

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-D-4FT-S-835-DL-ITL90630.001.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL90630.001 Family Correlation File
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.
[TESTDATE]07/09/18
[ISSUEDATE]07/30/18
[MANUFAC]FINELITE, INC.
[LUMCAT]FINELITE HP-2-D-4ft-S-835-DL
[INPUT_ELECTRICAL]120.0 VOLTS, 14.5 WATTS
[INPUT_ELECTRICAL]277.0 VOLTS, 16.0 WATTS
[ABSOLUTE LUMENS]1489
[OTHER]see www.finelite.com for source file ITL90630. 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	1489
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	103
Total Luminaire Watts	14.5
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	1.22
Spacing Criterion (90-270)	1.32
Spacing Criterion (Diagonal)	1.42
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	3.99 ft
Luminous Width (90-270)	0.17 ft
Luminous Height	0.08 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	5206	4523	4361
55	4831	4115	3984
65	4372	3667	3593
75	3655	3163	3184
85	2555	2705	2834

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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	396.754	396.754	396.754	396.754	396.754
2.5	396.754	396.344	396.754	397.163	397.163
5.0	394.707	395.116	395.935	397.163	397.573
7.5	391.840	392.659	395.116	397.163	397.573
10.0	388.155	388.974	393.478	396.344	396.754
12.5	383.242	384.470	390.612	393.888	395.116
15.0	377.100	378.738	386.518	391.022	391.840
17.5	369.321	372.187	381.195	386.518	387.746
20.0	361.132	364.817	375.053	380.785	381.604
22.5	352.124	356.219	368.093	374.234	375.463
25.0	341.069	347.211	360.313	366.455	368.502
27.5	330.833	337.384	351.715	358.675	360.313
30.0	319.368	327.148	342.297	350.077	351.715
32.5	307.494	316.502	332.880	340.660	343.116
35.0	293.983	305.038	322.644	330.833	333.290
37.5	281.290	293.573	311.589	321.006	323.872
40.0	268.188	281.290	300.943	310.770	313.636
42.5	254.266	269.006	289.069	299.715	302.991
45.0	239.936	256.723	277.195	288.660	292.345
47.5	225.605	243.621	265.321	277.195	280.880
50.0	211.684	230.109	253.038	265.731	269.825
52.5	196.534	217.007	240.345	254.266	258.770
55.0	182.204	203.495	227.652	241.983	246.896
57.5	167.873	189.983	214.960	229.700	234.613
60.0	153.133	175.653	201.857	217.416	222.739
62.5	137.984	161.731	188.755	205.133	210.456
65.0	123.243	148.220	174.834	191.621	197.763
67.5	108.913	134.299	161.731	179.338	185.889
70.0	94.173	119.968	148.220	166.645	172.377
72.5	79.433	106.047	135.117	153.543	160.094
75.0	65.102	92.535	122.015	140.850	147.810
77.5	51.590	79.842	108.913	128.566	135.936
80.0	39.307	67.149	97.448	117.102	123.653
82.5	27.433	55.685	86.393	106.047	113.007
85.0	17.606	45.858	76.567	96.220	103.181
87.5	10.236	37.669	67.968	87.622	94.173
90.0	4.504	31.937	61.417	81.070	87.212
92.5	4.504	30.709	59.370	77.795	84.346
95.0	4.094	29.890	57.732	75.748	81.480
97.5	4.094	28.661	55.685	73.291	79.023
100.0	3.685	27.433	54.047	70.834	76.567
102.5	3.685	26.614	52.409	68.787	74.110
105.0	3.685	24.976	50.362	66.330	71.653
107.5	3.276	23.748	48.724	63.874	69.196
110.0	2.866	22.929	46.677	61.417	66.740
112.5	2.866	21.701	44.630	58.960	64.283
115.0	2.866	20.472	42.992	56.913	61.826
117.5	2.457	19.244	40.945	54.456	58.960
120.0	2.457	18.016	38.897	52.000	56.504
122.5	2.047	16.787	36.850	49.543	54.047
125.0	2.047	15.559	34.803	47.086	51.181
127.5	1.638	14.331	32.756	44.220	48.724
130.0	1.638	13.102	30.709	41.764	45.858
132.5	1.638	11.874	28.661	39.307	42.992

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CANDELA TABULATION - (Cont.)

135.0	1.228	10.646	26.205	36.850	40.535
137.5	1.228	9.417	24.157	33.984	37.669
140.0	1.228	8.189	21.701	31.527	34.803
142.5	1.228	6.961	19.244	29.071	32.346
145.0	0.819	6.142	17.197	26.614	29.480
147.5	0.819	5.323	15.150	23.748	26.614
150.0	0.819	4.504	13.102	21.291	23.748
152.5	0.409	3.276	11.055	18.425	20.882
155.0	0.409	2.866	9.008	15.559	18.016
157.5	0.409	2.047	7.370	12.283	15.150
160.0	0.409	1.228	5.732	9.827	12.283
162.5	0.409	0.819	4.504	7.370	9.827
165.0	0.409	0.819	3.276	5.323	7.370
167.5	0.409	0.409	2.047	3.685	4.913
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	146.36	N.A.	9.80
0-30	311.02	N.A.	20.90
0-40	510.18	N.A.	34.30
0-60	918.84	N.A.	61.70
0-80	1208.53	N.A.	81.10
0-90	1285.85	N.A.	86.30
10-90	1248.15	N.A.	83.80
20-40	363.81	N.A.	24.40
20-50	573.92	N.A.	38.50
40-70	576.03	N.A.	38.70
60-80	289.69	N.A.	19.50
70-80	122.32	N.A.	8.20
80-90	77.32	N.A.	5.20
90-110	103.68	N.A.	7.00
90-120	141.51	N.A.	9.50
90-130	169.37	N.A.	11.40
90-150	198.06	N.A.	13.30
90-180	203.46	N.A.	13.70
110-180	99.78	N.A.	6.70
0-180	1489.32	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	37.71
10-20	108.65
20-30	164.66
30-40	199.15
40-50	210.10
50-60	198.56
60-70	167.37
70-80	122.32
80-90	77.32
90-100	56.20
100-110	47.48
110-120	37.83
120-130	27.85
130-140	18.38
140-150	10.31
150-160	4.34
160-170	1.02
170-180	0.05

