

# 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-DSO-ITL85132-ITL94139.011.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL85132-ITL94139.011 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]08/11/15

[ISSUEDATE]12/17/2020

[MANUFAC]FINELITE, INC.

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

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 45.8 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 47.2 WATTS

[ABSOLUTE]LUMENS]4508

[OTHER]see [www.finelite.com](http://www.finelite.com) for source files ITL85132 and ITL94139. 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	4509
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	98
Total Luminaire Watts	45.8
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)	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	10756	13595	13962
55	9780	12518	12518
65	8774	11122	10814
75	7803	9491	8989
85	6775	7182	6504

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-4FT-B-H-835-F-DSO-ITL85132-ITL94139.011.IES****CANDELA TABULATION**

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
<b>0.0</b>	907.008	907.008	907.008	907.008	907.008
<b>2.5</b>	905.452	905.452	906.230	907.785	907.785
<b>5.0</b>	900.785	901.562	905.452	909.341	910.897
<b>7.5</b>	892.228	895.339	902.340	910.897	915.564
<b>10.0</b>	881.338	885.227	900.785	917.120	922.565
<b>12.5</b>	868.114	872.781	899.229	921.787	928.010
<b>15.0</b>	850.222	858.001	894.562	923.343	931.122
<b>17.5</b>	831.553	841.666	888.338	923.343	932.678
<b>20.0</b>	808.217	822.997	880.560	919.454	929.566
<b>22.5</b>	783.325	801.216	867.336	910.897	922.565
<b>25.0</b>	755.321	779.435	852.556	899.229	910.119
<b>27.5</b>	727.317	756.099	835.443	882.893	893.784
<b>30.0</b>	696.980	731.207	813.662	861.113	869.669
<b>32.5</b>	665.865	703.203	791.104	836.221	843.221
<b>35.0</b>	633.194	673.644	765.433	805.883	810.551
<b>37.5</b>	601.301	644.084	735.096	772.434	774.768
<b>40.0</b>	567.074	612.969	702.425	736.652	735.096
<b>42.5</b>	534.403	580.298	668.976	696.202	693.091
<b>45.0</b>	500.954	546.849	633.194	654.975	650.307
<b>47.5</b>	468.284	513.400	594.300	612.191	607.524
<b>50.0</b>	434.057	479.174	554.628	567.852	560.073
<b>52.5</b>	400.608	443.391	514.178	524.291	516.512
<b>55.0</b>	369.493	408.387	472.951	479.174	472.951
<b>57.5</b>	336.822	373.382	431.723	435.613	425.500
<b>60.0</b>	305.707	337.600	390.495	393.607	383.495
<b>62.5</b>	276.147	303.373	350.824	350.046	342.267
<b>65.0</b>	244.254	270.702	309.596	308.818	301.039
<b>67.5</b>	216.250	237.253	270.702	268.368	260.590
<b>70.0</b>	187.469	205.360	233.364	229.475	222.474
<b>72.5</b>	159.465	174.245	196.804	192.914	186.691
<b>75.0</b>	133.017	143.908	161.799	157.910	153.242
<b>77.5</b>	108.125	115.904	128.350	124.461	120.571
<b>80.0</b>	84.789	88.678	98.013	93.346	90.234
<b>82.5</b>	62.230	63.786	68.453	65.342	63.008
<b>85.0</b>	38.894	40.450	41.228	38.894	37.338
<b>87.5</b>	17.891	17.891	16.335	15.558	14.002
<b>90.0</b>	0.000	0.000	0.000	0.000	0.000
<b>92.5</b>	15.437	15.437	15.437	16.980	16.980
<b>95.0</b>	36.533	34.990	34.990	35.504	36.019
<b>97.5</b>	57.630	56.087	55.057	55.572	55.572
<b>100.0</b>	79.242	76.669	76.669	76.669	76.154
<b>102.5</b>	101.882	99.824	98.795	98.280	98.280
<b>105.0</b>	125.551	124.008	121.435	120.920	120.406
<b>107.5</b>	149.736	148.192	145.105	144.590	144.075
<b>110.0</b>	174.949	173.405	170.832	169.803	168.260
<b>112.5</b>	201.191	198.618	197.075	194.502	192.958
<b>115.0</b>	227.433	225.890	224.861	219.715	218.686
<b>117.5</b>	255.219	252.647	252.647	246.472	245.443
<b>120.0</b>	283.520	279.403	280.433	274.258	272.200
<b>122.5</b>	310.277	306.160	308.218	303.073	299.471
<b>125.0</b>	340.121	333.946	336.004	330.859	328.286
<b>127.5</b>	369.450	362.761	363.790	359.674	358.645
<b>130.0</b>	398.266	391.576	392.606	387.460	387.974
<b>132.5</b>	427.081	419.877	421.421	416.275	416.275

