

# 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-WG-6W-6D-4FT-V-8TW-ITL88851.900.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST]ITL88851.900 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[TESTDATE]01/25/17  
[ISSUE DATE]04/18/17  
[MANUFAC]FINELITE, INC.  
[LUMCAT]FINELITE HP-WG-6W-6D-4ft-V-8TW  
[OTHER]ies file is based on 3500K; see luminaire tech sheet at [www.finelite.com](http://www.finelite.com) for lumen adjustment factors for other CCT's & CRI's  
[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 40.5 WATTS  
[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 41.4 WATTS  
[ABSOLUTE LUMENS]2584  
[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL88551. 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](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	2584
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	64
Total Luminaire Watts	40.5
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.28
Spacing Criterion (90-270)	1.06
Spacing Criterion (Diagonal)	0.52
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	0.49 ft
Luminous Width (90-270)	4.00 ft
Luminous Height	0.49 ft

**LUMINANCE DATA (cd/sq.m)**

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	1344	1564	9565
55	1320	1334	6753
65	1793	1419	4323
75	2614	1987	2018
85	306	341	444

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**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	3417	3417	3417	3417	3417	3417	3417	3417	3417	3417
0.5	3346	3340	3342	3348	3355	3362	3372	3385	3398	3410
1.0	3242	3255	3259	3271	3286	3303	3326	3352	3377	3404
1.5	3154	3165	3172	3189	3213	3241	3276	3315	3355	3396
2.0	3063	3069	3079	3102	3136	3174	3223	3277	3332	3385
2.5	2968	2969	2984	3013	3056	3105	3168	3238	3309	3379
3.0	2863	2865	2883	2919	2972	3034	3111	3198	3283	3368
3.5	2756	2758	2777	2823	2887	2962	3054	3157	3258	3357
4.0	2643	2645	2669	2723	2799	2887	2995	3115	3232	3346
4.5	2523	2529	2558	2619	2707	2808	2934	3070	3204	3334
5.0	2404	2410	2444	2512	2613	2728	2870	3023	3175	3318
5.5	2281	2290	2328	2405	2516	2668	2806	2977	3145	3308
6.0	2160	2173	2212	2296	2420	2564	2739	2929	3113	3289
6.5	2041	2057	2101	2188	2321	2499	2671	2879	3082	3277
7.0	1928	1946	1993	2083	2223	2414	2603	2829	3049	3256
7.5	1819	1842	1888	1983	2126	2327	2533	2780	3016	3244
8.0	1717	1745	1791	1887	2033	2242	2462	2729	2983	3226
8.5	1655	1654	1701	1796	1941	2158	2391	2676	2949	3212
9.0	1566	1572	1618	1710	1854	2075	2322	2624	2916	3194
9.5	1484	1495	1540	1629	1773	1992	2268	2572	2880	3174
10.0	1409	1427	1469	1556	1696	1914	2198	2518	2844	3155
11.0	1297	1305	1346	1425	1557	1770	2063	2413	2774	3116
11.5	1234	1250	1290	1366	1494	1701	1997	2358	2738	3095
12.0	1197	1200	1239	1312	1437	1637	1933	2305	2702	3075
12.5	1142	1153	1190	1261	1381	1576	1870	2252	2665	3053
13.0	1094	1110	1145	1214	1329	1518	1809	2199	2619	3031
13.5	1063	1069	1104	1169	1283	1464	1752	2147	2582	3009
14.0	1018	1031	1065	1127	1236	1412	1697	2094	2542	2987
14.5	992	997	1030	1089	1192	1365	1645	2044	2505	2965
15.0	956	965	996	1054	1153	1320	1592	1981	2466	2943
16.0	898	907	930	987	1077	1234	1494	1884	2392	2894
17.0	848	857	879	931	1011	1159	1405	1793	2321	2846
18.0	802	812	831	881	953	1090	1324	1708	2249	2796
19.0	767	769	789	835	902	1028	1249	1626	2178	2746
20.0	724	729	749	794	854	972	1180	1548	2109	2697
22.5	619	628	651	694	754	853	1030	1371	1940	2560
25.0	552	555	570	608	668	757	908	1218	1778	2420
27.5	506	508	517	542	591	675	806	1084	1624	2267
30.0	480	483	486	497	531	603	720	967	1479	2119
32.5	445	445	456	466	487	543	648	871	1344	1971
35.0	399	399	413	432	453	495	583	782	1218	1824
37.5	379	379	382	396	421	456	529	701	1100	1680
40.0	365	364	366	372	388	423	481	632	990	1536
42.5	355	354	354	356	364	392	441	574	894	1397
45.0	348	347	346	343	346	363	406	518	800	1261
47.5	336	336	336	335	332	341	375	470	716	1131
50.0	333	332	326	324	322	323	346	425	632	1000
52.5	342	342	338	320	312	309	321	386	564	882
55.0	337	337	334	331	306	299	301	351	498	770
57.5	346	346	336	327	318	289	284	318	438	665
60.0	372	372	358	337	315	291	271	288	381	571
62.5	399	397	383	360	323	295	261	264	330	481
65.0	437	434	415	383	345	297	259	242	284	398
67.5	495	492	465	418	365	312	261	224	244	323

