

# 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-2X4-DCO-H-837-XXIC-ITL85145.203.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

[TEST]ITL85145.203 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[TESTDATE]08/20/15  
[ISSUEDATE]05/18/2021  
[MANUFAC]FINELITE, INC.  
[LUMCAT]FINELITE HPR-LED-F-2X4-DCO-H-837-XXIC  
[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 38.1 WATTS  
[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 38.8 WATTS  
[ABSOLUTE]LUMENS]4658  
[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL85145. 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	4658
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	122
Total Luminaire Watts	38.1
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.22
Spacing Criterion (90-270)	1.22
Spacing Criterion (Diagonal)	1.32
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	2389	2377	2381
55	2161	2154	2138
65	1907	1892	1860
75	1600	1569	1553
85	1221	1150	1055

CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0.0	1829.379	1829.379	1829.379	1829.379	1829.379
2.5	1828.045	1828.045	1828.045	1827.377	1827.377
5.0	1822.038	1820.703	1820.703	1820.036	1820.036
7.5	1810.692	1809.357	1808.690	1807.355	1806.687
10.0	1792.004	1791.337	1790.669	1790.002	1787.332
12.5	1769.980	1767.310	1768.645	1766.643	1765.308
15.0	1743.950	1739.946	1741.281	1738.611	1736.609
17.5	1712.582	1709.245	1707.910	1705.241	1705.241
20.0	1675.874	1672.537	1669.868	1667.198	1667.198
22.5	1634.495	1631.158	1629.155	1625.818	1625.818
25.0	1588.443	1584.439	1582.436	1579.099	1579.767
27.5	1538.387	1533.715	1531.046	1528.376	1529.711
30.0	1483.659	1478.987	1476.985	1474.316	1475.650
32.5	1424.927	1420.923	1418.253	1416.251	1417.585
35.0	1363.525	1358.853	1356.851	1354.849	1356.851
37.5	1298.786	1294.781	1292.779	1290.777	1293.447
40.0	1231.377	1226.705	1225.370	1224.036	1226.038
42.5	1161.966	1157.962	1156.627	1155.292	1157.962
45.0	1091.220	1086.549	1085.881	1085.214	1087.883
47.5	1018.472	1014.468	1014.468	1013.801	1015.803
50.0	945.724	942.387	942.387	941.052	943.055
52.5	872.976	869.639	869.639	870.974	865.635
55.0	800.896	797.559	798.226	797.559	792.219
57.5	729.483	728.148	728.148	724.811	722.808
60.0	658.069	656.735	656.735	652.730	650.060
62.5	588.658	587.324	585.989	581.984	579.982
65.0	520.582	519.247	516.578	511.238	507.901
67.5	453.174	452.506	449.169	443.830	441.160
70.0	388.434	389.102	384.430	379.758	377.088
72.5	326.365	327.032	321.693	319.691	318.356
75.0	267.633	266.965	262.293	258.956	259.624
77.5	211.570	210.235	206.898	204.228	204.228
80.0	159.512	157.509	154.840	152.838	152.838
82.5	112.125	110.791	108.788	104.784	104.784
85.0	68.744	66.741	64.739	60.735	59.400
87.5	28.699	27.364	22.692	20.022	19.355
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	663.33	N.A.	14.20
0-30	1391.72	N.A.	29.90
0-40	2240.22	N.A.	48.10
0-60	3791.89	N.A.	81.40
0-80	4583.5	N.A.	98.40
0-90	4657.88	N.A.	100.00
10-90	4485.04	N.A.	96.30
20-40	1576.89	N.A.	33.90
20-50	2414.86	N.A.	51.80
40-70	2063.11	N.A.	44.30
60-80	791.61	N.A.	17.00
70-80	280.16	N.A.	6.00
80-90	74.38	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	4657.88	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

