

# 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-2-ID-4FT-V-V-835-ASY-F-ABL-8H-ITL89599.200.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL89599.200 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]08/24/17

[ISSUEDATE]06/28/2021

[MANUFAC]FINELITE, INC.

[LUMCAT]HP-2-ID-4ft-V-V-835-ASY-F-ABL-8H

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 73.5 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 75.0 WATTS

[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL89599. 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]7485

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	7485
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	100
Total Luminaire Watts	75
Ballast Factor	1.00
CIE Type	General Diffuse
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)	0.18 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	15051	15459	15845
55	13923	14320	14743
65	12897	13220	13615
75	12318	12142	12260
85	12542	11845	10626

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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	1247	1247	1247	1247	1247	1247	1247	1247	1247	1247
2.5	1245	1245	1245	1245	1245	1245	1245	1245	1246	1245
5.0	1238	1238	1238	1238	1238	1239	1238	1239	1240	1240
7.5	1225	1226	1225	1227	1229	1229	1229	1230	1231	1230
10.0	1208	1208	1209	1210	1212	1213	1216	1215	1216	1218
12.5	1188	1186	1190	1192	1194	1192	1198	1198	1198	1201
15.0	1165	1162	1166	1169	1173	1173	1175	1175	1182	1187
17.5	1134	1134	1137	1142	1146	1145	1153	1146	1152	1157
20.0	1105	1103	1107	1112	1117	1118	1121	1116	1124	1130
22.5	1070	1071	1073	1078	1085	1086	1089	1085	1094	1102
25.0	1034	1033	1036	1043	1050	1048	1054	1052	1059	1069
27.5	994	995	999	1004	1011	1011	1018	1018	1022	1034
30.0	957	956	961	966	972	974	980	981	987	997
32.5	916	916	918	928	931	935	941	940	947	957
35.0	873	873	876	884	890	894	897	899	907	916
37.5	831	831	833	840	847	852	854	856	864	873
40.0	788	787	791	796	801	808	810	815	820	829
42.5	746	745	747	753	758	765	767	772	777	784
45.0	701	701	703	708	714	720	723	726	731	739
47.5	657	658	660	664	670	677	678	681	687	695
50.0	613	614	615	620	625	630	633	636	641	648
52.5	568	570	571	577	580	585	589	591	596	601
55.0	526	526	528	533	536	541	544	546	550	555
57.5	483	483	486	490	494	498	499	502	506	511
60.0	441	441	443	447	451	454	457	457	461	465
62.5	399	401	402	405	407	411	413	413	417	420
65.0	359	361	361	364	365	368	370	370	372	376
67.5	320	321	320	323	324	326	328	327	329	333
70.0	281	282	281	284	284	285	286	286	289	290
72.5	245	245	244	245	245	245	246	245	248	249
75.0	210	209	208	209	208	207	207	205	208	209
77.5	175	174	174	174	173	170	169	169	169	170
80.0	139	139	139	139	138	136	134	132	132	132
82.5	104	105	105	104	104	102	101	98	97	96
85.0	72	73	73	72	71	68	67	65	63	62
87.5	46	47	46	44	41	38	35	32	30	27
90.0	36	36	35	32	28	23	17	11	6	1
92.5	78	79	79	77	70	63	63	56	53	42
95.0	156	158	157	154	148	143	139	129	115	87
97.5	237	239	238	234	237	235	230	210	180	127
100.0	307	310	313	322	344	344	334	295	246	166
102.5	394	398	411	438	473	472	445	384	303	204
105.0	513	519	549	600	625	615	561	469	353	244
107.5	697	695	747	781	799	768	681	541	399	282
110.0	932	926	961	980	983	915	779	602	440	322
112.5	1164	1157	1184	1186	1152	1035	854	652	481	359
115.0	1389	1381	1392	1364	1281	1126	911	696	520	400
117.5	1570	1562	1548	1498	1378	1187	953	733	558	441
120.0	1699	1692	1663	1587	1438	1224	985	768	598	483
122.5	1782	1776	1735	1638	1470	1249	1012	802	638	525
125.0	1821	1817	1769	1658	1483	1266	1037	835	678	566
127.5	1829	1826	1774	1657	1486	1277	1062	870	718	606
130.0	1815	1812	1760	1646	1483	1286	1088	905	759	649
132.5	1789	1788	1739	1630	1478	1298	1112	941	800	692

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## CANDELA TABULATION - (Cont.)

