

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-H-S-835-ASY-DAO-ITL89988-ITL94331.609.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL89988-ITL94331.609 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-H-S-835-ASY-DAO

[_INPUT_ELECTRICAL]120.0 VOLTS, 42.9 WATTS

[_INPUT_ELECTRICAL]277.0 VOLTS, 45.2 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]5040

[_CONVERT] Photometric web converted from original test data

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5036
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	117
Total Luminaire Watts	42.9
Ballast Factor	1.00
CIE Type	Semi-Indirect
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	52.108	52.886	45.108	47.441	17.110	45.108	70.773	84.772	90.216
95.0	110.437	112.771	113.548	115.882	44.331	71.551	109.660	129.881	136.102
97.5	174.211	185.877	211.542	175.767	72.329	94.883	144.657	174.211	182.766
100.0	269.872	285.426	309.536	233.318	101.105	120.548	173.433	209.987	222.430
102.5	364.754	382.642	404.418	290.092	131.436	146.213	204.542	237.207	249.651
105.0	452.638	487.635	503.190	346.089	160.990	170.322	228.652	267.538	276.093
107.5	557.631	617.516	606.628	397.419	192.099	192.099	251.984	293.981	301.759
110.0	702.288	761.396	705.399	440.972	223.208	213.875	276.093	321.202	328.979
112.5	878.055	903.720	802.615	479.080	255.095	234.874	300.203	347.644	356.977
115.0	1038.267	1042.933	881.943	514.078	286.982	256.650	321.979	373.309	383.420
117.5	1188.368	1165.036	937.940	544.410	318.868	279.204	342.200	398.974	409.863
120.0	1308.916	1256.031	972.160	573.186	353.866	303.314	360.088	421.529	435.528
122.5	1396.022	1315.916	991.603	602.739	389.642	326.646	377.198	444.083	460.415
125.0	1447.352	1343.914	1001.714	630.737	423.862	349.200	391.975	461.193	482.191
127.5	1465.239	1347.803	1007.936	657.958	458.860	372.532	405.974	475.192	501.635
130.0	1457.462	1336.137	1012.602	686.734	493.080	395.086	419.195	483.747	513.301
132.5	1433.353	1316.694	1018.046	716.288	528.077	417.640	433.195	489.969	517.189

IES INDOOR REPORT**PHOTOMETRIC FILENAME : HP-4-P-D-4FT-H-S-835-ASY-DAO-ITL89988-ITL94331.609.IES****CANDELA TABULATION - (Cont.)**

135.0	1402.244	1294.139	1025.045	745.841	563.075	444.083	446.416	494.635	518.745
137.5	1370.357	1272.363	1033.601	776.950	598.851	472.859	460.415	499.301	518.745
140.0	1338.470	1252.142	1042.933	808.059	635.404	503.968	473.636	503.190	518.745
142.5	1310.472	1237.365	1053.044	839.168	671.179	536.632	486.858	507.079	518.745
145.0	1288.695	1224.922	1063.154	869.500	706.955	568.519	500.857	512.523	519.522
147.5	1270.030	1215.589	1075.598	899.054	742.730	601.184	517.967	520.300	523.411
150.0	1255.253	1208.589	1088.819	927.052	778.506	636.182	539.743	528.855	529.633
152.5	1242.032	1202.367	1102.041	952.717	811.170	673.513	570.852	539.743	536.632
155.0	1229.588	1198.479	1113.707	975.271	843.057	713.177	608.961	556.076	549.076
157.5	1222.588	1196.923	1122.262	995.492	873.389	753.618	650.181	584.074	569.297
160.0	1217.144	1195.368	1127.706	1012.602	901.387	792.505	692.178	627.626	606.628
162.5	1207.034	1189.924	1128.483	1025.823	927.052	830.614	735.731	676.623	656.402
165.0	1195.368	1178.258	1124.595	1035.934	948.828	865.611	784.727	725.620	707.732
167.5	1175.925	1161.926	1114.484	1041.378	967.494	897.498	831.391	778.506	760.618
170.0	1151.037	1140.149	1101.263	1043.711	983.826	927.052	875.722	837.613	823.614
172.5	1119.928	1112.929	1082.597	1041.378	995.492	952.717	916.164	889.721	880.388
175.0	1089.597	1082.597	1062.377	1035.934	1005.602	976.049	952.717	936.385	930.163
177.5	1050.711	1047.600	1037.489	1025.045	1010.269	995.492	983.826	975.271	972.160
180.0	1012.602	1012.602	1012.602	1012.602	1012.602	1012.602	1012.602	1012.602	1012.602

IES INDOOR REPORT**PHOTOMETRIC FILENAME : HP-4-P-D-4FT-H-S-835-ASY-DAO-ITL89988-ITL94331.609.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	229.11	N.A.	4.50
0-30	478.38	N.A.	9.50
0-40	766.61	N.A.	15.20
0-60	1289.85	N.A.	25.60
0-80	1561.03	N.A.	31.00
0-90	1589.8	N.A.	31.60
10-90	1529.89	N.A.	30.40
20-40	537.49	N.A.	10.70
20-50	820.57	N.A.	16.30
40-70	696.43	N.A.	13.80
60-80	271.18	N.A.	5.40
70-80	97.99	N.A.	1.90
80-90	28.77	N.A.	0.60
90-110	449.14	N.A.	8.90
90-120	987.57	N.A.	19.60
90-130	1606.87	N.A.	31.90
90-150	2683.75	N.A.	53.30
90-180	3446.13	N.A.	68.40
110-180	2996.99	N.A.	59.50
0-180	5035.93	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	113.36
100-110	335.78
110-120	538.43
120-130	619.30
130-140	578.16
140-150	498.72
150-160	398.72
160-170	268.16
170-180	95.50

