

# 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-F-DAO-ITL85125-ITL94331.014.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL85125-ITL94331.014 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]08/06/15

[ISSUEDATE]08/26/2021

[MANUFAC]FINELITE, INC.

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

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 42.9 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 45.2 WATTS

[ABSOLUTE LUMENS]4732

[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	4732
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	110
Total Luminaire Watts	42.9
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	1.34
Spacing Criterion (90-270)	1.18
Spacing Criterion (Diagonal)	1.30
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

**IES INDOOR REPORT**

**PHOTOMETRIC FILENAME : HP-4-ID-4FT-S-H-835-F-DAO-ITL85125-ITL94331.014.IES**

**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>
<b>0.0</b>	1207.155	1207.155	1207.155	1207.155	1207.155	1207.155	1207.155	1207.155	1207.155
<b>2.5</b>	1232.045	1230.489	1224.267	1215.711	1206.377	1195.488	1187.710	1181.487	1179.154
<b>5.0</b>	1251.490	1248.379	1237.489	1220.378	1200.155	1180.709	1162.042	1151.931	1148.042
<b>7.5</b>	1266.268	1260.823	1246.045	1220.378	1190.043	1159.709	1134.041	1120.041	1114.596
<b>10.0</b>	1276.380	1271.713	1249.156	1215.711	1177.598	1136.375	1106.040	1086.595	1077.261
<b>12.5</b>	1279.491	1275.602	1249.156	1206.377	1162.820	1109.929	1075.706	1051.594	1041.482
<b>15.0</b>	1276.380	1271.713	1243.712	1192.377	1141.819	1080.373	1043.038	1015.815	1004.925
<b>17.5</b>	1266.268	1262.379	1233.600	1176.043	1117.707	1049.260	1005.703	980.036	966.813
<b>20.0</b>	1249.156	1246.823	1218.044	1152.708	1091.262	1014.259	969.146	942.701	931.034
<b>22.5</b>	1225.822	1223.489	1197.043	1128.597	1063.261	977.702	934.145	905.366	896.810
<b>25.0</b>	1196.266	1195.488	1171.376	1100.595	1029.037	941.145	896.810	870.365	863.365
<b>27.5</b>	1161.264	1161.264	1139.486	1067.928	993.258	903.033	857.142	836.141	827.586
<b>30.0</b>	1120.818	1123.152	1103.707	1032.149	953.590	861.809	821.363	801.140	795.696
<b>32.5</b>	1075.706	1078.817	1064.039	994.814	912.366	822.141	783.251	766.139	763.805
<b>35.0</b>	1022.815	1030.593	1022.037	952.035	868.031	780.139	746.694	733.471	730.360
<b>37.5</b>	971.480	980.813	973.035	906.922	821.363	738.916	708.581	700.803	700.025
<b>40.0</b>	913.922	927.145	924.034	860.253	776.250	696.136	670.469	665.802	669.691
<b>42.5</b>	857.142	866.476	873.476	812.807	729.582	654.913	633.912	633.912	637.023
<b>45.0</b>	792.584	808.140	818.252	759.139	678.247	612.133	597.355	602.022	605.911
<b>47.5</b>	733.471	750.583	762.250	708.581	631.578	571.687	558.465	568.576	576.354
