

# 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-ID-4FT-B-V-835-WSO-DAO-ITL89033-ITL94331.010.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL89033-ITL94331.010 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]03/08/17

[ISSUEDATE]08/27/2021

[MANUFAC]FINELITE, INC.

[LUMCAT]FINELITE HP-4-ID-4ft-B-V-835-WSO-DAO

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 55.6 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 57.6 WATTS

[\_ABSOLUTE]LUMENS]6098

[\_CONVERT] Photometric web converted from original test data

[OTHER]see [www.finelite.com](http://www.finelite.com) for source files ITL89033 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)

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	6098
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	110
Total Luminaire Watts	55.6
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	1.34
Spacing Criterion (90-270)	1.18
Spacing Criterion (Diagonal)	1.30
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	4.00 ft
Luminous Width (90-270)	0.32 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	11998	12386	10267
55	10306	11017	9130
65	8629	9377	7959
75	6948	7688	6884
85	5445	5923	6018

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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	1552.000	1552.000	1552.000	1552.000	1552.000	1552.000	1552.000	1552.000	1552.000
2.5	1584.000	1582.000	1574.000	1563.000	1551.000	1537.000	1527.000	1519.000	1516.000
5.0	1609.000	1605.000	1591.000	1569.000	1543.000	1518.000	1494.000	1481.000	1476.000
7.5	1628.000	1621.000	1602.000	1569.000	1530.000	1491.000	1458.000	1440.000	1433.000
10.0	1641.000	1635.000	1606.000	1563.000	1514.000	1461.000	1422.000	1397.000	1385.000
12.5	1645.000	1640.000	1606.000	1551.000	1495.000	1427.000	1383.000	1352.000	1339.000
15.0	1641.000	1635.000	1599.000	1533.000	1468.000	1389.000	1341.000	1306.000	1292.000
17.5	1628.000	1623.000	1586.000	1512.000	1437.000	1349.000	1293.000	1260.000	1243.000
20.0	1606.000	1603.000	1566.000	1482.000	1403.000	1304.000	1246.000	1212.000	1197.000
22.5	1576.000	1573.000	1539.000	1451.000	1367.000	1257.000	1201.000	1164.000	1153.000
25.0	1538.000	1537.000	1506.000	1415.000	1323.000	1210.000	1153.000	1119.000	1110.000
27.5	1493.000	1493.000	1465.000	1373.000	1277.000	1161.000	1102.000	1075.000	1064.000
30.0	1441.000	1444.000	1419.000	1327.000	1226.000	1108.000	1056.000	1030.000	1023.000
32.5	1383.000	1387.000	1368.000	1279.000	1173.000	1057.000	1007.000	985.000	982.000
35.0	1315.000	1325.000	1314.000	1224.000	1116.000	1003.000	960.000	943.000	939.000
37.5	1249.000	1261.000	1251.000	1166.000	1056.000	950.000	911.000	901.000	900.000
40.0	1175.000	1192.000	1188.000	1106.000	998.000	895.000	862.000	856.000	861.000
