

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-WS-6W-6D-4FT-B-8-35-ITL86717.002.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST]ITL86717.002 Family Correlation File
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.
[TESTDATE]02/15/16
[ISSUEDATE]03/30/16
[MANUFAC]FINELITE, INC.
[LUMCAT]HP-WS-6W-6D-4ft-B-8-35
[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 18.7 WATTS
[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 19.8 WATTS
[ABSOLUTE]LUMENS]1535
[OTHER]see www.finelite.com for source file ITL86717. 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	1535
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	82
Total Luminaire Watts	18.7
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.66
Spacing Criterion (90-270)	1.20
Spacing Criterion (Diagonal)	1.14
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	0.49 ft
Luminous Width (90-270)	4.00 ft
Luminous Height	0.53 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	2443	2595	2663
55	1988	2115	2364
65	1566	1640	2008
75	1168	1162	1538
85	781	727	725

CANDELA TABULATION

	<u>0.0</u>	<u>5.0</u>	<u>15.0</u>	<u>25.0</u>	<u>35.0</u>	<u>45.0</u>	<u>55.0</u>	<u>65.0</u>	<u>75.0</u>	<u>85.0</u>
0.0	655.064	655.064	655.064	655.064	655.064	655.064	655.064	655.064	655.064	655.064
2.5	675.132	674.103	671.530	671.016	668.957	665.355	662.782	659.180	657.122	655.578
5.0	705.493	705.493	702.405	699.318	693.143	684.909	676.162	666.384	657.637	653.005
7.5	734.309	733.280	729.678	725.047	715.784	703.949	690.570	675.132	659.695	648.889
10.0	759.009	759.009	753.863	747.688	736.368	720.416	703.949	683.366	660.724	642.714
12.5	778.563	777.534	772.903	765.184	752.320	734.824	712.182	686.453	658.666	635.509
15.0	792.972	791.943	787.311	778.563	764.670	743.572	718.357	688.511	655.578	626.247
17.5	803.778	802.234	797.088	788.341	771.874	749.232	721.445	687.997	650.432	615.441
20.0	809.438	808.409	803.778	794.001	776.505	751.805	721.959	685.424	644.772	604.120
22.5	812.526	810.982	805.836	795.030	778.049	751.291	719.901	680.793	636.539	590.741
25.0	810.982	809.953	804.807	792.972	774.961	747.688	714.241	672.559	626.247	576.332
27.5	806.865	805.322	800.176	787.826	769.301	740.999	706.522	663.297	614.412	560.895
30.0	797.603	796.574	791.943	779.078	761.068	732.251	696.745	652.491	601.032	543.914
32.5	783.709	782.166	778.049	766.213	749.232	720.416	684.395	639.112	586.110	525.903
35.0	762.611	762.097	759.009	750.261	733.795	706.007	669.987	624.189	570.157	506.864
37.5	737.911	737.911	734.824	727.620	714.755	689.541	653.520	607.722	553.176	486.795
40.0	710.639	711.153	707.551	701.376	690.570	668.957	634.995	589.712	533.622	466.212
42.5	682.336	682.336	678.734	672.559	662.782	646.316	614.926	570.157	514.068	445.114
45.0	652.491	651.976	648.889	642.714	632.937	619.043	591.770	549.060	493.485	422.987
47.5	621.101	621.101	617.499	610.295	601.547	588.168	566.041	526.933	471.358	400.345
50.0	590.226	590.741	586.110	578.905	569.128	556.778	537.739	502.747	449.231	377.704
52.5	558.837	559.351	554.720	546.487	536.195	523.845	507.378	478.047	425.560	355.062
55.0	526.418	526.933	522.301	514.068	503.262	489.883	473.416	450.774	402.918	331.391
57.5	494.514	495.028	490.397	483.193	470.328	458.493	440.483	421.443	378.733	308.235
60.0	462.095	461.581	457.978	450.260	436.366	422.987	406.520	390.054	353.004	285.079
62.5	430.191	429.676	425.560	416.812	403.433	391.083	374.616	357.635	327.275	261.408
65.0	398.287	397.772	393.656	384.393	370.499	357.120	340.654	324.702	300.002	237.737
67.5	366.897	365.868	361.752	352.489	337.566	324.187	307.206	291.254	271.700	214.066
70.0	336.022	337.566	330.362	321.100	305.662	290.225	273.758	257.806	241.339	190.396
72.5	305.662	306.691	299.487	290.225	276.331	258.835	241.339	224.873	209.950	166.725
75.0	275.816	276.331	269.127	260.893	247.000	228.989	210.464	192.968	179.075	143.054
77.5	247.000	247.514	240.825	232.591	218.698	200.687	182.677	162.094	146.656	119.898
80.0	218.698	219.212	213.037	203.775	191.425	173.929	155.404	133.277	116.296	95.712
82.5	191.425	191.939	185.764	178.560	165.696	148.714	130.704	107.548	87.994	72.042
85.0	164.666	165.181	159.006	152.316	140.481	124.014	107.033	85.935	62.264	45.283
87.5	139.452	139.452	134.306	127.616	115.781	100.344	84.392	64.837	43.740	18.010
90.0	113.723	113.723	110.635	104.460	92.625	78.731	64.323	46.827	28.817	5.660
92.5	80.789	81.304	77.702	72.042	62.264	49.400	37.050	23.671	13.379	2.573
95.0	48.885	48.885	46.827	42.196	35.506	28.302	22.642	16.467	8.748	1.029
97.5	33.448	33.448	32.419	30.875	28.302	24.185	19.554	13.379	6.175	0.515
100.0	29.846	29.846	29.331	27.787	25.215	21.612	16.981	11.321	5.146	0.515
102.5	27.787	27.787	27.273	25.729	23.156	19.554	15.437	10.292	3.087	0.515
105.0	25.729	25.729	25.215	23.671	21.612	18.010	14.408	9.262	1.544	0.515
107.5	24.700	24.185	23.671	22.642	20.069	17.496	13.379	6.690	1.029	0.515
110.0	23.156	23.156	22.642	21.612	19.554	16.467	12.865	4.631	1.029	0.000
112.5	22.642	22.642	22.127	20.583	18.525	15.952	9.777	2.573	0.515	0.000
115.0	22.127	22.127	21.098	20.069	18.010	14.923	6.690	1.029	0.515	0.000
117.5	21.612	21.098	20.583	19.554	17.496	10.806	4.117	1.029	0.515	0.000
120.0	20.583	20.583	20.069	19.040	14.408	7.719	2.058	0.515	0.515	0.000
122.5	20.069	20.069	19.040	15.952	10.292	5.146	0.515	0.515	0.515	0.000
125.0	16.981	16.467	14.408	11.321	6.690	2.573	0.515	0.515	0.515	0.000
127.5	11.835	11.835	10.292	7.719	4.117	0.515	0.515	0.515	0.000	0.000
130.0	8.233	7.719	6.690	4.631	1.544	0.000	0.000	0.000	0.000	0.000
132.5	4.631	4.631	3.602	2.058	0.000	0.000	0.000	0.000	0.000	0.000

