

# 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-WAV-2X2-B-837-XXIC-ITL85836.202.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL85836.202 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]10/15/15

[ISSUEDATE]05/17/2021

[MANUFAC]FINELITE, INC.

[LUMCAT]FINELITE HPR-LED-WAV-2X2-B-837-XXIC

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 34.9 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 35.6 WATTS

[ABSOLUTE]LUMENS]3837

[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL85836. 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	3837
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	110
Total Luminaire Watts	34.9
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.22
Spacing Criterion (90-270)	1.24
Spacing Criterion (Diagonal)	1.34
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	3989	4072	4155
55	3722	3821	3924
65	3407	3510	3649
75	2862	3090	3310
85	1874	2354	2506

CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0.0	1433.835	1433.835	1433.835	1433.835	1433.835
2.5	1432.668	1433.251	1433.251	1433.251	1433.251
5.0	1426.832	1427.416	1427.416	1427.999	1428.583
7.5	1416.911	1417.495	1418.078	1419.246	1419.829
10.0	1404.073	1404.656	1405.240	1405.240	1405.823
12.5	1386.566	1385.982	1387.733	1388.316	1389.483
15.0	1362.056	1364.390	1366.141	1369.642	1370.226
17.5	1335.211	1337.546	1341.047	1345.132	1345.716
20.0	1306.616	1307.783	1313.036	1317.121	1320.038
22.5	1272.769	1274.520	1282.106	1286.775	1290.276
25.0	1237.171	1238.338	1246.508	1252.344	1257.596
27.5	1196.905	1200.406	1209.160	1216.163	1221.415
30.0	1156.638	1158.389	1168.893	1176.480	1181.732
32.5	1111.120	1115.205	1125.709	1134.463	1139.715
35.0	1065.018	1069.686	1080.774	1089.528	1096.531
37.5	1017.748	1022.417	1034.672	1044.009	1051.012
40.0	968.728	973.397	986.236	995.573	1003.159
42.5	917.958	923.210	936.048	947.136	953.556
45.0	866.603	871.856	884.694	896.366	902.785
47.5	814.666	819.918	833.340	843.261	851.431
50.0	762.728	767.396	781.402	791.906	799.493
52.5	709.623	714.291	728.297	738.801	745.804
55.0	655.934	661.186	673.441	685.113	691.532
57.5	601.662	607.498	619.169	629.674	637.260
60.0	550.308	552.059	564.314	574.818	582.404
62.5	493.701	498.954	510.625	521.713	528.132
65.0	442.347	445.265	455.769	466.857	473.860
67.5	388.075	390.993	401.497	414.336	419.588
70.0	331.469	336.137	348.392	361.231	366.483
72.5	278.947	283.616	296.454	307.542	314.545
75.0	227.593	231.678	245.684	256.188	263.191
77.5	177.406	183.241	195.496	207.168	212.420
80.0	130.136	136.556	148.227	158.731	162.816
82.5	86.952	93.371	103.876	111.462	113.796
85.0	50.187	54.856	63.026	65.360	67.111
87.5	20.425	22.759	25.094	23.926	23.926
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	520.73	N.A.	13.60
0-30	1094.65	N.A.	28.50
0-40	1770.24	N.A.	46.10
0-60	3054.46	N.A.	79.60
0-80	3765.79	N.A.	98.20
0-90	3836.51	N.A.	100.00
10-90	3700.95	N.A.	96.50
20-40	1249.51	N.A.	32.60
20-50	1931.79	N.A.	50.40
40-70	1736.05	N.A.	45.30
60-80	711.33	N.A.	18.50
70-80	259.50	N.A.	6.80
80-90	70.71	N.A.	1.80
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	3836.51	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	135.56
10-20	385.18
20-30	573.92
30-40	675.59
40-50	682.29
50-60	601.94
60-70	451.83
70-80	259.50
80-90	70.71
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

