

# 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-B-837-XXIC-ITL85142.202.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL85142.202 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-B-837-XXIC

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 34.9 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 35.6 WATTS

[ABSOLUTE]LUMENS]3756

[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	3756
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	108
Total Luminaire Watts	34.9
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	3962	4013	4107
55	3560	3619	3696
65	3115	3155	3227
75	2613	2620	2693
85	1961	1852	1852

CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0.0	1502.113	1502.113	1502.113	1502.113	1502.113
2.5	1500.946	1500.362	1500.362	1500.362	1500.362
5.0	1494.526	1494.526	1493.943	1493.359	1493.943
7.5	1484.022	1483.438	1483.438	1482.855	1483.438
10.0	1470.016	1468.849	1467.682	1467.098	1467.098
12.5	1449.008	1448.424	1447.841	1448.424	1449.008
15.0	1423.914	1423.331	1424.498	1425.081	1426.248
17.5	1395.319	1394.152	1395.903	1397.653	1399.404
20.0	1360.888	1361.472	1363.806	1367.891	1369.642
22.5	1324.123	1324.123	1327.625	1332.293	1335.211
25.0	1283.273	1283.273	1287.942	1293.778	1297.863
27.5	1238.338	1238.338	1244.758	1252.928	1256.429
30.0	1189.318	1190.486	1197.488	1207.993	1211.494
32.5	1139.131	1140.882	1147.885	1160.140	1163.641
35.0	1086.026	1087.193	1095.363	1108.786	1112.871
37.5	1030.587	1032.338	1041.091	1055.097	1059.766
40.0	973.397	975.148	986.236	999.658	1004.326
42.5	920.292	917.958	930.213	943.051	950.054
45.0	860.768	859.601	871.856	885.278	892.281
47.5	801.243	801.243	813.498	826.337	832.756
50.0	742.303	742.303	754.558	766.813	772.065
52.5	684.529	684.529	696.201	706.705	711.374
55.0	627.339	626.756	637.844	647.181	651.266
57.5	571.316	570.149	580.654	588.240	592.325
60.0	513.543	513.543	521.713	530.466	531.050
62.5	456.936	459.271	464.523	470.942	474.444
65.0	404.415	406.166	409.667	415.503	419.004
67.5	353.061	353.061	357.146	362.398	365.316
70.0	302.874	302.874	305.791	310.460	313.378
72.5	254.437	254.437	255.604	258.522	263.191
75.0	207.751	206.584	208.335	211.253	214.171
77.5	163.400	163.400	164.567	165.734	168.652
80.0	123.134	121.966	122.550	124.301	126.051
82.5	85.785	84.618	85.201	85.785	86.369
85.0	52.521	50.771	49.604	48.436	49.604
87.5	22.176	19.841	18.091	16.924	17.507
90.0	0.000	0.000	0.000	0.000	0.000

**IES INDOOR REPORT**  
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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	543.21	N.A.	14.50
0-30	1136.33	N.A.	30.30
0-40	1822.31	N.A.	48.50
0-60	3066.31	N.A.	81.60
0-80	3697.04	N.A.	98.40
0-90	3755.72	N.A.	100.00
10-90	3613.93	N.A.	96.20
20-40	1279.11	N.A.	34.10
20-50	1952.5	N.A.	52.00
40-70	1651.65	N.A.	44.00
60-80	630.73	N.A.	16.80
70-80	223.07	N.A.	5.90
80-90	58.68	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	3755.72	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

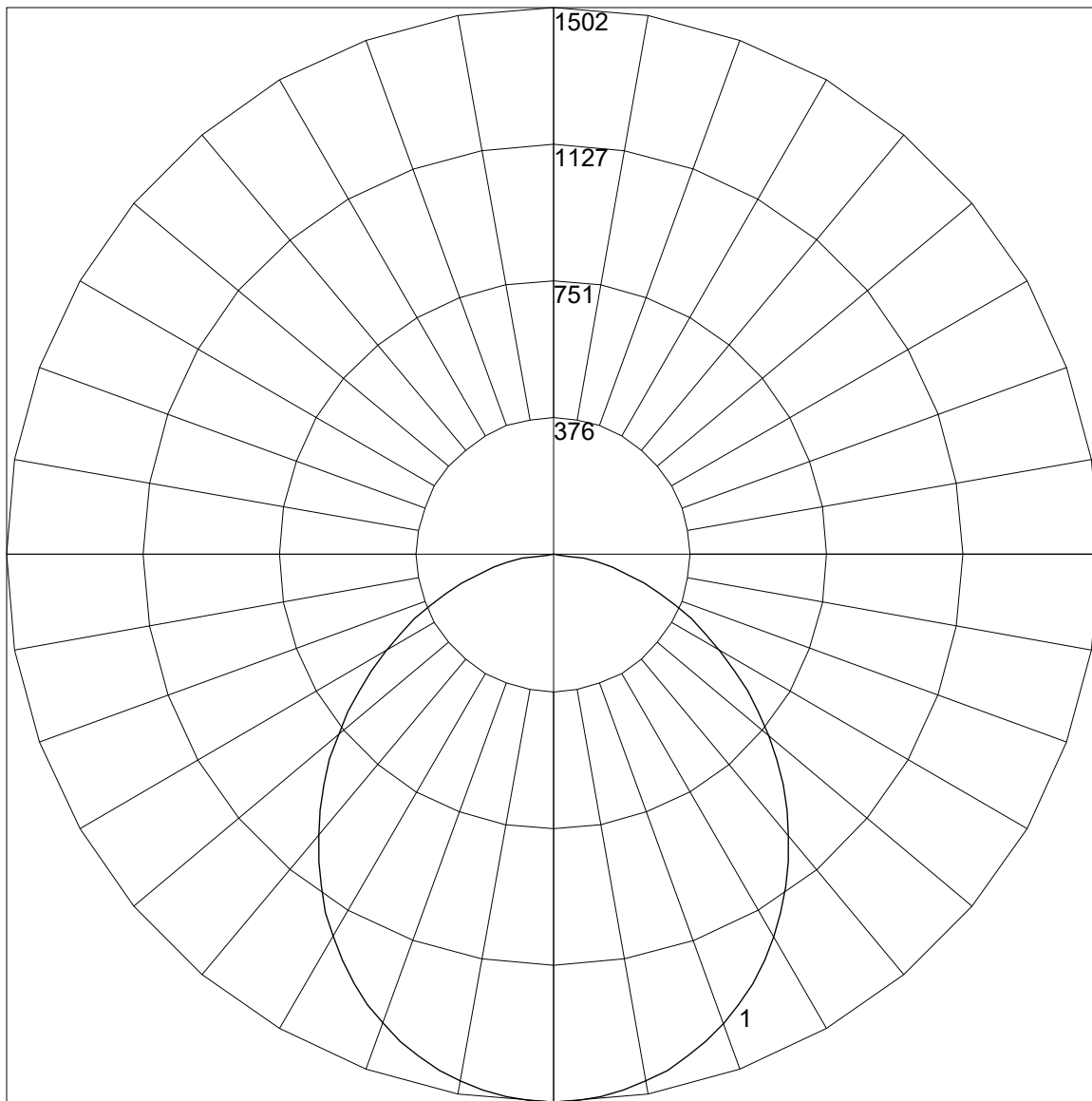
Zone	Lumens
0-10	141.79
10-20	401.42
20-30	593.12
30-40	685.98
40-50	673.39
50-60	570.60
60-70	407.66
70-80	223.07
80-90	58.68
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

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	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 = 1502.113 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)