

# 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-2X2-DCO-S-837-XXIC-ITL85142.201.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL85142.201 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]08/18/15

[ISSUEDATE]05/17/2021

[MANUFAC]FINELITE, INC.

[LUMCAT]FINELITE HPR-LED-F-2X2-DCO-S-837-XXIC

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 29.4 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 30.2 WATTS

[ABSOLUTE]LUMENS]2921

[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL85142. 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	2921
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	99
Total Luminaire Watts	29.4
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.22
Spacing Criterion (Diagonal)	1.30
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	1.82 ft
Luminous Width (90-270)	1.81 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	3081	3121	3194
55	2769	2815	2874
65	2422	2454	2510
75	2032	2038	2095
85	1525	1441	1441

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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	1168.218	1168.218	1168.218	1168.218	1168.218
2.5	1167.311	1166.857	1166.857	1166.857	1166.857
5.0	1162.318	1162.318	1161.864	1161.411	1161.864
7.5	1154.149	1153.695	1153.695	1153.241	1153.695
10.0	1143.256	1142.349	1141.441	1140.987	1140.987
12.5	1126.918	1126.464	1126.010	1126.464	1126.918
15.0	1107.402	1106.948	1107.856	1108.310	1109.217
17.5	1085.163	1084.256	1085.617	1086.979	1088.340
20.0	1058.386	1058.840	1060.655	1063.832	1065.194
22.5	1029.793	1029.793	1032.516	1036.147	1038.416
25.0	998.023	998.023	1001.654	1006.193	1009.370
27.5	963.077	963.077	968.069	974.423	977.146
30.0	924.953	925.861	931.307	939.476	942.199
32.5	885.922	887.283	892.729	902.260	904.983
35.0	844.621	845.529	851.883	862.321	865.498
37.5	801.505	802.867	809.674	820.567	824.198
40.0	757.027	758.389	767.012	777.451	781.082
42.5	715.727	713.911	723.442	733.427	738.873
45.0	669.434	668.526	678.057	688.495	693.942
47.5	623.141	623.141	632.672	642.656	647.649
50.0	577.301	577.301	586.832	596.363	600.448
52.5	532.370	532.370	541.447	549.616	553.247
55.0	487.892	487.438	496.062	503.323	506.500
57.5	444.322	443.415	451.584	457.484	460.661
60.0	399.391	399.391	405.745	412.553	413.007
62.5	355.367	357.183	361.267	366.260	368.983
65.0	314.520	315.882	318.605	323.144	325.867
67.5	274.581	274.581	277.758	281.843	284.112
70.0	235.550	235.550	237.819	241.450	243.719
72.5	197.880	197.880	198.788	201.057	204.688
75.0	161.572	160.664	162.026	164.295	166.564
77.5	127.079	127.079	127.987	128.894	131.164
80.0	95.763	94.855	95.309	96.671	98.032
82.5	66.716	65.809	66.263	66.716	67.170
85.0	40.847	39.485	38.578	37.670	38.578
87.5	17.246	15.431	14.069	13.162	13.616
90.0	0.000	0.000	0.000	0.000	0.000

