

# 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 : HPO-ID-4FT-V-H-835-WSO-F-ITL92549.304.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

[TEST]ITL92549.304 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[TESTDATE]11/20/19  
[ISSUEDATE]09/09/20  
[MANUFAC]FINELITE, INC.  
[LUMCAT]HPO-ID-4ft-V-H-835-WSO-F  
[INPUT\_ELECTRICAL]120.0 VOLTS, 61.0 WATTS  
[INPUT\_ELECTRICAL]277.0 VOLTS, 61.3 WATTS  
[ABSOLUTE LUMENS]7338  
[OTHER]see [www.finelite.com](http://www.finelite.com) for source files ITL92549. 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	7338
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	120
Total Luminaire Watts	61
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)	4.00 ft
Luminous Width (90-270)	0.20 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	13777	13777	13672
55	13318	13318	13189
65	12676	12676	12626
75	11676	11839	11880
85	10305	10911	11032

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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>
0.0	1069.519	1069.519	1069.519	1069.519	1069.519
2.5	1067.185	1067.963	1067.963	1067.963	1068.741
5.0	1063.296	1064.074	1064.074	1064.074	1064.852
7.5	1057.851	1058.629	1059.407	1059.407	1059.407
10.0	1050.073	1049.295	1050.851	1050.851	1049.295
12.5	1041.517	1037.628	1041.517	1042.295	1039.961
15.0	1028.294	1023.627	1028.294	1029.071	1026.738
17.5	1014.293	1007.292	1013.515	1014.293	1010.404
20.0	997.958	988.624	995.625	996.403	993.291
22.5	980.068	968.401	976.179	976.957	973.845
25.0	956.733	947.399	954.400	955.177	952.844
27.5	932.620	924.842	931.065	932.620	929.509
30.0	907.730	898.396	906.952	905.396	903.841
32.5	879.728	871.172	878.950	878.172	875.839
35.0	850.948	843.170	849.392	848.615	845.503
37.5	819.057	812.056	819.057	817.501	815.168
40.0	785.610	779.388	787.166	784.832	783.277
42.5	752.163	746.719	752.941	750.608	746.719
45.0	717.161	711.716	717.161	714.050	711.716
47.5	679.047	675.158	679.825	676.714	675.936
50.0	641.711	636.266	642.489	638.600	637.044
52.5	602.042	598.153	602.042	599.708	597.375
55.0	562.372	558.483	562.372	559.261	556.928
57.5	521.147	518.036	520.369	518.814	517.258
60.0	479.144	476.033	479.144	476.811	476.811
62.5	435.586	433.252	436.364	434.030	435.586
65.0	394.361	392.027	394.361	392.805	392.805
67.5	350.024	348.469	351.580	350.024	352.358
70.0	308.021	307.244	308.799	308.799	308.799
72.5	263.685	264.463	266.796	267.574	268.352
75.0	222.460	222.460	225.571	226.349	226.349
77.5	181.235	182.790	184.346	186.680	186.680
80.0	142.343	143.121	145.454	146.232	147.788
82.5	104.229	105.007	107.341	108.896	108.896
85.0	66.116	66.894	70.005	71.561	70.783
87.5	30.335	31.113	33.447	35.002	35.780
90.0	0.000	0.000	0.000	0.000	0.000
92.5	14.000	39.000	84.000	43.000	37.000
95.0	37.000	83.000	214.000	99.000	78.000
97.5	63.000	124.000	396.000	191.000	140.000
100.0	89.000	161.000	594.000	332.000	228.000
102.5	116.000	189.000	744.000	568.000	376.000
105.0	145.000	218.000	811.000	923.000	651.000
107.5	173.000	246.000	810.000	1336.000	1084.000
110.0	200.000	274.000	787.000	1584.000	1503.000
112.5	229.000	304.000	770.000	1660.000	1733.000
115.0	259.000	334.000	763.000	1652.000	1820.000
117.5	290.000	366.000	766.000	1607.000	1831.000
120.0	316.000	393.000	769.000	1546.000	1801.000
122.5	342.000	417.000	773.000	1485.000	1747.000
125.0	364.000	438.000	777.000	1423.000	1681.000
127.5	384.000	457.000	779.000	1362.000	1608.000
130.0	402.000	473.000	780.000	1306.000	1536.000
132.5	419.000	488.000	779.000	1250.000	1464.000

