

# 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-H-S-835-F-MLW-ITL85132-ITL92590.009.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL85132-ITL92590.009 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]08/11/15

[ISSUEDATE]02/03/23

[MANUFAC]FINELITE, INC.

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

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 42.0 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 43.2 WATTS

[ABSOLUTE]LUMENS]4267

[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	4270
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	102
Total Luminaire Watts	42
Ballast Factor	1.00
CIE Type	Semi-Indirect
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	1661	1600	1635
55	1398	1311	1300
65	1191	1103	1059
75	1032	936	864
85	856	784	642

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-4FT-H-S-835-F-MLW-ITL85132-ITL92590.009.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>	3269.736	3269.736	3269.736	3269.736	3269.736
<b>2.5</b>	3211.202	3213.658	3209.974	3212.020	3208.746
<b>5.0</b>	3057.293	3053.609	3056.065	3052.381	3053.609
<b>7.5</b>	2799.005	2801.461	2832.571	2828.887	2836.254
<b>10.0</b>	2423.240	2460.079	2541.536	2575.920	2573.464
<b>12.5</b>	2004.494	2060.982	2211.206	2300.850	2285.704
<b>15.0</b>	1624.635	1672.526	1865.321	1997.535	1967.654
<b>17.5</b>	1256.237	1332.372	1532.945	1632.821	1565.691
<b>20.0</b>	895.616	995.493	1226.765	1275.885	1243.957
<b>22.5</b>	592.302	696.272	920.995	990.172	949.648
<b>25.0</b>	397.051	461.316	663.935	706.096	627.095
<b>27.5</b>	276.708	312.320	462.135	456.813	399.916
<b>30.0</b>	198.116	223.904	300.449	290.625	266.474
<b>32.5</b>	142.447	163.732	195.660	199.754	190.748
<b>35.0</b>	112.975	122.799	144.084	149.815	139.173
<b>37.5</b>	100.695	102.333	114.613	115.431	107.654
<b>40.0</b>	92.100	92.100	95.374	94.555	92.509
<b>42.5</b>	84.731	84.322	82.685	83.504	83.504
<b>45.0</b>	77.364	76.954	74.498	75.726	76.136
<b>47.5</b>	70.405	69.996	67.949	68.358	68.768
<b>50.0</b>	64.265	63.856	61.400	61.809	61.809
<b>52.5</b>	58.125	57.716	55.260	55.260	55.260
<b>55.0</b>	52.804	51.985	49.529	49.120	49.120
<b>57.5</b>	47.482	46.664	44.617	43.798	43.798
<b>60.0</b>	42.161	41.752	39.705	38.886	38.886
<b>62.5</b>	37.658	37.249	35.203	34.384	33.565
<b>65.0</b>	33.156	32.337	30.700	29.881	29.472
<b>67.5</b>	28.653	28.244	27.016	25.788	25.378
<b>70.0</b>	24.969	24.560	22.922	22.104	21.285
<b>72.5</b>	21.285	20.876	19.648	18.420	18.011
<b>75.0</b>	17.601	17.192	15.964	15.145	14.736
<b>77.5</b>	13.917	13.917	12.689	11.871	11.461
<b>80.0</b>	10.233	10.643	9.824	9.005	8.596
<b>82.5</b>	7.368	7.368	6.959	6.549	6.140
<b>85.0</b>	4.912	4.503	4.503	4.093	3.684
<b>87.5</b>	2.047	2.047	2.047	2.047	1.637
<b>90.0</b>	0.000	0.000	0.000	0.000	0.000
<b>92.5</b>	23.333	23.333	23.333	25.667	25.667
<b>95.0</b>	55.222	52.889	52.889	53.667	54.444
<b>97.5</b>	87.111	84.778	83.222	84.000	84.000
<b>100.0</b>	119.778	115.889	115.889	115.889	115.111
<b>102.5</b>	154.000	150.889	149.333	148.556	148.556
<b>105.0</b>	189.778	187.444	183.556	182.778	182.000
<b>107.5</b>	226.333	224.000	219.333	218.556	217.778
<b>110.0</b>	264.445	262.111	258.222	256.667	254.333
<b>112.5</b>	304.111	300.222	297.889	294.000	291.667
<b>115.0</b>	343.778	341.445	339.889	332.111	330.555
<b>117.5</b>	385.778	381.889	381.889	372.555	371.000
<b>120.0</b>	428.555	422.333	423.889	414.555	411.445
<b>122.5</b>	469.000	462.778	465.889	458.111	452.667
<b>125.0</b>	514.111	504.778	507.889	500.111	496.222
<b>127.5</b>	558.444	548.333	549.889	543.667	542.111
<b>130.0</b>	602.000	591.889	593.444	585.667	586.444
<b>132.5</b>	645.556	634.667	637.000	629.222	629.222

