

# 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-S-837-XXIC-ITL85836.201.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

[TEST]ITL85836.201 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[TESTDATE]10/15/15  
[ISSUE DATE]04/28/16  
[MANUFAC]FINELITE, INC.  
[LUMCAT]FINELITE HPR-LED-WAV-2X2-S-837-XXIC  
[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 26.7 WATTS  
[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 27.5 WATTS  
[ABSOLUTE LUMENS]2984  
[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	2984
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	112
Total Luminaire Watts	26.7
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	3102	3167	3232
55	2895	2972	3052
65	2650	2730	2838
75	2226	2403	2574
85	1458	1831	1949

CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0.0	1115.205	1115.205	1115.205	1115.205	1115.205
2.5	1114.297	1114.751	1114.751	1114.751	1114.751
5.0	1109.758	1110.212	1110.212	1110.666	1111.120
7.5	1102.042	1102.496	1102.950	1103.858	1104.312
10.0	1092.057	1092.511	1092.964	1092.964	1093.418
12.5	1078.440	1077.986	1079.348	1079.802	1080.709
15.0	1059.377	1061.192	1062.554	1065.277	1065.731
17.5	1038.498	1040.313	1043.037	1046.214	1046.668
20.0	1016.257	1017.165	1021.250	1024.427	1026.697
22.5	989.932	991.293	997.194	1000.825	1003.548
25.0	962.244	963.152	969.507	974.046	978.131
27.5	930.926	933.649	940.458	945.904	949.989
30.0	899.608	900.969	909.139	915.040	919.125
32.5	864.204	867.382	875.552	882.360	886.445
35.0	828.347	831.978	840.602	847.411	852.857
37.5	791.582	795.213	804.745	812.007	817.454
40.0	753.456	757.087	767.072	774.334	780.235
42.5	713.967	718.052	728.038	736.662	741.654
45.0	674.025	678.110	688.096	697.173	702.166
47.5	633.629	637.714	648.153	655.869	662.224
50.0	593.233	596.864	607.757	615.927	621.828
52.5	551.929	555.560	566.453	574.623	580.070
55.0	510.171	514.256	523.788	532.866	537.858
57.5	467.959	472.498	481.576	489.746	495.647
60.0	428.017	429.379	438.911	447.081	452.981
62.5	383.990	388.075	397.153	405.777	410.769
65.0	344.048	346.317	354.487	363.111	368.558
67.5	301.836	304.106	312.276	322.261	326.346
70.0	257.809	261.440	270.972	280.957	285.042
72.5	216.959	220.590	230.576	239.199	244.646
75.0	177.017	180.194	191.087	199.257	204.704
77.5	137.982	142.521	152.053	161.131	165.216
80.0	101.217	106.210	115.288	123.458	126.635
82.5	67.629	72.622	80.792	86.693	88.508
85.0	39.034	42.666	49.020	50.836	52.197
87.5	15.886	17.702	19.517	18.609	18.609
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	405.01	N.A.	13.60
0-30	851.39	N.A.	28.50
0-40	1376.85	N.A.	46.10
0-60	2375.7	N.A.	79.60
0-80	2928.95	N.A.	98.20
0-90	2983.95	N.A.	100.00
10-90	2878.52	N.A.	96.50
20-40	971.84	N.A.	32.60
20-50	1502.51	N.A.	50.40
40-70	1350.26	N.A.	45.30
60-80	553.26	N.A.	18.50
70-80	201.83	N.A.	6.80
80-90	55.00	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	2983.95	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	105.43
10-20	299.58
20-30	446.38
30-40	525.46
40-50	530.67
50-60	468.17
60-70	351.42
70-80	201.83
80-90	55.00
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

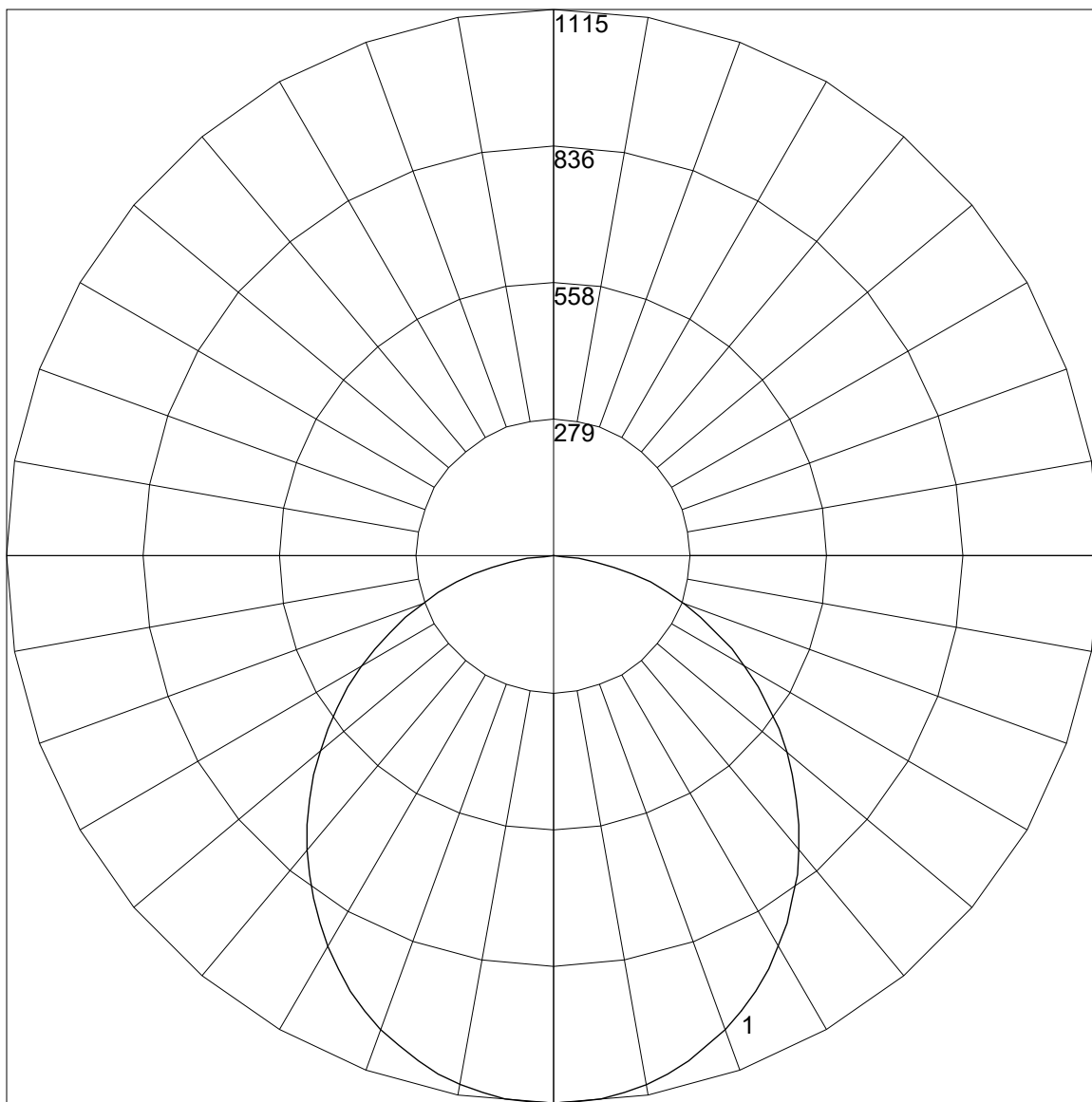
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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 = 1115.205 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)