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HPO-ID-4FT-V-H-835-WSO-F-ITL92549.304.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	436.000	502.000	775.000	1197.000	1390.000
<b>137.5</b>	453.000	514.000	768.000	1145.000	1319.000
<b>140.0</b>	470.000	528.000	759.000	1090.000	1245.000
<b>142.5</b>	486.000	540.000	747.000	1034.000	1169.000
<b>145.0</b>	503.000	552.000	735.000	981.000	1097.000
<b>147.5</b>	519.000	562.000	723.000	931.000	1029.000
<b>150.0</b>	533.000	572.000	711.000	883.000	963.000
<b>152.5</b>	548.000	581.000	700.000	840.000	903.000
<b>155.0</b>	561.000	589.000	689.000	801.000	851.000
<b>157.5</b>	574.000	596.000	679.000	766.000	805.000
<b>160.0</b>	586.000	604.000	670.000	737.000	766.000
<b>162.5</b>	597.000	611.000	661.000	712.000	733.000
<b>165.0</b>	605.000	616.000	653.000	690.000	703.000
<b>167.5</b>	613.000	621.000	646.000	671.000	680.000
<b>170.0</b>	619.000	625.000	640.000	657.000	662.000
<b>172.5</b>	624.000	628.000	636.000	645.000	649.000
<b>175.0</b>	627.000	629.000	633.000	636.000	638.000
<b>177.5</b>	630.000	631.000	632.000	633.000	632.000
<b>180.0</b>	630.000	630.000	630.000	630.000	630.000

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	391.02	N.A.	5.30
0-30	830.28	N.A.	11.30
0-40	1360.32	N.A.	18.50
0-60	2411.61	N.A.	32.90
0-80	3038.37	N.A.	41.40
0-90	3115.05	N.A.	42.50
10-90	3013.89	N.A.	41.10
20-40	969.31	N.A.	13.20
20-50	1520.17	N.A.	20.70
40-70	1440.12	N.A.	19.60
60-80	626.76	N.A.	8.50
70-80	237.92	N.A.	3.20
80-90	76.68	N.A.	1.00
90-110	766.52	N.A.	10.40
90-120	1692.68	N.A.	23.10
90-130	2513.06	N.A.	34.20
90-150	3652.34	N.A.	49.80
90-180	4222.68	N.A.	57.50
110-180	3456.16	N.A.	47.10
0-180	7337.73	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