<b>50.0</b>	673.580	688.358	704.692	658.024	582.577	531.242	522.686	535.131	543.686
<b>52.5</b>	614.467	627.689	647.912	603.577	534.353	486.907	486.129	500.907	511.019
<b>55.0</b>	552.242	570.132	590.355	549.909	489.240	448.016	449.572	467.461	479.129
<b>57.5</b>	496.240	511.019	532.797	499.351	442.572	407.570	413.015	434.016	445.683
<b>60.0</b>	438.683	456.572	478.351	449.572	399.014	369.458	375.680	396.681	409.126
<b>62.5</b>	388.125	400.570	424.682	398.237	357.013	331.345	341.457	362.458	374.902
<b>65.0</b>	340.679	351.568	370.236	350.013	314.234	296.344	304.122	327.456	339.123
<b>67.5</b>	290.899	300.233	319.678	304.900	273.788	259.787	270.676	292.455	300.233
<b>70.0</b>	248.898	255.898	273.010	260.565	237.231	224.786	235.675	255.898	264.454
<b>72.5</b>	205.341	213.119	228.675	217.786	201.452	191.340	203.007	219.341	228.675
<b>75.0</b>	168.006	174.229	185.896	178.895	166.450	160.228	169.562	185.118	192.896
<b>77.5</b>	133.783	137.672	147.005	143.116	133.783	129.116	138.449	150.117	154.783
<b>80.0</b>	101.115	104.226	111.226	110.448	102.670	100.337	107.337	117.449	120.560
<b>82.5</b>	71.558	72.336	77.781	77.003	74.669	73.114	77.781	84.003	87.114
<b>85.0</b>	44.335	44.335	48.224	48.224	49.002	46.668	49.780	52.113	54.446
<b>87.5</b>	17.112	18.667	20.223	21.779	22.556	21.779	22.556	23.334	24.112
<b>90.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>92.5</b>	12.280	13.099	13.917	15.555	15.964	15.555	13.917	13.099	12.280
<b>95.0</b>	29.062	29.472	31.109	33.156	33.565	33.156	31.109	29.472	29.062
<b>97.5</b>	47.073	47.482	49.529	51.576	51.166	51.576	49.529	47.482	47.073
<b>100.0</b>	65.493	66.311	68.358	70.405	69.995	70.405	68.358	66.311	65.493
<b>102.5</b>	84.322	85.959	88.006	90.053	90.053	90.053	88.006	85.959	84.322
<b>105.0</b>	105.198	106.835	108.882	110.519	110.110	110.519	108.882	106.835	105.198
<b>107.5</b>	127.302	128.530	129.758	131.395	131.395	131.395	129.758	128.530	127.302
<b>110.0</b>	151.043	151.043	152.271	153.908	153.499	153.908	152.271	151.043	151.043
<b>112.5</b>	174.784	173.965	175.603	178.059	176.012	178.059	175.603	173.965	174.784
<b>115.0</b>	198.525	197.706	198.525	200.572	198.934	200.572	198.525	197.706	198.525
<b>117.5</b>	222.266	222.676	223.085	223.494	222.266	223.494	223.085	222.676	222.266
<b>120.0</b>	246.417	247.235	246.826	246.417	245.598	246.417	246.826	247.235	246.417
<b>122.5</b>	270.976	271.795	271.795	270.567	269.339	270.567	271.795	271.795	270.976
<b>125.0</b>	295.946	297.174	297.174	294.718	293.490	294.718	297.174	297.174	295.946
<b>127.5</b>	320.915	321.733	322.552	318.868	316.412	318.868	322.552	321.733	320.915
<b>130.0</b>	345.065	345.475	346.293	343.837	341.791	343.837	346.293	345.475	345.065
<b>132.5</b>	369.625	369.216	369.625	367.988	365.532	367.988	369.625	369.216	369.625

