

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-B-8TW-DL-ITL90629.902.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL90629.902 Family Correlation File
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.
[TESTDATE]07/09/18
[ISSUE DATE]10/12/18
[MANUFAC]FINELITE, INC.
[LUMCAT]FINELITE HP-4-D-4ft-B-8TW-DL
[OTHER]ies file is based on 3500K; see luminaire tech sheet at
[more]www.finelite.com for lumen adjustment factors for other CCT's & CRI's
[INPUT_ELECTRICAL]120.0 VOLTS, 20.2 WATTS
[INPUT_ELECTRICAL]277.0 VOLTS, 21.5 WATTS
[ABSOLUTE LUMENS]2108
[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	2108
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	104
Total Luminaire Watts	20.2
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	4464	4141	4051
55	4128	3795	3729
65	3708	3399	3394
75	3057	2928	3019
85	1986	2493	2726

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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	643.902	643.902	643.902	643.902	643.902
2.5	642.873	642.873	643.387	643.902	644.417
5.0	639.784	640.299	641.843	642.873	643.387
7.5	635.152	636.696	639.270	640.299	641.328
10.0	628.975	630.005	634.122	636.181	637.211
12.5	621.255	621.255	627.946	631.034	631.034
15.0	610.960	611.475	619.711	622.799	622.799
17.5	599.122	600.152	609.416	613.534	613.534
20.0	585.740	586.769	597.063	601.696	601.696
22.5	570.298	572.357	584.196	588.828	588.313
25.0	554.342	556.916	569.269	574.416	574.931
27.5	536.328	540.445	554.342	558.975	559.490
30.0	517.798	522.430	536.842	542.504	543.534
32.5	498.239	503.901	519.857	525.519	526.033
35.0	475.592	483.827	500.813	507.504	508.019
37.5	454.489	464.783	481.768	487.945	490.518
40.0	433.386	443.680	462.209	469.415	470.959
42.5	410.224	422.062	441.621	450.371	451.915
45.0	387.062	400.959	421.033	430.297	432.871
47.5	363.385	379.341	399.929	410.224	413.312
50.0	340.223	357.209	378.312	389.121	392.724
52.5	317.576	334.561	357.209	369.562	372.650
55.0	292.870	310.885	335.076	348.459	351.547
57.5	268.164	288.752	312.944	326.841	331.473
60.0	244.487	266.105	290.811	305.738	311.399
62.5	220.296	242.428	268.164	284.120	289.267
65.0	196.619	218.752	245.517	262.502	267.649
67.5	171.398	196.619	223.899	240.884	247.061
70.0	148.236	172.942	201.252	219.266	226.472
72.5	125.074	150.810	178.604	198.163	204.854
75.0	102.427	128.163	158.016	177.575	184.266
77.5	79.780	107.060	136.913	157.501	164.707
80.0	59.192	86.986	117.354	138.457	146.178
82.5	41.177	68.971	99.854	120.957	129.192
85.0	25.735	53.530	84.927	106.030	112.721
87.5	14.412	41.177	71.545	92.648	98.824
90.0	5.147	31.397	61.765	82.354	89.045
92.5	4.632	30.368	58.677	78.236	84.412
95.0	4.118	29.338	57.133	75.662	81.839
97.5	4.118	28.309	55.074	73.089	79.265
100.0	3.603	26.765	53.530	70.515	76.692
102.5	3.603	25.735	51.471	67.942	73.603
105.0	3.088	24.706	49.412	65.368	71.030
107.5	3.088	23.677	47.868	63.309	68.456
110.0	3.088	22.133	45.809	60.736	65.883
112.5	3.088	21.103	44.265	58.162	63.309
115.0	2.574	20.074	42.206	56.103	60.736
117.5	2.574	19.044	40.147	53.530	58.162
120.0	2.059	17.500	38.089	50.956	55.074
122.5	2.059	16.471	36.030	48.383	52.500
125.0	2.059	15.441	33.971	45.809	49.927
127.5	2.059	13.897	31.912	43.236	47.353
130.0	1.544	12.868	29.853	40.662	44.780
132.5	1.544	11.838	27.794	38.089	41.691

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CANDELA TABULATION - (Cont.)

