

# 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-P-D-4FT-B-H-835-ASY-DAO-ITL89988-ITL94331.611.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL89988-ITL94331.611 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[ISSUEDATE]01/11/21

[\_REVISED]08/25/2021

[MANUFAC]FINELITE, INC.

[LUMCAT]HP-4-P-D-4ft-B-H-835-ASY-DAO

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 46.9 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 48.9 WATTS

[OTHER]see [www.finelite.com](http://www.finelite.com) for source files ITL89988 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)

[\_ABSOLUTE LUMENS]5304

[\_CONVERT] Photometric web converted from original test data

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5304
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	113
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)	0.33 ft
Luminous Width (90-270)	4.00 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	9184	9481	7859
55	7889	8433	6989
65	6605	7178	6092
75	5319	5885	5269
85	4168	4533	4607

**IES INDOOR REPORT**

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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	1249.157	1215.711	1177.598	1136.374	1106.040	1086.595	1077.261
12.5	1279.491	1275.602	1249.157	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	1249.157	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	1120.819	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	763.806
35.0	1022.815	1030.593	1022.037	952.034	868.032	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	531.241	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	479.128
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	174.228	185.896	178.895	166.451	160.228	169.562	185.118	192.896
77.5	133.783	137.672	147.005	143.116	133.783	129.116	138.450	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	34.482	34.996	29.850	31.394	11.322	29.850	46.833	56.097	59.700
95.0	73.081	74.625	75.139	76.683	29.335	47.348	72.566	85.947	90.064
97.5	115.282	123.002	139.986	116.312	47.863	62.788	95.725	115.282	120.944
100.0	178.585	188.878	204.832	154.396	66.905	79.771	114.768	138.956	147.191
102.5	241.372	253.209	267.620	191.966	86.976	96.755	135.354	156.969	165.204
105.0	299.528	322.687	332.981	229.021	106.533	112.709	151.308	177.041	182.702
107.5	369.006	408.635	401.429	262.988	127.119	127.119	166.748	194.539	199.685
110.0	464.732	503.845	466.790	291.808	147.705	141.530	182.702	212.552	217.698
112.5	581.043	598.027	531.122	317.026	168.806	155.425	198.656	230.050	236.226
115.0	687.062	690.150	583.616	340.186	189.907	169.835	213.066	247.033	253.724
117.5	786.390	770.950	620.672	360.257	211.008	184.760	226.447	264.017	271.222
120.0	866.161	831.165	643.316	379.299	234.167	200.715	238.284	278.942	288.206
122.5	923.802	870.793	656.183	398.856	257.841	216.154	249.607	293.867	304.675
125.0	957.769	889.320	662.873	417.384	280.486	231.079	259.385	305.189	319.085
127.5	969.606	891.894	666.990	435.396	303.645	246.519	268.649	314.453	331.951
130.0	964.460	884.174	670.078	454.439	326.290	261.444	277.398	320.114	339.671
132.5	948.505	871.308	673.681	473.995	349.449	276.369	286.662	324.231	342.244

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-4-P-D-4FT-B-H-835-ASY-DAO-ITL89988-ITL94331.611.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	927.919	856.383	678.313	493.552	372.609	293.867	295.411	327.319	343.274
<b>137.5</b>	906.819	841.972	683.974	514.138	396.283	312.909	304.675	330.407	343.274
<b>140.0</b>	885.718	828.591	690.150	534.725	420.471	333.495	313.424	332.981	343.274
<b>142.5</b>	867.190	818.813	696.840	555.311	444.146	355.111	322.173	335.554	343.274
<b>145.0</b>	852.780	810.578	703.531	575.382	467.820	376.211	331.437	339.156	343.788
<b>147.5</b>	840.428	804.403	711.765	594.939	491.494	397.827	342.759	344.303	346.361
<b>150.0</b>	830.650	799.771	720.514	613.466	515.168	420.986	357.169	349.964	350.479
<b>152.5</b>	821.901	795.654	729.263	630.450	536.783	445.690	377.755	357.169	355.111
<b>155.0</b>	813.666	793.080	736.983	645.375	557.884	471.937	402.973	367.977	363.345
<b>157.5</b>	809.034	792.051	742.644	658.756	577.955	498.699	430.250	386.504	376.726
<b>160.0</b>	805.432	791.022	746.247	670.078	596.483	524.431	458.041	415.325	401.429
<b>162.5</b>	798.741	787.419	746.761	678.827	613.466	549.649	486.862	447.748	434.367
<b>165.0</b>	791.022	779.699	744.188	685.518	627.877	572.809	519.285	480.171	468.334
<b>167.5</b>	778.155	768.892	737.498	689.120	640.228	593.909	550.164	515.168	503.331
<b>170.0</b>	761.687	754.481	728.749	690.664	651.036	613.466	579.499	554.281	545.018
<b>172.5</b>	741.100	736.468	716.397	689.120	658.756	630.450	606.261	588.763	582.587
<b>175.0</b>	721.029	716.397	703.016	685.518	665.446	645.889	630.450	619.642	615.525
<b>177.5</b>	695.296	693.238	686.547	678.313	668.534	658.756	651.036	645.375	643.316
<b>180.0</b>	670.078	670.078	670.078	670.078	670.078	670.078	670.078	670.078	670.078

