

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-S-835-ASY-DAO-ITL89988-ITL94331.612.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL89988-ITL94331.612 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-S-835-ASY-DAO

[_INPUT_ELECTRICAL]120.0 VOLTS, 33.0 WATTS

[_INPUT_ELECTRICAL]277.0 VOLTS, 35.7 WATTS

[OTHER]see 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

[_ABSOLUTE LUMENS]3873

[_CONVERT] Photometric web converted from original test data

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3870
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	117
Total Luminaire Watts	33
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	4834	4990	4136
55	4152	4438	3678
65	3476	3778	3206
75	2799	3097	2773
85	2194	2386	2424

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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	635.345	635.345	635.345	635.345	635.345	635.345	635.345	635.345	635.345
2.5	648.445	647.626	644.351	639.848	634.936	629.205	625.111	621.836	620.608
5.0	658.680	657.042	651.311	642.305	631.661	621.427	611.602	606.280	604.233
7.5	666.458	663.592	655.814	642.305	626.339	610.374	596.864	589.496	586.630
10.0	671.779	669.323	657.451	639.848	619.789	598.092	582.127	571.893	566.980
12.5	673.417	671.370	657.451	634.936	612.011	584.174	566.162	553.471	548.149
15.0	671.779	669.323	654.586	627.567	600.958	568.618	548.968	534.640	528.909
17.5	666.458	664.411	649.264	618.971	588.268	552.243	529.318	515.809	508.849
20.0	657.451	656.223	641.077	606.689	574.349	533.821	510.077	496.159	490.018
22.5	645.170	643.942	630.024	593.999	559.611	514.581	491.656	476.509	472.006
25.0	629.614	629.205	616.514	579.261	541.599	495.340	472.006	458.087	454.403
27.5	611.192	611.192	599.730	562.068	522.768	475.281	451.128	440.075	435.572
30.0	589.905	591.133	580.899	543.237	501.890	453.584	432.297	421.653	418.788
32.5	566.162	567.799	560.021	523.587	480.193	432.706	412.238	403.231	402.003
35.0	538.324	542.418	537.915	501.071	456.859	410.600	392.997	386.038	384.400
37.5	511.306	516.218	512.124	477.328	432.297	388.903	372.938	368.844	368.435
40.0	481.012	487.971	486.334	452.765	408.553	366.388	352.879	350.422	352.469
42.5	451.128	456.040	459.725	427.794	383.991	344.691	333.638	333.638	335.276
45.0	417.150	425.337	430.659	399.547	356.972	322.176	314.398	316.854	318.901
47.5	386.038	395.044	401.185	372.938	332.410	300.888	293.929	299.251	303.345
50.0	354.516	362.294	370.891	346.329	306.620	279.601	275.098	281.648	286.151
52.5	323.404	330.363	341.007	317.673	281.239	256.267	255.857	263.636	268.957
55.0	290.654	300.070	310.713	289.426	257.495	235.798	236.617	246.033	252.173
57.5	261.179	268.957	280.420	262.817	232.933	214.511	217.376	228.430	234.570
60.0	230.886	240.301	251.764	236.617	210.008	194.452	197.727	208.780	215.330
62.5	204.277	210.827	223.517	209.599	187.902	174.393	179.714	190.767	197.317
65.0	179.305	185.036	194.861	184.217	165.386	155.971	160.065	172.346	178.486
67.5	153.105	158.018	168.252	160.474	144.099	136.730	142.462	153.924	158.018
70.0	130.999	134.683	143.690	137.140	124.859	118.308	124.040	134.683	139.186
72.5	108.074	112.168	120.355	114.624	106.027	100.706	106.846	115.443	120.355
75.0	88.424	91.699	97.840	94.156	87.606	84.331	89.243	97.430	101.524
77.5	70.412	72.459	77.371	75.324	70.412	67.956	72.868	79.009	81.465
80.0	53.218	54.856	58.540	58.131	54.037	52.809	56.493	61.815	63.453
82.5	37.662	38.072	40.937	40.528	39.300	38.481	40.937	44.212	45.850
85.0	23.334	23.334	25.381	25.381	25.790	24.562	26.200	27.428	28.656
87.5	9.006	9.825	10.644	11.462	11.872	11.462	11.872	12.281	12.691
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-S-835-ASY-DAO-ITL89988-ITL94331.612.IES****CANDELA TABULATION - (Cont.)**

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

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Zone	Lumens	%Lamp	%Fixt
0-20	229.11	N.A.	5.90
0-30	478.38	N.A.	12.40
0-40	766.61	N.A.	19.80
0-60	1289.85	N.A.	33.30
0-80	1561.03	N.A.	40.30
0-90	1589.8	N.A.	41.10
10-90	1529.89	N.A.	39.50
20-40	537.49	N.A.	13.90
20-50	820.57	N.A.	21.20
40-70	696.43	N.A.	18.00
60-80	271.18	N.A.	7.00
70-80	97.99	N.A.	2.50
80-90	28.77	N.A.	0.70
90-110	297.21	N.A.	7.70
90-120	653.51	N.A.	16.90
90-130	1063.33	N.A.	27.50
90-150	1775.95	N.A.	45.90
90-180	2280.44	N.A.	58.90
110-180	1983.22	N.A.	51.20
0-180	3870.24	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	59.91
10-20	169.21
20-30	249.27
30-40	288.23
40-50	283.08
50-60	240.16
60-70	173.19
70-80	97.99
80-90	28.77
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

