

# 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-I-4FT-V-835-ASY-ITL89988.600.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

[TEST]ITL89988.600  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[TESTDATE]11/16/17  
[ISSUEDATE]02/26/18  
[MANUFAC]FINELITE, INC.  
[LUMCAT]HP-4-I-4ft-V-835-ASYM  
[\_INPUT\_ELECTRICAL]120.0 VOLTS, 36.9 WATTS  
[\_INPUT\_ELECTRICAL]277.0 VOLTS, 37.5 WATTS  
[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL89988. 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)  
[\_ABSOLUTE LUMENS]4436

**CHARACTERISTICS**

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4436
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	120
Total Luminaire Watts	36.9
Ballast Factor	1.00
CIE Type	Indirect
Spacing Criterion (0-180)	N.A.
Spacing Criterion (90-270)	N.A.
Spacing Criterion (Diagonal)	N.A.
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	0.32 ft
Luminous Width (90-270)	4.00 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	0	0	0
55	0	0	0
65	0	0	0
75	0	0	0
85	0	0	0

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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	0	0	0	0	0	0	0	0	0	0
2.5	0	0	0	0	0	0	0	0	0	0
5.0	0	0	0	0	0	0	0	0	0	0
7.5	0	0	0	0	0	0	0	0	0	0
10.0	0	0	0	0	0	0	0	0	0	0
12.5	0	0	0	0	0	0	0	0	0	0
15.0	0	0	0	0	0	0	0	0	0	0
17.5	0	0	0	0	0	0	0	0	0	0
20.0	0	0	0	0	0	0	0	0	0	0
22.5	0	0	0	0	0	0	0	0	0	0
25.0	0	0	0	0	0	0	0	0	0	0
27.5	0	0	0	0	0	0	0	0	0	0
30.0	0	0	0	0	0	0	0	0	0	0
32.5	0	0	0	0	0	0	0	0	0	0
35.0	0	0	0	0	0	0	0	0	0	0
37.5	0	0	0	0	0	0	0	0	0	0
40.0	0	0	0	0	0	0	0	0	0	0
42.5	0	0	0	0	0	0	0	0	0	0
45.0	0	0	0	0	0	0	0	0	0	0
47.5	0	0	0	0	0	0	0	0	0	0
50.0	0	0	0	0	0	0	0	0	0	0
52.5	0	0	0	0	0	0	0	0	0	0
55.0	0	0	0	0	0	0	0	0	0	0
57.5	0	0	0	0	0	0	0	0	0	0
60.0	0	0	0	0	0	0	0	0	0	0
62.5	0	0	0	0	0	0	0	0	0	0
65.0	0	0	0	0	0	0	0	0	0	0
67.5	0	0	0	0	0	0	0	0	0	0
70.0	0	0	0	0	0	0	0	0	0	0
72.5	0	0	0	0	0	0	0	0	0	0
75.0	0	0	0	0	0	0	0	0	0	0
77.5	0	0	0	0	0	0	0	0	0	0
80.0	0	0	0	0	0	0	0	0	0	0
82.5	0	0	0	0	0	0	0	0	0	0
85.0	0	0	0	0	0	0	0	0	0	0
87.5	0	0	0	0	0	0	0	0	0	0
90.0	0	0	0	0	0	0	0	0	0	0
92.5	67	66	69	67	64	58	60	62	58	42
95.0	142	142	147	144	141	146	159	156	128	83
97.5	224	219	234	240	254	272	273	239	187	122
100.0	347	342	359	369	390	398	376	317	247	162
102.5	469	465	483	495	524	520	474	396	302	202
105.0	582	578	601	635	664	647	577	476	352	243
107.5	717	712	754	807	819	780	683	548	399	282
110.0	903	898	956	986	977	907	782	608	444	322
112.5	1129	1122	1160	1163	1134	1032	862	659	487	363
115.0	1335	1327	1351	1337	1277	1134	923	705	527	405
117.5	1528	1518	1529	1487	1389	1206	968	743	569	448
120.0	1683	1674	1667	1598	1465	1250	1000	780	609	491
122.5	1795	1789	1756	1670	1505	1275	1029	816	652	537
125.0	1861	1855	1810	1701	1521	1288	1052	850	693	582
127.5	1884	1878	1824	1703	1520	1296	1075	883	736	627
130.0	1874	1868	1811	1687	1511	1302	1100	918	777	671
132.5	1843	1839	1782	1663	1500	1309	1125	954	821	717