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CANDELA TABULATION - (Cont.)

135.0	2.058	2.058	1.029	0.000	0.000	0.000	0.000	0.000	0.000	0.000
137.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
140.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
142.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
145.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
147.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
152.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
155.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
157.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
160.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
162.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
165.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
167.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
172.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
175.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
177.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
180.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Vert. Horizontal Angles

	<u>90.0</u>	<u>112.5</u>	<u>135.0</u>	<u>157.5</u>	<u>180.0</u>
0.0	655.064	655.064	655.064	655.064	655.064
2.5	654.549	647.859	636.024	621.616	614.412
5.0	651.462	626.247	580.449	540.312	524.874
7.5	646.830	593.314	513.039	450.774	428.133
10.0	639.112	555.235	442.541	360.722	331.391
12.5	630.364	510.980	372.558	272.214	236.193
15.0	619.043	467.241	301.031	187.308	146.656
17.5	606.693	424.531	232.077	109.092	74.100
20.0	592.799	379.762	166.725	41.681	16.467
22.5	577.362	334.993	106.004	13.894	9.262
25.0	559.866	290.225	51.458	9.777	6.690
27.5	541.855	247.000	19.554	7.719	5.146
30.0	522.816	205.318	13.894	6.690	4.631
32.5	501.718	164.666	11.321	5.146	3.602
35.0	480.106	126.073	9.262	4.117	2.573
37.5	457.464	90.052	7.719	3.087	2.058
40.0	434.308	57.119	6.175	2.573	0.515
42.5	412.181	30.360	5.146	1.544	0.515
45.0	387.995	20.069	3.602	1.029	0.000
47.5	364.324	15.952	2.573	0.515	0.000
50.0	339.624	13.379	1.544	0.515	0.000
52.5	317.497	10.806	1.029	0.000	0.000
55.0	293.312	8.748	0.515	0.000	0.000
57.5	269.641	6.690	0.000	0.000	0.000
60.0	245.456	4.631	0.000	0.000	0.000
62.5	221.785	3.602	0.000	0.000	0.000
65.0	198.114	2.058	0.000	0.000	0.000
67.5	175.473	1.029	0.000	0.000	0.000
70.0	152.831	0.515	0.000	0.000	0.000
72.5	131.219	0.515	0.000	0.000	0.000
75.0	108.062	0.000	0.000	0.000	0.000
77.5	87.479	0.000	0.000	0.000	0.000
80.0	67.410	0.000	0.000	0.000	0.000

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CANDELA TABULATION - (Cont.)