135.0	1760	1758	1712	1611	1474	1310	1138	976	840	735
137.5	1731	1727	1686	1595	1472	1323	1165	1012	879	778
140.0	1700	1698	1663	1582	1472	1336	1191	1048	919	821
142.5	1675	1674	1644	1572	1473	1349	1218	1084	958	865
145.0	1654	1653	1626	1562	1474	1364	1245	1116	996	906
147.5	1635	1633	1610	1553	1475	1378	1270	1147	1033	947
150.0	1614	1614	1594	1545	1477	1392	1291	1174	1068	986
152.5	1597	1595	1580	1539	1480	1402	1310	1199	1101	1023
155.0	1583	1580	1568	1532	1479	1408	1323	1220	1130	1058
157.5	1569	1566	1554	1523	1474	1408	1332	1238	1157	1092
160.0	1550	1547	1535	1507	1464	1403	1336	1252	1180	1122
162.5	1525	1523	1511	1487	1446	1393	1336	1262	1201	1149
165.0	1493	1491	1479	1457	1424	1379	1331	1269	1217	1172
167.5	1455	1453	1442	1425	1397	1360	1322	1271	1228	1191
170.0	1411	1409	1401	1386	1366	1339	1308	1269	1237	1206
172.5	1366	1365	1358	1349	1334	1313	1291	1264	1240	1216
175.0	1318	1317	1312	1306	1297	1285	1271	1254	1238	1222
177.5	1269	1269	1267	1264	1260	1255	1248	1239	1232	1224
180.0	1222	1222	1222	1222	1222	1222	1222	1222	1222	1222

## 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	1247	1247	1247	1247	1247	1247
2.5	1245	1245	1245	1245	1245	1244
5.0	1239	1239	1239	1239	1238	1238
7.5	1230	1230	1230	1229	1229	1228
10.0	1219	1218	1215	1216	1216	1213
12.5	1202	1203	1197	1198	1197	1192
15.0	1187	1187	1178	1177	1173	1167
17.5	1157	1159	1152	1150	1146	1138
20.0	1130	1132	1122	1124	1114	1107
22.5	1099	1101	1091	1090	1081	1073
25.0	1067	1069	1057	1053	1045	1036
27.5	1032	1034	1020	1016	1007	997
30.0	994	997	983	977	966	957
32.5	954	957	944	939	925	916
35.0	914	914	902	897	885	873
37.5	872	871	861	855	841	829
40.0	830	829	817	810	793	785
42.5	785	784	775	765	750	742
45.0	738	739	729	720	705	697
47.5	694	694	684	675	661	654
50.0	648	648	638	629	616	610
52.5	602	602	593	585	572	567
55.0	557	556	547	539	527	524
57.5	512	510	502	495	486	481
60.0	468	467	458	451	442	439
62.5	423	423	413	407	400	397
65.0	379	378	370	366	358	355
67.5	335	334	327	324	317	315
70.0	292	291	285	282	277	275
72.5	250	250	246	242	238	236
75.0	209	209	206	203	200	199
77.5	170	170	167	165	164	163
80.0	132	132	130	129	129	128

