

# 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-P-D-4FT-V-H-835-ASY-DAO-ITL89988-ITL94331.604.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL89988-ITL94331.604 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[ISSUEDATE]01/11/21

[\_REVISED]08/25/2021

[MANUFAC]FINELITE, INC.

[LUMCAT]HP-4-P-D-4ft-V-H-835-ASY-DAO

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 65.5 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 67.1 WATTS

[OTHER]see [www.finelite.com](http://www.finelite.com) for source files ITL89988 and ITL94331. 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]7457

[\_CONVERT] Photometric web converted from original test data

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	7452
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	114
Total Luminaire Watts	65.5
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)	0.33 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	9184	9481	7859
55	7889	8433	6989
65	6605	7178	6092
75	5319	5885	5269
85	4168	4533	4607

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## CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>	<u>112.5</u>	<u>135.0</u>	<u>157.5</u>	<u>180.0</u>
0.0	1207.155	1207.155	1207.155	1207.155	1207.155	1207.155	1207.155	1207.155	1207.155
2.5	1232.045	1230.489	1224.267	1215.711	1206.377	1195.488	1187.710	1181.487	1179.154
5.0	1251.490	1248.379	1237.489	1220.378	1200.155	1180.709	1162.042	1151.931	1148.042
7.5	1266.268	1260.823	1246.045	1220.378	1190.043	1159.709	1134.041	1120.041	1114.596
10.0	1276.380	1271.713	1249.157	1215.711	1177.598	1136.374	1106.040	1086.595	1077.261
12.5	1279.491	1275.602	1249.157	1206.377	1162.820	1109.929	1075.706	1051.594	1041.482
15.0	1276.380	1271.713	1243.712	1192.377	1141.819	1080.373	1043.038	1015.815	1004.925
17.5	1266.268	1262.379	1233.600	1176.043	1117.707	1049.260	1005.703	980.036	966.813
20.0	1249.157	1246.823	1218.044	1152.708	1091.262	1014.259	969.146	942.701	931.034
22.5	1225.822	1223.489	1197.043	1128.597	1063.261	977.702	934.145	905.366	896.810
25.0	1196.266	1195.488	1171.376	1100.595	1029.037	941.145	896.810	870.365	863.365
27.5	1161.264	1161.264	1139.486	1067.928	993.258	903.033	857.142	836.141	827.586
30.0	1120.819	1123.152	1103.707	1032.149	953.590	861.809	821.363	801.140	795.696
32.5	1075.706	1078.817	1064.039	994.814	912.366	822.141	783.251	766.139	763.806
35.0	1022.815	1030.593	1022.037	952.034	868.032	780.139	746.694	733.471	730.360
37.5	971.480	980.813	973.035	906.922	821.363	738.916	708.581	700.803	700.025
40.0	913.922	927.145	924.034	860.253	776.250	696.136	670.469	665.802	669.691
42.5	857.142	866.476	873.476	812.807	729.582	654.913	633.912	633.912	637.023
45.0	792.584	808.140	818.252	759.139	678.247	612.133	597.355	602.022	605.911
47.5	733.471	750.583	762.250	708.581	631.578	571.687	558.465	568.576	576.354
50.0	673.580	688.358	704.692	658.024	582.577	531.241	522.686	535.131	543.686
52.5	614.467	627.689	647.912	603.577	534.353	486.907	486.129	500.907	511.019
55.0	552.242	570.132	590.355	549.909	489.240	448.016	449.572	467.461	479.128
57.5	496.240	511.019	532.797	499.351	442.572	407.570	413.015	434.016	445.683
60.0	438.683	456.572	478.351	449.572	399.014	369.458	375.680	396.681	409.126
62.5	388.125	400.570	424.682	398.237	357.013	331.345	341.457	362.458	374.902
65.0	340.679	351.568	370.236	350.013	314.234	296.344	304.122	327.456	339.123
67.5	290.899	300.233	319.678	304.900	273.788	259.787	270.676	292.455	300.233
70.0	248.898	255.898	273.010	260.565	237.231	224.786	235.675	255.898	264.454
72.5	205.341	213.119	228.675	217.786	201.452	191.340	203.007	219.341	228.675
75.0	168.006	174.228	185.896	178.895	166.451	160.228	169.562	185.118	192.896
77.5	133.783	137.672	147.005	143.116	133.783	129.116	138.450	150.117	154.783
80.0	101.115	104.226	111.226	110.448	102.670	100.337	107.337	117.449	120.560
82.5	71.558	72.336	77.781	77.003	74.669	73.114	77.781	84.003	87.114
85.0	44.335	44.335	48.224	48.224	49.002	46.668	49.780	52.113	54.446
87.5	17.112	18.667	20.223	21.779	22.556	21.779	22.556	23.334	24.112
90.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
92.5	67.000	68.000	58.000	61.000	22.000	58.000	91.000	109.000	116.000
95.0	142.000	145.000	146.000	149.000	57.000	92.000	141.000	167.000	175.000
97.5	224.000	239.000	272.000	226.000	93.000	122.000	186.000	224.000	235.000
100.0	347.000	367.000	398.000	300.000	130.000	155.000	223.000	270.000	286.000
102.5	469.000	492.000	520.000	373.000	169.000	188.000	263.000	305.000	321.000
105.0	582.000	627.000	647.000	445.000	207.000	219.000	294.000	344.000	355.000
107.5	717.000	794.000	780.000	511.000	247.000	247.000	324.000	378.000	388.000
110.0	903.000	979.000	907.000	567.000	287.000	275.000	355.000	413.000	423.000
112.5	1129.000	1162.000	1032.000	616.000	328.000	302.000	386.000	447.000	459.000
115.0	1335.000	1341.000	1134.000	661.000	369.000	330.000	414.000	480.000	493.000
117.5	1528.000	1498.000	1206.000	700.000	410.000	359.000	440.000	513.000	527.000
120.0	1683.000	1615.000	1250.000	737.000	455.000	390.000	463.000	542.000	560.000
122.5	1795.000	1692.000	1275.000	775.000	501.000	420.000	485.000	571.000	592.000
125.0	1861.000	1728.000	1288.000	811.000	545.000	449.000	504.000	593.000	620.000
127.5	1884.000	1733.000	1296.000	846.000	590.000	479.000	522.000	611.000	645.000
130.0	1874.000	1718.000	1302.000	883.000	634.000	508.000	539.000	622.000	660.000
132.5	1843.000	1693.000	1309.000	921.000	679.000	537.000	557.000	630.000	665.000