82.5	47.342	0.000	0.000	0.000	0.000
85.0	28.817	0.000	0.000	0.000	0.000
87.5	9.262	0.000	0.000	0.000	0.000
90.0	0.000	0.000	0.000	0.000	0.000
92.5	0.000	0.000	0.000	0.000	0.000
95.0	0.000	0.000	0.000	0.000	0.000
97.5	0.000	0.000	0.000	0.000	0.000
100.0	0.000	0.000	0.000	0.000	0.000
102.5	0.000	0.000	0.000	0.000	0.000
105.0	0.000	0.000	0.000	0.000	0.000
107.5	0.000	0.000	0.000	0.000	0.000
110.0	0.000	0.000	0.000	0.000	0.000
112.5	0.000	0.000	0.000	0.000	0.000
115.0	0.000	0.000	0.000	0.000	0.000
117.5	0.000	0.000	0.000	0.000	0.000
120.0	0.000	0.000	0.000	0.000	0.000
122.5	0.000	0.000	0.000	0.000	0.000
125.0	0.000	0.000	0.000	0.000	0.000
127.5	0.000	0.000	0.000	0.000	0.000
130.0	0.000	0.000	0.000	0.000	0.000
132.5	0.000	0.000	0.000	0.000	0.000
135.0	0.000	0.000	0.000	0.000	0.000
137.5	0.000	0.000	0.000	0.000	0.000
140.0	0.000	0.000	0.000	0.000	0.000
142.5	0.000	0.000	0.000	0.000	0.000
145.0	0.000	0.000	0.000	0.000	0.000
147.5	0.000	0.000	0.000	0.000	0.000
150.0	0.000	0.000	0.000	0.000	0.000
152.5	0.000	0.000	0.000	0.000	0.000
155.0	0.000	0.000	0.000	0.000	0.000
157.5	0.000	0.000	0.000	0.000	0.000
160.0	0.000	0.000	0.000	0.000	0.000
162.5	0.000	0.000	0.000	0.000	0.000
165.0	0.000	0.000	0.000	0.000	0.000
167.5	0.000	0.000	0.000	0.000	0.000
170.0	0.000	0.000	0.000	0.000	0.000
172.5	0.000	0.000	0.000	0.000	0.000
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	208.06	N.A.	13.60
0-30	412.24	N.A.	26.90
0-40	652.90	N.A.	42.50
0-60	1125.57	N.A.	73.30
0-80	1433.43	N.A.	93.40
0-90	1498.98	N.A.	97.60
10-90	1440.05	N.A.	93.80
20-40	444.84	N.A.	29.00
20-50	691.05	N.A.	45.00
40-70	655.63	N.A.	42.70
60-80	307.86	N.A.	20.10
70-80	124.91	N.A.	8.10
80-90	65.54	N.A.	4.30
90-110	27.52	N.A.	1.80
90-120	33.27	N.A.	2.20
90-130	35.96	N.A.	2.30
90-150	36.23	N.A.	2.40
90-180	36.23	N.A.	2.40
110-180	8.71	N.A.	0.60
0-180	1535.21	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	58.93
10-20	149.13
20-30	204.18
30-40	240.66
40-50	246.22
50-60	226.46
60-70	182.95
70-80	124.91
80-90	65.54
90-100	19.18
100-110	8.34
110-120	5.75
120-130	2.69
130-140	0.27
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

