

# 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 : HPR-LED-F-1X1-DCO-V-8-TW-ITL85139.903.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST]ITL85139.903 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[TESTDATE]08/16/15  
[ISSUE DATE]04/28/16  
[MANUFAC]FINELITE, INC.  
[LUMCAT]FINELITE HPR-LED-F-1X1-DCO-V-8-TW  
[OTHER]ies file is based on 3500K; see luminaire tech sheet at [www.finelite.com](http://www.finelite.com) for lumen adjustment factors for other CCT's & CRI  
[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 33.5 WATTS  
[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 36.3 WATTS  
[ABSOLUTE LUMENS]2821  
[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL85139. 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	2820
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	84
Total Luminaire Watts	33.5
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.18
Spacing Criterion (90-270)	1.18
Spacing Criterion (Diagonal)	1.28
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	0.92 ft
Luminous Width (90-270)	0.92 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	11842	11842	11842
55	10654	10522	10423
65	9372	9059	8925
75	7943	7433	7068
85	6059	4328	4112

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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>
<b>0.0</b>	1167.158	1167.158	1167.158	1167.158	1167.158
<b>2.5</b>	1165.684	1165.684	1165.684	1165.684	1165.684
<b>5.0</b>	1159.789	1159.789	1161.263	1159.789	1161.263
<b>7.5</b>	1150.947	1150.947	1150.947	1150.947	1152.421
<b>10.0</b>	1136.210	1137.684	1139.158	1139.158	1140.631
<b>12.5</b>	1120.000	1121.473	1121.473	1122.947	1124.421
<b>15.0</b>	1099.368	1100.842	1100.842	1103.789	1103.789
<b>17.5</b>	1075.789	1077.263	1077.263	1080.210	1081.684
<b>20.0</b>	1047.789	1049.263	1050.737	1053.684	1056.631
<b>22.5</b>	1018.316	1019.789	1019.789	1024.210	1027.158
<b>25.0</b>	985.895	985.895	987.368	990.316	993.263
<b>27.5</b>	950.526	950.526	952.000	954.947	957.895
<b>30.0</b>	912.210	913.684	913.684	916.631	919.579
<b>32.5</b>	872.421	872.421	873.895	876.842	879.789
<b>35.0</b>	832.631	831.158	832.631	834.105	838.526
<b>37.5</b>	788.421	786.947	789.895	791.368	794.316
<b>40.0</b>	744.210	742.737	744.210	745.684	748.631
<b>42.5</b>	700.000	698.526	700.000	700.000	702.947
<b>45.0</b>	654.316	654.316	654.316	654.316	654.316
<b>47.5</b>	610.105	607.158	608.631	605.684	607.158
<b>50.0</b>	565.895	561.474	562.947	560.000	560.000
<b>52.5</b>	520.210	517.263	517.263	512.842	512.842
<b>55.0</b>	477.474	474.526	471.579	467.158	467.158
<b>57.5</b>	434.737	431.789	425.895	421.474	421.474
<b>60.0</b>	392.000	389.053	383.158	377.263	378.737
<b>62.5</b>	349.263	347.789	340.421	334.526	336.000
<b>65.0</b>	309.474	306.526	299.158	294.737	294.737
<b>67.5</b>	269.684	268.210	259.368	254.947	254.947
<b>70.0</b>	231.368	229.895	221.053	216.632	216.632
<b>72.5</b>	194.526	193.053	185.684	179.789	178.316
<b>75.0</b>	160.632	157.684	150.316	144.421	142.947
<b>77.5</b>	126.737	125.263	116.421	109.053	107.579
<b>80.0</b>	97.263	92.842	84.000	76.632	75.158
<b>82.5</b>	67.789	64.842	54.526	50.105	47.158
<b>85.0</b>	41.263	36.842	29.474	29.474	28.000
<b>87.5</b>	16.211	14.737	13.263	13.263	11.789
<b>90.0</b>	0.000	0.000	0.000	0.000	0.000

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	420.42	N.A.	14.90
0-30	875.19	N.A.	31.00
0-40	1395.76	N.A.	49.50
0-60	2321.84	N.A.	82.30
0-80	2780.53	N.A.	98.60
0-90	2820.14	N.A.	100.00
10-90	2710.08	N.A.	96.10
20-40	975.34	N.A.	34.60
20-50	1479.72	N.A.	52.50
40-70	1224.46	N.A.	43.40
60-80	458.69	N.A.	16.30
70-80	160.31	N.A.	5.70
80-90	39.61	N.A.	1.40
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	2820.14	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