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	422.46	N.A.	14.50
0-30	883.74	N.A.	30.30
0-40	1417.24	N.A.	48.50
0-60	2384.72	N.A.	81.60
0-80	2875.25	N.A.	98.40
0-90	2920.89	N.A.	100.00
10-90	2810.61	N.A.	96.20
20-40	994.78	N.A.	34.10
20-50	1518.49	N.A.	52.00
40-70	1284.52	N.A.	44.00
60-80	490.53	N.A.	16.80
70-80	173.49	N.A.	5.90
80-90	45.63	N.A.	1.60
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	2920.89	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	110.27
10-20	312.19
20-30	461.28
30-40	533.50
40-50	523.71
50-60	443.77
60-70	317.04
70-80	173.49
80-90	45.63
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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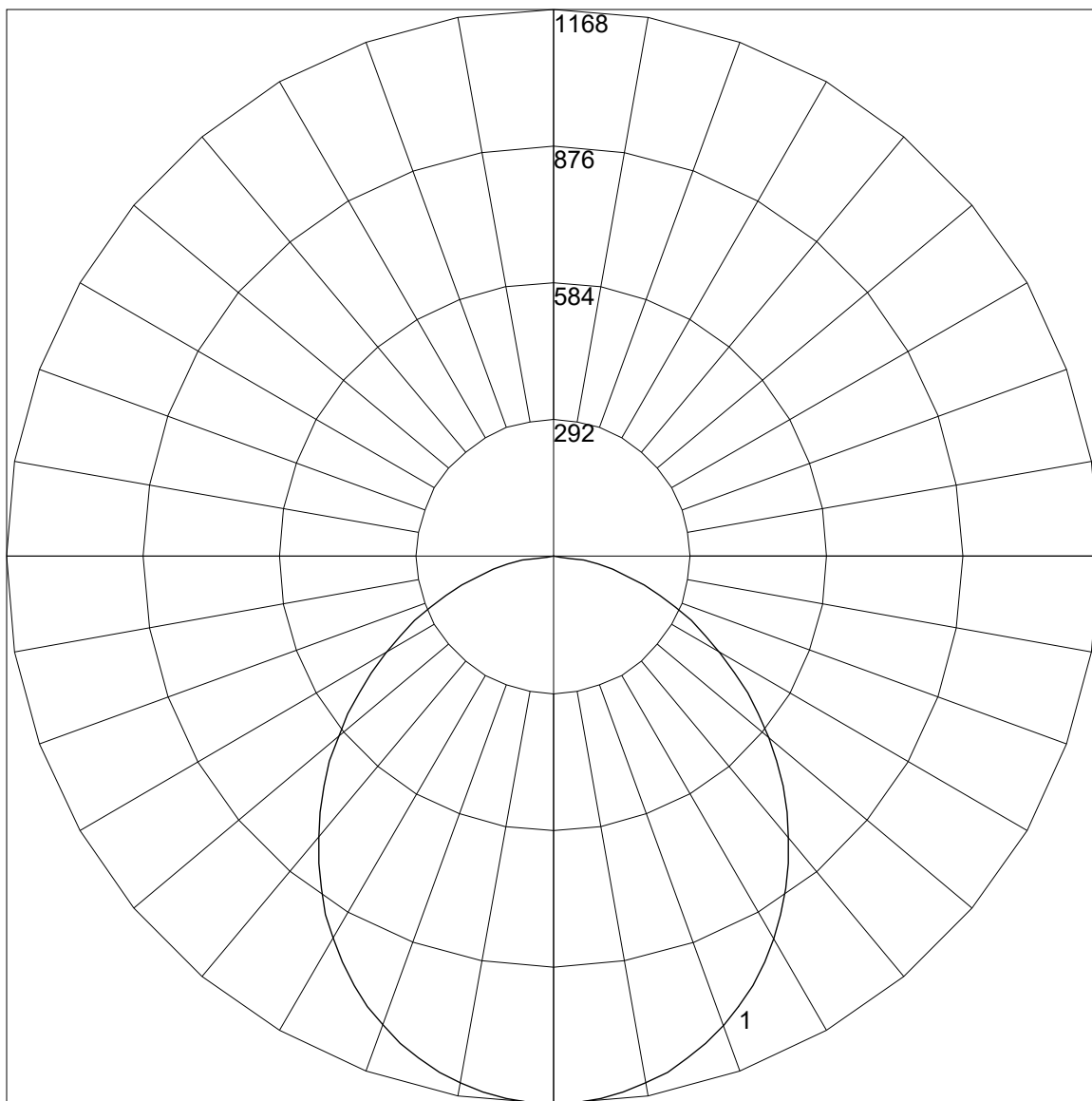
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	105	101	97	107	102	99	95	98	95	92	94	92	89	91	89	87	85
2	100	92	85	80	97	90	84	79	86	81	77	83	79	75	80	77	73	71
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63	61
4	84	72	64	57	81	71	63	57	68	61	56	66	60	55	64	59	54	52
5	77	65	56	49	75	64	55	49	61	54	49	59	53	48	58	52	48	45
6	71	58	50	43	70	57	49	43	56	48	43	54	47	42	52	47	42	40
7	66	53	45	38	65	52	44	38	51	43	38	49	43	38	48	42	38	36
8	62	49	40	34	60	48	40	34	47	39	34	45	39	34	44	38	34	32
9	58	45	37	31	56	44	36	31	43	36	31	42	35	31	41	35	31	29
10	54	41	33	28	53	41	33	28	40	33	28	39	32	28	38	32	28	26

POLAR GRAPH



Maximum Candela = 1168.218 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)