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**CANDELA TABULATION - (Cont.)**

70.0	566	563	529	470	399	328	262	208	207	255
72.5	620	618	585	524	441	350	272	208	181	193
75.0	588	587	568	533	467	374	280	202	156	141
77.5	439	450	444	441	420	372	287	202	135	99
80.0	213	226	237	269	288	297	268	197	125	61
82.5	62	63	64	76	115	159	188	173	116	41
85.0	61	61	62	61	59	55	74	104	99	32
87.5	60	60	61	60	57	53	48	43	56	25
90.0	58	59	59	58	56	51	46	40	34	18
92.5	57	57	58	57	54	50	44	38	30	14
95.0	56	56	57	55	53	48	42	35	26	10
97.5	54	54	55	54	51	46	39	32	21	6
100.0	52	53	53	52	48	44	37	29	17	4
102.5	50	51	51	49	46	41	35	26	14	3
105.0	48	48	49	47	44	39	32	22	10	2
107.5	46	46	46	45	41	36	28	19	8	2
110.0	44	44	44	42	39	33	25	15	6	1
112.5	41	41	41	39	35	29	22	12	5	1
115.0	38	38	38	36	32	26	18	9	4	1
117.5	34	34	34	32	28	22	14	7	3	0
120.0	30	30	30	28	24	18	10	6	3	0
122.5	26	26	26	24	20	14	7	5	3	0
125.0	22	22	22	20	16	10	6	4	2	0
127.5	18	18	18	16	12	7	5	4	2	0
130.0	14	14	13	12	8	5	5	4	2	0
132.5	10	10	9	8	5	5	4	3	1	0
135.0	6	5	5	4	4	4	4	3	1	0
137.5	1	1	2	3	3	4	3	3	1	0
140.0	0	0	1	2	3	3	2	2	0	0
142.5	0	0	1	2	2	2	2	2	0	0
145.0	0	0	1	1	2	2	2	2	0	0
147.5	0	0	0	1	1	1	1	2	0	0
150.0	0	0	0	1	1	1	1	1	0	0
152.5	0	0	0	0	0	0	1	1	0	0
155.0	0	0	0	0	0	0	0	0	0	0
157.5	0	0	0	0	0	0	0	0	0	0
160.0	0	0	0	0	0	0	0	0	0	0
162.5	0	0	0	0	0	0	0	0	0	0
165.0	0	0	0	0	0	0	0	0	0	0
167.5	0	0	0	0	0	0	0	0	0	0
170.0	0	0	0	0	0	0	0	0	0	0
172.5	0	0	0	0	0	0	0	0	0	0
175.0	0	0	0	0	0	0	0	0	0	0
177.5	0	0	0	0	0	0	0	0	0	0
180.0	0	0	0	0	0	0	0	0	0	0

Vert. Angles	Horizontal Angles				
	<u>90.0</u>	<u>112.5</u>	<u>135.0</u>	<u>157.5</u>	<u>180.0</u>
0.0	3417	3417	3417	3417	3417
0.5	3417	3446	3468	3484	3487
1.0	3417	3478	3514	3537	3540
1.5	3416	3496	3549	3576	3575
2.0	3415	3520	3576	3597	3587
2.5	3412	3538	3589	3593	3571
3.0	3409	3552	3590	3569	3534

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**CANDELA TABULATION - (Cont.)**

