

# 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-B-H-835-F-MLW-ITL85132-ITL92590.011.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL85132-ITL92590.011 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]08/11/15

[ISSUEDATE]02/03/23

[MANUFAC]FINELITE, INC.

[LUMCAT]HP-2-ID-4ft-B-H-835-F-MLW

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 46.0 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 46.8 WATTS

[ABSOLUTE]LUMENS]4436

[OTHER]see [www.finelite.com](http://www.finelite.com) for source files ITL85132 and ITL92590. 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	4440
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	97
Total Luminaire Watts	46
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)	0.18 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	3157	3040	3107
55	2656	2491	2471
65	2264	2096	2012
75	1962	1780	1643
85	1626	1491	1220

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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	6213.993	6213.993	6213.993	6213.993	6213.993
2.5	6102.751	6107.418	6100.417	6104.307	6098.083
5.0	5810.254	5803.253	5807.921	5800.919	5803.253
7.5	5319.390	5324.057	5383.179	5376.177	5390.180
10.0	4605.263	4675.275	4830.081	4895.425	4890.758
12.5	3809.455	3916.807	4202.302	4372.666	4343.883
15.0	3087.549	3178.565	3544.963	3796.230	3739.442
17.5	2387.424	2532.117	2913.295	3103.107	2975.529
20.0	1702.080	1891.892	2331.414	2424.764	2364.087
22.5	1125.644	1323.235	1750.311	1881.779	1804.765
25.0	754.578	876.711	1261.780	1341.905	1191.767
27.5	525.871	593.550	878.267	868.154	760.024
30.0	376.511	425.520	570.990	552.320	506.423
32.5	270.715	311.166	371.844	379.623	362.509
35.0	214.705	233.375	273.826	284.717	264.491
37.5	191.367	194.479	217.816	219.372	204.592
40.0	175.031	175.031	181.254	179.699	175.809
42.5	161.029	160.251	157.139	158.695	158.695
45.0	147.026	146.248	141.581	143.915	144.692
47.5	133.802	133.024	129.134	129.912	130.690
50.0	122.133	121.355	116.687	117.465	117.465
52.5	110.464	109.686	105.019	105.019	105.019
55.0	100.351	98.795	94.128	93.350	93.350
57.5	90.238	88.682	84.793	83.237	83.237
60.0	80.125	79.347	75.458	73.902	73.902
62.5	71.568	70.790	66.901	65.345	63.789
65.0	63.011	61.455	58.344	56.788	56.010
67.5	54.454	53.676	51.343	49.009	48.231
70.0	47.453	46.675	43.563	42.008	40.452
72.5	40.452	39.674	37.340	35.006	34.228
75.0	33.450	32.672	30.339	28.783	28.005
77.5	26.449	26.449	24.115	22.560	21.782
80.0	19.448	20.226	18.670	17.114	16.336
82.5	14.002	14.002	13.225	12.447	11.669
85.0	9.335	8.557	8.557	7.779	7.001
87.5	3.890	3.890	3.890	3.890	3.112
90.0	0.000	0.000	0.000	0.000	0.000
92.5	15.439	15.439	15.439	16.983	16.983
95.0	36.538	34.994	34.994	35.509	36.023
97.5	57.637	56.094	55.064	55.579	55.579
100.0	79.251	76.678	76.678	76.678	76.164
102.5	101.895	99.836	98.807	98.292	98.292
105.0	125.567	124.023	121.450	120.936	120.421
107.5	149.754	148.210	145.123	144.608	144.094
110.0	174.971	173.427	170.854	169.825	168.281
112.5	201.216	198.643	197.099	194.526	192.982
115.0	227.462	225.918	224.889	219.743	218.714
117.5	255.251	252.678	252.678	246.503	245.474
120.0	283.555	279.439	280.468	274.292	272.234
122.5	310.316	306.199	308.257	303.111	299.509
125.0	340.164	333.988	336.047	330.901	328.327
127.5	369.497	362.807	363.836	359.719	358.690
130.0	398.316	391.626	392.655	387.509	388.023
132.5	427.135	419.930	421.474	416.327	416.327

