

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-D-4FT-S-835-DL-ITL90629.001.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL90629.001 Family Correlation File
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.
[TESTDATE]07/09/18
[ISSUEDATE]07/30/18
[MANUFAC]FINELITE, INC.
[LUMCAT]FINELITE HP-4-D-4ft-S-835-DL
[INPUT_ELECTRICAL]120.0 VOLTS, 14.5 WATTS
[INPUT_ELECTRICAL]277.0 VOLTS, 16.0 WATTS
[ABSOLUTE LUMENS]1677
[OTHER]see www.finelite.com for source file ITL90629. 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

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1677
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	116
Total Luminaire Watts	14.5
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.26
Spacing Criterion (Diagonal)	1.38
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	4.00 ft
Luminous Width (90-270)	0.32 ft
Luminous Height	0.08 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	3551	3294	3223
55	3284	3019	2966
65	2949	2704	2700
75	2432	2329	2402
85	1579	1983	2169

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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	512.218	512.218	512.218	512.218	512.218
2.5	511.399	511.399	511.808	512.218	512.627
5.0	508.942	509.352	510.580	511.399	511.808
7.5	505.257	506.486	508.533	509.352	510.171
10.0	500.344	501.163	504.438	506.076	506.895
12.5	494.202	494.202	499.525	501.982	501.982
15.0	486.013	486.423	492.974	495.430	495.430
17.5	476.596	477.415	484.785	488.060	488.060
20.0	465.950	466.769	474.958	478.643	478.643
22.5	453.667	455.305	464.722	468.407	467.998
25.0	440.974	443.021	452.848	456.943	457.352
27.5	426.643	429.919	440.974	444.659	445.069
30.0	411.903	415.588	427.053	431.557	432.376
32.5	396.344	400.848	413.541	418.045	418.455
35.0	378.329	384.880	398.392	403.714	404.124
37.5	361.541	369.730	383.242	388.155	390.203
40.0	344.754	352.943	367.683	373.415	374.644
42.5	326.329	335.746	351.305	358.266	359.494
45.0	307.904	318.959	334.927	342.297	344.345
47.5	289.069	301.762	318.140	326.329	328.786
50.0	270.644	284.156	300.943	309.542	312.408
52.5	252.629	266.140	284.156	293.983	296.439
55.0	232.975	247.306	266.550	277.195	279.652
57.5	213.322	229.700	248.944	259.999	263.684
60.0	194.487	211.684	231.337	243.211	247.715
62.5	175.243	192.849	213.322	226.015	230.109
65.0	156.409	174.015	195.306	208.818	212.912
67.5	136.346	156.409	178.109	191.621	196.534
70.0	117.921	137.574	160.094	174.424	180.157
72.5	99.496	119.968	142.078	157.637	162.960
75.0	81.480	101.952	125.700	141.259	146.582
77.5	63.464	85.165	108.913	125.291	131.023
80.0	47.086	69.196	93.354	110.141	116.283
82.5	32.756	54.866	79.433	96.220	102.771
85.0	20.472	42.582	67.559	84.346	89.669
87.5	11.465	32.756	56.913	73.700	78.614
90.0	4.094	24.976	49.134	65.511	70.834
92.5	3.685	24.157	46.677	62.236	67.149
95.0	3.276	23.338	45.449	60.189	65.102
97.5	3.276	22.520	43.811	58.141	63.055
100.0	2.866	21.291	42.582	56.094	61.008
102.5	2.866	20.472	40.945	54.047	58.551
105.0	2.457	19.653	39.307	52.000	56.504
107.5	2.457	18.835	38.079	50.362	54.456
110.0	2.457	17.606	36.441	48.315	52.409
112.5	2.457	16.787	35.212	46.267	50.362
115.0	2.047	15.968	33.575	44.630	48.315
117.5	2.047	15.150	31.937	42.582	46.267
120.0	1.638	13.921	30.299	40.535	43.811
122.5	1.638	13.102	28.661	38.488	41.764
125.0	1.638	12.283	27.023	36.441	39.716
127.5	1.638	11.055	25.386	34.394	37.669
130.0	1.228	10.236	23.748	32.346	35.622
132.5	1.228	9.417	22.110	30.299	33.165

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CANDELA TABULATION - (Cont.)