3.5	3407	3560	3577	3530	3480
4.0	3403	3567	3553	3474	3410
4.5	3397	3566	3519	3406	3328
5.0	3390	3561	3475	3328	3234
5.5	3382	3550	3424	3242	3134
6.0	3372	3533	3365	3148	3027
6.5	3362	3513	3299	3048	2913
7.0	3353	3490	3229	2945	2796
7.5	3342	3462	3155	2837	2677
8.0	3330	3432	3076	2727	2556
8.5	3318	3407	2995	2613	2432
9.0	3305	3361	2910	2499	2308
9.5	3291	3331	2823	2383	2183
10.0	3276	3287	2736	2267	2057
11.0	3247	3196	2555	2036	1811
11.5	3231	3146	2465	1920	1690
12.0	3215	3093	2372	1806	1572
12.5	3198	3040	2280	1694	1459
13.0	3179	2987	2188	1584	1340
13.5	3161	2931	2096	1477	1213
14.0	3142	2877	2004	1366	1091
14.5	3123	2822	1915	1247	978
15.0	3104	2766	1824	1132	872
16.0	3062	2655	1627	921	682
17.0	3021	2542	1461	737	517
18.0	2976	2427	1297	576	367
19.0	2930	2313	1118	431	226
20.0	2879	2201	954	292	142
22.5	2747	1920	611	95	52
25.0	2608	1646	332	47	34
27.5	2461	1388	136	33	25
30.0	2310	1152	61	25	6
32.5	2157	914	42	8	5
35.0	2000	692	32	7	4
37.5	1844	502	23	6	3
40.0	1689	333	11	4	2
42.5	1536	188	9	3	1
45.0	1384	96	8	3	1
47.5	1239	57	7	3	1
50.0	1098	41	6	2	1
52.5	965	31	5	2	0
55.0	830	21	5	2	0
57.5	715	14	4	2	0
60.0	609	12	4	2	0
62.5	511	11	4	1	0
65.0	421	10	3	1	0
67.5	338	8	3	1	0
70.0	263	7	3	1	0
72.5	197	6	2	1	0
75.0	139	5	2	1	0
77.5	91	4	1	1	0
80.0	51	3	1	0	0
82.5	30	2	1	0	0
85.0	17	1	0	0	0
87.5	7	0	0	0	0
90.0	0	0	0	0	0

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CANDELA TABULATION - (Cont.)

92.5	0	0	0	0	0
95.0	0	0	0	0	0
97.5	0	0	0	0	0
100.0	0	0	0	0	0
102.5	0	0	0	0	0
105.0	0	0	0	0	0
107.5	0	0	0	0	0
110.0	0	0	0	0	0
112.5	0	0	0	0	0
115.0	0	0	0	0	0
117.5	0	0	0	0	0
120.0	0	0	0	0	0
122.5	0	0	0	0	0
125.0	0	0	0	0	0
127.5	0	0	0	0	0
130.0	0	0	0	0	0
132.5	0	0	0	0	0
135.0	0	0	0	0	0
137.5	0	0	0	0	0
140.0	0	0	0	0	0
142.5	0	0	0	0	0
145.0	0	0	0	0	0
147.5	0	0	0	0	0
150.0	0	0	0	0	0
152.5	0	0	0	0	0
155.0	0	0	0	0	0
157.5	0	0	0	0	0
160.0	0	0	0	0	0
162.5	0	0	0	0	0
165.0	0	0	0	0	0
167.5	0	0	0	0	0
170.0	0	0	0	0	0
172.5	0	0	0	0	0
175.0	0	0	0	0	0
177.5	0	0	0	0	0
180.0	0	0	0	0	0

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	764.33	N.A.	29.60
0-30	1205.19	N.A.	46.60
0-40	1573.25	N.A.	60.90
0-60	2086.49	N.A.	80.80
0-80	2475.09	N.A.	95.80
0-90	2525.68	N.A.	97.70
10-90	2252.58	N.A.	87.20
20-40	808.92	N.A.	31.30
20-50	1094.26	N.A.	42.30
40-70	713.41	N.A.	27.60
60-80	388.60	N.A.	15.00
70-80	188.44	N.A.	7.30
80-90	50.59	N.A.	2.00
90-110	40.11	N.A.	1.60
90-120	51.16	N.A.	2.00
90-130	56.38	N.A.	2.20
90-150	58.16	N.A.	2.30
90-180	58.19	N.A.	2.30
110-180	18.08	N.A.	0.70
0-180	2583.88	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	273.10
10-20	491.22
20-30	440.86
30-40	368.06
40-50	285.34
50-60	227.90
60-70	200.17
70-80	188.44
80-90	50.59
90-100	22.90
100-110	17.21
110-120	11.06
120-130	5.21
130-140	1.46
140-150	0.32
150-160	0.03
160-170	0.00
170-180	0.00