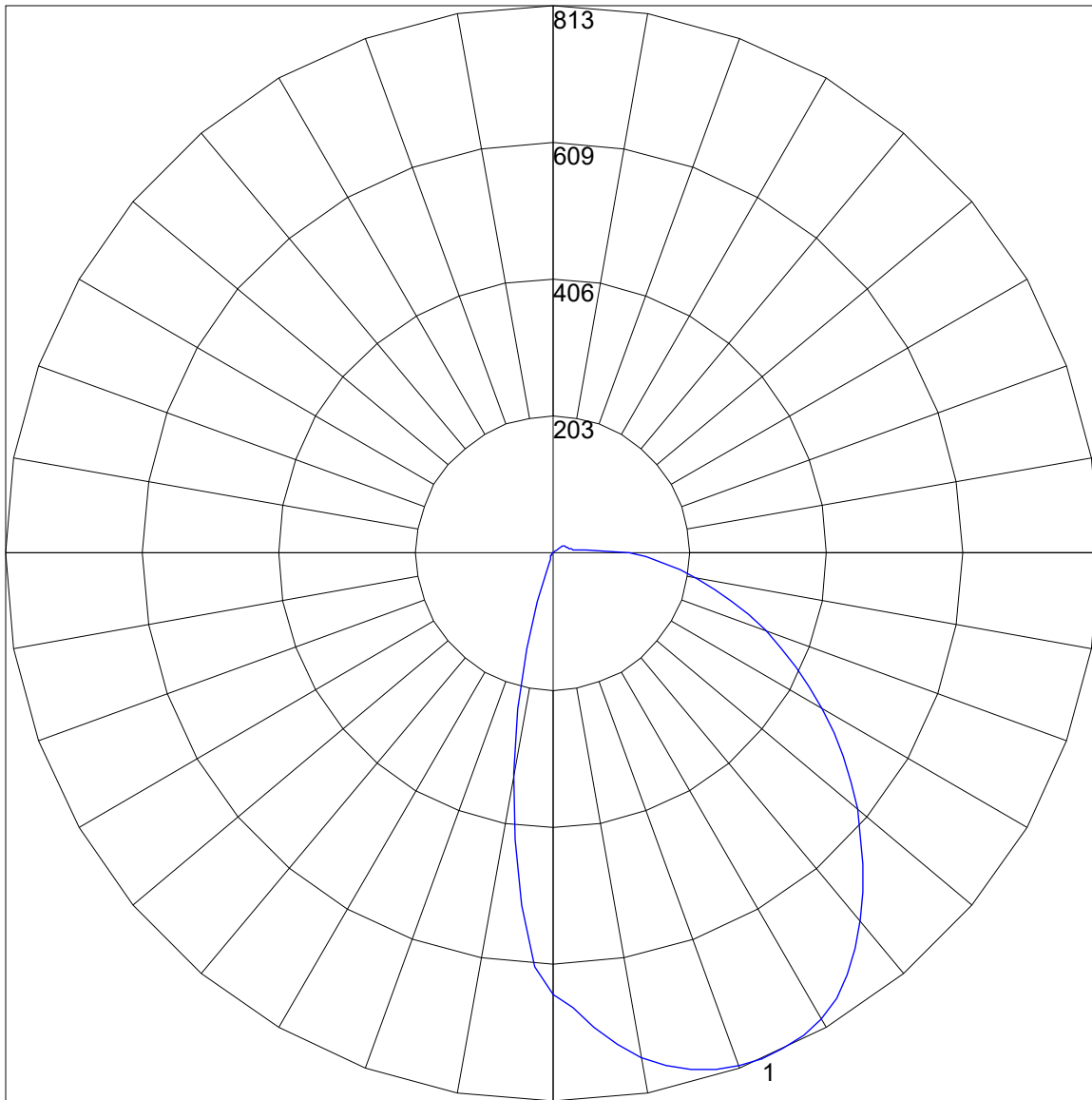
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	119	119	119	119	115	115	115	115	110	110	110	105	105	105	100	100	100	98
1	107	102	97	93	104	99	95	91	95	91	88	90	87	85	86	84	82	79
2	97	88	81	75	94	86	80	74	82	77	72	79	74	70	75	71	68	66
3	89	78	69	62	86	76	68	62	72	66	60	69	64	59	66	62	58	55
4	81	69	60	53	79	67	59	52	64	57	51	62	55	50	59	54	49	47
5	75	62	52	46	72	60	52	45	58	50	45	56	49	44	53	48	43	41
6	69	55	46	40	67	54	46	40	52	45	39	50	44	39	49	43	38	36
7	64	50	42	35	62	49	41	35	48	40	35	46	39	34	44	38	34	32
8	60	46	38	32	58	45	37	31	44	36	31	42	36	31	41	35	30	29
9	56	42	34	29	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	37	30	26	36	30	25	35	29	25	23

POLAR GRAPH



Maximum Candela = 812.526 Located At Horizontal Angle = 0, Vertical Angle = 22.5
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)