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-4FT-H-S-835-F-MLW-ITL85132-ITL92590.009.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	687.556	677.444	680.556	673.556	673.556
<b>137.5</b>	730.333	720.222	723.333	717.111	716.333
<b>140.0</b>	773.111	763.000	765.333	761.444	759.111
<b>142.5</b>	813.556	802.667	805.778	801.889	798.778
<b>145.0</b>	854.778	843.111	846.222	843.111	837.667
<b>147.5</b>	892.889	881.222	885.111	880.444	875.000
<b>150.0</b>	929.444	917.778	922.444	917.000	912.333
<b>152.5</b>	964.444	952.778	957.444	952.778	948.111
<b>155.0</b>	997.889	986.222	991.667	987.000	982.333
<b>157.5</b>	1026.667	1015.778	1022.000	1017.333	1012.667
<b>160.0</b>	1054.667	1044.555	1050.000	1045.333	1040.667
<b>162.5</b>	1078.778	1070.222	1074.111	1071.000	1067.889
<b>165.0</b>	1100.555	1092.778	1095.111	1093.555	1091.222
<b>167.5</b>	1116.889	1112.222	1113.778	1112.222	1111.445
<b>170.0</b>	1131.667	1129.333	1130.111	1128.555	1127.778
<b>172.5</b>	1144.111	1143.333	1143.333	1142.555	1142.555
<b>175.0</b>	1152.667	1152.667	1152.667	1152.667	1151.889
<b>177.5</b>	1157.333	1158.111	1158.111	1158.111	1157.333
<b>180.0</b>	1160.445	1160.445	1160.445	1160.445	1160.445

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-4FT-H-S-835-F-MLW-ITL85132-ITL92590.009.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	773.26	N.A.	18.10
0-30	1053.35	N.A.	24.70
0-40	1146.25	N.A.	26.80
0-60	1250.69	N.A.	29.30
0-80	1298.83	N.A.	30.40
0-90	1303.76	N.A.	30.50
10-90	1029.23	N.A.	24.10
20-40	372.99	N.A.	8.70
20-50	432.05	N.A.	10.10
40-70	135.44	N.A.	3.20
60-80	48.15	N.A.	1.10
70-80	17.14	N.A.	0.40
80-90	4.93	N.A.	0.10
90-110	256.05	N.A.	6.00
90-120	590.90	N.A.	13.80
90-130	1042.54	N.A.	24.40
90-150	2093.49	N.A.	49.00
90-180	2965.95	N.A.	69.50
110-180	2709.9	N.A.	63.50
0-180	4269.71	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	274.54
10-20	498.72
20-30	280.09
30-40	92.90
40-50	59.05
50-60	45.38
60-70	31.01
70-80	17.14
80-90	4.93
90-100	59.94
100-110	196.12
110-120	334.85
120-130	451.64
130-140	523.10
140-150	527.85
150-160	454.83
160-170	308.34
170-180	109.29

