

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-S-S-835-ASY-DAO-ITL89988-ITL94331.603.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL89988-ITL94331.603 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-S-S-835-ASY-DAO

[_INPUT_ELECTRICAL]120.0 VOLTS, 29.1 WATTS

[_INPUT_ELECTRICAL]277.0 VOLTS, 32.0 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]3406

[_CONVERT] Photometric web converted from original test data

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3404
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	117
Total Luminaire Watts	29.1
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	27.428	27.838	23.744	24.972	9.006	23.744	37.253	44.622	47.488
95.0	58.132	59.360	59.769	60.997	23.334	37.663	57.722	68.366	71.641
97.5	91.701	97.841	111.351	92.519	38.072	49.944	76.144	91.701	96.204
100.0	142.054	150.242	162.932	122.813	53.219	63.454	91.291	110.532	117.082
102.5	191.998	201.414	212.877	152.698	69.185	76.963	107.666	124.860	131.410
105.0	238.258	256.680	264.868	182.173	84.741	89.654	120.357	140.826	145.329
107.5	293.524	325.046	319.315	209.192	101.116	101.116	132.638	154.745	158.839
110.0	369.668	400.781	371.306	232.117	117.492	112.579	145.329	169.073	173.167
112.5	462.188	475.697	422.478	252.177	134.276	123.632	158.020	182.992	187.905
115.0	546.520	548.976	464.235	270.599	151.060	135.095	169.482	196.501	201.823
117.5	625.530	613.248	493.710	286.565	167.845	146.967	180.126	210.011	215.742
120.0	688.983	661.145	511.723	301.712	186.267	159.657	189.542	221.883	229.252
122.5	734.833	692.668	521.957	317.268	205.098	171.939	198.548	233.755	242.352
125.0	761.852	707.405	527.279	332.006	223.111	183.811	206.327	242.761	253.814
127.5	771.268	709.452	530.554	346.334	241.533	196.092	213.695	250.130	264.049
130.0	767.174	703.311	533.010	361.481	259.546	207.964	220.655	254.633	270.190
132.5	754.484	693.077	535.876	377.037	277.968	219.836	228.024	257.908	272.236

IES INDOOR REPORT**PHOTOMETRIC FILENAME : HP-4-P-D-4FT-S-S-835-ASY-DAO-ITL89988-ITL94331.603.IES****CANDELA TABULATION - (Cont.)**

135.0	738.109	681.205	539.560	392.594	296.390	233.755	234.983	260.364	273.055
137.5	721.324	669.742	544.063	408.969	315.221	248.902	242.352	262.821	273.055
140.0	704.540	659.099	548.976	425.344	334.462	265.277	249.311	264.868	273.055
142.5	689.802	651.320	554.298	441.719	353.293	282.471	256.271	266.914	273.055
145.0	678.339	644.770	559.620	457.685	372.125	299.255	263.639	269.780	273.464
147.5	668.514	639.858	566.170	473.241	390.956	316.449	272.646	273.874	275.511
150.0	660.736	636.173	573.129	487.979	409.787	334.871	284.108	278.377	278.786
152.5	653.777	632.898	580.089	501.488	426.981	354.521	300.483	284.108	282.471
155.0	647.227	630.851	586.229	513.360	443.766	375.400	320.543	292.705	289.021
157.5	643.542	630.033	590.732	524.004	459.731	396.687	342.240	307.443	299.665
160.0	640.677	629.214	593.598	533.010	474.469	417.156	364.346	330.368	319.315
162.5	635.355	626.348	594.008	539.970	487.979	437.216	387.272	356.159	345.515
165.0	629.214	620.208	591.961	545.292	499.441	455.638	413.062	381.950	372.534
167.5	618.980	611.611	586.639	548.157	509.266	472.422	437.625	409.787	400.372
170.0	605.880	600.148	579.679	549.385	517.863	487.979	460.960	440.900	433.531
172.5	589.504	585.820	569.854	548.157	524.004	501.488	482.247	468.328	463.416
175.0	573.539	569.854	559.210	545.292	529.326	513.769	501.488	492.891	489.616
177.5	553.070	551.432	546.110	539.560	531.782	524.004	517.863	513.360	511.723
180.0	533.010	533.010	533.010	533.010	533.010	533.010	533.010	533.010	533.010

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Zone	Lumens	%Lamp	%Fixt
0-20	229.11	N.A.	6.70
0-30	478.38	N.A.	14.10
0-40	766.61	N.A.	22.50
0-60	1289.85	N.A.	37.90
0-80	1561.03	N.A.	45.90
0-90	1589.8	N.A.	46.70
10-90	1529.89	N.A.	44.90
20-40	537.49	N.A.	15.80
20-50	820.57	N.A.	24.10
40-70	696.43	N.A.	20.50
60-80	271.18	N.A.	8.00
70-80	97.99	N.A.	2.90
80-90	28.77	N.A.	0.80
90-110	236.42	N.A.	6.90
90-120	519.83	N.A.	15.30
90-130	845.82	N.A.	24.80
90-150	1412.67	N.A.	41.50
90-180	1813.96	N.A.	53.30
110-180	1577.54	N.A.	46.30
0-180	3403.76	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	59.67
100-110	176.75
110-120	283.42
120-130	325.98
130-140	304.33
140-150	262.52
150-160	209.87
160-170	141.15
170-180	50.27