42.5	1102.000	1114.000	1123.000	1045.000	938.000	842.000	815.000	815.000	819.000
45.0	1019.000	1039.000	1052.000	976.000	872.000	787.000	768.000	774.000	779.000
47.5	943.000	965.000	980.000	911.000	812.000	735.000	718.000	731.000	741.000
50.0	866.000	885.000	906.000	846.000	749.000	683.000	672.000	688.000	699.000
52.5	790.000	807.000	833.000	776.000	687.000	626.000	625.000	644.000	657.000
55.0	710.000	733.000	759.000	707.000	629.000	576.000	578.000	601.000	616.000
57.5	638.000	657.000	685.000	642.000	569.000	524.000	531.000	558.000	573.000
60.0	564.000	587.000	615.000	578.000	513.000	475.000	483.000	510.000	526.000
62.5	499.000	515.000	546.000	512.000	459.000	426.000	439.000	466.000	482.000
65.0	438.000	452.000	476.000	450.000	404.000	381.000	391.000	421.000	436.000
67.5	374.000	386.000	411.000	392.000	352.000	334.000	348.000	376.000	386.000
70.0	320.000	329.000	351.000	335.000	305.000	289.000	303.000	329.000	340.000
72.5	264.000	274.000	294.000	280.000	259.000	246.000	261.000	282.000	294.000
75.0	216.000	224.000	239.000	230.000	214.000	206.000	218.000	238.000	248.000
77.5	172.000	177.000	189.000	184.000	172.000	166.000	178.000	193.000	199.000
80.0	130.000	134.000	143.000	142.000	132.000	129.000	138.000	151.000	155.000
82.5	92.000	93.000	100.000	99.000	96.000	94.000	100.000	108.000	112.000
85.0	57.000	57.000	62.000	62.000	63.000	60.000	64.000	67.000	70.000
87.5	22.000	24.000	26.000	28.000	29.000	28.000	29.000	30.000	31.000
90.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
92.5	8.234	14.410	15.439	15.439	15.439	15.439	15.439	14.410	8.234
95.0	23.159	41.172	42.201	32.937	32.937	32.937	42.201	41.172	23.159
97.5	40.657	69.992	108.075	67.418	58.669	67.418	108.075	69.992	40.657
100.0	61.243	95.724	171.376	126.602	99.326	126.602	171.376	95.724	61.243
102.5	85.945	116.824	253.205	196.079	159.540	196.079	253.205	116.824	85.945
105.0	108.590	139.469	315.991	303.125	242.912	303.125	315.991	139.469	108.590
107.5	131.749	162.113	344.812	443.623	373.117	443.623	344.812	162.113	131.749
110.0	153.879	183.213	358.707	560.447	534.201	560.447	358.707	183.213	153.879
112.5	176.523	203.799	375.175	608.824	640.732	608.824	375.175	203.799	176.523
115.0	198.138	223.356	402.966	623.749	680.874	623.749	402.966	223.356	198.138
117.5	215.636	241.368	425.096	630.954	695.799	630.954	425.096	241.368	215.636
120.0	231.590	258.866	439.506	659.259	706.606	659.259	439.506	258.866	231.590
122.5	245.485	275.849	448.770	694.255	740.058	694.255	448.770	275.849	245.485
125.0	258.866	290.774	455.460	713.297	779.171	713.297	455.460	290.774	258.866
127.5	271.217	304.155	460.606	713.811	799.757	713.811	460.606	304.155	271.217
130.0	281.510	315.991	464.724	701.460	796.154	701.460	464.724	315.991	281.510
132.5	292.318	327.314	468.326	684.476	777.112	684.476	468.326	327.314	292.318