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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

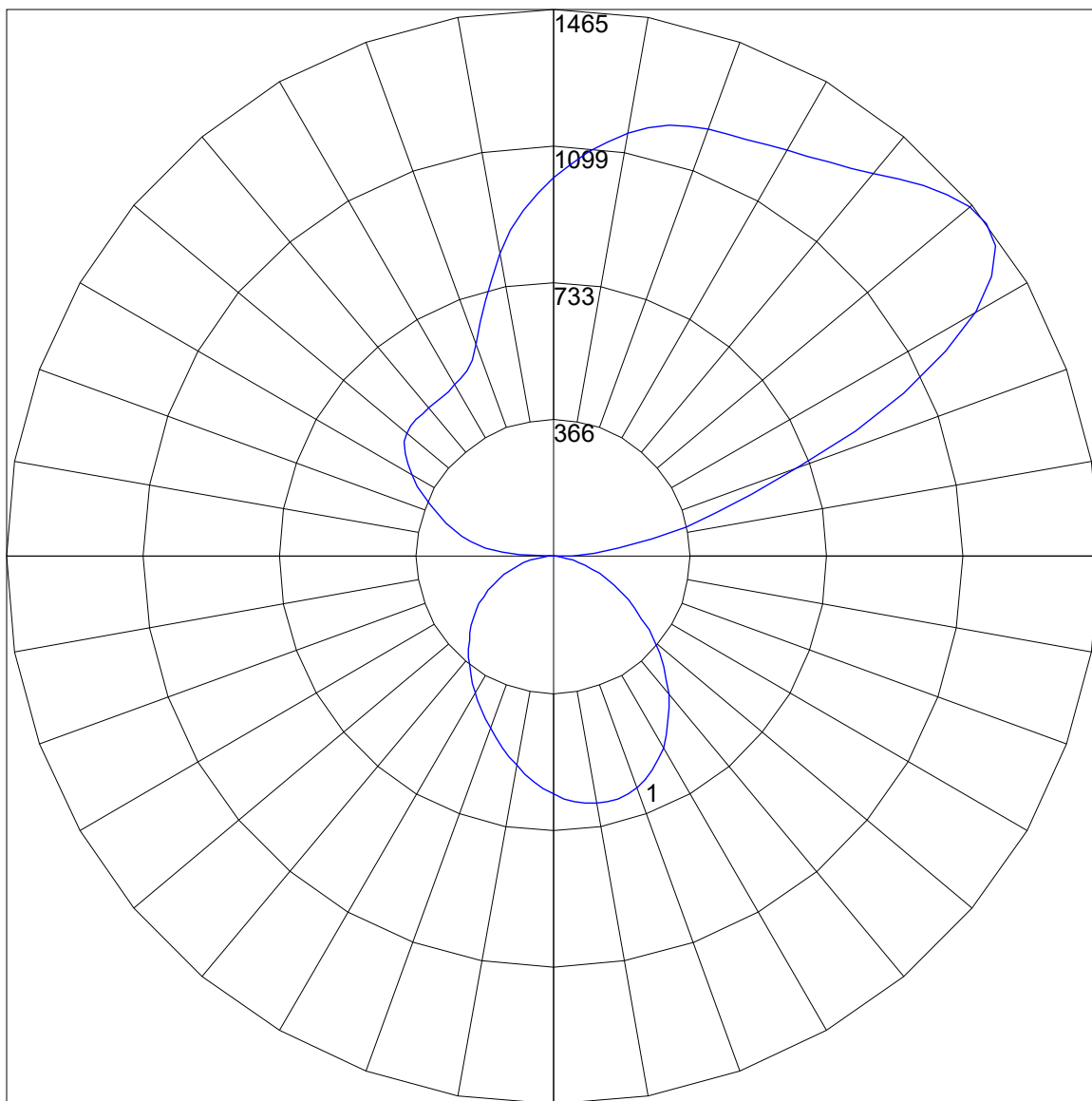
Effective Floor Cavity Reflectance 0.20

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	103	103	103	103	92	92	92	92	73	73	73	55	55	55	39	39	39	32
1	94	90	86	82	84	81	77	75	64	62	60	49	47	46	35	34	33	27
2	85	78	72	67	76	71	66	61	56	53	50	43	41	39	31	29	28	22
3	78	69	62	56	70	62	56	51	49	45	42	38	35	33	27	25	24	19
4	71	61	53	47	64	55	48	43	44	39	36	34	31	28	24	22	21	16
5	65	54	46	40	58	49	42	37	39	34	31	30	27	24	22	20	18	14
6	60	48	41	35	54	44	37	32	35	30	27	27	24	21	20	18	16	13
7	55	44	36	30	50	40	33	28	32	27	23	25	21	19	18	16	14	11
8	51	39	32	27	46	36	29	25	29	24	21	23	19	17	17	14	13	10
9	48	36	29	24	43	33	26	22	27	22	18	21	17	15	15	13	11	9
10	45	33	26	21	40	30	24	20	24	20	16	19	16	13	14	12	10	8

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POLAR GRAPH



Maximum Candela = 1465.239 Located At Horizontal Angle = 0, Vertical Angle = 127.5

1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)