

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-B-835-ASY-DAO-ITL89988-ITL94331.615.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL89988-ITL94331.615 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-B-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]3815

[_CONVERT] Photometric web converted from original test data

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3813
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	116
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	6077	6274	5200
55	5220	5580	4624
65	4370	4750	4031
75	3519	3894	3487
85	2758	3000	3048

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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	798.777	798.777	798.777	798.777	798.777	798.777	798.777	798.777	798.777
2.5	815.247	814.217	810.100	804.439	798.263	791.057	785.910	781.793	780.249
5.0	828.114	826.055	818.850	807.527	794.145	781.278	768.926	762.235	759.662
7.5	837.893	834.290	824.511	807.527	787.454	767.382	750.398	741.133	737.531
10.0	844.583	841.495	826.570	804.439	779.220	751.942	731.869	719.002	712.826
12.5	846.642	844.069	826.570	798.263	769.441	734.443	711.797	695.842	689.151
15.0	844.583	841.495	822.967	788.998	755.544	714.885	690.181	672.167	664.961
17.5	837.893	835.319	816.276	778.190	739.589	694.298	665.476	648.492	639.742
20.0	826.570	825.026	805.983	762.750	722.091	671.138	641.286	623.787	616.067
22.5	811.129	809.585	792.086	746.795	703.562	646.948	618.126	599.083	593.421
25.0	791.572	791.057	775.102	728.266	680.916	622.758	593.421	575.922	571.290
27.5	768.411	768.411	754.000	706.650	657.241	597.539	567.173	553.277	547.615
30.0	741.648	743.192	730.325	682.975	630.993	570.261	543.498	530.116	526.514
32.5	711.797	713.856	704.077	658.271	603.715	544.013	518.279	506.956	505.412
35.0	676.799	681.946	676.284	629.963	574.378	516.220	494.089	485.339	483.281
37.5	642.830	649.006	643.860	600.112	543.498	488.942	468.870	463.723	463.208
40.0	604.744	613.494	611.435	569.232	513.647	460.635	443.651	440.563	443.136
42.5	567.173	573.349	577.981	537.836	482.766	433.357	419.461	419.461	421.520
45.0	524.455	534.748	541.439	502.324	448.798	405.050	395.271	398.359	400.933
47.5	485.339	496.662	504.382	468.870	417.917	378.287	369.537	376.228	381.375
50.0	445.709	455.488	466.296	435.416	385.492	351.524	345.862	354.097	359.759
52.5	406.594	415.344	428.725	399.389	353.582	322.187	321.673	331.451	338.142
55.0	365.420	377.257	390.639	363.876	323.731	296.453	297.483	309.320	317.040
57.5	328.363	338.142	352.553	330.422	292.851	269.690	273.293	287.189	294.909
60.0	290.277	302.115	316.526	297.483	264.029	244.471	248.589	262.485	270.720
62.5	256.823	265.058	281.013	263.514	236.236	219.252	225.943	239.839	248.074
65.0	225.428	232.633	244.986	231.604	207.929	196.092	201.238	216.679	224.399
67.5	192.489	198.665	211.532	201.753	181.166	171.902	179.107	193.518	198.665
70.0	164.696	169.328	180.651	172.417	156.976	148.741	155.947	169.328	174.990
72.5	135.875	141.021	151.315	144.109	133.301	126.610	134.330	145.139	151.315
75.0	111.170	115.287	123.008	118.376	110.141	106.023	112.199	122.493	127.640
77.5	88.524	91.098	97.274	94.700	88.524	85.436	91.612	99.332	102.421
80.0	66.908	68.967	73.599	73.084	67.937	66.393	71.025	77.716	79.775
82.5	47.350	47.865	51.468	50.953	49.409	48.380	51.468	55.585	57.644
85.0	29.337	29.337	31.910	31.910	32.425	30.881	32.939	34.483	36.027
87.5	11.323	12.352	13.382	14.411	14.926	14.411	14.926	15.440	15.955
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-B-835-ASY-DAO-ITL89988-ITL94331.615.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	288.05	N.A.	7.60
0-30	601.44	N.A.	15.80
0-40	963.81	N.A.	25.30
0-60	1621.64	N.A.	42.50
0-80	1962.58	N.A.	51.50
0-90	1998.75	N.A.	52.40
10-90	1923.43	N.A.	50.40
20-40	675.76	N.A.	17.70
20-50	1031.65	N.A.	27.10
40-70	875.58	N.A.	23.00
60-80	340.94	N.A.	8.90
70-80	123.20	N.A.	3.20
80-90	36.17	N.A.	0.90
90-110	236.42	N.A.	6.20
90-120	519.83	N.A.	13.60
90-130	845.82	N.A.	22.20
90-150	1412.67	N.A.	37.10
90-180	1813.96	N.A.	47.60
110-180	1577.54	N.A.	41.40
0-180	3812.71	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	75.32
10-20	212.73
20-30	313.39
30-40	362.37
40-50	355.90
50-60	301.94
60-70	217.74
70-80	123.20
80-90	36.17
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

