

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-DAO-ITL89033-ITL94331.014.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL89033-ITL94331.014 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]03/08/17

[ISSUEDATE]08/27/2021

[MANUFAC]FINELITE, INC.

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

[_INPUT_ELECTRICAL]120.0 VOLTS, 42.9 WATTS

[_INPUT_ELECTRICAL]277.0 VOLTS, 45.2 WATTS

[_ABSOLUTELUMENS]4782

[_CONVERT] Photometric web converted from original test data

[OTHER]see www.finelite.com for source files ITL89033 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

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4782
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	111
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

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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	6.550	11.462	12.280	12.280	12.280	12.280	12.280	11.462	6.550
95.0	18.420	32.748	33.566	26.198	26.198	26.198	33.566	32.748	18.420
97.5	32.338	55.671	85.962	53.624	46.665	53.624	85.962	55.671	32.338
100.0	48.712	76.138	136.312	100.699	79.003	100.699	136.312	76.138	48.712
102.5	68.360	92.921	201.397	155.960	126.897	155.960	201.397	92.921	68.360
105.0	86.372	110.932	251.337	241.104	193.210	241.104	251.337	110.932	86.372
107.5	104.792	128.943	274.260	352.855	296.774	352.855	274.260	128.943	104.792
110.0	122.394	145.726	285.313	445.776	424.899	445.776	285.313	145.726	122.394
112.5	140.405	162.100	298.412	484.254	509.633	484.254	298.412	162.100	140.405
115.0	157.597	177.655	320.516	496.125	541.562	496.125	320.516	177.655	157.597
117.5	171.515	191.982	338.118	501.856	553.433	501.856	338.118	191.982	171.515
120.0	184.205	205.900	349.580	524.370	562.029	524.370	349.580	205.900	184.205
122.5	195.257	219.408	356.948	552.205	588.637	552.205	356.948	219.408	195.257
125.0	205.900	231.279	362.269	567.351	619.747	567.351	362.269	231.279	205.900
127.5	215.724	241.922	366.363	567.760	636.121	567.760	366.363	241.922	215.724
130.0	223.911	251.337	369.638	557.936	633.255	557.936	369.638	251.337	223.911
132.5	232.507	260.343	372.503	544.427	618.109	544.427	372.503	260.343	232.507

IES INDOOR REPORT**PHOTOMETRIC FILENAME : HP-4-ID-4FT-S-H-835-WSO-DAO-ITL89033-ITL94331.014.IES****CANDELA TABULATION - (Cont.)**

135.0	240.694	268.530	374.550	529.691	598.461	529.691	374.550	268.530	240.694
137.5	248.472	275.898	375.368	513.727	575.947	513.727	375.368	275.898	248.472
140.0	256.659	282.857	375.778	497.762	552.205	497.762	375.778	282.857	256.659
142.5	264.846	289.406	375.368	480.979	528.463	480.979	375.368	289.406	264.846
145.0	273.442	295.956	373.322	465.424	505.130	465.424	373.322	295.956	273.442
147.5	280.401	301.277	370.456	449.869	482.617	449.869	370.456	301.277	280.401
150.0	287.769	306.599	367.591	434.723	462.149	434.723	367.591	306.599	287.769
152.5	295.137	311.101	364.316	419.987	443.320	419.987	364.316	311.101	295.137
155.0	301.687	315.604	361.041	406.069	424.490	406.069	361.041	315.604	301.687
157.5	307.827	319.288	356.948	393.380	407.707	393.380	356.948	319.288	307.827
160.0	313.557	322.972	353.673	381.918	392.561	381.918	353.673	322.972	313.557
162.5	318.470	325.838	349.580	371.275	379.462	371.275	349.580	325.838	318.470
165.0	323.382	328.294	345.896	361.860	368.000	361.860	345.896	328.294	323.382
167.5	327.066	330.341	342.621	353.673	358.176	353.673	342.621	330.341	327.066
170.0	329.931	332.387	340.165	347.124	349.580	347.124	340.165	332.387	329.931
172.5	331.978	333.615	338.118	341.802	343.440	341.802	338.118	333.615	331.978
175.0	334.025	334.434	336.071	337.709	338.937	337.709	336.071	334.434	334.025
177.5	334.843	334.843	335.253	335.662	335.662	335.662	335.253	334.843	334.843
180.0	335.253	335.253	335.253	335.253	335.253	335.253	335.253	335.253	335.253

IES INDOOR REPORT**PHOTOMETRIC FILENAME : HP-4-ID-4FT-S-H-835-WSO-DAO-ITL89033-ITL94331.014.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	435.32	N.A.	9.10
0-30	908.93	N.A.	19.00
0-40	1456.55	N.A.	30.50
0-60	2450.71	N.A.	51.30
0-80	2965.95	N.A.	62.00
0-90	3020.62	N.A.	63.20
10-90	2906.8	N.A.	60.80
20-40	1021.24	N.A.	21.40
20-50	1559.09	N.A.	32.60
40-70	1323.22	N.A.	27.70
60-80	515.24	N.A.	10.80
70-80	186.18	N.A.	3.90
80-90	54.67	N.A.	1.10
90-110	238.03	N.A.	5.00
90-120	567.00	N.A.	11.90
90-130	915.79	N.A.	19.20
90-150	1463.00	N.A.	30.60
90-180	1761.03	N.A.	36.80
110-180	1523.01	N.A.	31.90
0-180	4781.65	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	39.66
100-110	198.36
110-120	328.97
120-130	348.80
130-140	307.79
140-150	239.42
150-160	167.62
160-170	98.20
170-180	32.21