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-4-ID-4FT-S-H-835-F-DAO-ITL85125-ITL94331.014.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	394.185	392.138	393.366	392.138	389.273	392.138	393.366	392.138	394.185
<b>137.5</b>	417.926	414.651	416.698	415.061	412.195	415.061	416.698	414.651	417.926
<b>140.0</b>	441.667	437.983	440.439	438.802	435.527	438.802	440.439	437.983	441.667
<b>142.5</b>	463.362	460.496	463.362	460.906	458.040	460.906	463.362	460.496	463.362
<b>145.0</b>	486.693	481.781	485.056	482.600	479.735	482.600	485.056	481.781	486.693
<b>147.5</b>	507.569	502.657	505.932	503.476	500.611	503.476	505.932	502.657	507.569
<b>150.0</b>	528.036	522.714	525.989	523.533	521.077	523.533	525.989	522.714	528.036
<b>152.5</b>	546.046	541.953	545.228	542.362	540.316	542.362	545.228	541.953	546.046
<b>155.0</b>	563.647	559.554	562.419	559.963	557.917	559.963	562.419	559.554	563.647
<b>157.5</b>	580.839	576.746	579.202	576.746	575.109	576.746	579.202	576.746	580.839
<b>160.0</b>	595.575	592.301	594.756	592.301	591.073	592.301	594.756	592.301	595.575
<b>162.5</b>	609.492	605.808	608.674	606.218	605.399	606.218	608.674	605.808	609.492
<b>165.0</b>	620.954	618.088	619.726	618.498	618.088	618.498	619.726	618.088	620.954
<b>167.5</b>	631.187	628.731	629.959	629.140	629.140	629.140	629.959	628.731	631.187
<b>170.0</b>	639.783	638.145	638.964	638.145	638.145	638.145	638.964	638.145	639.783
<b>172.5</b>	645.923	645.923	645.513	645.513	645.513	645.513	645.513	645.923	645.923
<b>175.0</b>	650.835	650.835	650.835	650.425	650.835	650.425	650.835	650.835	650.835
<b>177.5</b>	653.700	654.109	654.109	654.109	654.109	654.109	654.109	654.109	653.700
<b>180.0</b>	654.928	654.928	654.928	654.928	654.928	654.928	654.928	654.928	654.928