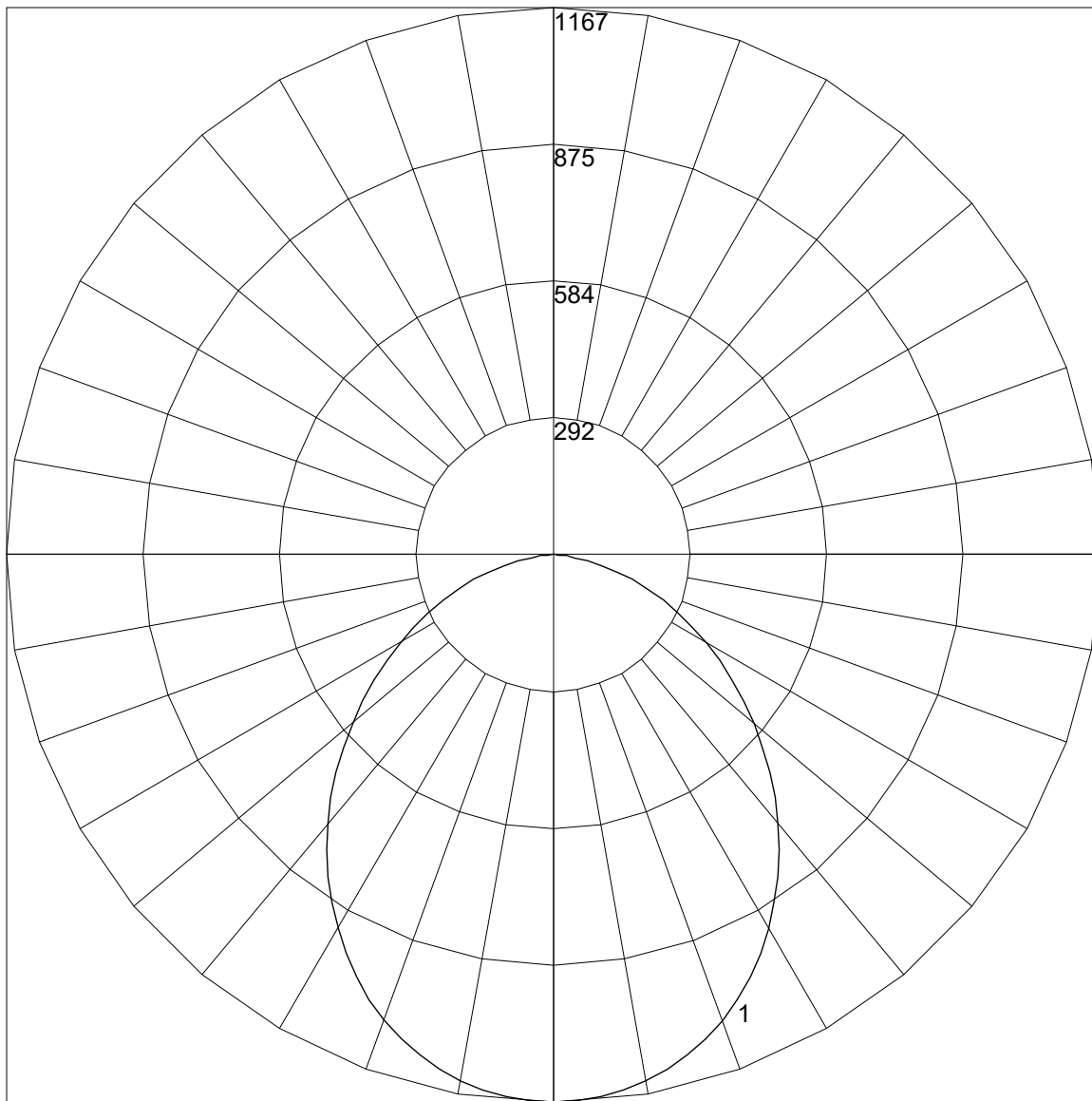
Zone	Lumens
0-10	110.06
10-20	310.36
20-30	454.77
30-40	520.57
40-50	504.38
50-60	421.70
60-70	298.38
70-80	160.31
80-90	39.61
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

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	105	101	97	107	103	99	96	98	95	93	95	92	90	91	89	87	85
2	100	92	86	80	97	90	84	79	87	82	77	83	79	76	80	77	74	72
3	92	81	74	67	89	80	73	67	77	71	66	74	69	64	72	67	63	61
4	84	73	64	58	82	71	63	57	69	62	56	66	61	56	64	59	55	53
5	78	65	56	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41
7	67	54	45	39	65	53	45	39	51	44	39	50	43	38	48	43	38	36
8	62	49	41	35	61	48	40	35	47	40	35	46	39	35	45	39	34	32
9	58	45	37	32	57	45	37	32	43	36	31	42	36	31	41	35	31	29
10	55	42	34	29	53	41	34	29	40	33	29	39	33	29	38	33	28	27

POLAR GRAPH



Maximum Candela = 1167.158 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)