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**CANDELA TABULATION - (Cont.)**

135.0	1803	1800	1746	1637	1489	1318	1151	990	864	763
137.5	1762	1760	1709	1611	1480	1329	1177	1029	908	809
140.0	1721	1719	1674	1589	1475	1341	1203	1067	953	855
142.5	1685	1682	1646	1572	1474	1354	1231	1106	996	901
145.0	1657	1653	1621	1559	1474	1367	1260	1144	1039	947
147.5	1633	1630	1603	1550	1475	1383	1289	1181	1081	992
150.0	1614	1609	1588	1542	1479	1400	1318	1216	1121	1036
152.5	1597	1592	1575	1536	1484	1417	1341	1247	1158	1078
155.0	1581	1578	1563	1534	1491	1432	1364	1274	1193	1117
157.5	1572	1569	1557	1533	1496	1443	1381	1298	1224	1154
160.0	1565	1562	1553	1532	1498	1450	1394	1318	1252	1188
162.5	1552	1553	1545	1525	1495	1451	1402	1333	1275	1219
165.0	1537	1537	1530	1510	1484	1446	1403	1344	1294	1245
167.5	1512	1513	1507	1490	1466	1433	1397	1349	1307	1265
170.0	1480	1482	1476	1462	1443	1416	1386	1350	1316	1281
172.5	1440	1443	1439	1428	1413	1392	1370	1346	1319	1293
175.0	1401	1399	1396	1390	1380	1366	1352	1336	1319	1301
177.5	1351	1351	1350	1346	1342	1334	1329	1320	1311	1303
180.0	1302	1302	1302	1302	1302	1302	1302	1302	1302	1302

**Vert. Angles**      **Horizontal Angles**

	<u>90.0</u>	<u>95.0</u>	<u>112.5</u>	<u>135.0</u>	<u>157.5</u>	<u>180.0</u>
0.0	0	0	0	0	0	0
2.5	0	0	0	0	0	0
5.0	0	0	0	0	0	0
7.5	0	0	0	0	0	0
10.0	0	0	0	0	0	0
12.5	0	0	0	0	0	0
15.0	0	0	0	0	0	0
17.5	0	0	0	0	0	0
20.0	0	0	0	0	0	0
22.5	0	0	0	0	0	0
25.0	0	0	0	0	0	0
27.5	0	0	0	0	0	0
30.0	0	0	0	0	0	0
32.5	0	0	0	0	0	0
35.0	0	0	0	0	0	0
37.5	0	0	0	0	0	0
40.0	0	0	0	0	0	0
42.5	0	0	0	0	0	0
45.0	0	0	0	0	0	0
47.5	0	0	0	0	0	0
50.0	0	0	0	0	0	0
52.5	0	0	0	0	0	0
55.0	0	0	0	0	0	0
57.5	0	0	0	0	0	0
60.0	0	0	0	0	0	0
62.5	0	0	0	0	0	0
65.0	0	0	0	0	0	0
67.5	0	0	0	0	0	0
70.0	0	0	0	0	0	0
72.5	0	0	0	0	0	0
75.0	0	0	0	0	0	0
77.5	0	0	0	0	0	0
80.0	0	0	0	0	0	0

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**CANDELA TABULATION - (Cont.)**

