

# 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-4W-6D-4ft-V-8-TW-ITL86714.900.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL86714.900 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]02/11/16

[ISSUEDATE]03/30/16

[MANUFAC]FINELITE, INC.

[LUMCAT]HP-WS-4W-6D-4ft-V-8-TW

[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

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 40.7 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 41.7 WATTS

[ABSOLUTE]LUMENS]2989

[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL86714. 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	2989
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	73
Total Luminaire Watts	40.7
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.70
Spacing Criterion (90-270)	1.20
Spacing Criterion (Diagonal)	1.14
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	0.32 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	5719	6252	7627
55	4547	5016	6745
65	3534	3817	5716
75	2599	2723	4380
85	1704	1681	1984

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : HP-WS-4W-6D-4ft-V-8-TW-ITL86714.900.IES**

**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	1238	1238	1238	1238	1238	1238	1238	1238	1238	1238
2.5	1275	1277	1274	1270	1265	1258	1251	1247	1242	1237
5.0	1334	1333	1331	1323	1313	1298	1279	1262	1244	1233
7.5	1382	1383	1381	1368	1353	1330	1307	1280	1248	1225
10.0	1431	1429	1426	1410	1388	1359	1328	1292	1250	1213
12.5	1470	1468	1463	1445	1418	1384	1344	1298	1247	1200
15.0	1499	1497	1492	1474	1443	1403	1357	1300	1242	1184
17.5	1520	1518	1511	1492	1460	1416	1364	1297	1230	1165
20.0	1535	1532	1525	1505	1470	1423	1365	1293	1216	1143
22.5	1541	1539	1531	1508	1473	1422	1361	1283	1199	1119
25.0	1542	1539	1530	1506	1470	1417	1351	1270	1179	1091
27.5	1536	1534	1524	1499	1462	1407	1338	1252	1157	1062
30.0	1523	1520	1511	1486	1447	1392	1319	1231	1131	1032
32.5	1500	1499	1490	1465	1428	1371	1297	1207	1104	998
35.0	1468	1466	1459	1436	1402	1347	1270	1179	1072	961
37.5	1427	1425	1419	1399	1369	1317	1240	1149	1040	923
40.0	1379	1378	1371	1353	1329	1281	1206	1115	1005	883
42.5	1326	1326	1320	1302	1279	1240	1169	1079	969	842
45.0	1277	1271	1265	1248	1226	1192	1128	1040	929	800
47.5	1219	1215	1209	1191	1168	1138	1083	999	890	756
50.0	1161	1157	1151	1132	1111	1081	1031	956	846	712
52.5	1101	1098	1091	1072	1050	1022	975	909	803	669
55.0	1042	1038	1032	1012	989	960	916	860	759	625
57.5	984	979	973	952	928	899	855	807	713	581
60.0	924	920	913	891	866	836	794	750	668	537
62.5	866	861	854	833	802	772	731	687	620	493
65.0	806	802	792	774	742	711	669	627	569	448
67.5	748	744	734	714	684	650	608	566	516	402
70.0	689	685	675	656	628	591	549	505	460	359
72.5	630	627	617	597	570	534	491	446	402	314
75.0	572	568	559	540	513	478	435	388	345	270
77.5	515	513	501	483	457	423	381	333	288	226
80.0	460	457	445	429	404	371	331	282	234	181
82.5	405	402	390	376	351	320	281	233	185	135
85.0	350	347	335	323	299	268	232	189	140	87
87.5	294	292	284	269	246	217	183	143	99	42
90.0	238	236	229	215	192	164	133	97	59	19
92.5	198	197	190	176	156	132	101	67	33	7
95.0	162	161	154	140	122	98	71	41	19	3
97.5	128	126	120	108	91	70	45	29	15	1
100.0	98	95	89	79	64	47	37	26	13	0
102.5	70	68	64	56	50	43	33	23	11	0
105.0	55	55	53	51	46	40	31	21	9	0
107.5	52	51	50	47	43	37	29	20	6	0
110.0	49	49	47	45	41	35	27	19	3	0
112.5	47	46	45	43	39	33	26	18	1	0
115.0	44	44	43	41	37	32	25	13	0	0
117.5	42	42	41	39	36	31	24	9	0	0
120.0	41	41	40	38	35	30	23	5	0	0
122.5	39	39	38	36	33	28	16	3	0	0
125.0	38	38	37	35	32	27	11	0	0	0
127.5	36	36	35	34	30	20	7	0	0	0
130.0	35	35	34	32	27	14	3	0	0	0
132.5	34	34	33	29	19	9	0	0	0	0