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82.5	96	96	94	95	96	95
85.0	61	62	61	63	64	63
87.5	26	27	29	33	35	37
90.0	0	1	10	20	26	27
92.5	24	30	34	42	45	46
95.0	59	63	69	82	83	79
97.5	96	96	103	123	130	127
100.0	134	129	138	162	177	176
102.5	171	163	177	204	220	221
105.0	209	196	215	253	263	262
107.5	248	232	249	291	308	303
110.0	287	269	280	331	348	348
112.5	326	306	310	370	392	392
115.0	367	343	339	406	437	439
117.5	409	381	366	439	479	483
120.0	450	420	394	468	518	524
122.5	491	459	422	495	554	562
125.0	532	499	451	519	588	597
127.5	572	538	479	540	616	630
130.0	614	578	506	558	638	659
132.5	656	620	533	575	651	679
135.0	699	661	559	591	661	689
137.5	742	703	588	605	668	693
140.0	784	745	619	620	672	695
142.5	826	787	655	635	675	693
145.0	868	830	694	650	678	691
147.5	909	872	733	665	682	691
150.0	951	913	770	682	689	692
152.5	990	953	811	704	696	696
155.0	1027	991	852	735	708	702
157.5	1062	1028	892	778	726	716
160.0	1094	1063	938	827	755	737
162.5	1123	1095	984	876	804	776
165.0	1149	1125	1032	925	864	836
167.5	1171	1150	1073	978	920	899
170.0	1188	1172	1110	1037	982	961
172.5	1202	1190	1146	1093	1053	1036
175.0	1214	1205	1176	1143	1118	1108
177.5	1220	1216	1201	1186	1175	1169
180.0	1222	1222	1222	1222	1222	1222

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-4FT-V-V-835-ASY-F-ABL-8H-ITL89599.200.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	448.09	N.A.	6.00
0-30	931.85	N.A.	12.50
0-40	1490.67	N.A.	19.90
0-60	2527.96	N.A.	33.80
0-80	3109.05	N.A.	41.50
0-90	3183.75	N.A.	42.50
10-90	3066.27	N.A.	41.00
20-40	1042.58	N.A.	13.90
20-50	1597.02	N.A.	21.30
40-70	1400.43	N.A.	18.70
60-80	581.09	N.A.	7.80
70-80	217.95	N.A.	2.90
80-90	74.70	N.A.	1.00
90-110	518.20	N.A.	6.90
90-120	1202.68	N.A.	16.10
90-130	1987.73	N.A.	26.60
90-150	3361.54	N.A.	44.90
90-180	4300.86	N.A.	57.50
110-180	3782.66	N.A.	50.50
0-180	7484.61	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	117.48
10-20	330.61
20-30	483.75
30-40	558.83
40-50	554.44
50-60	482.85
60-70	363.14
70-80	217.95
80-90	74.70
90-100	121.29
100-110	396.91
110-120	684.48
120-130	785.05
130-140	738.06
140-150	635.76
150-160	498.35
160-170	325.94
170-180	115.02

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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

