

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-2-ID-4FT-S-S-835-WSO-ITL89456.001.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL89456.001 Family Correlation File
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.
[TESTDATE]07/19/17
[ISSUE DATE]08/23/17
[MANUFAC]FINELITE, INC.
[LUMCAT]HP-2-ID-4ft-S-S-835-WSO
[INPUT_ELECTRICAL]120.0 VOLTS, 28.4 WATTS
[INPUT_ELECTRICAL]277.0 VOLTS, 31.5 WATTS
[OTHER]see www.finelite.com for source file ITL89456. 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]3001

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3001
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	106
Total Luminaire Watts	28.4
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)	4.00 ft
Luminous Width (90-270)	0.18 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	6979	6584	6197
55	6155	5798	5408
65	5354	5059	4736
75	4491	4323	4083
85	3494	3423	3209

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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>
0.0	598.153	598.153	598.153	598.153	598.153
2.5	597.334	597.334	596.925	596.925	597.334
5.0	594.059	593.649	592.831	592.421	592.421
7.5	589.146	588.736	586.689	585.052	585.461
10.0	583.414	580.548	578.092	576.454	576.045
12.5	573.588	570.722	567.856	565.400	564.172
15.0	563.353	557.621	556.393	551.889	549.433
17.5	550.661	543.292	540.835	535.103	531.828
20.0	535.922	527.734	524.459	517.499	512.995
22.5	519.546	510.948	505.626	497.847	493.343
25.0	501.122	492.934	485.974	476.967	472.054
27.5	483.517	472.872	465.094	455.268	450.355
30.0	462.637	452.402	442.985	432.341	427.018
32.5	441.348	431.112	421.286	409.413	404.091
35.0	418.830	408.595	398.359	385.667	380.345
37.5	395.903	386.077	375.432	362.331	357.418
40.0	372.157	362.740	352.096	338.585	333.672
42.5	348.411	339.813	329.578	315.658	310.745
45.0	325.074	316.477	306.651	293.549	288.636
47.5	301.328	293.549	284.133	271.032	266.528
50.0	277.992	271.032	262.025	249.742	244.829
52.5	255.474	249.333	240.326	228.862	224.359
55.0	232.547	228.043	219.036	208.391	204.297
57.5	210.848	206.754	198.565	188.740	185.055
60.0	189.558	186.283	178.914	169.907	166.631
62.5	169.088	165.812	159.671	151.892	148.617
65.0	149.026	145.751	140.838	134.288	131.831
67.5	129.784	127.328	122.824	117.502	115.045
70.0	111.360	109.723	105.629	101.125	99.487
72.5	93.346	92.527	89.252	85.977	84.749
75.0	76.560	76.151	73.694	71.238	69.600
77.5	61.003	60.593	58.546	57.318	56.090
80.0	46.264	45.854	44.626	43.398	42.579
82.5	32.753	32.753	31.934	31.115	29.887
85.0	20.061	20.061	19.652	18.833	18.424
87.5	8.188	8.188	7.779	6.960	6.960
90.0	0.000	0.000	0.000	0.000	0.000
92.5	7.369	12.692	12.692	12.282	12.282
95.0	19.242	33.981	33.981	28.250	27.840
97.5	32.344	55.680	68.372	49.130	46.264
100.0	45.854	72.466	135.925	79.017	69.600
102.5	60.593	88.433	187.921	139.610	110.951
105.0	74.923	105.629	217.808	227.634	187.511
107.5	89.252	122.415	236.232	307.060	286.180
110.0	103.582	137.972	252.608	353.733	357.418
112.5	117.911	153.121	271.850	384.439	399.997
115.0	132.650	167.450	294.778	406.548	429.065
117.5	147.389	181.780	319.752	427.428	451.583
120.0	162.128	196.928	340.223	449.536	474.101
122.5	175.638	209.620	354.961	480.651	497.847
125.0	188.330	221.902	363.150	514.633	531.828
127.5	200.203	233.366	368.063	537.560	569.494
130.0	210.029	243.192	370.929	546.976	596.515
132.5	219.855	252.199	371.747	543.292	605.113

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CANDELA TABULATION - (Cont.)

135.0	228.453	259.568	371.338	531.828	596.515
137.5	236.232	266.528	370.110	516.270	578.501
140.0	244.010	272.669	368.063	499.075	555.574
142.5	251.380	278.401	365.197	479.833	531.009
145.0	259.159	283.723	362.331	461.409	506.035
147.5	265.709	287.818	359.056	442.576	480.651
150.0	272.260	292.321	354.961	425.790	456.905
152.5	278.401	295.596	350.048	409.823	434.797
155.0	284.133	298.053	345.135	394.265	414.326
157.5	289.455	301.328	340.632	379.936	395.903
160.0	293.959	303.375	335.310	366.016	378.707
162.5	298.053	305.013	329.987	354.143	362.740
165.0	301.328	306.651	324.665	342.679	349.230
167.5	304.194	307.879	320.571	332.853	337.357
170.0	306.651	309.107	317.705	325.074	327.940
172.5	307.879	309.926	314.429	318.524	320.980
175.0	309.517	310.335	312.382	314.429	315.248
177.5	310.335	310.335	311.154	311.154	311.564
180.0	310.745	310.745	310.745	310.745	310.745