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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

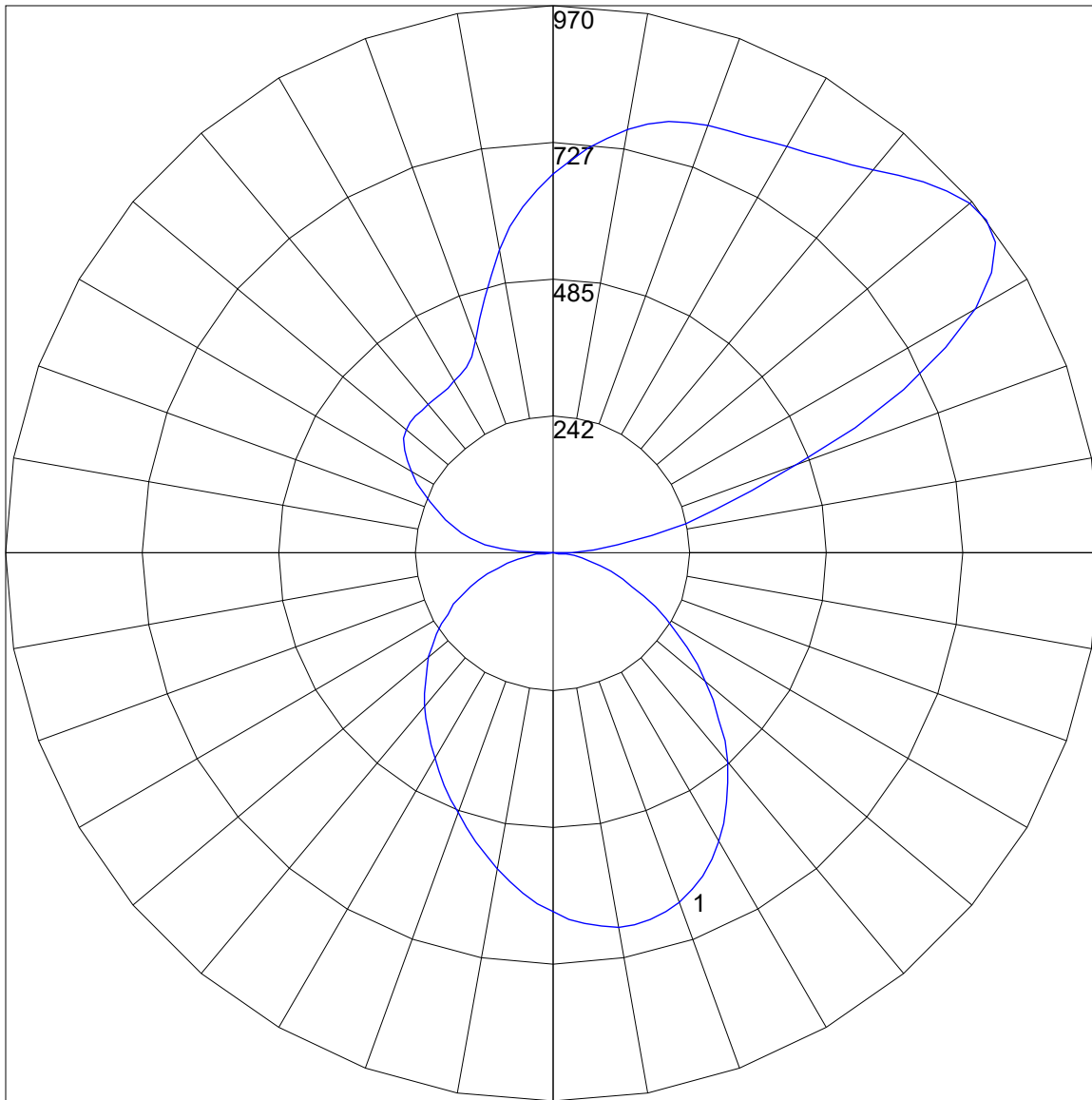
Effective Floor Cavity Reflectance 0.20

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	105	105	105	105	96	96	96	96	78	78	78	63	63	63	48	48	48	41
1	96	92	88	84	87	84	80	77	69	66	64	55	54	52	42	41	41	35
2	87	80	74	69	79	73	68	64	60	57	53	48	46	44	37	36	34	29
3	80	70	63	57	72	64	58	53	53	49	45	43	40	37	33	31	29	25
4	73	62	55	49	66	57	50	45	47	42	38	38	35	32	30	27	25	21
5	67	55	48	42	61	51	44	39	42	37	33	34	30	27	27	24	22	19
6	62	50	42	36	56	46	39	34	38	33	29	31	27	24	24	22	19	16
7	57	45	37	32	52	41	34	29	35	29	25	28	24	21	22	19	17	15
8	53	41	33	28	48	38	31	26	31	26	22	26	22	19	20	18	15	13
9	49	37	30	25	45	34	28	23	29	24	20	24	20	17	19	16	14	12
10	46	34	27	22	42	31	25	21	27	22	18	22	18	15	17	15	13	11

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POLAR GRAPH



Maximum Candela = 969.606 Located At Horizontal Angle = 0, Vertical Angle = 127.5
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)