135.0	1.544	10.809	25.735	35.515	39.118
137.5	1.029	9.265	23.677	32.941	36.544
140.0	1.029	8.235	21.103	30.368	33.971
142.5	1.029	7.206	18.530	27.794	31.397
145.0	1.029	6.177	16.471	25.735	28.309
147.5	1.029	5.147	14.412	23.162	25.735
150.0	0.515	4.632	12.353	20.588	23.162
152.5	0.515	3.603	10.809	18.015	20.074
155.0	0.515	2.574	8.750	15.441	17.500
157.5	0.515	2.059	7.206	12.353	14.927
160.0	0.515	1.544	5.662	9.779	12.353
162.5	0.515	1.029	4.632	7.721	9.779
165.0	0.515	0.515	3.088	5.662	7.721
167.5	0.515	0.515	2.059	3.603	5.147
170.0	0.515	0.515	1.029	2.574	3.603
172.5	0.515	0.515	0.515	1.029	1.544
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	235.18	N.A.	11.20
0-30	496.08	N.A.	23.50
0-40	806.58	N.A.	38.30
0-60	1421.91	N.A.	67.40
0-80	1820.33	N.A.	86.30
0-90	1907.86	N.A.	90.50
10-90	1846.86	N.A.	87.60
20-40	571.40	N.A.	27.10
20-50	892.13	N.A.	42.30
40-70	852.97	N.A.	40.50
60-80	398.42	N.A.	18.90
70-80	160.78	N.A.	7.60
80-90	87.53	N.A.	4.20
90-110	102.89	N.A.	4.90
90-120	140.10	N.A.	6.60
90-130	167.29	N.A.	7.90
90-150	195.18	N.A.	9.30
90-180	200.56	N.A.	9.50
110-180	97.67	N.A.	4.60
0-180	2108.42	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	61.00
10-20	174.18
20-30	260.90
30-40	310.50
40-50	320.73
50-60	294.59
60-70	237.64
70-80	160.78
80-90	87.53
90-100	56.05
100-110	46.84
110-120	37.20
120-130	27.20
130-140	17.90
140-150	9.99
150-160	4.26
160-170	1.05
170-180	0.06

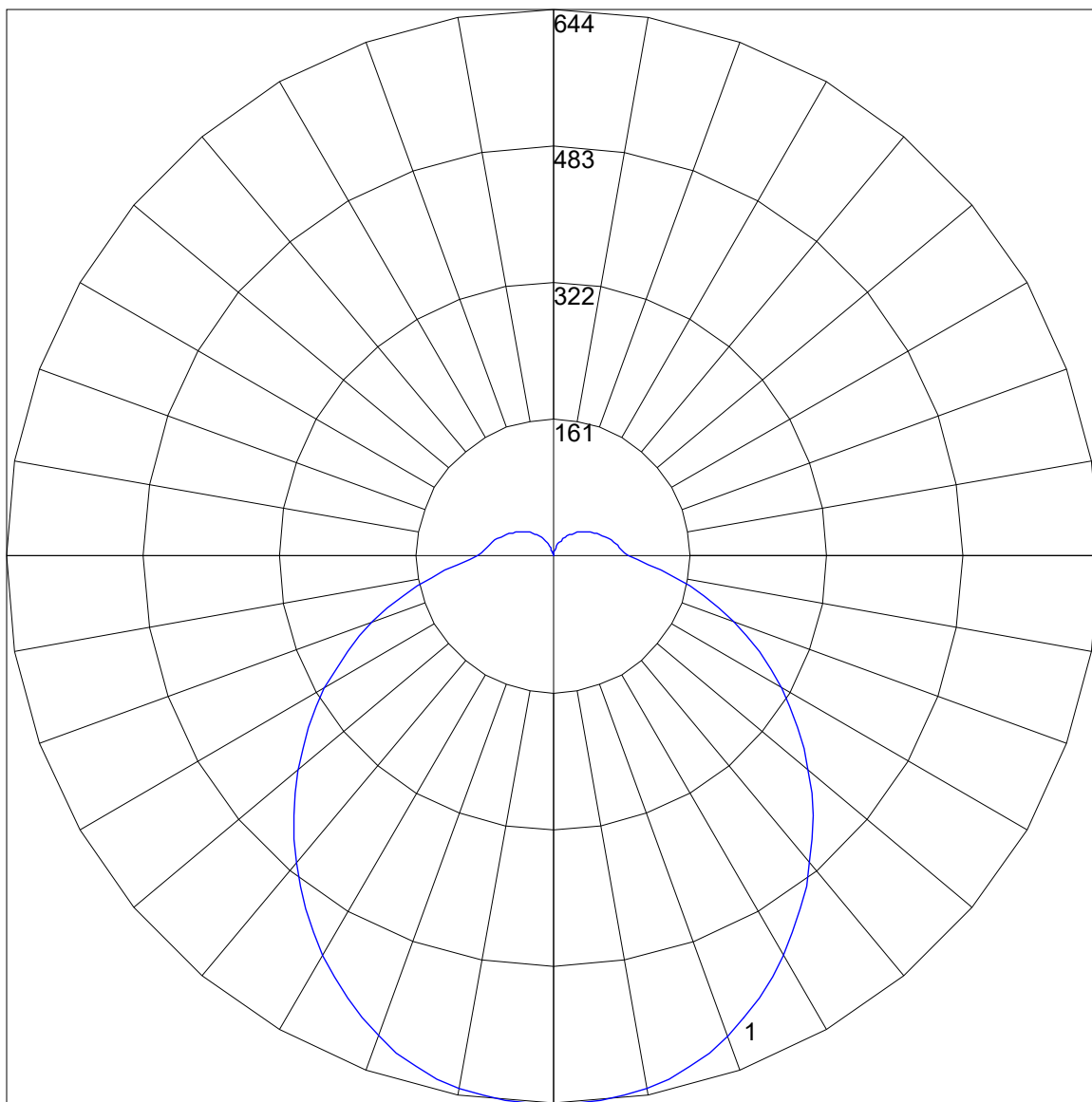
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	91
1	105	100	96	91	102	97	93	89	91	88	84	85	83	80	80	78	76	73
2	96	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 = 644.417 Located At Horizontal Angle = 90, Vertical Angle = 2.5
1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)