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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

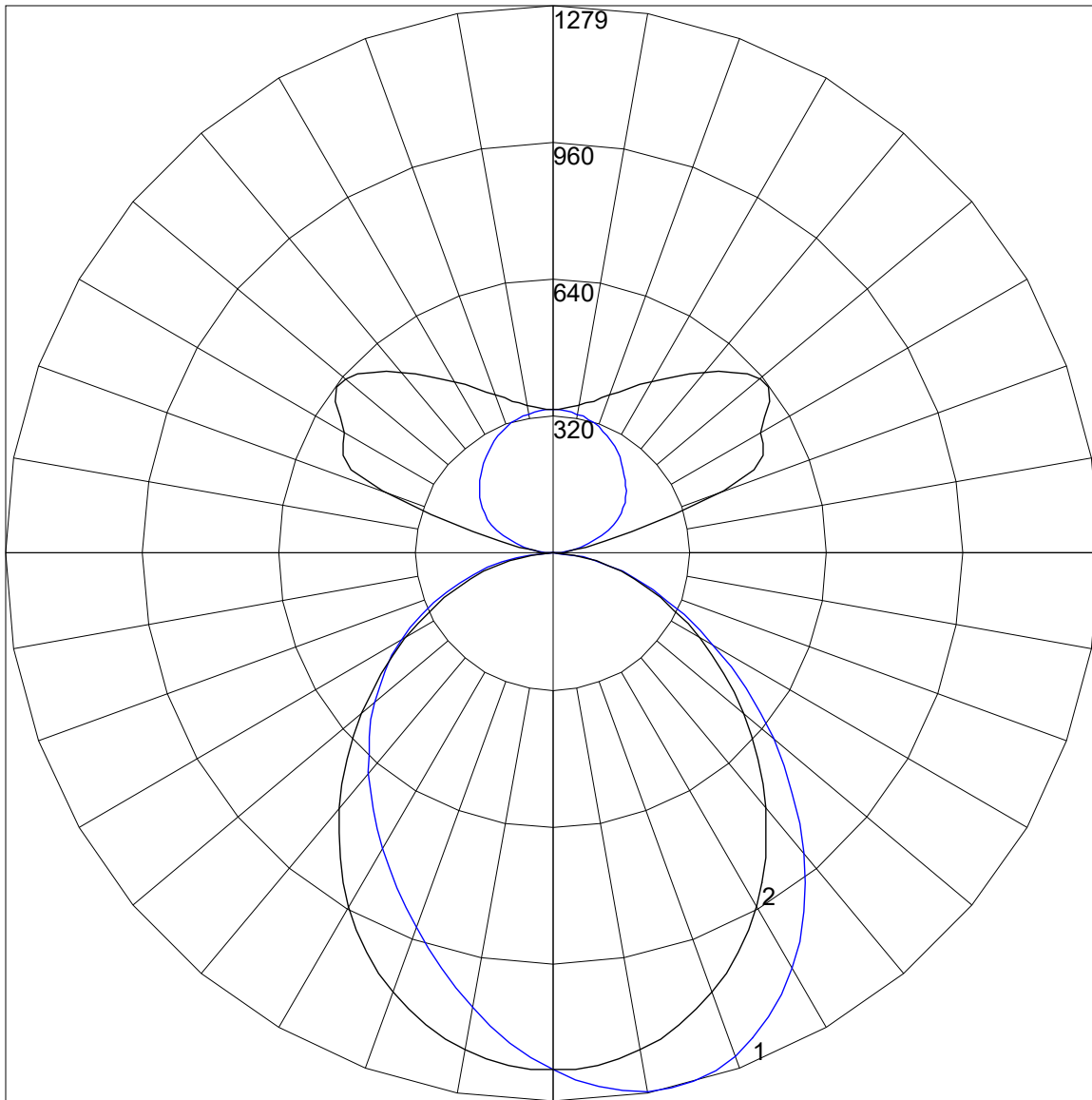
Effective Floor Cavity Reflectance 0.20

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	91	91	91	79	79	79	68	68	68	63
1	101	96	92	89	94	91	87	84	80	77	75	70	68	66	60	59	58	53
2	92	84	78	73	86	79	74	69	70	66	62	61	58	55	53	51	49	45
3	84	74	67	61	78	70	63	58	62	57	52	54	50	47	47	44	42	38
4	77	66	58	52	72	62	55	49	55	49	45	49	44	40	42	39	36	33
5	71	59	51	44	66	56	48	43	49	43	39	44	39	35	38	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	34	30	36	31	27	32	28	25	22
8	56	44	36	30	53	41	34	29	37	31	27	33	28	25	29	25	22	20
9	52	40	32	27	49	38	31	26	34	28	24	30	26	22	27	23	20	18
10	49	37	29	24	46	35	28	24	31	26	22	28	23	20	25	21	18	16

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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.)

2 - Vertical Plane Through Horizontal Angles (90 - 270)