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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

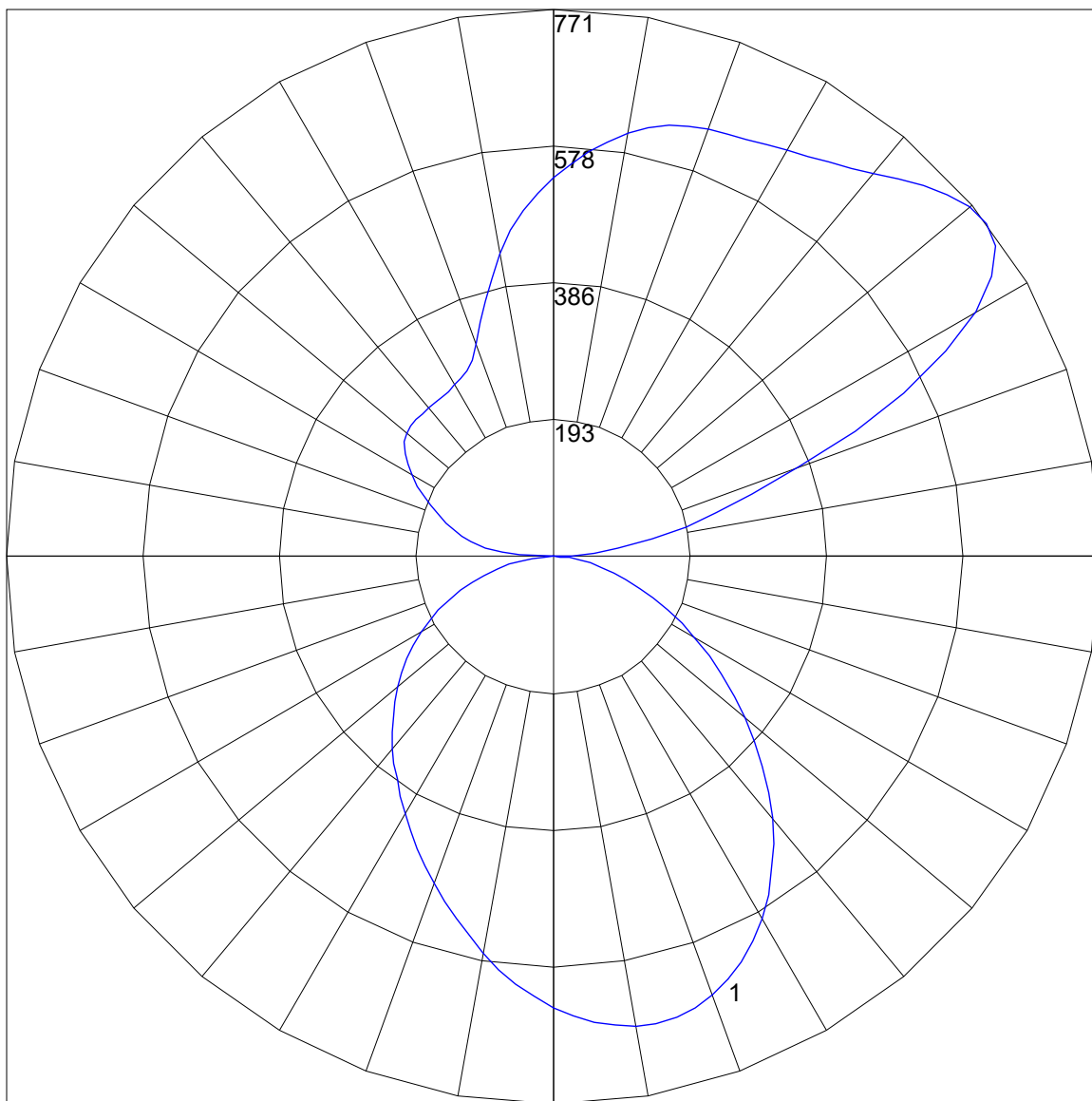
Effective Floor Cavity Reflectance 0.20

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	106	106	106	106	98	98	98	98	81	81	81	67	67	67	53	53	53	47
1	97	93	89	86	89	85	82	79	72	69	67	59	57	56	47	46	45	39
2	88	81	75	70	81	75	70	65	63	59	56	52	49	47	41	40	38	33
3	81	71	64	58	74	66	60	54	55	51	47	46	42	39	37	34	32	28
4	74	63	55	49	68	58	52	46	49	44	40	41	37	34	33	30	28	24
5	68	56	48	42	62	52	45	40	44	39	35	37	33	29	30	27	24	21
6	63	51	43	37	57	47	40	35	40	34	30	33	29	26	27	24	22	19
7	58	46	38	32	53	42	35	30	36	31	27	30	26	23	25	22	19	17
8	54	41	34	28	49	38	32	27	33	27	24	28	23	20	23	20	17	15
9	50	38	30	25	46	35	28	24	30	25	21	25	21	18	21	18	16	13
10	47	35	28	23	43	32	26	22	28	23	19	23	19	17	19	16	14	12

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POLAR GRAPH



Maximum Candela = 771.268 Located At Horizontal Angle = 0, Vertical Angle = 127.5

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