

# 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-B-8-35-ITL85837.002.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST]ITL85837.002 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-B-8-35  
[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 35.2 WATTS  
[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 36.3 WATTS  
[ABSOLUTE]LUMENS]4803  
[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	4803
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	136
Total Luminaire Watts	35.2
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	2405	2429	2447
55	2254	2279	2290
65	2053	2098	2133
75	1723	1833	1926
85	1074	1484	1665

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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	1789.900	1789.900	1789.900	1789.900	1789.900
2.5	1787.861	1787.182	1787.861	1787.182	1787.182
5.0	1781.066	1780.386	1780.386	1780.386	1780.386
7.5	1768.834	1768.834	1768.834	1768.154	1768.834
10.0	1749.807	1750.487	1752.525	1753.884	1753.205
12.5	1725.344	1727.382	1730.780	1733.498	1732.139
15.0	1699.521	1700.201	1705.637	1707.676	1706.317
17.5	1669.622	1668.942	1674.378	1677.097	1676.417
20.0	1633.606	1632.927	1639.043	1642.440	1641.081
22.5	1593.514	1592.834	1599.629	1603.707	1602.348
25.0	1550.023	1550.023	1556.819	1561.575	1560.216
27.5	1503.135	1501.776	1510.610	1514.687	1513.328
30.0	1452.849	1453.529	1461.004	1464.402	1467.120
32.5	1399.846	1399.846	1408.000	1413.436	1414.795
35.0	1343.444	1344.124	1352.278	1357.714	1359.073
37.5	1285.004	1286.363	1295.197	1299.954	1301.992
40.0	1224.525	1225.884	1234.718	1239.475	1241.514
42.5	1162.687	1164.726	1172.880	1178.996	1181.035
45.0	1098.811	1101.529	1109.683	1115.799	1117.838
47.5	1033.575	1036.973	1045.807	1050.564	1053.961
50.0	968.340	970.378	980.571	985.328	985.328
52.5	902.425	903.104	913.977	918.734	919.413
55.0	835.151	837.189	844.664	850.780	848.741
57.5	767.876	771.274	778.749	782.147	787.583
60.0	698.564	701.961	709.436	713.514	718.950
62.5	629.931	634.008	641.483	645.560	650.317
65.0	560.618	565.375	572.849	577.606	582.363
67.5	491.985	496.062	504.216	510.332	515.089
70.0	423.351	428.108	437.622	443.737	449.853
72.5	354.718	360.154	370.348	378.502	384.618
75.0	288.124	293.560	306.471	315.305	322.100
77.5	224.247	230.363	244.633	254.826	260.942
80.0	164.448	171.243	186.873	197.066	203.181
82.5	109.405	116.880	133.189	144.062	147.459
85.0	60.479	69.313	83.583	91.737	93.776
87.5	22.425	28.541	38.734	42.131	42.811
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	649.49	N.A.	13.50
0-30	1365.91	N.A.	28.40
0-40	2211.00	N.A.	46.00
0-60	3821.13	N.A.	79.60
0-80	4711.16	N.A.	98.10
0-90	4803.37	N.A.	100.00
10-90	4634.31	N.A.	96.50
20-40	1561.52	N.A.	32.50
20-50	2416.71	N.A.	50.30
40-70	2176.21	N.A.	45.30
60-80	890.03	N.A.	18.50
70-80	323.94	N.A.	6.70
80-90	92.21	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	4803.37	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

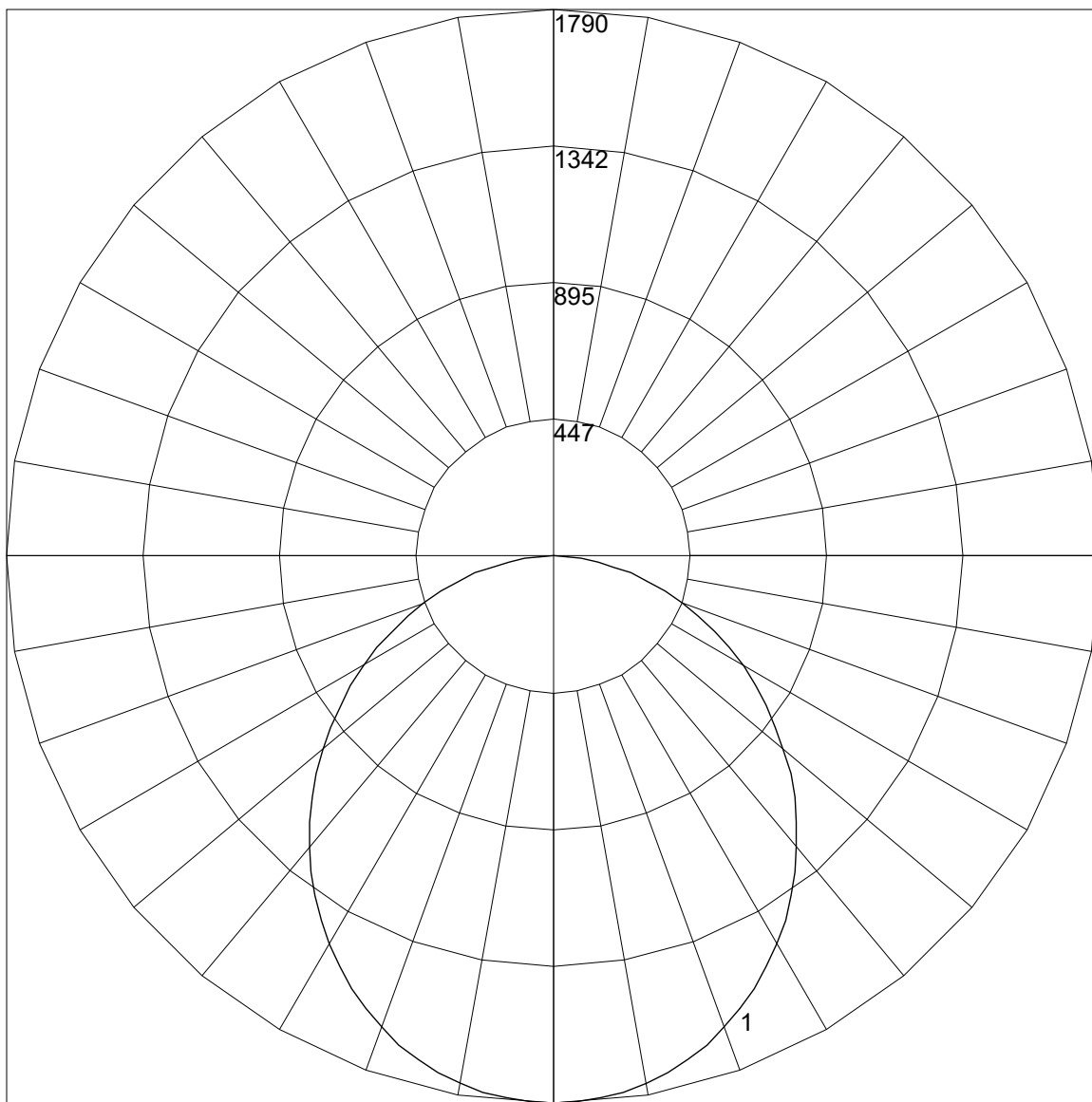
Zone	Lumens
0-10	169.05
10-20	480.43
20-30	716.42
30-40	845.10
40-50	855.20
50-60	754.93
60-70	566.09
70-80	323.94
80-90	92.21
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

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	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	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 = 1789.9 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)