135.0	1.228	8.598	20.472	28.252	31.118
137.5	0.819	7.370	18.835	26.205	29.071
140.0	0.819	6.551	16.787	24.157	27.023
142.5	0.819	5.732	14.740	22.110	24.976
145.0	0.819	4.913	13.102	20.472	22.520
147.5	0.819	4.094	11.465	18.425	20.472
150.0	0.409	3.685	9.827	16.378	18.425
152.5	0.409	2.866	8.598	14.331	15.968
155.0	0.409	2.047	6.961	12.283	13.921
157.5	0.409	1.638	5.732	9.827	11.874
160.0	0.409	1.228	4.504	7.779	9.827
162.5	0.409	0.819	3.685	6.142	7.779
165.0	0.409	0.409	2.457	4.504	6.142
167.5	0.409	0.409	1.638	2.866	4.094
170.0	0.409	0.409	0.819	2.047	2.866
172.5	0.409	0.409	0.409	0.819	1.228
175.0	0.000	0.000	0.000	0.000	0.000
177.5	0.000	0.000	0.000	0.000	0.000
180.0	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	187.08	N.A.	11.20
0-30	394.63	N.A.	23.50
0-40	641.63	N.A.	38.30
0-60	1131.11	N.A.	67.40
0-80	1448.05	N.A.	86.30
0-90	1517.68	N.A.	90.50
10-90	1469.16	N.A.	87.60
20-40	454.55	N.A.	27.10
20-50	709.68	N.A.	42.30
40-70	678.53	N.A.	40.50
60-80	316.94	N.A.	18.90
70-80	127.90	N.A.	7.60
80-90	69.63	N.A.	4.20
90-110	81.85	N.A.	4.90
90-120	111.45	N.A.	6.60
90-130	133.08	N.A.	7.90
90-150	155.27	N.A.	9.30
90-180	159.54	N.A.	9.50
110-180	77.69	N.A.	4.60
0-180	1677.22	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	48.52
10-20	138.56
20-30	207.54
30-40	247.00
40-50	255.14
50-60	234.35
60-70	189.04
70-80	127.90
80-90	69.63
90-100	44.59
100-110	37.26
110-120	29.60
120-130	21.64
130-140	14.24
140-150	7.94
150-160	3.39
160-170	0.84
170-180	0.05