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	212.33	N.A.	7.10
0-30	435.64	N.A.	14.50
0-40	684.48	N.A.	22.80
0-60	1116.22	N.A.	37.20
0-80	1333.86	N.A.	44.40
0-90	1355.93	N.A.	45.20
10-90	1299.77	N.A.	43.30
20-40	472.16	N.A.	15.70
20-50	708.18	N.A.	23.60
40-70	571.18	N.A.	19.00
60-80	217.63	N.A.	7.30
70-80	78.19	N.A.	2.60
80-90	22.07	N.A.	0.70
90-110	215.26	N.A.	7.20
90-120	499.27	N.A.	16.60
90-130	823.93	N.A.	27.50
90-150	1361.52	N.A.	45.40
90-180	1644.94	N.A.	54.80
110-180	1429.68	N.A.	47.60
0-180	3000.87	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	56.16
10-20	156.17
20-30	223.31
30-40	248.85
40-50	236.03
50-60	195.71
60-70	139.45
70-80	78.19
80-90	22.07
90-100	37.55
100-110	177.72
110-120	284.01
120-130	324.65
130-140	303.43
140-150	234.16
150-160	160.96
160-170	92.50
170-180	29.97

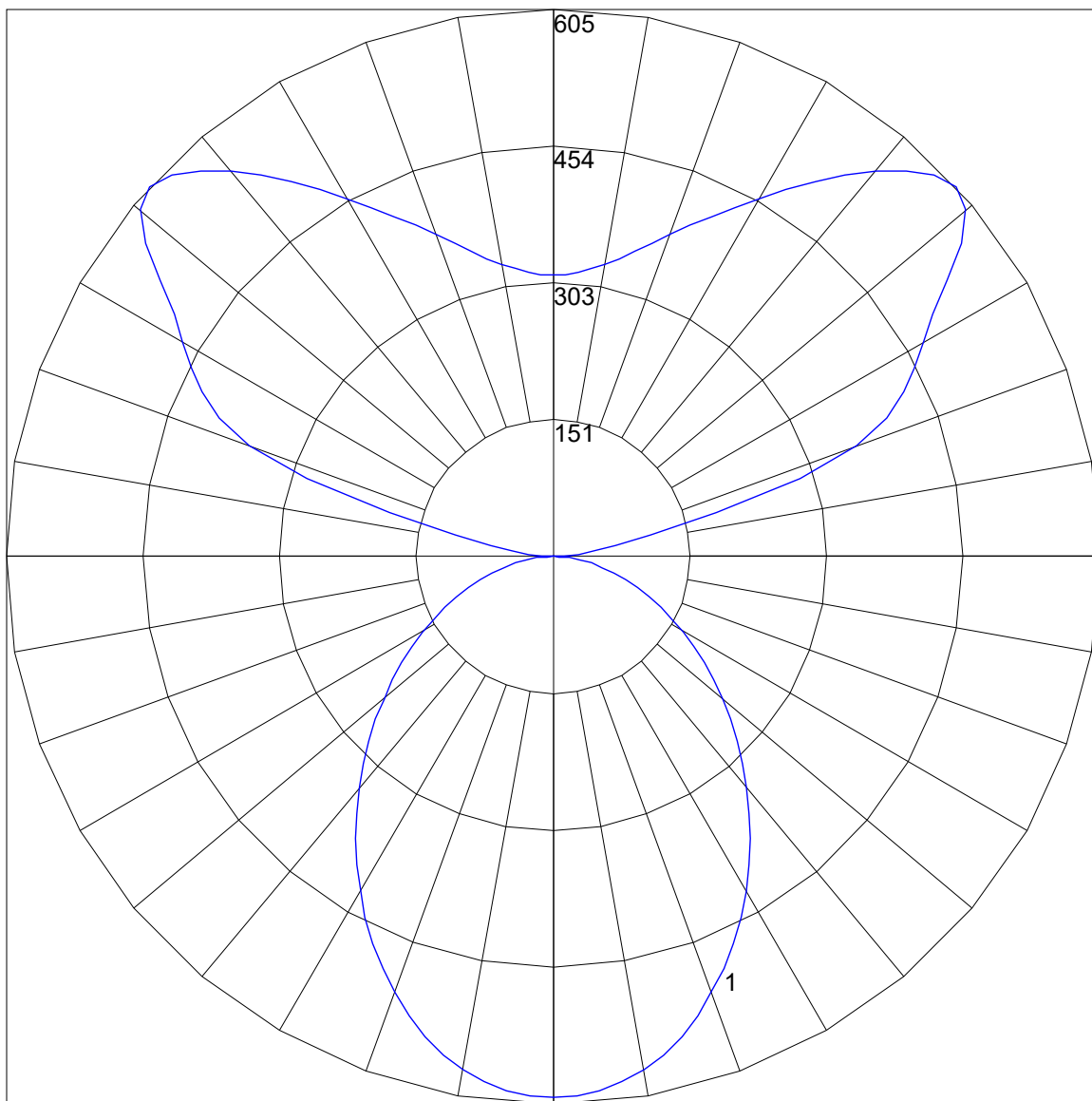
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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

POLAR GRAPH



Maximum Candela = 605.113 Located At Horizontal Angle = 90, Vertical Angle = 132.5
1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)