

# 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 : HPW-LED-4FT-FR-LED-H-8-35-ITL85170.003.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST]ITL85170.003 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[TESTDATE]09/15/15  
[ISSUE DATE]04/28/16  
[MANUFAC]FINELITE, INC.  
[LUMCAT]FINELITE HPW-LED-4ft-FR-LED-H-8-35  
[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 28.3 WATTS  
[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 29.1 WATTS  
[ABSOLUTE LUMENS]3038  
[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL85170. 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	3038
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	107
Total Luminaire Watts	28.3
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.92
Spacing Criterion (90-270)	1.24
Spacing Criterion (Diagonal)	1.36
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	0.48 ft
Luminous Width (90-270)	3.91 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	11657	10237	5623
55	11702	10270	5213
65	10475	9915	4688
75	8018	8397	3983
85	3635	4557	2970

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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>	<u>112.5</u>	<u>135.0</u>	<u>157.5</u>	<u>180.0</u>
<b>0.0</b>	1101.333	1101.333	1101.333	1101.333	1101.333	1101.333	1101.333	1101.333	1101.333
<b>2.5</b>	1180.667	1177.556	1156.556	1132.444	1100.556	1069.444	1044.556	1026.667	1020.444
<b>5.0</b>	1260.000	1251.444	1211.778	1159.667	1096.667	1035.222	985.444	952.000	939.556
<b>7.5</b>	1341.667	1324.556	1265.444	1185.333	1089.667	998.667	926.333	878.889	861.778
<b>10.0</b>	1414.778	1393.000	1315.222	1205.556	1081.111	961.333	868.000	807.333	785.556
<b>12.5</b>	1476.222	1453.667	1361.111	1222.667	1068.667	920.889	809.667	737.333	711.667
<b>15.0</b>	1526.000	1500.333	1400.778	1235.889	1053.889	880.444	751.333	668.889	640.889
<b>17.5</b>	1562.556	1536.111	1431.111	1246.000	1036.000	837.667	693.000	601.222	570.889
<b>20.0</b>	1593.667	1564.111	1451.333	1253.000	1018.111	794.111	636.222	537.444	504.778
<b>22.5</b>	1610.000	1580.444	1463.000	1254.556	994.778	749.778	580.222	477.556	440.222
<b>25.0</b>	1620.111	1589.000	1467.667	1251.444	969.889	704.667	525.000	416.889	380.333
<b>27.5</b>	1624.778	1589.778	1465.333	1243.667	942.667	659.556	470.556	362.444	322.778
<b>30.0</b>	1620.111	1582.000	1453.667	1229.667	913.111	614.444	417.667	307.222	268.333
<b>32.5</b>	1609.222	1568.000	1438.111	1210.222	880.444	568.556	367.111	256.667	219.333
<b>35.0</b>	1589.000	1547.000	1414.778	1185.333	846.222	523.444	318.111	210.000	172.667
<b>37.5</b>	1561.000	1519.778	1385.222	1154.222	810.444	478.333	270.667	165.667	132.222
<b>40.0</b>	1528.333	1484.000	1349.444	1119.222	772.333	434.000	227.111	127.556	99.556
<b>42.5</b>	1485.556	1442.000	1309.000	1079.556	733.444	389.667	186.667	96.444	68.444
<b>45.0</b>	1436.556	1392.222	1261.556	1034.444	693.000	346.111	147.778	67.667	31.889
<b>47.5</b>	1382.889	1338.556	1209.444	987.000	651.778	304.111	113.556	32.667	25.667
<b>50.0</b>	1326.111	1279.444	1151.889	935.667	607.444	262.889	85.556	26.444	21.000
<b>52.5</b>	1255.333	1219.556	1090.444	881.222	564.667	225.556	61.444	22.556	17.889
<b>55.0</b>	1169.778	1144.889	1026.667	826.778	521.111	185.889	32.667	19.444	14.778
<b>57.5</b>	1075.667	1057.778	959.778	767.667	477.556	150.889	26.444	16.333	12.444
<b>60.0</b>	977.667	964.444	892.889	706.222	433.222	118.222	22.556	14.000	10.111
<b>62.5</b>	875.778	865.667	814.333	644.778	391.222	90.222	19.444	11.667	8.556
<b>65.0</b>	771.556	764.556	730.333	578.667	345.333	65.333	16.333	10.111	7.000
<b>67.5</b>	669.667	667.333	642.444	516.444	301.778	44.333	14.000	8.556	6.222
<b>70.0</b>	566.222	567.000	554.556	456.556	259.778	26.444	11.667	7.000	4.667
<b>72.5</b>	462.000	465.889	465.889	399.000	220.111	21.000	9.333	6.222	3.889
<b>75.0</b>	361.667	367.889	378.778	334.444	179.667	17.111	7.778	4.667	3.111
<b>77.5</b>	266.000	276.111	293.222	270.667	142.333	13.222	6.222	3.889	3.111
<b>80.0</b>	178.111	189.778	210.778	206.889	106.556	10.111	4.667	3.111	2.333
<b>82.5</b>	115.111	115.889	135.333	143.889	74.667	7.000	3.889	2.333	1.556
<b>85.0</b>	55.222	59.111	69.222	83.222	45.111	4.667	2.333	1.556	1.556
<b>87.5</b>	8.556	10.111	14.000	28.778	20.222	1.556	0.778	0.778	0.778
<b>90.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	406.93	N.A.	13.40
0-30	863.18	N.A.	28.40
0-40	1404.34	N.A.	46.20
0-60	2438.11	N.A.	80.30
0-80	2992.71	N.A.	98.50
0-90	3037.8	N.A.	100.00
10-90	2933.12	N.A.	96.60
20-40	997.41	N.A.	32.80
20-50	1545.21	N.A.	50.90
40-70	1393.02	N.A.	45.90
60-80	554.59	N.A.	18.30
70-80	195.34	N.A.	6.40
80-90	45.10	N.A.	1.50
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.00	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	3037.8	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	104.68
10-20	302.25
20-30	456.25
30-40	541.16
40-50	547.81
50-60	485.97
60-70	359.25
70-80	195.34
80-90	45.10
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