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-4FT-B-H-835-F-DSO-ITL85132-ITL94139.011.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	454.867	448.177	450.236	445.605	445.605
<b>137.5</b>	483.167	476.478	478.536	474.420	473.905
<b>140.0</b>	511.468	504.778	506.322	503.749	502.206
<b>142.5</b>	538.225	531.021	533.079	530.506	528.448
<b>145.0</b>	565.496	557.778	559.836	557.778	554.176
<b>147.5</b>	590.709	582.991	585.564	582.476	578.874
<b>150.0</b>	614.893	607.175	610.262	606.660	603.573
<b>152.5</b>	638.048	630.330	633.417	630.330	627.243
<b>155.0</b>	660.174	652.456	656.058	652.970	649.883
<b>157.5</b>	679.213	672.009	676.125	673.038	669.951
<b>160.0</b>	697.737	691.047	694.649	691.562	688.475
<b>162.5</b>	713.688	708.028	710.601	708.542	706.484
<b>165.0</b>	728.095	722.950	724.494	723.464	721.921
<b>167.5</b>	738.901	735.814	736.843	735.814	735.299
<b>170.0</b>	748.678	747.134	747.648	746.619	746.105
<b>172.5</b>	756.910	756.396	756.396	755.881	755.881
<b>175.0</b>	762.571	762.571	762.571	762.571	762.056
<b>177.5</b>	765.658	766.172	766.172	766.172	765.658
<b>180.0</b>	767.716	767.716	767.716	767.716	767.716

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-4FT-B-H-835-F-DSO-ITL85132-ITL94139.011.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	338.20	N.A.	7.50
0-30	725.47	N.A.	16.10
0-40	1188.76	N.A.	26.40
0-60	2051.46	N.A.	45.50
0-80	2500.92	N.A.	55.50
0-90	2546.37	N.A.	56.50
10-90	2460.09	N.A.	54.60
20-40	850.56	N.A.	18.90
20-50	1315.01	N.A.	29.20
40-70	1150.84	N.A.	25.50
60-80	449.46	N.A.	10.00
70-80	161.32	N.A.	3.60
80-90	45.45	N.A.	1.00
90-110	169.40	N.A.	3.80
90-120	390.92	N.A.	8.70
90-130	689.71	N.A.	15.30
90-150	1384.99	N.A.	30.70
90-180	1962.19	N.A.	43.50
110-180	1792.79	N.A.	39.80
0-180	4508.56	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	86.28
10-20	251.92
20-30	387.27
30-40	463.29
40-50	464.46
50-60	398.24
60-70	288.14
70-80	161.32
80-90	45.45
90-100	39.65
100-110	129.74
110-120	221.53
120-130	298.79
130-140	346.07
140-150	349.21
150-160	300.90
160-170	203.99
170-180	72.30

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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