82.5	0	0	0	0	0	0
85.0	0	0	0	0	0	0
87.5	0	0	0	0	0	0
90.0	0	0	0	0	0	0
92.5	22	30	58	91	109	116
95.0	57	60	92	141	167	175
97.5	93	91	122	186	224	235
100.0	130	124	155	223	270	286
102.5	169	157	188	263	305	321
105.0	207	194	219	294	344	355
107.5	247	231	247	324	378	388
110.0	287	268	275	355	413	423
112.5	328	305	302	386	447	459
115.0	369	344	330	414	480	493
117.5	410	385	359	440	513	527
120.0	455	428	390	463	542	560
122.5	501	472	420	485	571	592
125.0	545	515	449	504	593	620
127.5	590	558	479	522	611	645
130.0	634	600	508	539	622	660
132.5	679	644	537	557	630	665
135.0	724	689	571	574	636	667
137.5	770	734	608	592	642	667
140.0	817	780	648	609	647	667
142.5	863	824	690	626	652	667
145.0	909	871	731	644	659	668
147.5	955	916	773	666	669	673
150.0	1001	962	818	694	680	681
152.5	1043	1007	866	734	694	690
155.0	1084	1050	917	783	715	706
157.5	1123	1091	969	836	751	732
160.0	1159	1130	1019	890	807	780
162.5	1192	1165	1068	946	870	844
165.0	1220	1196	1113	1009	933	910
167.5	1244	1223	1154	1069	1001	978
170.0	1265	1247	1192	1126	1077	1059
172.5	1280	1267	1225	1178	1144	1132
175.0	1293	1284	1255	1225	1204	1196
177.5	1299	1295	1280	1265	1254	1250
180.0	1302	1302	1302	1302	1302	1302

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	0.00	N.A.	0.00
0-30	0.00	N.A.	0.00
0-40	0.00	N.A.	0.00
0-60	0.00	N.A.	0.00
0-80	0.00	N.A.	0.00
0-90	0.00	N.A.	0.00
10-90	0.00	N.A.	0.00
20-40	0.00	N.A.	0.00
20-50	0.00	N.A.	0.00
40-70	0.00	N.A.	0.00
60-80	0.00	N.A.	0.00
70-80	0.00	N.A.	0.00
80-90	0.00	N.A.	0.00
90-110	578.00	N.A.	13.00
90-120	1269.99	N.A.	28.60
90-130	2067.05	N.A.	46.60
90-150	3454.39	N.A.	77.90
90-180	4435.89	N.A.	100.00
110-180	3857.89	N.A.	87.00
0-180	4435.89	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	0.00
10-20	0.00
20-30	0.00
30-40	0.00
40-50	0.00
50-60	0.00
60-70	0.00
70-80	0.00
80-90	0.00
90-100	146.58
100-110	431.42
110-120	691.99
120-130	797.06
130-140	744.88
140-150	642.46
150-160	513.47
160-170	345.20
170-180	122.84