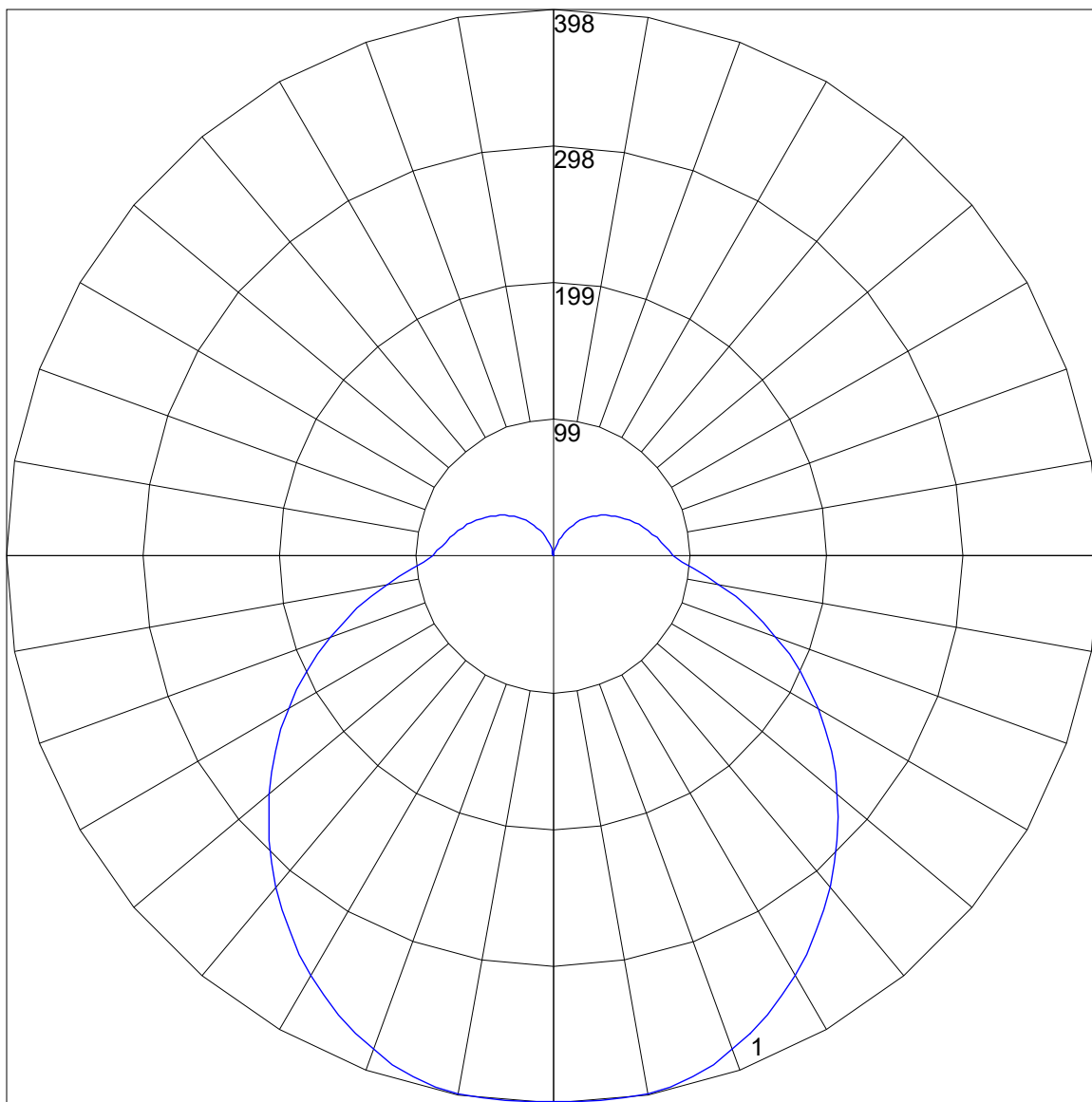
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	116	116	116	116	112	112	112	112	104	104	104	96	96	96	90	90	90	86
1	104	98	93	89	100	95	90	86	88	84	81	82	79	76	76	74	72	68
2	94	85	77	71	90	82	75	69	76	70	66	71	66	62	66	62	59	56
3	85	74	65	59	81	71	63	57	66	60	54	62	56	52	58	53	49	46
4	78	65	56	49	74	63	55	48	59	52	46	55	49	44	51	46	42	39
5	71	58	49	42	68	56	48	41	52	45	39	49	43	38	46	40	36	34
6	66	52	43	36	63	50	42	36	47	40	34	44	38	33	41	36	32	29
7	61	47	38	32	58	46	37	31	43	36	30	40	34	29	38	32	28	26
8	57	43	34	28	54	42	34	28	39	32	27	37	31	26	35	29	25	23
9	53	39	31	25	51	38	30	25	36	29	24	34	28	23	32	27	23	21
10	49	36	28	23	47	35	28	23	33	26	22	31	25	21	30	24	20	19

POLAR GRAPH



Maximum Candela = 397.573 Located At Horizontal Angle = 90, Vertical Angle = 5
1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)