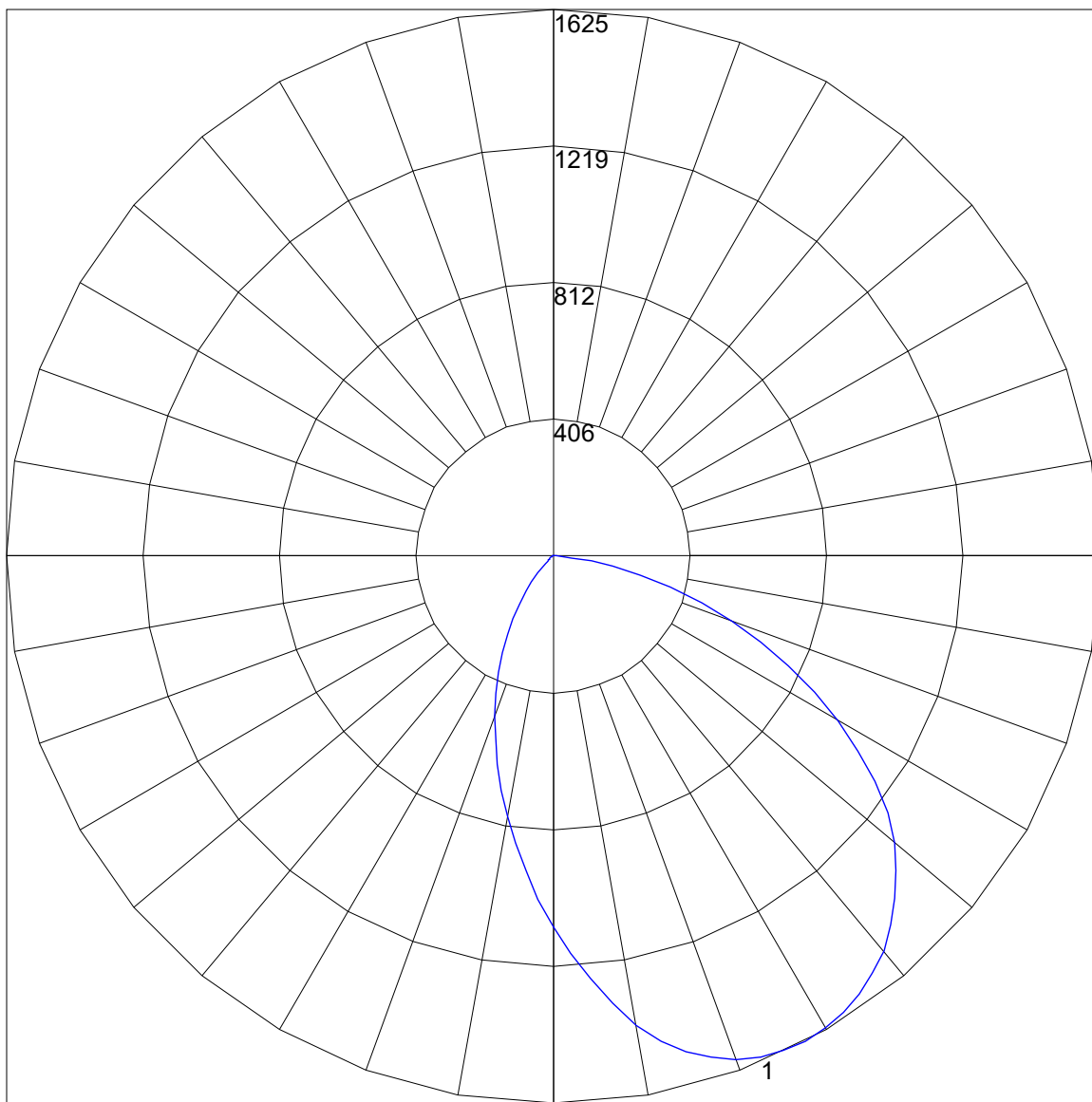
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	57	53	51
5	76	64	55	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44
6	71	57	48	42	69	56	48	42	55	47	41	53	46	41	51	45	41	39
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	34
8	61	47	39	33	59	47	39	33	45	38	33	44	37	33	43	37	32	31
9	57	44	35	30	55	43	35	30	42	35	30	41	34	29	40	34	29	27
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

POLAR GRAPH



Maximum Candela = 1624.778 Located At Horizontal Angle = 0, Vertical Angle = 27.5  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)