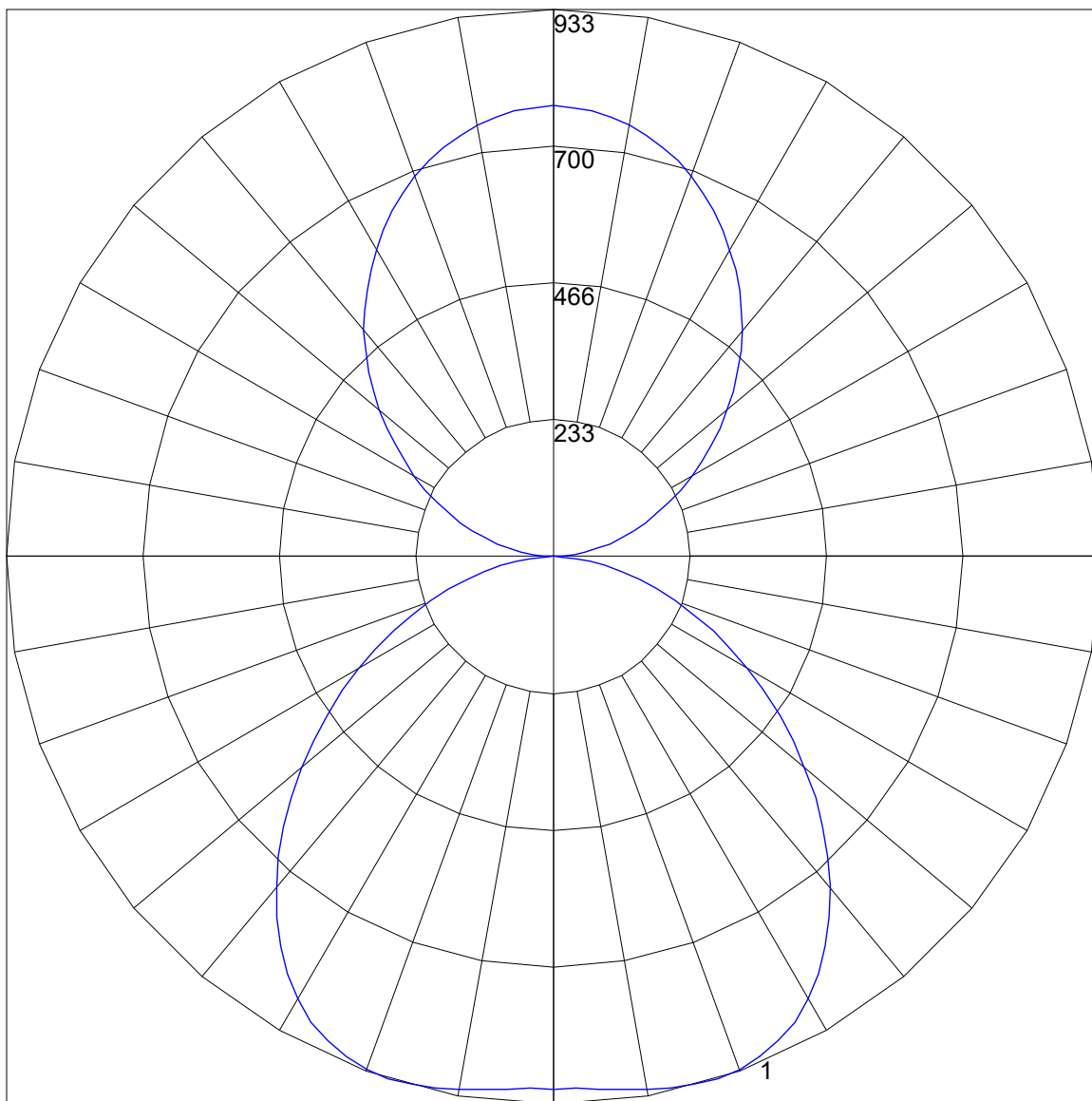
Effective Floor Cavity Reflectance 0.20

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	109	109	109	109	101	101	101	101	87	87	87	74	74	74	62	62	62	56
1	99	95	91	87	92	88	85	82	76	74	71	65	63	62	55	54	52	48
2	90	83	77	71	84	77	72	67	67	63	59	57	54	51	48	46	44	40
3	82	73	65	59	76	68	61	56	59	54	50	51	47	44	43	40	38	34
4	75	64	56	50	70	60	53	48	52	47	42	45	41	37	38	35	32	29
5	69	57	49	43	64	54	46	41	47	41	37	40	36	32	34	31	28	25
6	64	52	43	37	59	48	41	36	42	36	32	36	32	28	31	28	25	22
7	59	46	38	33	55	44	36	31	38	32	28	33	28	25	28	25	22	19
8	55	42	34	29	51	40	33	28	35	29	25	30	26	22	26	22	20	17
9	51	39	31	26	47	36	29	25	32	26	22	28	23	20	24	20	18	16
10	48	35	28	23	44	33	27	22	29	24	20	26	21	18	22	19	16	14

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## POLAR GRAPH



Maximum Candela = 932.678 Located At Horizontal Angle = 90, Vertical Angle = 17.5  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)