

# 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-2X4-S-8-35-ITL85837.001.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST]ITL85837.001 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[TESTDATE]10/16/15  
[ISSUEDATE]04/28/16  
[MANUFAC]FINELITE, INC.  
[LUMCAT]FINELITE HPR-LED-WAV-2X4-DCO-S-8-35  
[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 27.0 WATTS  
[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 28.0 WATTS  
[ABSOLUTE]LUMENS]3821  
[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL85837. 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	3821
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	142
Total Luminaire Watts	27
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.22
Spacing Criterion (90-270)	1.22
Spacing Criterion (Diagonal)	1.34
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.83 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	1913	1932	1946
55	1793	1813	1822
65	1633	1669	1697
75	1371	1458	1532
85	854	1181	1325

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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	1423.784	1423.784	1423.784	1423.784	1423.784
2.5	1422.162	1421.622	1422.162	1421.622	1421.622
5.0	1416.757	1416.216	1416.216	1416.216	1416.216
7.5	1407.027	1407.027	1407.027	1406.486	1407.027
10.0	1391.892	1392.432	1394.054	1395.135	1394.595
12.5	1372.432	1374.054	1376.757	1378.919	1377.838
15.0	1351.892	1352.432	1356.757	1358.378	1357.297
17.5	1328.108	1327.568	1331.892	1334.054	1333.513
20.0	1299.459	1298.919	1303.784	1306.486	1305.405
22.5	1267.568	1267.027	1272.432	1275.676	1274.595
25.0	1232.973	1232.973	1238.378	1242.162	1241.081
27.5	1195.676	1194.595	1201.622	1204.865	1203.784
30.0	1155.676	1156.216	1162.162	1164.865	1167.027
32.5	1113.513	1113.513	1120.000	1124.324	1125.405
35.0	1068.649	1069.189	1075.676	1080.000	1081.081
37.5	1022.162	1023.243	1030.270	1034.054	1035.676
40.0	974.054	975.135	982.162	985.946	987.568
42.5	924.865	926.486	932.973	937.838	939.459
45.0	874.054	876.216	882.703	887.568	889.189
47.5	822.162	824.865	831.892	835.676	838.378
50.0	770.270	771.892	780.000	783.784	783.784
52.5	717.838	718.378	727.027	730.811	731.351
55.0	664.324	665.946	671.892	676.757	675.135
57.5	610.811	613.513	619.459	622.162	626.486
60.0	555.676	558.378	564.324	567.568	571.892
62.5	501.081	504.324	510.270	513.513	517.297
65.0	445.946	449.730	455.676	459.459	463.243
67.5	391.351	394.595	401.081	405.946	409.730
70.0	336.757	340.541	348.108	352.973	357.838
72.5	282.162	286.486	294.595	301.081	305.946
75.0	229.189	233.514	243.784	250.811	256.216
77.5	178.378	183.243	194.595	202.703	207.568
80.0	130.811	136.216	148.649	156.757	161.622
82.5	87.027	92.973	105.946	114.595	117.297
85.0	48.108	55.135	66.486	72.973	74.595
87.5	17.838	22.703	30.811	33.514	34.054
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	516.64	N.A.	13.50
0-30	1086.52	N.A.	28.40
0-40	1758.75	N.A.	46.00
0-60	3039.54	N.A.	79.60
0-80	3747.51	N.A.	98.10
0-90	3820.86	N.A.	100.00
10-90	3686.39	N.A.	96.50
20-40	1242.12	N.A.	32.50
20-50	1922.39	N.A.	50.30
40-70	1731.08	N.A.	45.30
60-80	707.98	N.A.	18.50
70-80	257.68	N.A.	6.70
80-90	73.35	N.A.	1.90
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	3820.86	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	134.47
10-20	382.16
20-30	569.88
30-40	672.24
40-50	680.27
50-60	600.51
60-70	450.30
70-80	257.68
80-90	73.35
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