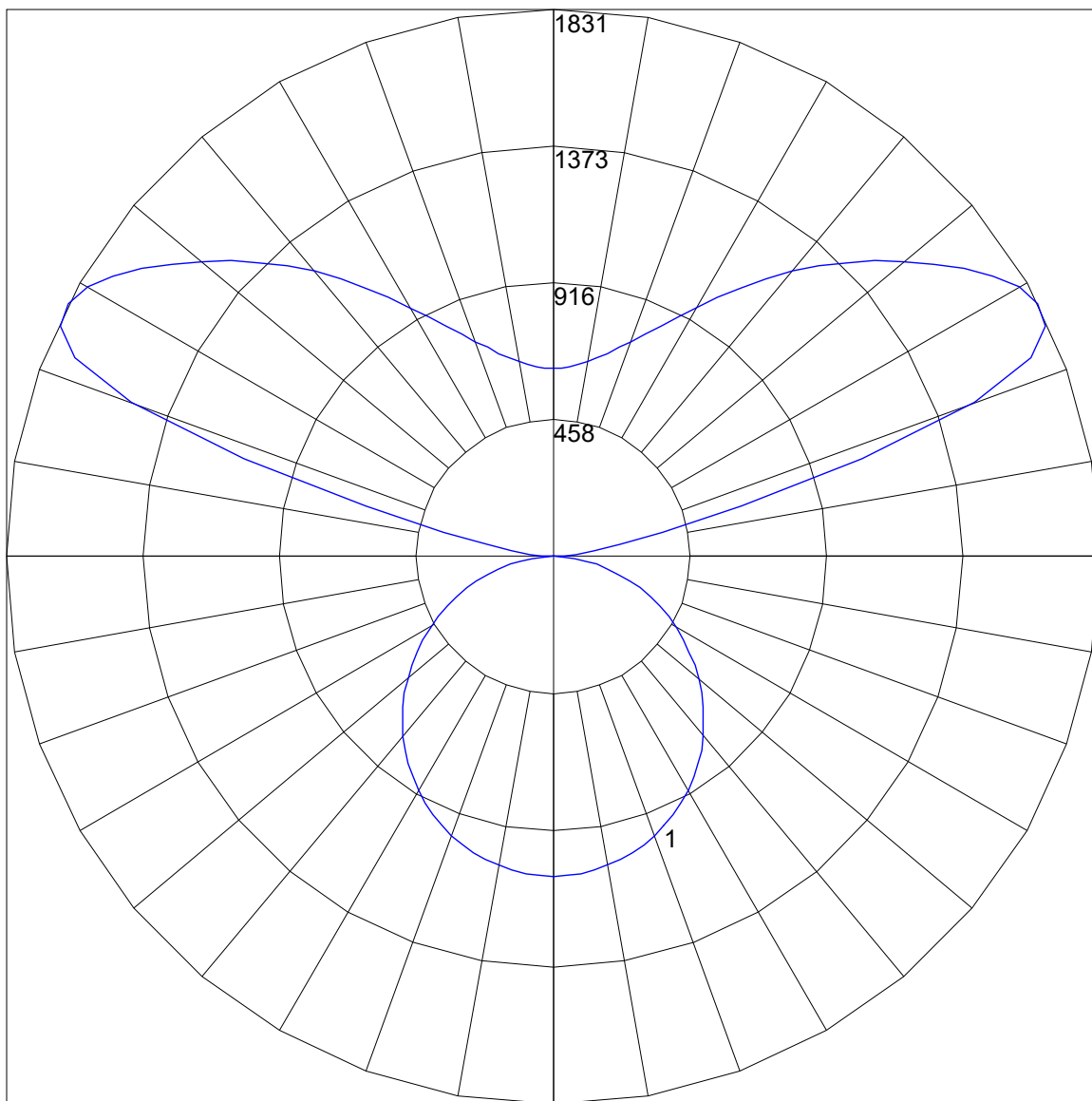
Zone	Lumens
0-10	101.16
10-20	289.85
20-30	439.27
30-40	530.04
40-50	550.87
50-60	500.42
60-70	388.84
70-80	237.92
80-90	76.68
90-100	141.44
100-110	625.08
110-120	926.16
120-130	820.37
130-140	656.14
140-150	483.15
150-160	323.70
160-170	185.97
170-180	60.67

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	42
1	96	91	87	84	87	84	80	77	69	67	64	55	54	52	43	42	41	35
2	87	80	73	68	79	73	67	63	60	56	53	48	46	43	38	36	34	29
3	79	70	62	56	72	64	57	52	53	48	44	43	39	36	33	31	29	24
4	72	62	54	48	66	56	50	44	47	42	37	38	34	31	29	27	25	21
5	66	55	47	41	60	50	43	38	42	36	32	34	30	27	26	24	21	18
6	61	49	41	35	55	45	38	33	37	32	28	30	26	23	24	21	19	16
7	56	44	36	31	51	41	34	29	34	28	24	28	24	20	22	19	17	14
8	52	40	32	27	48	37	30	25	31	25	22	25	21	18	20	17	15	12
9	49	36	29	24	44	34	27	22	28	23	19	23	19	16	18	15	13	11
10	45	33	26	21	41	31	24	20	26	21	17	21	17	15	17	14	12	10

POLAR GRAPH



Maximum Candela = 1831 Located At Horizontal Angle = 90, Vertical Angle = 117.5  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)