

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-4'-V-8-TW-ITL86717.900.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST]ITL86717.900 Family Correlation File
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.
[TESTDATE]02/15/16
[ISSUE DATE]03/30/16
[MANUFAC]FINELITE, INC.
[LUMCAT]HP-WS-6W-6D-4ft-V-8-TW
[OTHER]ies file is based on 3500K; see luminaire tech sheet at www.finelite.com for lumen adjustment factors for other CCT's & CRI
[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 41.4 WATTS
[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 41.7 WATTS
[ABSOLUTE LUMENS]2983
[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	2983
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	72
Total Luminaire Watts	41.4
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	4747	5042	5175
55	3864	4109	4594
65	3044	3188	3902
75	2270	2257	2989
85	1518	1413	1410

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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	1273	1273	1273	1273	1273	1273	1273	1273	1273	1273
2.5	1312	1310	1305	1304	1300	1293	1288	1281	1277	1274
5.0	1371	1371	1365	1359	1347	1331	1314	1295	1278	1269
7.5	1427	1425	1418	1409	1391	1368	1342	1312	1282	1261
10.0	1475	1475	1465	1453	1431	1400	1368	1328	1284	1249
12.5	1513	1511	1502	1487	1462	1428	1384	1334	1280	1235
15.0	1541	1539	1530	1513	1486	1445	1396	1338	1274	1217
17.5	1562	1559	1549	1532	1500	1456	1402	1337	1264	1196
20.0	1573	1571	1562	1543	1509	1461	1403	1332	1253	1174
22.5	1579	1576	1566	1545	1512	1460	1399	1323	1237	1148
25.0	1576	1574	1564	1541	1506	1453	1388	1307	1217	1120
27.5	1568	1565	1555	1531	1495	1440	1373	1289	1194	1090
30.0	1550	1548	1539	1514	1479	1423	1354	1268	1168	1057
32.5	1523	1520	1512	1489	1456	1400	1330	1242	1139	1022
35.0	1482	1481	1475	1458	1426	1372	1302	1213	1108	985
37.5	1434	1434	1428	1414	1389	1340	1270	1181	1075	946
40.0	1381	1382	1375	1363	1342	1300	1234	1146	1037	906
42.5	1326	1326	1319	1307	1288	1256	1195	1108	999	865
45.0	1268	1267	1261	1249	1230	1203	1150	1067	959	822
47.5	1207	1207	1200	1186	1169	1143	1100	1024	916	778
50.0	1147	1148	1139	1125	1106	1082	1045	977	873	734
52.5	1086	1087	1078	1062	1042	1018	986	929	827	690
55.0	1023	1024	1015	999	978	952	920	876	783	644
57.5	961	962	953	939	914	891	856	819	736	599
60.0	898	897	890	875	848	822	790	758	686	554
62.5	836	835	827	810	784	760	728	695	636	508
65.0	774	773	765	747	720	694	662	631	583	462
67.5	713	711	703	685	656	630	597	566	528	416
70.0	653	656	642	624	594	564	532	501	469	370
72.5	594	596	582	564	537	503	469	437	408	324
75.0	536	537	523	507	480	445	409	375	348	278
77.5	480	481	468	452	425	390	355	315	285	233
80.0	425	426	414	396	372	338	302	259	226	186
82.5	372	373	361	347	322	289	254	209	171	140
85.0	320	321	309	296	273	241	208	167	121	88
87.5	271	271	261	248	225	195	164	126	85	35
90.0	221	221	215	203	180	153	125	91	56	11
92.5	157	158	151	140	121	96	72	46	26	5
95.0	95	95	91	82	69	55	44	32	17	2
97.5	65	65	63	60	55	47	38	26	12	1
100.0	58	58	57	54	49	42	33	22	10	1
102.5	54	54	53	50	45	38	30	20	6	1
105.0	50	50	49	46	42	35	28	18	3	1
107.5	48	47	46	44	39	34	26	13	2	1
110.0	45	45	44	42	38	32	25	9	2	0
112.5	44	44	43	40	36	31	19	5	1	0
115.0	43	43	41	39	35	29	13	2	1	0
117.5	42	41	40	38	34	21	8	2	1	0
120.0	40	40	39	37	28	15	4	1	1	0
122.5	39	39	37	31	20	10	1	1	1	0
125.0	33	32	28	22	13	5	1	1	1	0
127.5	23	23	20	15	8	1	1	1	0	0
130.0	16	15	13	9	3	0	0	0	0	0
132.5	9	9	7	4	0	0	0	0	0	0

IES INDOOR REPORT
PHOTOMETRIC FILENAME : HP-WS-6W-6D-4'-V-8-TW-ITL86717.900.IES

CANDELA TABULATION - (Cont.)

135.0	4	4	2	0	0	0	0	0	0	0
137.5	0	0	0	0	0	0	0	0	0	0
140.0	0	0	0	0	0	0	0	0	0	0
142.5	0	0	0	0	0	0	0	0	0	0
145.0	0	0	0	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	1273	1273	1273	1273	1273
2.5	1272	1259	1236	1208	1194
5.0	1266	1217	1128	1050	1020
7.5	1257	1153	997	876	832
10.0	1242	1079	860	701	644
12.5	1225	993	724	529	459
15.0	1203	908	585	364	285
17.5	1179	825	451	212	144
20.0	1152	738	324	81	32
22.5	1122	651	206	27	18
25.0	1088	564	100	19	13
27.5	1053	480	38	15	10
30.0	1016	399	27	13	9
32.5	975	320	22	10	7
35.0	933	245	18	8	5
37.5	889	175	15	6	4
40.0	844	111	12	5	1
42.5	801	59	10	3	1
45.0	754	39	7	2	0
47.5	708	31	5	1	0
50.0	660	26	3	1	0
52.5	617	21	2	0	0
55.0	570	17	1	0	0
57.5	524	13	0	0	0
60.0	477	9	0	0	0
62.5	431	7	0	0	0
65.0	385	4	0	0	0
67.5	341	2	0	0	0
70.0	297	1	0	0	0
72.5	255	1	0	0	0
75.0	210	0	0	0	0
77.5	170	0	0	0	0
80.0	131	0	0	0	0

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CANDELA TABULATION - (Cont.)