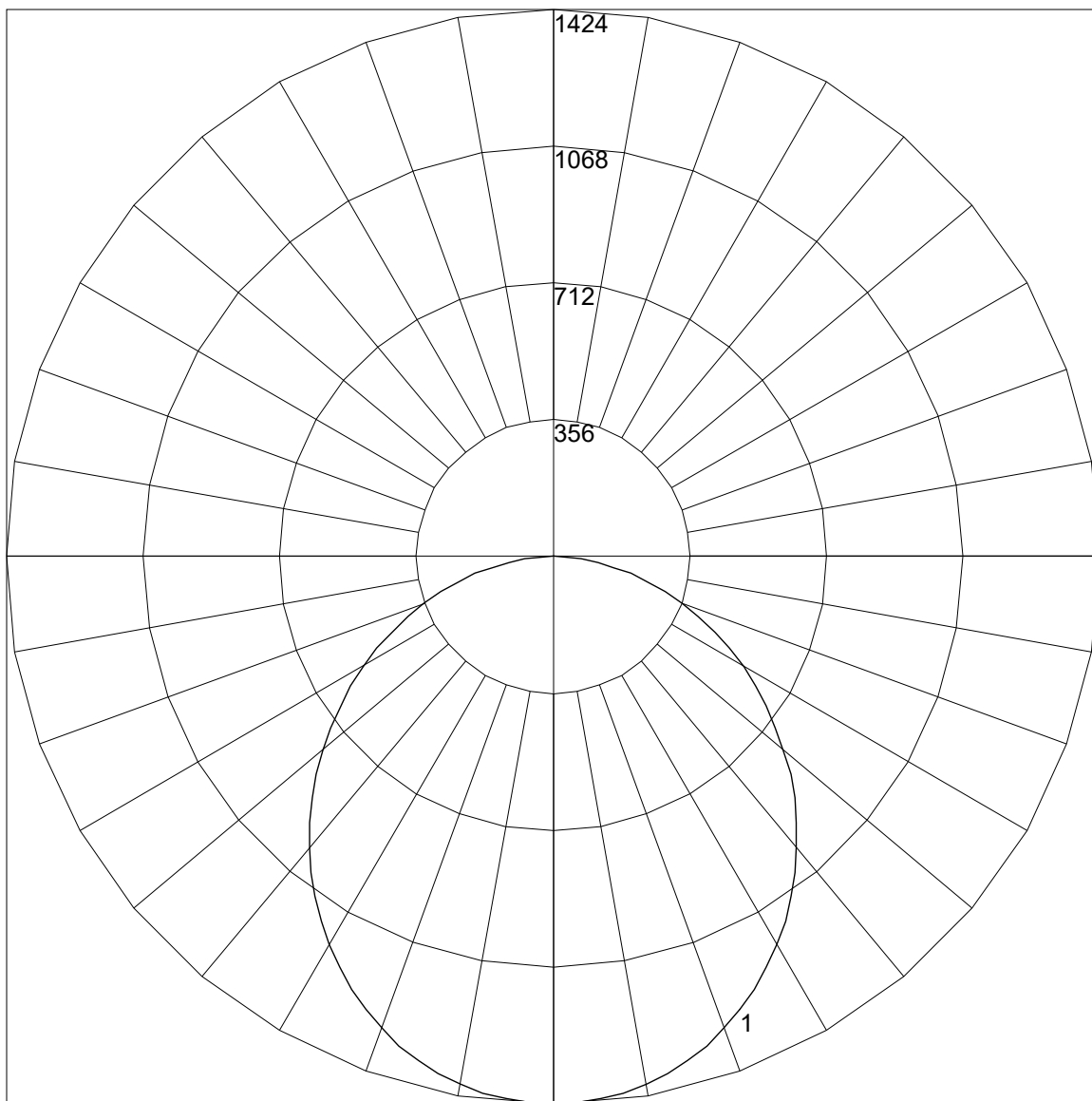
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	80	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	68	56	48	42	54	47	41	53	46	41	51	45	41	38
7	65	52	43	37	64	51	43	37	49	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 = 1423.784 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)