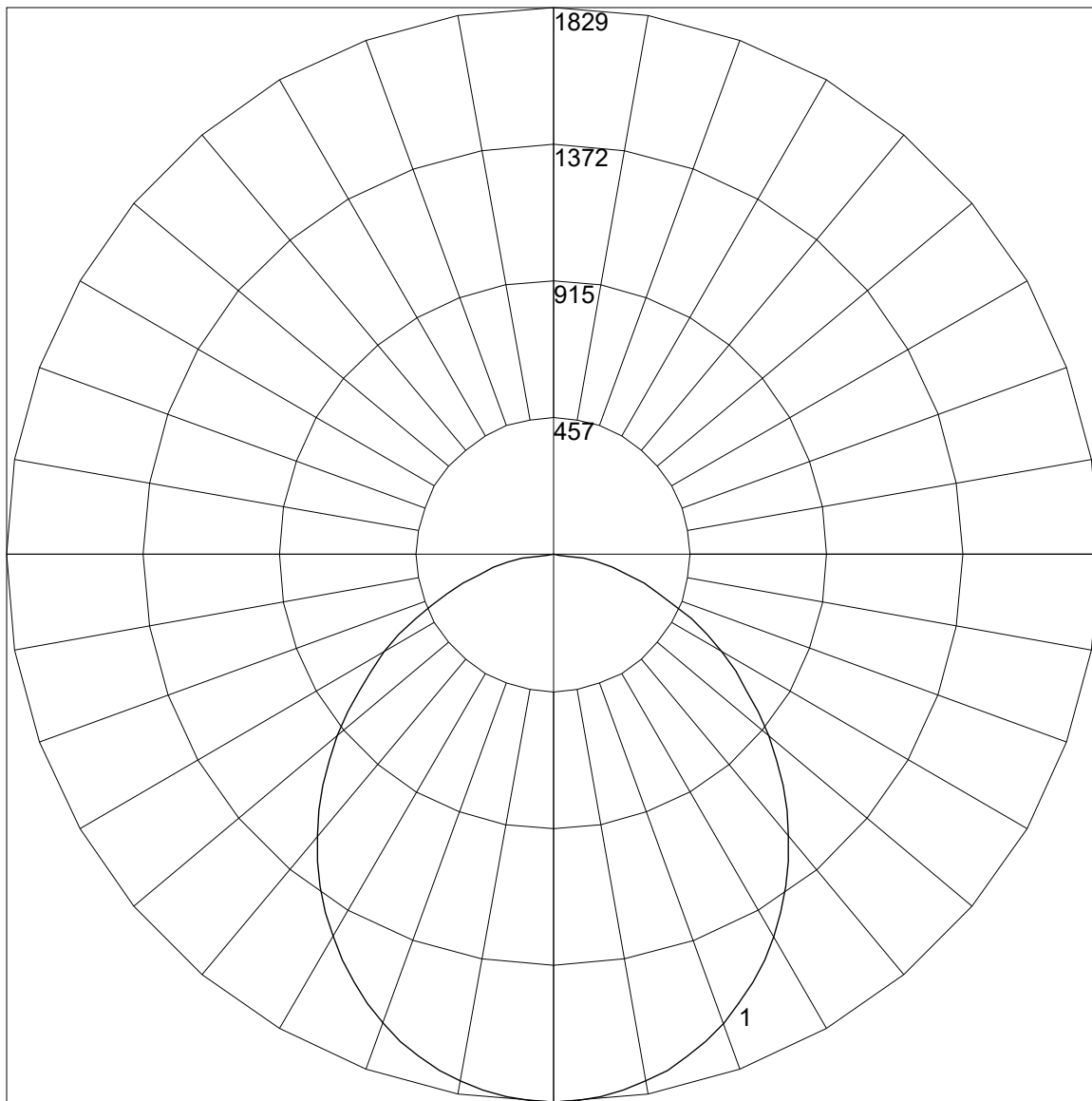
Zone	Lumens
0-10	172.84
10-20	490.49
20-30	728.39
30-40	848.50
40-50	837.97
50-60	713.70
60-70	511.45
70-80	280.16
80-90	74.38
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

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	100	97	106	102	99	95	98	95	92	94	92	89	91	89	87	85
2	100	92	85	79	97	90	84	79	86	81	77	83	79	75	80	76	73	71
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	66	63	60
4	84	72	63	57	81	71	63	56	68	61	56	66	60	55	64	58	54	52
5	77	64	56	49	75	63	55	49	61	54	48	59	53	48	57	52	47	45
6	71	58	49	43	69	57	49	43	55	48	43	54	47	42	52	46	42	40
7	66	53	44	38	64	52	44	38	51	43	38	49	42	38	48	42	37	35
8	62	48	40	34	60	48	40	34	46	39	34	45	39	34	44	38	33	32
9	58	44	36	31	56	44	36	31	43	36	31	42	35	30	41	35	30	29
10	54	41	33	28	53	41	33	28	40	33	28	39	32	28	38	32	28	26

POLAR GRAPH



Maximum Candela = 1829.379 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)