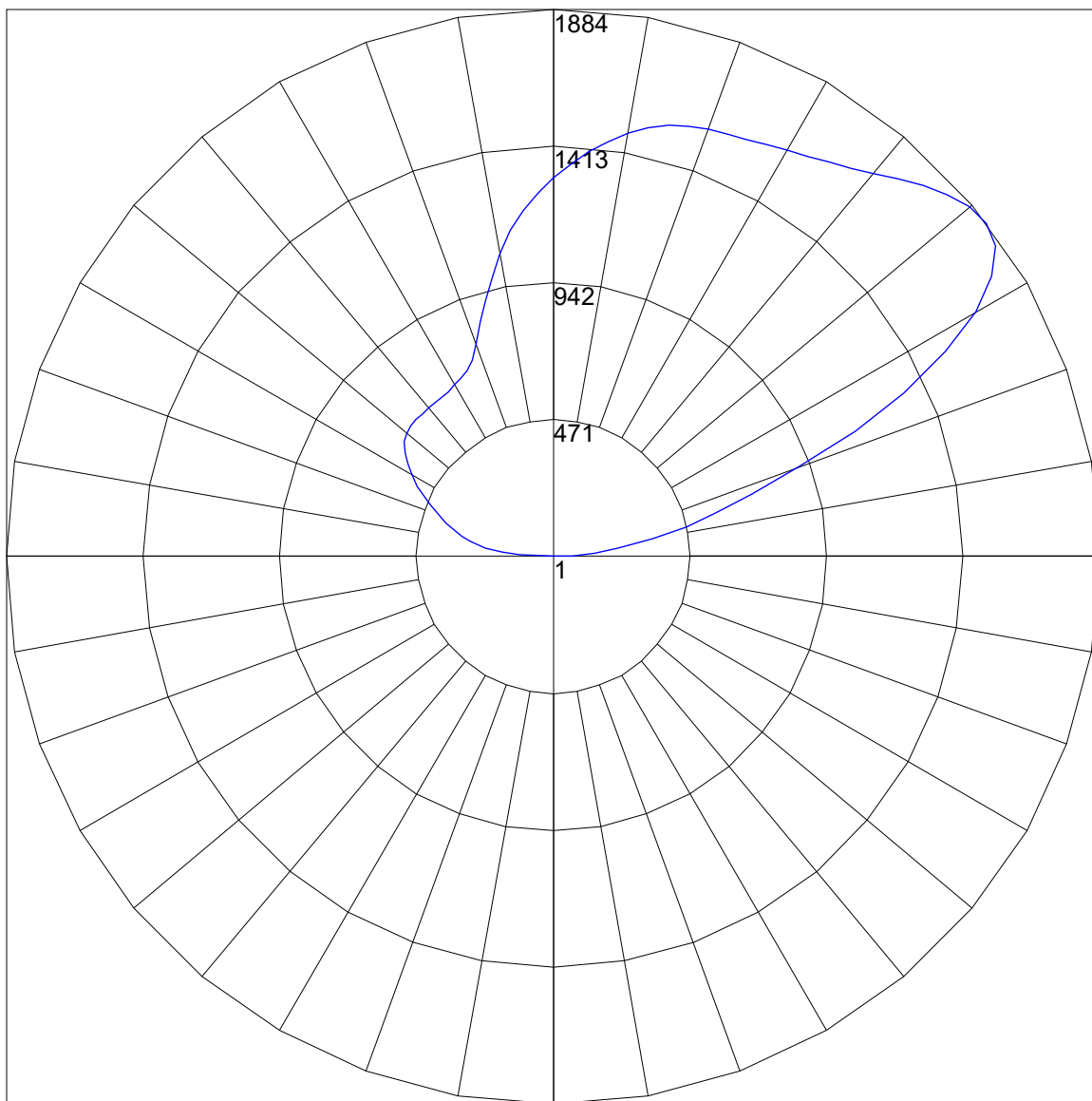
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	95	95	95	95	81	81	81	81	56	56	56	32	32	32	10	10	10	0
1	87	83	79	76	74	71	68	65	48	47	45	28	27	26	9	9	8	0
2	79	72	66	62	67	62	57	53	42	40	37	24	23	22	8	7	7	0
3	72	63	56	51	61	54	49	44	37	34	31	21	20	18	7	6	6	0
4	65	56	48	43	56	48	42	37	33	29	26	19	17	16	6	6	5	0
5	60	49	42	36	51	42	36	32	29	25	22	17	15	13	5	5	4	0
6	55	44	36	31	47	38	32	27	26	22	19	15	13	11	5	4	4	0
7	50	39	32	27	43	34	28	23	23	19	17	14	11	10	4	4	3	0
8	47	35	28	23	40	30	24	20	21	17	14	12	10	9	4	3	3	0
9	43	32	25	20	37	28	22	18	19	15	13	11	9	8	4	3	3	0
10	40	29	22	18	34	25	19	16	17	14	11	10	8	7	3	3	2	0

POLAR GRAPH



Maximum Candela = 1884 Located At Horizontal Angle = 0, Vertical Angle = 127.5  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)