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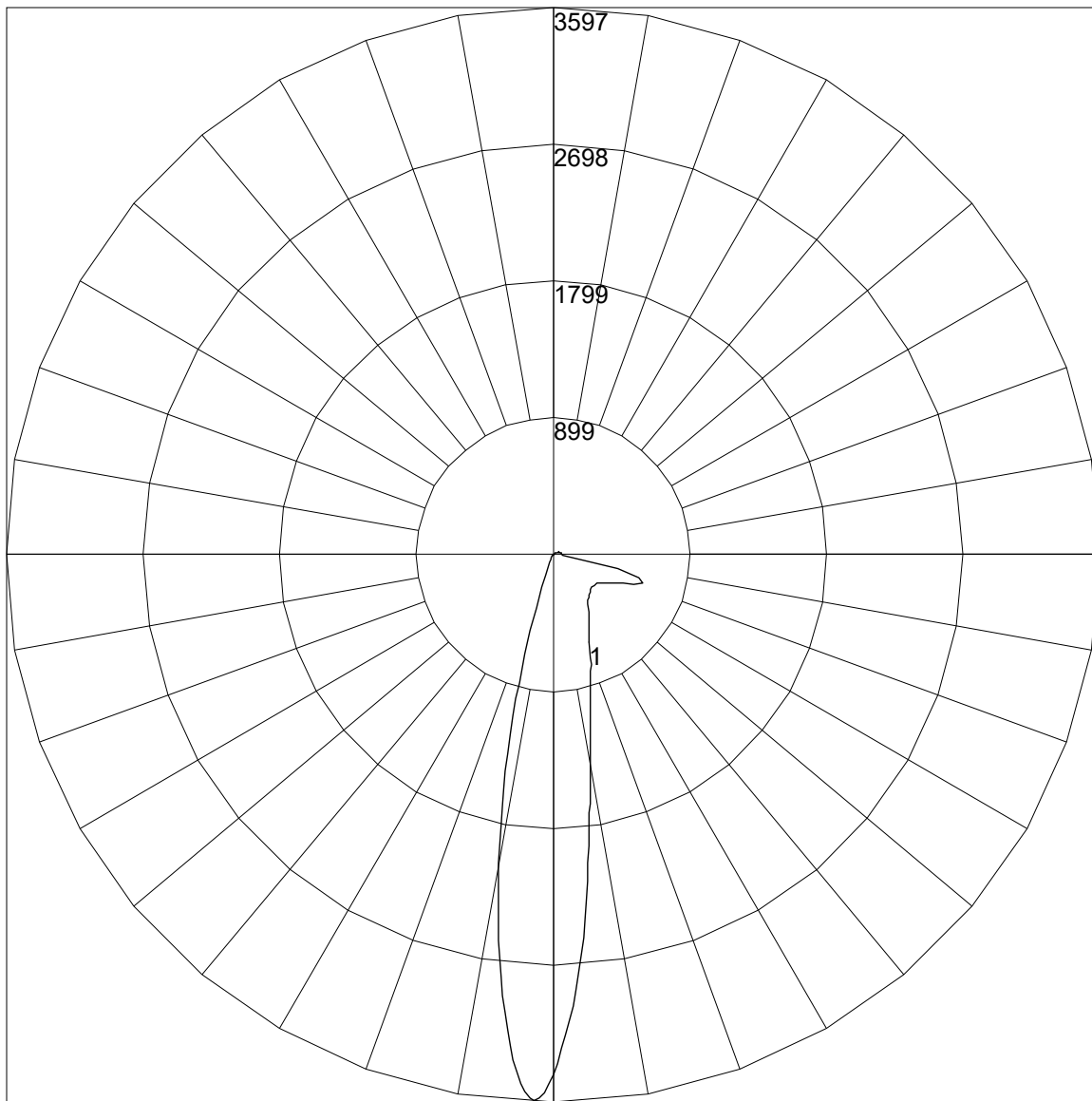
**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	109	105	101	98	107	103	99	96	98	95	93	94	92	89	90	88	86	84
2	101	94	88	83	98	92	86	82	88	84	80	85	81	78	81	78	76	73
3	94	85	78	72	91	83	77	71	80	74	70	77	72	68	74	70	67	65
4	88	77	70	64	85	76	69	64	73	67	62	71	66	61	69	64	60	58
5	82	71	63	58	80	70	63	57	68	61	57	66	60	56	64	59	55	53
6	77	66	58	53	75	65	58	52	63	56	52	61	55	51	59	54	51	49
7	73	61	54	48	71	60	53	48	59	52	48	57	51	47	56	51	47	45
8	69	57	50	45	67	56	50	45	55	49	44	54	48	44	53	47	44	42
9	65	54	47	42	64	53	46	42	52	46	41	51	45	41	50	45	41	39
10	62	51	44	39	61	50	44	39	49	43	39	48	43	39	47	42	38	37



POLAR GRAPH



Maximum Candela = 3597 Located At Horizontal Angle = 157.5, Vertical Angle = 2  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180)