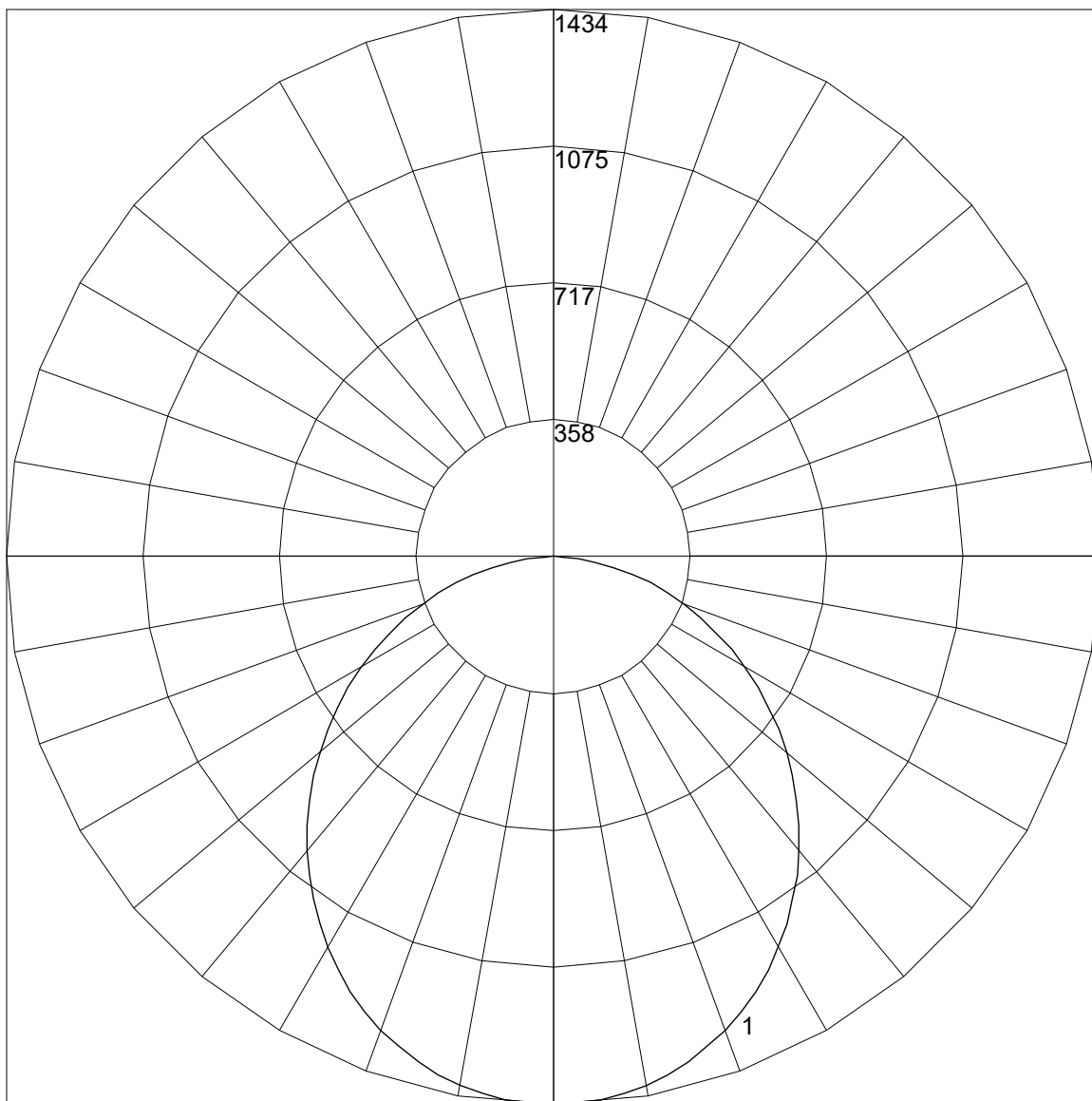
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	94	98	94	91	94	91	89	90	88	86	84
2	99	91	84	78	96	89	83	77	85	80	76	82	78	74	79	75	72	70
3	90	80	72	65	88	78	71	65	75	69	64	73	67	62	70	65	61	59
4	83	71	62	55	81	70	61	55	67	60	54	65	59	54	63	57	53	51
5	76	63	54	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44
6	70	57	48	42	69	56	48	42	54	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	30
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 = 1433.835 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)