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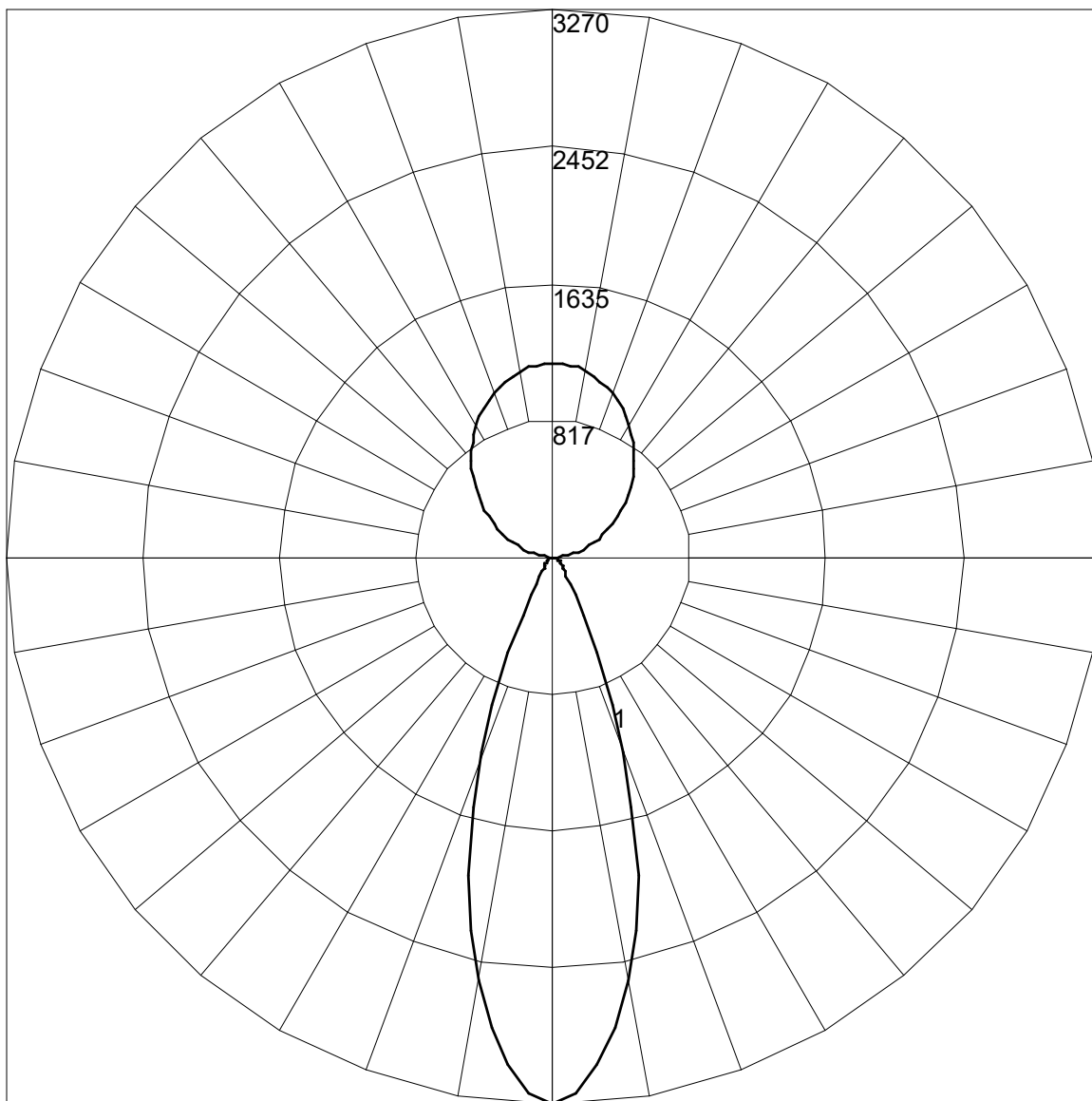
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

RC RW	80				70				50			30			10			0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	103	103	103	103	92	92	92	92	73	73	73	55	55	55	38	38	38	31
1	95	91	88	85	85	82	80	77	66	64	62	50	49	48	36	35	35	29
2	88	82	77	72	79	74	70	66	59	57	54	46	44	43	34	33	32	27
3	81	74	67	63	73	67	62	58	54	51	48	43	41	39	32	31	30	25
4	76	67	60	55	68	61	55	51	50	46	43	40	37	35	30	29	28	24
5	70	61	54	49	64	56	50	46	46	42	39	37	34	32	29	27	26	23
6	66	56	49	44	60	51	45	41	43	39	36	35	32	30	27	26	25	22
7	62	51	45	40	56	47	42	38	40	36	33	33	30	28	26	24	23	21
8	58	48	41	37	53	44	38	34	37	33	30	31	28	26	25	23	22	20
9	55	44	38	34	50	41	36	32	35	31	28	29	26	25	24	22	21	19
10	52	41	35	31	47	38	33	30	33	29	26	28	25	23	23	21	20	18

POLAR GRAPH



Maximum Candela = 3269.736 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)