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-4FT-B-H-835-F-MLW-ITL85132-ITL92590.011.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	454.924	448.234	450.292	445.661	445.661
<b>137.5</b>	483.228	476.538	478.596	474.479	473.965
<b>140.0</b>	511.532	504.842	506.386	503.813	502.269
<b>142.5</b>	538.292	531.088	533.146	530.573	528.515
<b>145.0</b>	565.567	557.848	559.906	557.848	554.246
<b>147.5</b>	590.784	583.064	585.638	582.550	578.947
<b>150.0</b>	614.971	607.251	610.339	606.737	603.649
<b>152.5</b>	638.129	630.409	633.497	630.409	627.322
<b>155.0</b>	660.257	652.538	656.140	653.053	649.965
<b>157.5</b>	679.298	672.094	676.211	673.123	670.035
<b>160.0</b>	697.825	691.135	694.737	691.649	688.561
<b>162.5</b>	713.778	708.117	710.690	708.632	706.573
<b>165.0</b>	728.187	723.041	724.585	723.556	722.012
<b>167.5</b>	738.994	735.906	736.936	735.906	735.392
<b>170.0</b>	748.772	747.228	747.743	746.713	746.199
<b>172.5</b>	757.006	756.491	756.491	755.977	755.977
<b>175.0</b>	762.667	762.667	762.667	762.667	762.152
<b>177.5</b>	765.754	766.269	766.269	766.269	765.754
<b>180.0</b>	767.813	767.813	767.813	767.813	767.813

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-4FT-B-H-835-F-MLW-ITL85132-ITL92590.011.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	1469.55	N.A.	33.10
0-30	2001.85	N.A.	45.10
0-40	2178.41	N.A.	49.10
0-60	2376.88	N.A.	53.50
0-80	2468.38	N.A.	55.60
0-90	2477.74	N.A.	55.80
10-90	1956.00	N.A.	44.10
20-40	708.86	N.A.	16.00
20-50	821.09	N.A.	18.50
40-70	257.40	N.A.	5.80
60-80	91.50	N.A.	2.10
70-80	32.57	N.A.	0.70
80-90	9.37	N.A.	0.20
90-110	169.42	N.A.	3.80
90-120	390.97	N.A.	8.80
90-130	689.80	N.A.	15.50
90-150	1385.17	N.A.	31.20
90-180	1962.43	N.A.	44.20
110-180	1793.01	N.A.	40.40
0-180	4440.18	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	521.74
10-20	947.80
20-30	532.30
30-40	176.56
40-50	112.23
50-60	86.24
60-70	58.93
70-80	32.57
80-90	9.37
90-100	39.66
100-110	129.76
110-120	221.56
120-130	298.83
130-140	346.11
140-150	349.26
150-160	300.94
160-170	204.02
170-180	72.31