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-4-P-D-4FT-V-H-835-ASY-DAO-ITL89988-ITL94331.604.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	1803.000	1664.000	1318.000	959.000	724.000	571.000	574.000	636.000	667.000
<b>137.5</b>	1762.000	1636.000	1329.000	999.000	770.000	608.000	592.000	642.000	667.000
<b>140.0</b>	1721.000	1610.000	1341.000	1039.000	817.000	648.000	609.000	647.000	667.000
<b>142.5</b>	1685.000	1591.000	1354.000	1079.000	863.000	690.000	626.000	652.000	667.000
<b>145.0</b>	1657.000	1575.000	1367.000	1118.000	909.000	731.000	644.000	659.000	668.000
<b>147.5</b>	1633.000	1563.000	1383.000	1156.000	955.000	773.000	666.000	669.000	673.000
<b>150.0</b>	1614.000	1554.000	1400.000	1192.000	1001.000	818.000	694.000	680.000	681.000
<b>152.5</b>	1597.000	1546.000	1417.000	1225.000	1043.000	866.000	734.000	694.000	690.000
<b>155.0</b>	1581.000	1541.000	1432.000	1254.000	1084.000	917.000	783.000	715.000	706.000
<b>157.5</b>	1572.000	1539.000	1443.000	1280.000	1123.000	969.000	836.000	751.000	732.000
<b>160.0</b>	1565.000	1537.000	1450.000	1302.000	1159.000	1019.000	890.000	807.000	780.000
<b>162.5</b>	1552.000	1530.000	1451.000	1319.000	1192.000	1068.000	946.000	870.000	844.000
<b>165.0</b>	1537.000	1515.000	1446.000	1332.000	1220.000	1113.000	1009.000	933.000	910.000
<b>167.5</b>	1512.000	1494.000	1433.000	1339.000	1244.000	1154.000	1069.000	1001.000	978.000
<b>170.0</b>	1480.000	1466.000	1416.000	1342.000	1265.000	1192.000	1126.000	1077.000	1059.000
<b>172.5</b>	1440.000	1431.000	1392.000	1339.000	1280.000	1225.000	1178.000	1144.000	1132.000
<b>175.0</b>	1401.000	1392.000	1366.000	1332.000	1293.000	1255.000	1225.000	1204.000	1196.000
<b>177.5</b>	1351.000	1347.000	1334.000	1318.000	1299.000	1280.000	1265.000	1254.000	1250.000
<b>180.0</b>	1302.000	1302.000	1302.000	1302.000	1302.000	1302.000	1302.000	1302.000	1302.000

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-4-P-D-4FT-V-H-835-ASY-DAO-ITL89988-ITL94331.604.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	435.32	N.A.	5.80
0-30	908.93	N.A.	12.20
0-40	1456.55	N.A.	19.50
0-60	2450.71	N.A.	32.90
0-80	2965.95	N.A.	39.80
0-90	3020.62	N.A.	40.50
10-90	2906.8	N.A.	39.00
20-40	1021.24	N.A.	13.70
20-50	1559.09	N.A.	20.90
40-70	1323.22	N.A.	17.80
60-80	515.24	N.A.	6.90
70-80	186.18	N.A.	2.50
80-90	54.67	N.A.	0.70
90-110	577.50	N.A.	7.70
90-120	1269.82	N.A.	17.00
90-130	2066.11	N.A.	27.70
90-150	3450.76	N.A.	46.30
90-180	4431.02	N.A.	59.50
110-180	3853.51	N.A.	51.70
0-180	7451.64	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	113.82
10-20	321.50
20-30	473.61
30-40	547.63
40-50	537.85
50-60	456.31
60-70	329.06
70-80	186.18
80-90	54.67
90-100	145.76
100-110	431.74
110-120	692.31
120-130	796.29
130-140	743.40
140-150	641.26
150-160	512.67
160-170	344.80
170-180	122.79