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : HP-WS-4W-6D-4ft-V-8-TW-ITL86714.900.IES**

**CANDELA TABULATION - (Cont.)**

135.0	31	31	28	21	13	5	0	0	0	0
137.5	22	22	19	14	8	1	0	0	0	0
140.0	15	15	13	9	3	0	0	0	0	0
142.5	9	9	7	4	0	0	0	0	0	0
145.0	4	4	2	0	0	0	0	0	0	0
147.5	0	0	0	0	0	0	0	0	0	0
150.0	0	0	0	0	0	0	0	0	0	0
152.5	0	0	0	0	0	0	0	0	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	1238	1238	1238	1238	1238
2.5	1236	1213	1171	1144	1139
5.0	1230	1155	1061	992	974
7.5	1220	1091	934	826	795
10.0	1208	1018	803	660	616
12.5	1192	938	672	498	444
15.0	1172	857	542	342	282
17.5	1149	774	417	198	135
20.0	1123	691	298	73	26
22.5	1093	608	187	21	12
25.0	1060	527	93	13	7
27.5	1027	448	31	8	4
30.0	989	371	20	6	2
32.5	952	297	15	3	0
35.0	909	227	11	3	0
37.5	868	161	8	2	0
40.0	823	101	6	2	0
42.5	781	50	4	1	0
45.0	733	32	3	1	0
47.5	691	25	2	0	0
50.0	642	20	1	0	0
52.5	597	15	1	0	0
55.0	552	11	0	0	0
57.5	509	9	0	0	0
60.0	463	6	0	0	0
62.5	417	4	0	0	0
65.0	372	3	0	0	0
67.5	328	1	0	0	0
70.0	285	1	0	0	0
72.5	243	0	0	0	0
75.0	203	0	0	0	0
77.5	163	0	0	0	0
80.0	125	0	0	0	0

IES INDOOR REPORT  
PHOTOMETRIC FILENAME : HP-WS-4W-6D-4ft-V-8-TW-ITL86714.900.IES

CANDELA TABULATION - (Cont.)

82.5	88	0	0	0	0
85.0	52	0	0	0	0
87.5	16	0	0	0	0
90.0	0	0	0	0	0
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

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : HP-WS-4W-6D-4ft-V-8-TW-ITL86714.900.IES**

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	389.84	N.A.	13.00
0-30	774.45	N.A.	25.90
0-40	1230.92	N.A.	41.20
0-60	2141.17	N.A.	71.60
0-80	2754.62	N.A.	92.10
0-90	2892.67	N.A.	96.80
10-90	2782.42	N.A.	93.10
20-40	841.08	N.A.	28.10
20-50	1312.87	N.A.	43.90
40-70	1270.36	N.A.	42.50
60-80	613.45	N.A.	20.50
70-80	253.34	N.A.	8.50
80-90	138.05	N.A.	4.60
90-110	70.16	N.A.	2.30
90-120	83.24	N.A.	2.80
90-130	92.16	N.A.	3.10
90-150	96.72	N.A.	3.20
90-180	96.72	N.A.	3.20
110-180	26.57	N.A.	0.90
0-180	2989.39	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	110.25
10-20	279.59
20-30	384.61
30-40	456.47
40-50	471.79
50-60	438.46
60-70	360.11
70-80	253.34
80-90	138.05
90-100	51.08
100-110	19.08
110-120	13.08
120-130	8.92
130-140	4.14
140-150	0.43
150-160	0.00
160-170	0.00
170-180	0.00

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : HP-WS-4W-6D-4ft-V-8-TW-ITL86714.900.IES

## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

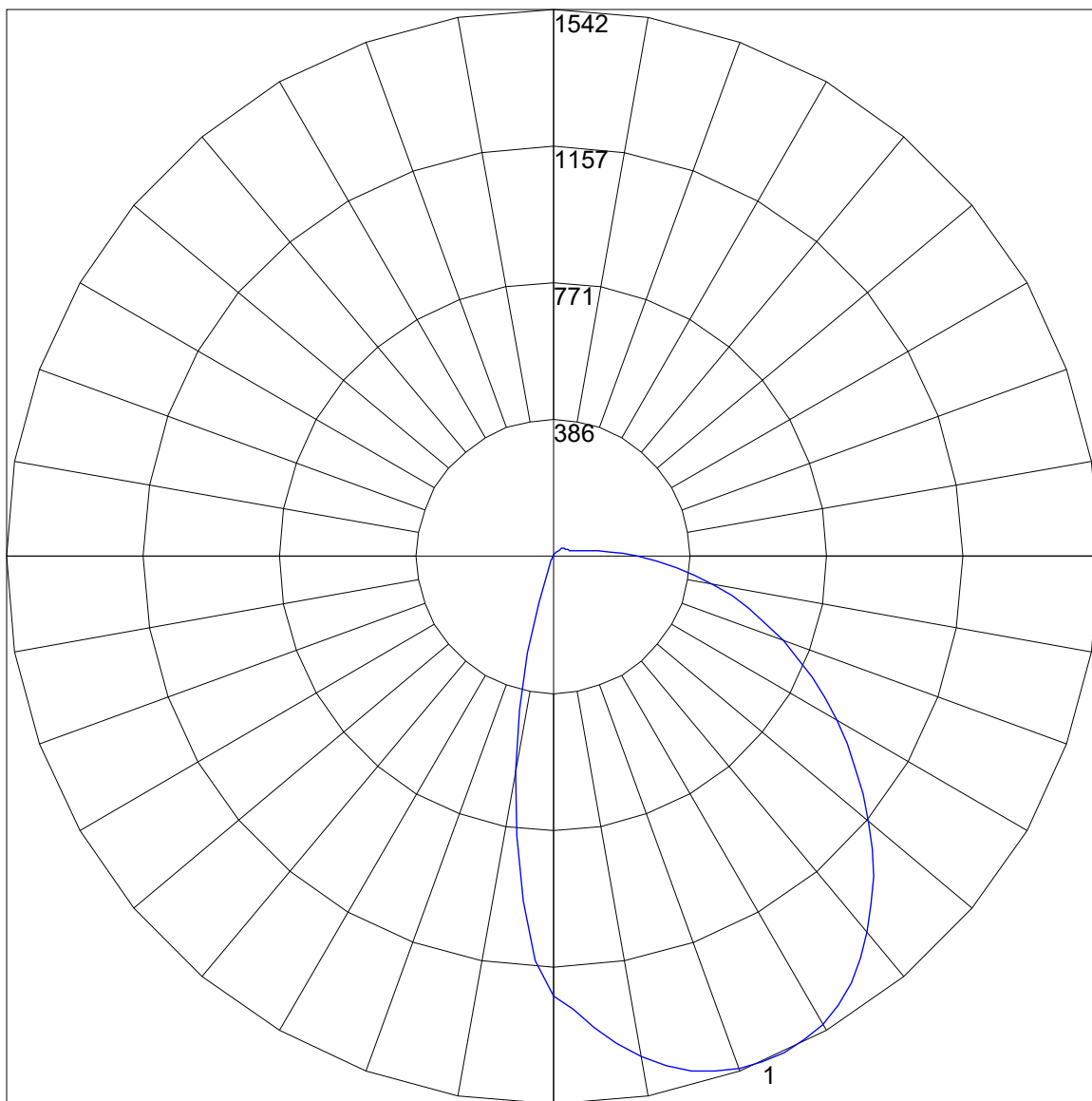
Effective Floor Cavity Reflectance 0.20

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	118	118	118	118	115	115	115	115	109	109	109	104	104	104	99	99	99	97
1	107	101	97	92	104	99	94	90	94	90	87	89	86	84	85	83	81	78
2	97	88	80	74	94	86	79	73	81	76	71	78	73	69	74	70	67	64
3	88	77	68	62	85	75	67	61	72	65	59	68	63	58	65	60	56	54
4	80	68	59	52	78	66	58	51	64	56	50	61	54	49	58	53	48	46
5	74	61	52	45	72	60	51	44	57	49	44	55	48	43	52	47	42	40
6	68	55	46	39	66	54	45	39	52	44	38	50	43	38	48	42	37	35
7	63	50	41	35	62	49	40	34	47	39	34	45	38	33	44	38	33	31
8	59	46	37	31	57	45	36	31	43	36	30	42	35	30	40	34	30	28
9	55	42	34	28	54	41	33	28	40	33	27	38	32	27	37	31	27	25
10	52	39	31	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : HP-WS-4W-6D-4ft-V-8-TW-ITL86714.900.IES

## POLAR GRAPH



Maximum Candela = 1542 Located At Horizontal Angle = 0, Vertical Angle = 25

# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)