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-4-ID-4FT-S-H-835-F-DAO-ITL85125-ITL94331.014.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	435.32	N.A.	9.20
0-30	908.93	N.A.	19.20
0-40	1456.55	N.A.	30.80
0-60	2450.71	N.A.	51.80
0-80	2965.95	N.A.	62.70
0-90	3020.62	N.A.	63.80
10-90	2906.8	N.A.	61.40
20-40	1021.24	N.A.	21.60
20-50	1559.09	N.A.	32.90
40-70	1323.22	N.A.	28.00
60-80	515.24	N.A.	10.90
70-80	186.18	N.A.	3.90
80-90	54.67	N.A.	1.20
90-110	150.16	N.A.	3.20
90-120	347.35	N.A.	7.30
90-130	611.88	N.A.	12.90
90-150	1216.58	N.A.	25.70
90-180	1711.1	N.A.	36.20
110-180	1560.94	N.A.	33.00
0-180	4731.71	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	35.09
100-110	115.07
110-120	197.19
120-130	264.53
130-140	302.62
140-150	302.09
150-160	258.30
160-170	174.48
170-180	61.73

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : HP-4-ID-4FT-S-H-835-F-DAO-ITL85125-ITL94331.014.IES

## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

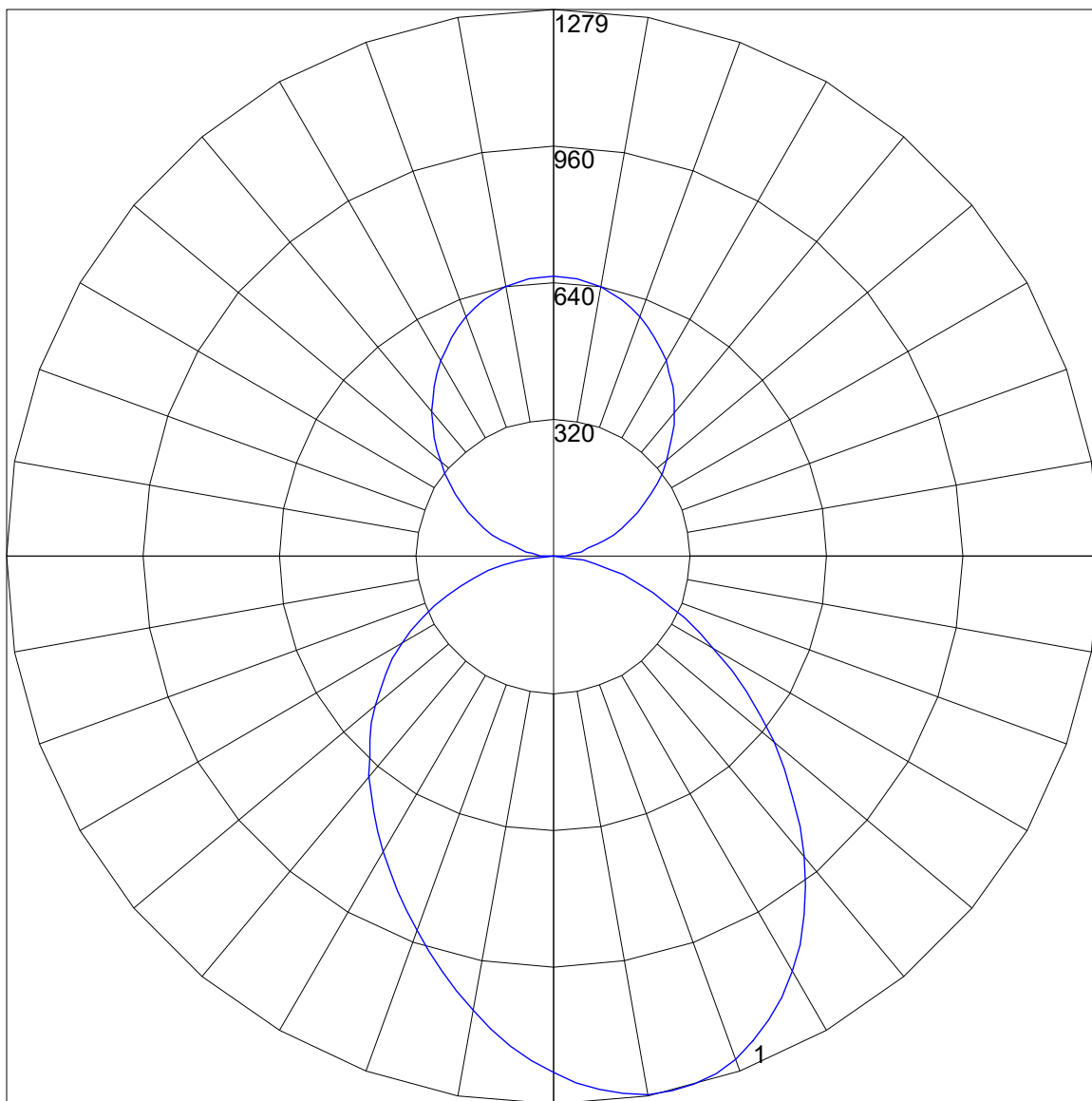
Effective Floor Cavity Reflectance 0.20

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	110	110	110	110	104	104	104	104	91	91	91	79	79	79	69	69	69	64
1	101	97	93	89	95	91	87	84	80	77	75	70	68	66	61	60	58	54
2	92	84	78	73	86	80	74	69	70	66	62	62	58	56	54	51	49	45
3	84	74	67	61	79	70	63	58	62	57	53	55	51	47	48	45	42	39
4	77	66	58	52	72	62	55	49	55	50	45	49	44	41	43	39	36	33
5	71	59	51	45	66	56	48	43	50	44	39	44	39	35	39	35	32	29
6	65	53	45	39	61	50	43	37	45	39	34	40	35	31	35	31	28	25
7	60	48	40	34	57	45	38	33	41	35	30	36	31	28	32	28	25	23
8	56	44	36	30	53	41	34	29	37	31	27	33	28	25	30	25	22	20
9	52	40	32	27	49	38	31	26	34	28	24	31	26	22	27	23	20	18
10	49	37	29	25	46	35	28	24	32	26	22	28	24	20	25	21	19	17

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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.)