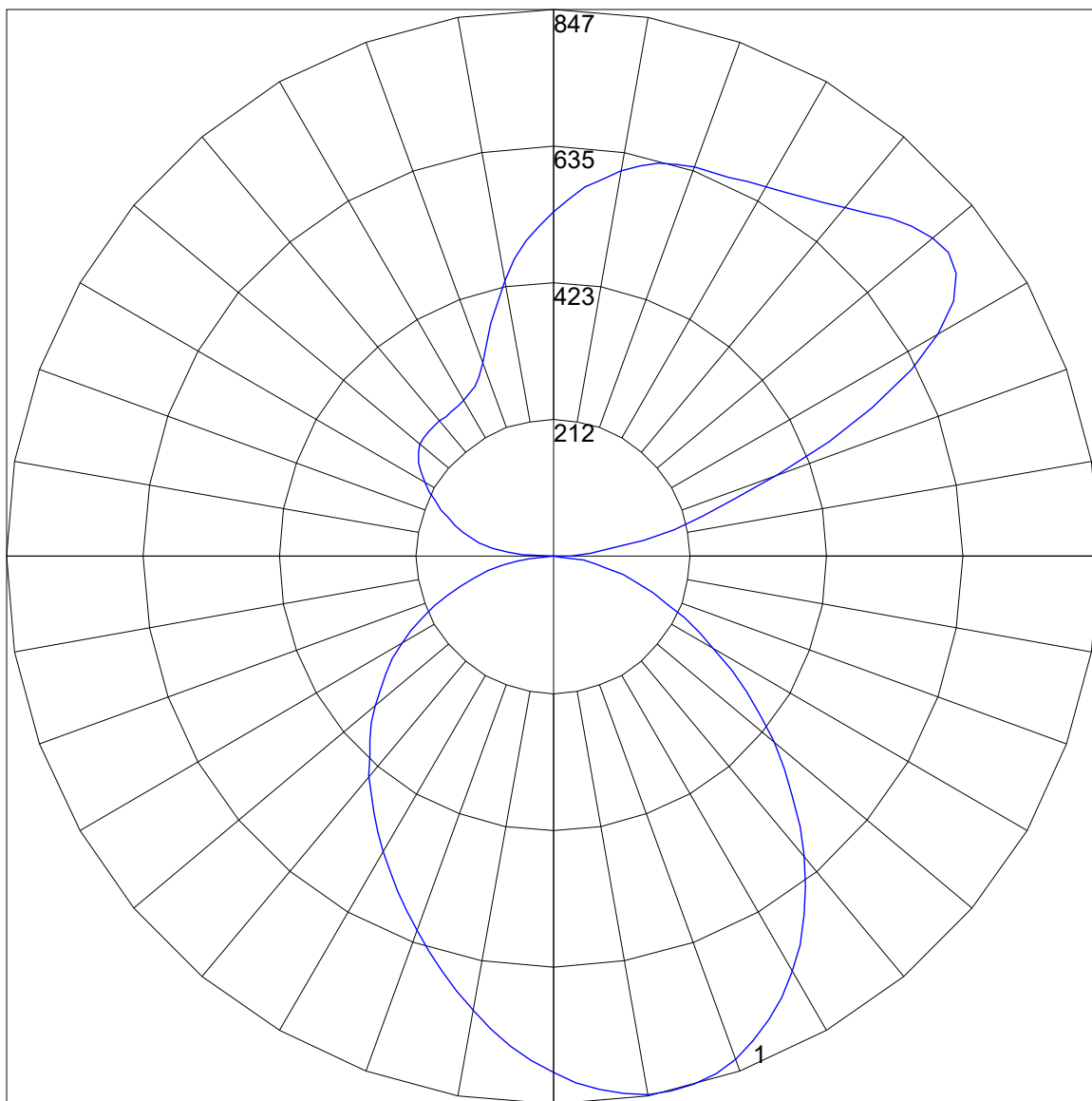
Effective Floor Cavity Reflectance 0.20

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	108	108	108	108	100	100	100	100	85	85	85	71	71	71	58	58	58	52
1	98	94	90	87	91	87	84	81	74	72	70	63	61	59	52	50	49	44
2	90	82	76	71	83	76	71	67	65	61	58	55	52	50	46	44	42	37
3	82	72	65	59	75	67	61	56	58	53	49	49	45	42	40	38	36	32
4	75	64	56	50	69	60	53	47	51	46	42	43	39	36	36	33	31	27
5	69	57	49	43	63	53	46	41	46	40	36	39	35	31	33	29	27	24
6	63	51	43	37	59	48	41	35	41	36	31	35	31	28	30	26	24	21
7	59	46	38	33	54	43	36	31	38	32	28	32	28	24	27	24	21	19
8	54	42	34	29	50	39	32	28	34	29	25	29	25	22	25	22	19	17
9	51	39	31	26	47	36	29	25	31	26	22	27	23	20	23	20	17	15
10	47	35	28	23	44	33	27	22	29	24	20	25	21	18	21	18	16	14

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POLAR GRAPH



Maximum Candela = 846.642 Located At Horizontal Angle = 0, Vertical Angle = 12.5

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