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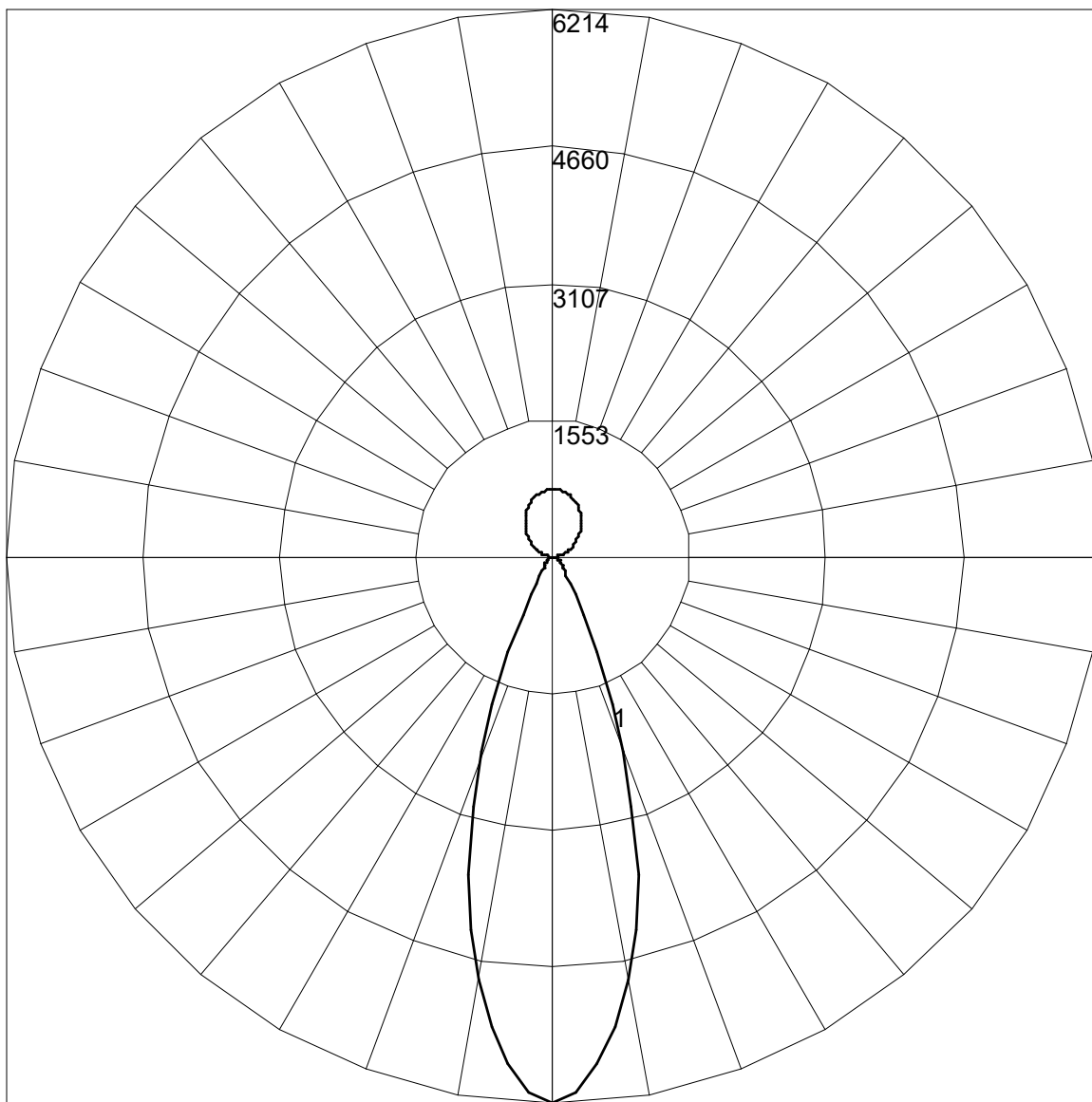
PHOTOMETRIC FILENAME : HP-2-ID-4FT-B-H-835-F-MLW-ITL85132-ITL92590.011.IES

## 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	109	109	109	109	101	101	101	101	87	87	87	73	73	73	61	61	61	56
1	102	98	95	93	95	92	89	87	80	78	76	69	67	66	58	58	57	52
2	95	90	85	81	89	84	80	77	74	71	68	64	62	61	55	54	53	49
3	89	82	77	72	84	77	73	69	68	65	62	60	58	56	53	51	50	46
4	84	76	70	65	79	72	66	62	64	60	57	57	54	52	50	48	47	43
5	79	70	64	59	74	67	61	57	60	56	53	54	51	48	48	46	44	41
6	75	66	59	55	71	62	57	53	56	52	49	51	48	45	46	43	42	39
7	71	61	55	51	67	59	53	49	53	49	46	48	45	43	44	41	40	38
8	67	58	52	47	64	55	50	46	51	46	43	46	43	41	42	40	38	36
9	64	55	49	45	61	52	47	43	48	44	41	44	41	39	40	38	36	34
10	61	52	46	42	58	50	44	41	46	42	39	42	39	37	39	36	35	33

POLAR GRAPH



Maximum Candela = 6213.993 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)