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-4-P-D-4FT-B-H-835-ASY-DAO-ITL89988-ITL94331.611.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	435.32	N.A.	8.20
0-30	908.93	N.A.	17.10
0-40	1456.55	N.A.	27.50
0-60	2450.71	N.A.	46.20
0-80	2965.95	N.A.	56.00
0-90	3020.62	N.A.	57.00
10-90	2906.8	N.A.	54.80
20-40	1021.24	N.A.	19.30
20-50	1559.09	N.A.	29.40
40-70	1323.22	N.A.	25.00
60-80	515.24	N.A.	9.70
70-80	186.18	N.A.	3.50
80-90	54.67	N.A.	1.00
90-110	297.21	N.A.	5.60
90-120	653.51	N.A.	12.30
90-130	1063.33	N.A.	20.10
90-150	1775.95	N.A.	33.50
90-180	2280.44	N.A.	43.00
110-180	1983.22	N.A.	37.40
0-180	5301.05	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	75.02
100-110	222.20
110-120	356.30
120-130	409.81
130-140	382.59
140-150	330.02
150-160	263.85
160-170	177.45
170-180	63.19

# IES INDOOR REPORT

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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

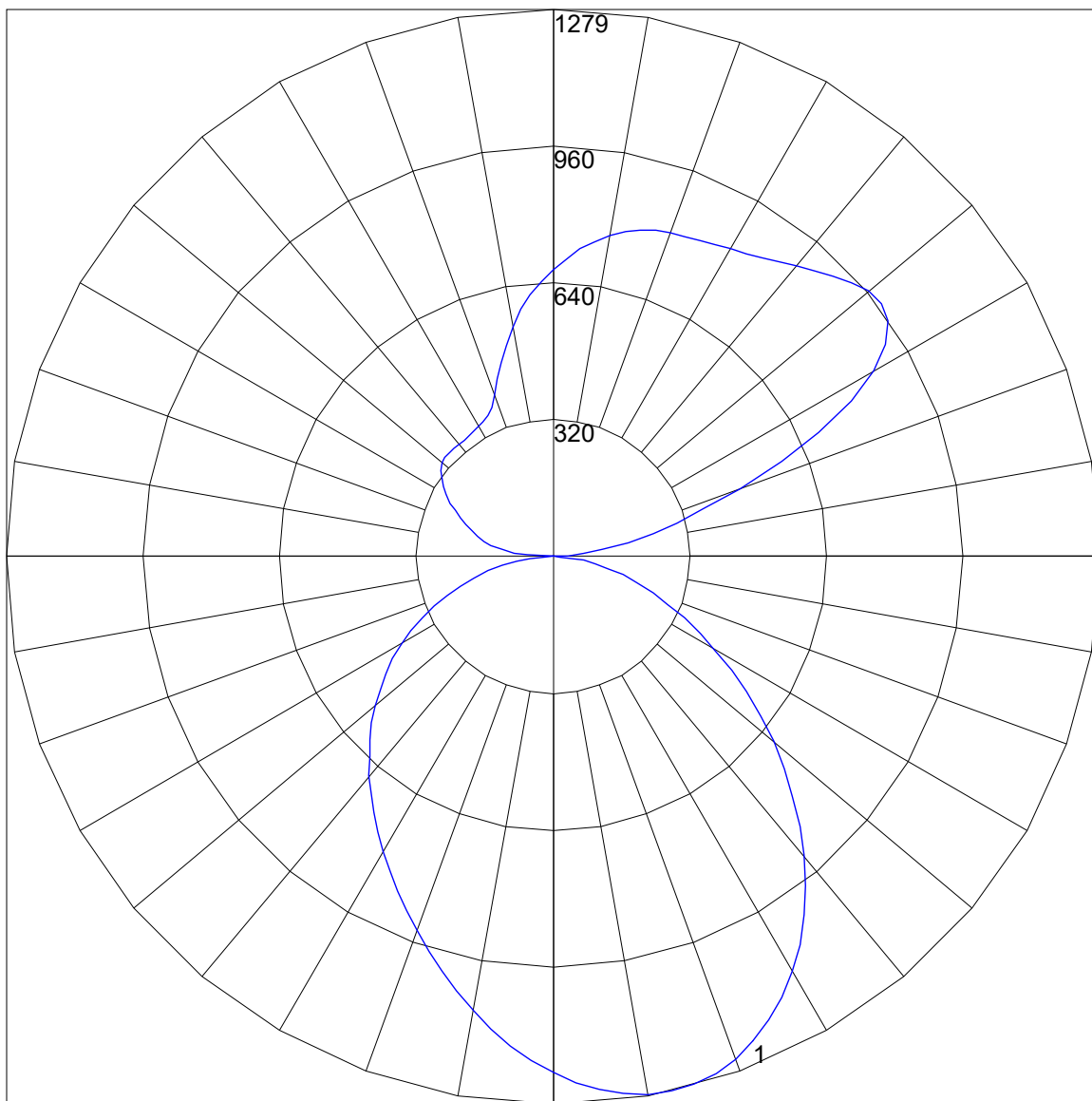
Effective Floor Cavity Reflectance 0.20

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	109	109	109	109	101	101	101	101	87	87	87	74	74	74	63	63	63	57
1	99	95	91	88	92	89	85	82	77	74	72	66	64	62	55	54	53	48
2	91	83	77	72	84	78	72	68	67	63	60	58	55	52	49	47	45	40
3	83	73	66	60	77	68	62	57	59	54	50	51	47	44	43	41	38	34
4	76	65	57	51	70	61	54	48	53	47	43	46	41	38	39	36	33	30
5	70	58	50	44	65	54	47	41	47	42	37	41	37	33	35	32	29	26
6	64	52	44	38	60	49	41	36	43	37	33	37	33	29	32	28	25	23
7	59	47	39	33	55	44	37	32	39	33	29	34	29	26	29	25	23	20
8	55	43	35	30	51	40	33	28	35	30	26	31	26	23	27	23	20	18
9	51	39	32	26	48	37	30	25	33	27	23	29	24	21	25	21	18	16
10	48	36	29	24	45	34	27	23	30	25	21	26	22	19	23	19	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.)