

# 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-P-ID-4FT-B-H-835-WSO-ABL-8H-ITL94474.011.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL94474.011 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[ISSUEDATE]04/12/21

[TESTDATE]01/22/21

[MANUFAC]FINELITE, INC.

[LUMCAT]HP-2-P-ID-4ft-B-H-835-WSO-ABL-8H

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 44.8 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 45.8 WATTS

[\_ABSOLUTE]LUMENS]4514

[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL94474. 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	4514
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	101
Total Luminaire Watts	44.8
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)	3.81 ft
Luminous Width (90-270)	0.18 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	13405	12931	12159
55	12373	11551	10166
65	11185	9453	7662
75	9539	6136	3883
85	7260	569	427

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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	1017.413	1017.413	1017.413	1017.413	1017.413
2.5	1016.636	1015.858	1015.858	1015.858	1015.858
5.0	1011.191	1010.413	1009.635	1009.635	1008.857
7.5	1003.412	1002.634	1001.079	999.523	999.523
10.0	992.523	989.411	988.633	987.078	985.522
12.5	979.299	973.077	973.854	973.077	969.187
15.0	962.965	953.631	956.742	953.631	949.741
17.5	942.741	931.851	934.962	930.295	925.628
20.0	919.406	907.738	910.849	904.627	899.960
22.5	892.959	882.069	882.847	876.625	870.402
25.0	865.735	854.067	854.067	844.733	839.288
27.5	836.955	822.954	822.954	812.842	806.619
30.0	805.063	793.396	790.284	780.173	773.172
32.5	773.172	762.282	757.615	745.170	736.614
35.0	737.391	727.279	721.835	707.056	698.499
37.5	703.944	692.277	686.832	668.942	661.163
40.0	668.164	657.274	650.273	630.050	621.493
42.5	630.050	622.271	611.381	591.158	579.490
45.0	594.269	584.935	573.267	549.932	539.042
47.5	557.711	547.599	534.375	508.707	497.039
50.0	519.596	511.818	493.928	466.703	454.258
52.5	483.038	476.037	455.036	423.922	409.143
55.0	444.924	437.146	415.366	380.363	365.584
57.5	409.143	399.809	374.918	336.804	324.359
60.0	371.029	363.251	332.915	296.357	283.133
62.5	332.915	325.915	290.134	255.909	241.130
65.0	296.357	287.800	250.464	215.461	203.016
67.5	260.576	248.908	210.794	176.569	165.680
70.0	224.018	212.350	172.680	140.011	129.121
72.5	188.237	175.014	134.566	105.786	95.674
75.0	154.790	136.900	99.563	73.117	63.005
77.5	122.899	101.897	66.894	42.003	35.003
80.0	92.563	70.006	35.781	15.557	9.334
82.5	65.338	40.448	10.112	3.889	3.889
85.0	39.670	14.001	3.111	3.111	2.334
87.5	17.112	1.556	1.556	1.556	1.556
90.0	0.000	0.000	0.000	0.000	0.000
92.5	9.777	16.467	26.244	17.496	14.408
95.0	22.641	42.710	80.789	46.827	38.079
97.5	36.535	67.924	146.655	88.508	68.954
100.0	50.429	89.022	235.677	148.199	111.664
102.5	65.352	107.547	312.864	246.998	180.103
105.0	80.274	124.528	365.866	391.080	295.368
107.5	95.197	139.965	389.536	545.454	454.373
110.0	111.149	155.403	400.857	674.613	629.845
112.5	126.072	170.840	408.061	749.227	763.121
115.0	142.024	184.734	412.692	775.471	839.793
117.5	157.461	199.142	415.780	779.587	871.697
120.0	172.384	212.007	418.353	772.898	880.445
122.5	185.248	224.356	419.896	755.402	875.299
125.0	197.084	235.163	419.896	729.158	855.230
127.5	208.404	244.940	418.867	699.827	822.812
130.0	218.696	253.173	418.353	671.011	781.646
132.5	228.473	260.892	416.809	641.680	743.567