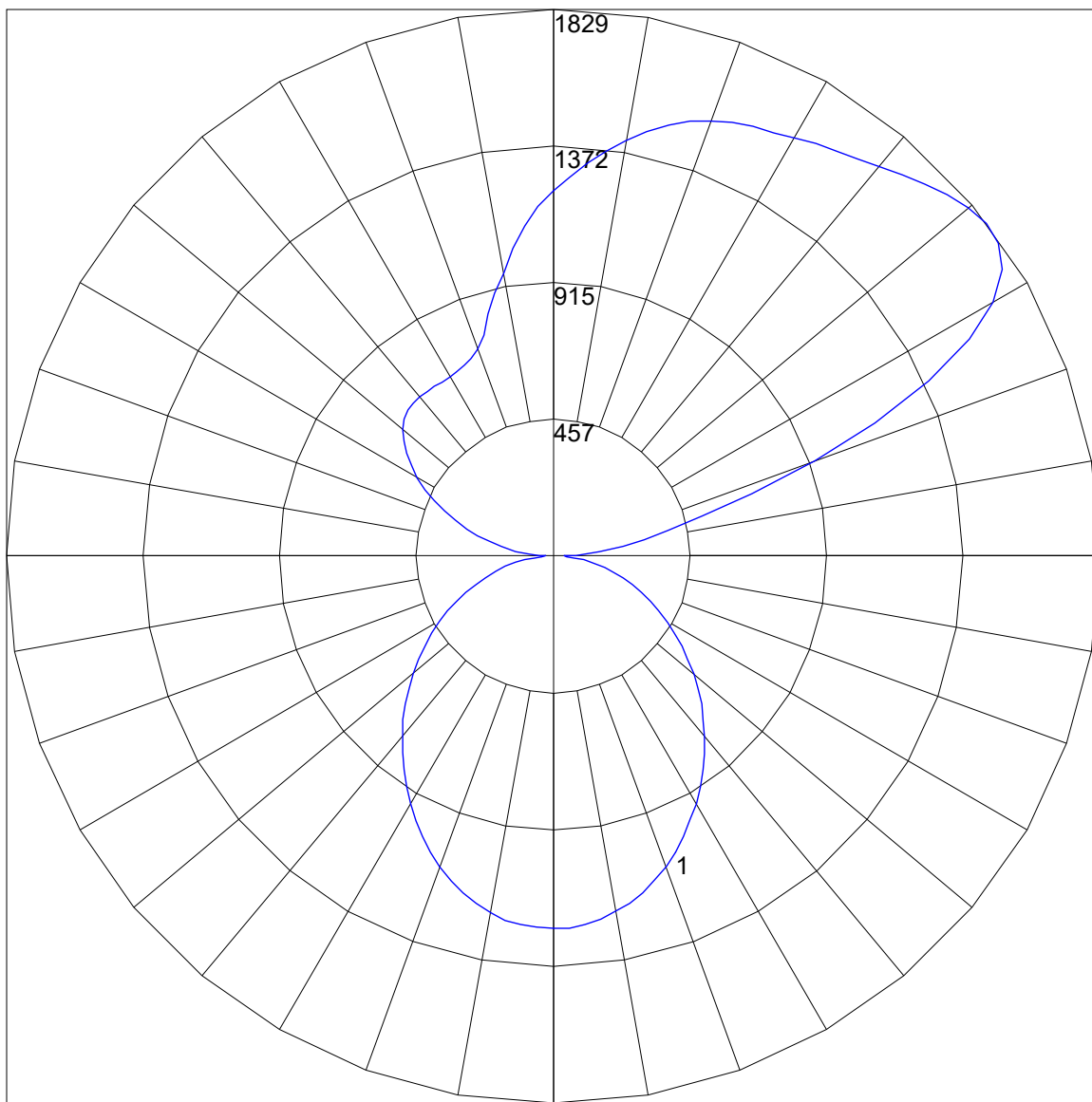
Effective Floor Cavity Reflectance 0.20

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	105	105	105	105	96	96	96	96	79	79	79	64	64	64	49	49	49	43
1	96	92	88	84	88	84	81	78	69	67	65	56	54	53	43	42	41	36
2	87	80	74	69	80	73	68	64	61	57	54	49	46	44	38	36	35	30
3	80	70	63	57	72	64	58	53	53	49	45	43	40	37	34	32	30	25
4	73	62	54	48	66	57	50	45	47	42	38	38	35	32	30	28	25	22
5	67	55	47	41	61	51	44	39	42	37	33	35	31	28	27	24	22	19
6	62	50	42	36	56	46	39	33	38	33	29	31	27	24	25	22	20	17
7	57	45	37	31	52	41	34	29	35	29	25	28	24	21	23	20	17	15
8	53	41	33	28	48	37	31	26	32	26	22	26	22	19	21	18	16	13
9	49	37	30	25	45	34	28	23	29	24	20	24	20	17	19	16	14	12
10	46	34	27	22	42	31	25	21	27	22	18	22	18	15	18	15	13	11

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## POLAR GRAPH



Maximum Candela = 1829 Located At Horizontal Angle = 0, Vertical Angle = 127.5

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