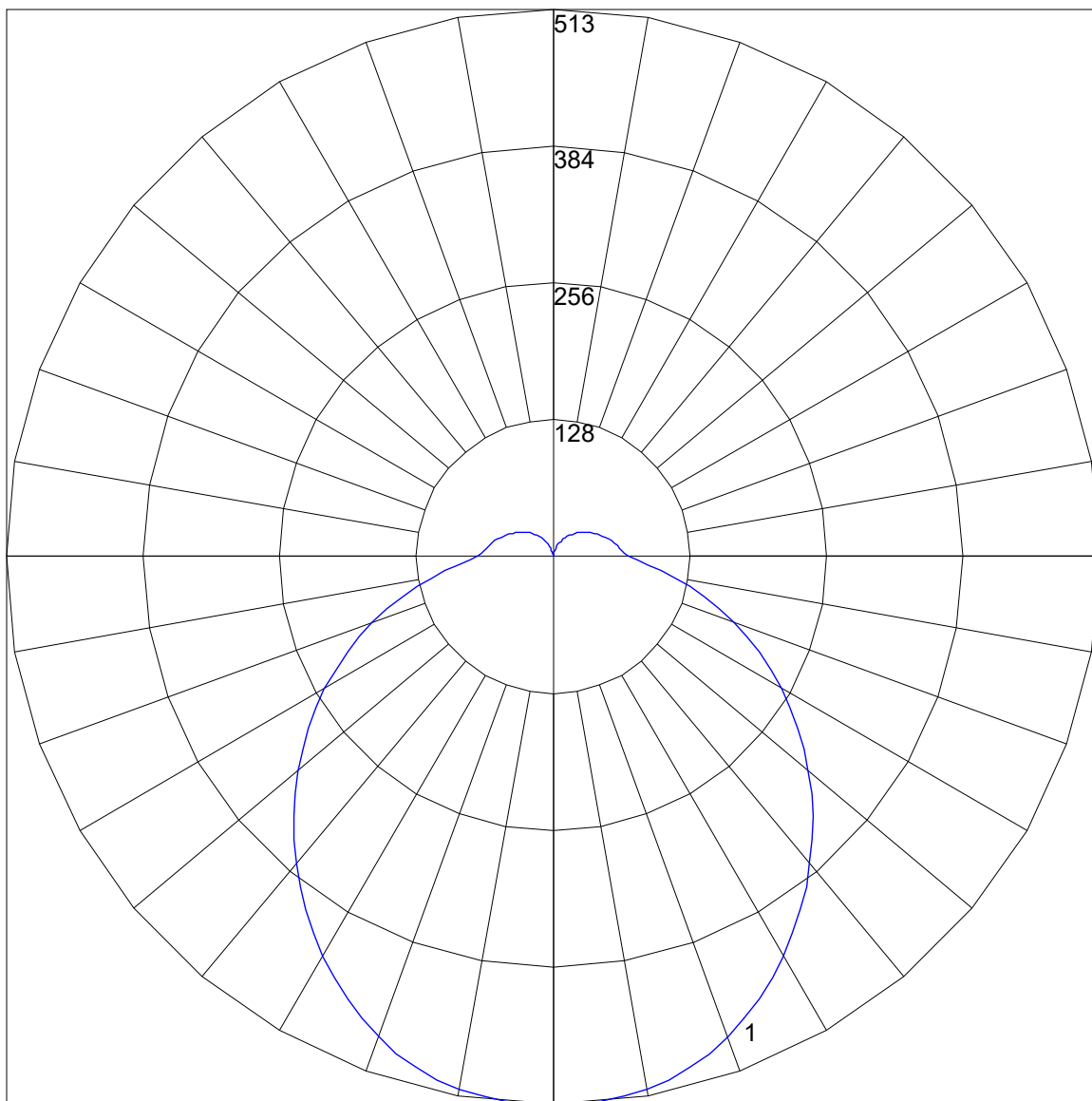
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	117	117	117	117	113	113	113	113	106	106	106	99	99	99	93	93	93	90
1	105	100	96	91	102	97	93	89	91	88	84	85	83	80	80	78	76	73
2	95	87	80	74	92	84	78	72	79	74	69	74	70	66	70	66	63	60
3	87	76	68	61	84	74	66	60	69	63	57	65	60	55	62	57	53	50
4	79	67	58	51	76	65	57	50	61	54	49	58	52	47	55	50	45	43
5	73	60	51	44	70	58	50	43	55	48	42	52	46	41	49	44	39	37
6	67	54	45	38	65	52	44	38	50	42	37	47	41	36	45	39	35	32
7	62	49	40	34	60	48	39	33	45	38	32	43	36	32	41	35	31	29
8	58	44	36	30	56	43	35	30	41	34	29	39	33	28	37	32	27	25
9	54	41	33	27	52	40	32	27	38	31	26	36	30	25	35	29	25	23
10	51	38	30	24	49	37	29	24	35	28	24	34	27	23	32	27	23	21

POLAR GRAPH



Maximum Candela = 512.627 Located At Horizontal Angle = 90, Vertical Angle = 2.5
1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)