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-P-ID-4FT-B-H-835-WSO-ABL-8H-ITL94474.011.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	237.736	268.610	414.236	614.922	706.002
<b>137.5</b>	246.998	275.814	410.119	588.678	668.953
<b>140.0</b>	256.260	283.533	405.488	563.979	633.961
<b>142.5</b>	264.494	289.708	400.342	539.279	600.514
<b>145.0</b>	272.212	295.368	394.168	514.579	567.581
<b>147.5</b>	280.446	300.514	387.478	491.423	536.706
<b>150.0</b>	288.164	305.660	380.274	469.296	506.346
<b>152.5</b>	294.854	310.806	374.099	448.198	479.073
<b>155.0</b>	301.543	314.922	369.982	427.615	453.859
<b>157.5</b>	308.747	319.554	364.322	409.090	429.159
<b>160.0</b>	315.437	324.185	358.147	393.138	407.547
<b>162.5</b>	320.583	327.272	352.487	378.730	389.536
<b>165.0</b>	325.214	329.845	348.370	366.380	374.614
<b>167.5</b>	328.301	331.389	344.253	356.603	361.234
<b>170.0</b>	330.874	332.933	340.651	348.885	351.457
<b>172.5</b>	332.418	333.962	338.593	342.710	344.253
<b>175.0</b>	333.962	334.476	336.535	338.078	339.108
<b>177.5</b>	334.991	334.476	334.991	335.505	336.020
<b>180.0</b>	334.991	334.991	334.991	334.991	334.991

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-P-ID-4FT-B-H-835-WSO-ABL-8H-ITL94474.011.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	364.57	N.A.	8.10
0-30	756.43	N.A.	16.80
0-40	1205.89	N.A.	26.70
0-60	2010.68	N.A.	44.50
0-80	2371.3	N.A.	52.50
0-90	2386.96	N.A.	52.90
10-90	2291.22	N.A.	50.80
20-40	841.33	N.A.	18.60
20-50	1279.82	N.A.	28.40
40-70	1053.36	N.A.	23.30
60-80	360.62	N.A.	8.00
70-80	112.05	N.A.	2.50
80-90	15.66	N.A.	0.30
90-110	343.98	N.A.	7.60
90-120	797.08	N.A.	17.70
90-130	1223.75	N.A.	27.10
90-150	1822.35	N.A.	40.40
90-180	2126.84	N.A.	47.10
110-180	1782.85	N.A.	39.50
0-180	4513.79	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	95.74
10-20	268.83
20-30	391.86
30-40	449.46
40-50	438.50
50-60	366.29
60-70	248.57
70-80	112.05
80-90	15.66
90-100	61.58
100-110	282.40
110-120	453.10
120-130	426.67
130-140	342.98
140-150	255.62
150-160	173.01
160-170	99.22
170-180	32.26

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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