82.5	92	0	0	0	0
85.0	56	0	0	0	0
87.5	18	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

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	404.33	N.A.	13.60
0-30	801.12	N.A.	26.90
0-40	1268.79	N.A.	42.50
0-60	2187.35	N.A.	73.30
0-80	2785.62	N.A.	93.40
0-90	2913.00	N.A.	97.60
10-90	2798.48	N.A.	93.80
20-40	864.46	N.A.	29.00
20-50	1342.94	N.A.	45.00
40-70	1274.1	N.A.	42.70
60-80	598.27	N.A.	20.10
70-80	242.73	N.A.	8.10
80-90	127.37	N.A.	4.30
90-110	53.48	N.A.	1.80
90-120	64.65	N.A.	2.20
90-130	69.88	N.A.	2.30
90-150	70.40	N.A.	2.40
90-180	70.40	N.A.	2.40
110-180	16.92	N.A.	0.60
0-180	2983.4	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	114.51
10-20	289.82
20-30	396.79
30-40	467.67
40-50	478.48
50-60	440.08
60-70	355.54
70-80	242.73
80-90	127.37
90-100	37.28
100-110	16.21
110-120	11.17
120-130	5.23
130-140	0.52
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

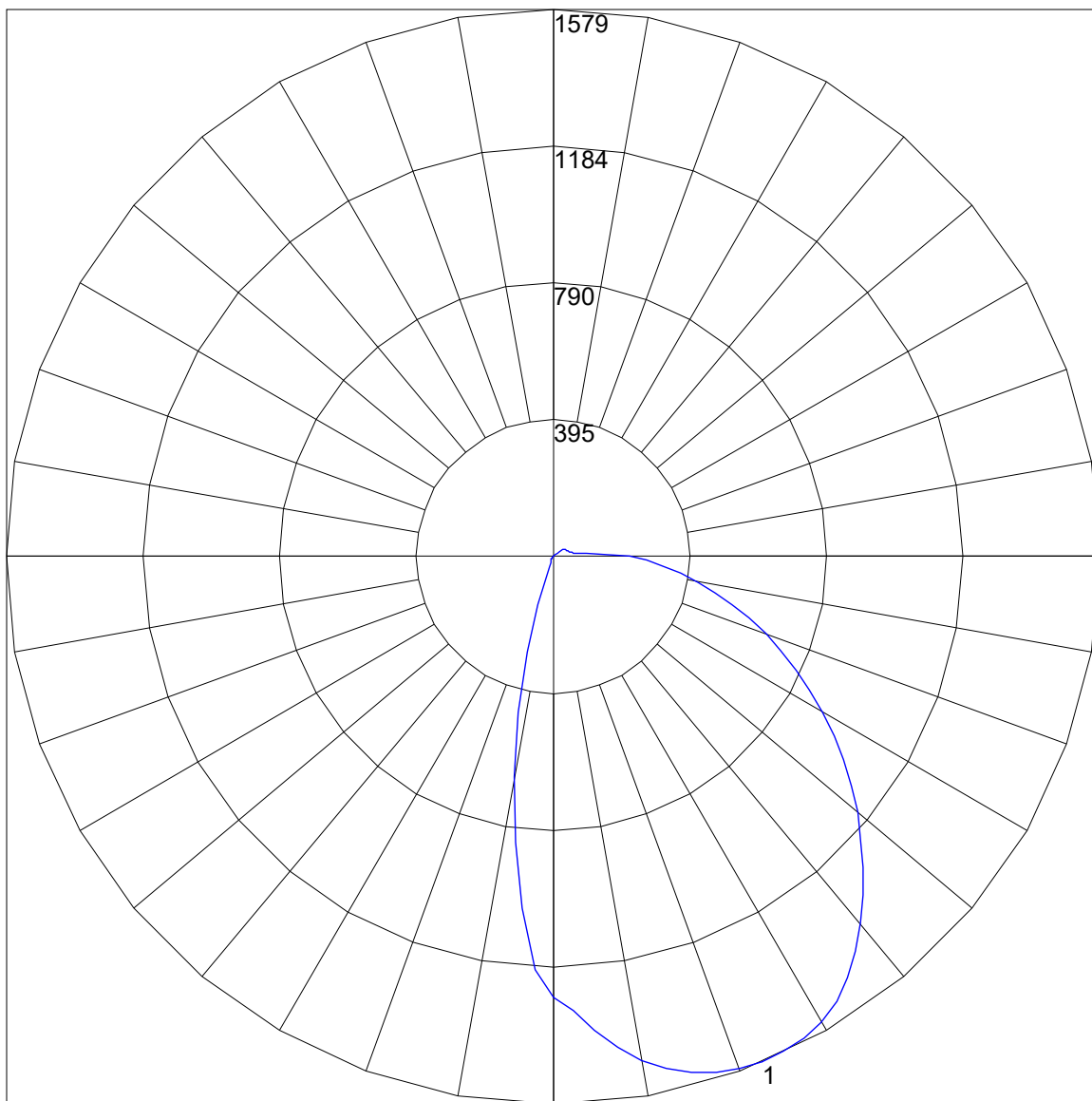
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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 = 1579 Located At Horizontal Angle = 0, Vertical Angle = 22.5
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)