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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

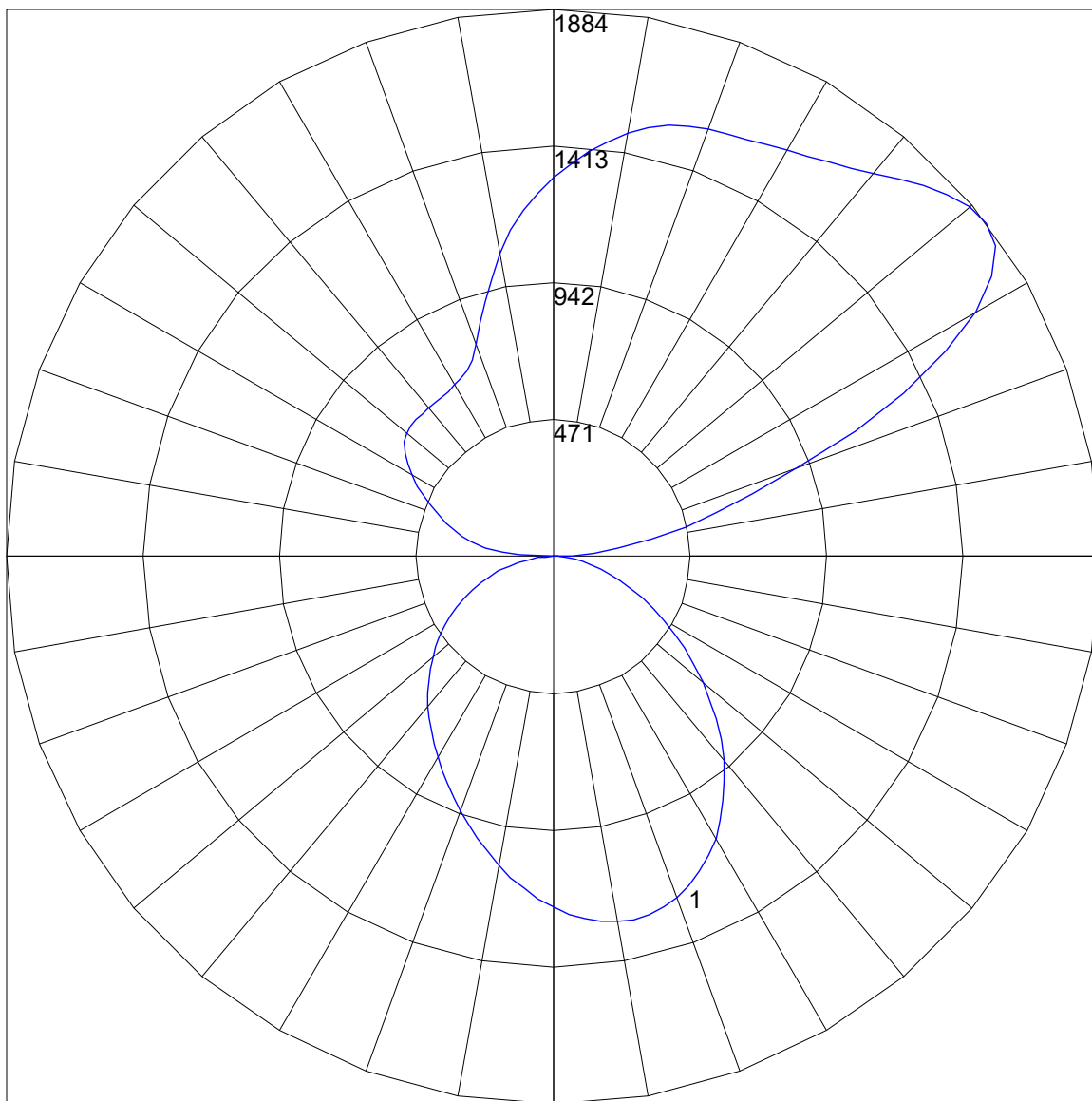
Effective Floor Cavity Reflectance 0.20

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	78	78	78	62	62	62	47	47	47	41
1	96	91	88	84	87	83	80	77	68	66	64	55	53	52	42	41	40	34
2	87	80	74	69	79	73	68	64	60	56	53	48	46	43	37	35	34	29
3	80	70	63	57	72	64	58	53	53	48	45	43	39	37	33	31	29	24
4	73	62	54	49	66	57	50	45	47	42	38	38	34	31	29	27	25	21
5	67	55	47	42	61	51	44	39	42	37	33	34	30	27	27	24	22	18
6	61	50	42	36	56	46	39	34	38	33	29	31	27	24	24	21	19	16
7	57	45	37	32	52	41	34	29	34	29	25	28	24	21	22	19	17	14
8	53	41	33	28	48	37	31	26	31	26	22	26	22	19	20	17	15	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	26	21	18	22	18	15	17	15	13	11

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## 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.)