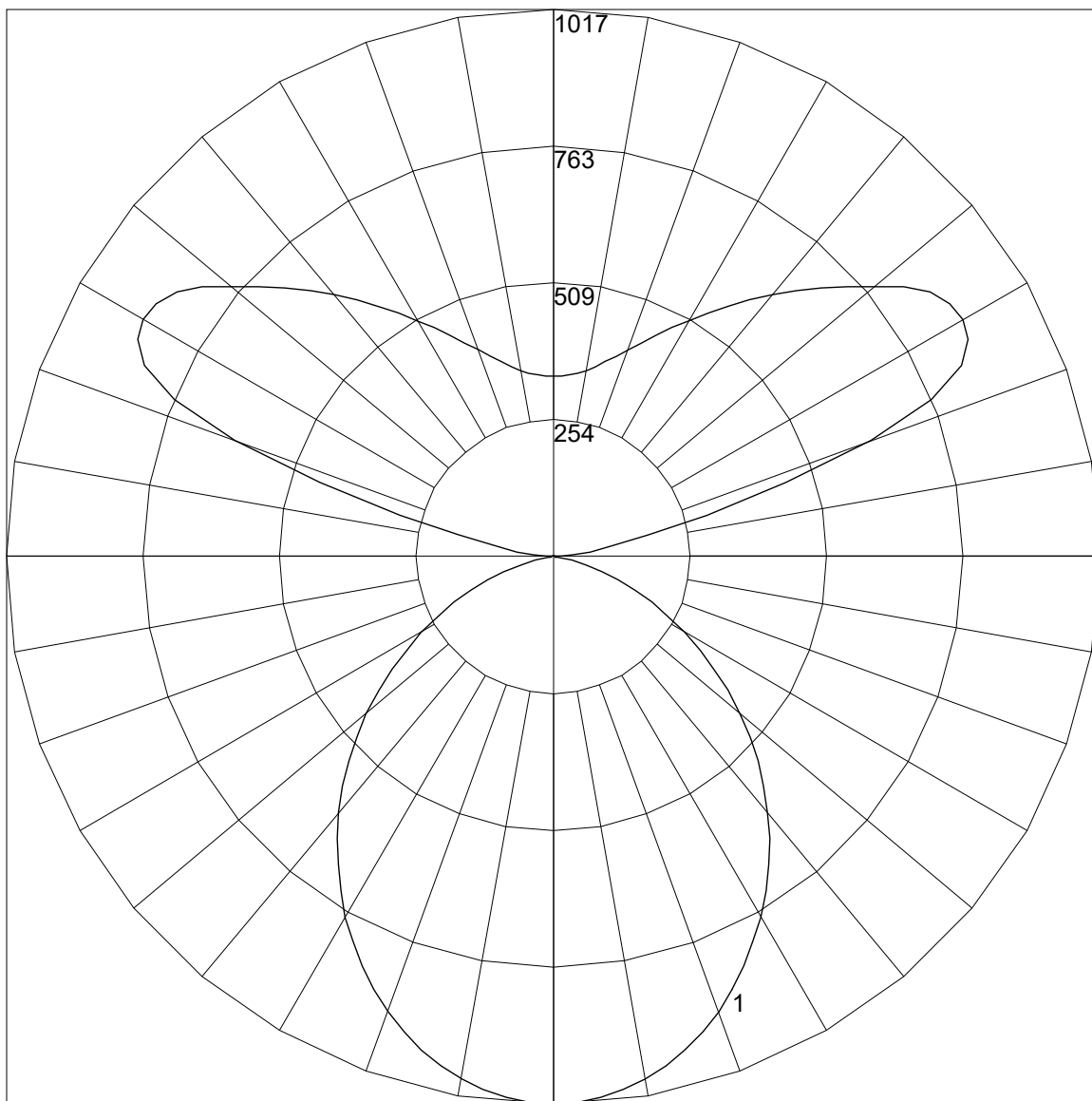
Effective Floor Cavity Reflectance 0.20

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	108	108	108	108	100	100	100	100	85	85	85	71	71	71	59	59	59	53
1	99	95	91	88	91	88	85	82	75	73	71	63	62	60	53	52	51	46
2	90	83	77	72	83	77	72	68	66	62	59	56	53	51	47	45	43	39
3	83	73	66	60	76	68	62	57	59	54	50	50	46	43	42	39	37	33
4	76	65	57	51	70	61	54	48	52	47	43	45	41	37	37	34	32	29
5	70	58	50	44	64	54	47	42	47	41	37	40	36	33	34	31	28	25
6	64	52	44	38	59	49	42	36	42	37	32	36	32	29	31	27	25	22
7	59	47	39	34	55	44	37	32	38	33	29	33	29	25	28	25	22	20
8	55	43	35	30	51	40	33	28	35	30	26	30	26	23	26	22	20	18
9	51	39	32	27	48	37	30	25	32	27	23	28	24	20	24	20	18	16
10	48	36	29	24	45	34	27	23	30	24	21	26	22	19	22	19	16	14

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POLAR GRAPH



Maximum Candela = 1017.413 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)