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-4-ID-4FT-B-V-835-WSO-DAO-ITL89033-ITL94331.010.IES****CANDELA TABULATION - (Cont.)**

135.0	302.611	337.606	470.899	665.949	752.409	665.949	470.899	337.606	302.611
137.5	312.389	346.870	471.929	645.878	724.104	645.878	471.929	346.870	312.389
140.0	322.682	355.619	472.443	625.807	694.255	625.807	472.443	355.619	322.682
142.5	332.975	363.853	471.929	604.707	664.405	604.707	471.929	363.853	332.975
145.0	343.782	372.088	469.355	585.150	635.071	585.150	469.355	372.088	343.782
147.5	352.531	378.778	465.753	565.594	606.765	565.594	465.753	378.778	352.531
150.0	361.795	385.468	462.150	546.552	581.033	546.552	462.150	385.468	361.795
152.5	371.058	391.129	458.033	528.025	557.359	528.025	458.033	391.129	371.058
155.0	379.293	396.791	453.916	510.527	533.686	510.527	453.916	396.791	379.293
157.5	387.012	401.422	448.770	494.573	512.585	494.573	448.770	401.422	387.012
160.0	394.217	406.054	444.652	480.163	493.544	480.163	444.652	406.054	394.217
162.5	400.393	409.657	439.506	466.782	477.075	466.782	439.506	409.657	400.393
165.0	406.569	412.745	434.874	454.945	462.665	454.945	434.874	412.745	406.569
167.5	411.201	415.318	430.757	444.652	450.313	444.652	430.757	415.318	411.201
170.0	414.803	417.891	427.669	436.418	439.506	436.418	427.669	417.891	414.803
172.5	417.376	419.435	425.096	429.728	431.786	429.728	425.096	419.435	417.376
175.0	419.950	420.464	422.523	424.581	426.125	424.581	422.523	420.464	419.950
177.5	420.979	420.979	421.493	422.008	422.008	422.008	421.493	420.979	420.979
180.0	421.493	421.493	421.493	421.493	421.493	421.493	421.493	421.493	421.493

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-4-ID-4FT-B-V-835-WSO-DAO-ITL89033-ITL94331.010.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	559.67	N.A.	9.20
0-30	1168.58	N.A.	19.20
0-40	1872.64	N.A.	30.70
0-60	3150.8	N.A.	51.70
0-80	3813.23	N.A.	62.50
0-90	3883.51	N.A.	63.70
10-90	3737.17	N.A.	61.30
20-40	1312.97	N.A.	21.50
20-50	2004.47	N.A.	32.90
40-70	1701.22	N.A.	27.90
60-80	662.43	N.A.	10.90
70-80	239.36	N.A.	3.90
80-90	70.28	N.A.	1.20
90-110	299.26	N.A.	4.90
90-120	712.85	N.A.	11.70
90-130	1151.37	N.A.	18.90
90-150	1839.35	N.A.	30.20
90-180	2214.04	N.A.	36.30
110-180	1914.79	N.A.	31.40
0-180	6097.55	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	146.34
10-20	413.34
20-30	608.90
30-40	704.07
40-50	691.50
50-60	586.66
60-70	423.06
70-80	239.36
80-90	70.28
90-100	49.87
100-110	249.39
110-120	413.60
120-130	438.52
130-140	386.97
140-150	301.01
150-160	210.74
160-170	123.46
170-180	40.50

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PHOTOMETRIC FILENAME : HP-4-ID-4FT-B-V-835-WSO-DAO-ITL89033-ITL94331.010.IES

## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

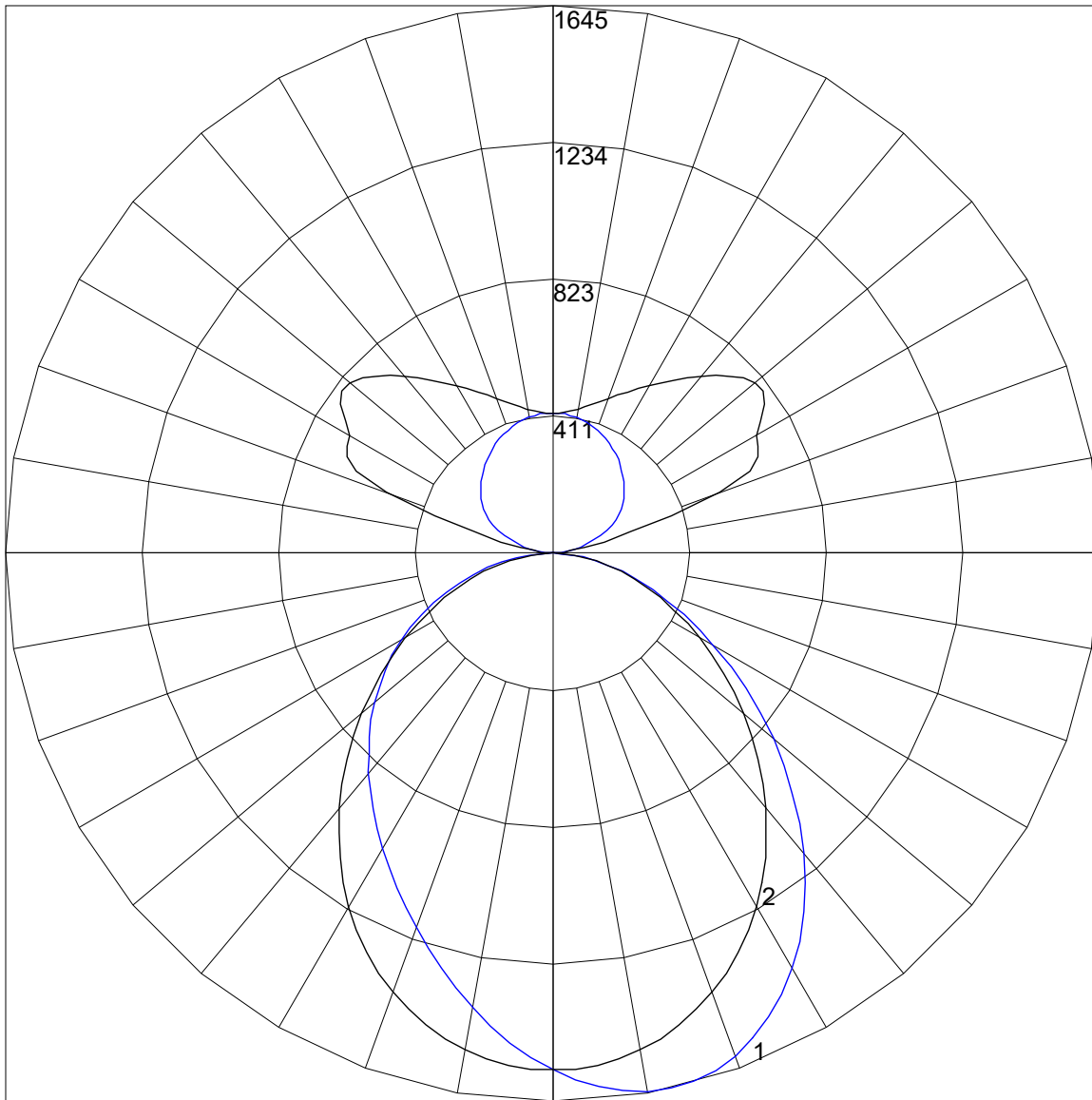
Effective Floor Cavity Reflectance 0.20

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	110	110	110	110	104	104	104	104	91	91	91	79	79	79	69	69	69	64
1	101	97	93	89	95	91	87	84	80	77	75	70	68	66	61	59	58	54
2	92	84	78	73	86	80	74	69	70	66	62	62	58	56	54	51	49	45
3	84	74	67	61	79	70	63	58	62	57	53	55	51	47	48	45	42	38
4	77	66	58	52	72	62	55	49	55	49	45	49	44	41	43	39	36	33
5	71	59	51	45	66	56	48	43	50	44	39	44	39	35	39	35	32	29
6	65	53	45	39	61	50	43	37	45	39	34	40	35	31	35	31	28	25
7	60	48	40	34	57	45	38	33	41	35	30	36	31	28	32	28	25	23
8	56	44	36	30	53	41	34	29	37	31	27	33	28	25	29	25	22	20
9	52	40	32	27	49	38	31	26	34	28	24	31	26	22	27	23	20	18
10	49	37	29	24	46	35	28	24	32	26	22	28	24	20	25	21	18	17

IES INDOOR REPORT

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POLAR GRAPH



Maximum Candela = 1645 Located At Horizontal Angle = 0, Vertical Angle = 12.5

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

# 2 - Vertical Plane Through Horizontal Angles (90 - 270)