	48	43	46	42	38	40	36	34	30
5	70	58	50	44	65	55	47	42	48	42	38	42	37	33	36	32	29	26
6	64	52	44	38	60	49	42	36	43	37	33	38	33	29	33	29	26	23
7	60	47	39	34	55	44	37	32	39	33	29	34	30	26	30	26	23	21
8	55	43	35	30	52	41	33	28	36	30	26	31	27	23	27	24	21	19
9	52	39	32	27	48	37	30	25	33	27	23	29	24	21	25	22	19	17
10	48	36	29	24	45	34	27	23	30	25	21	27	22	19	23	20	17	15

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POLAR GRAPH



Maximum Candela = 1279.491 Located At Horizontal Angle = 0, Vertical Angle = 12.5  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)