

# 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-A-2X4-DCO-B-8-TW-ITL85145.906.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL85145.906 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]08/20/15

[ISSUEDATE]04/28/16

[MANUFAC]FINELITE, INC.

[LUMCAT]FINELITE HPR-LED-A-2X4-DCO-B-8-TW

[OTHER]ies file is based on 3500K; see luminaire tech sheet at [www.finelite.com](http://www.finelite.com) for lumen adjustment factors for other CCT's & CRI

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 38.7 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 39.9 WATTS

[ABSOLUTE]LUMENS]4742

[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	4742
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	123
Total Luminaire Watts	38.7
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	2432	2420	2425
55	2200	2193	2177
65	1941	1926	1894
75	1630	1597	1581
85	1243	1171	1074

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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	1862.610	1862.610	1862.610	1862.610	1862.610
2.5	1861.251	1861.251	1861.251	1860.571	1860.571
5.0	1855.135	1853.776	1853.776	1853.097	1853.097
7.5	1843.583	1842.224	1841.544	1840.185	1839.506
10.0	1824.556	1823.877	1823.197	1822.517	1819.799
12.5	1802.131	1799.413	1800.772	1798.734	1797.375
15.0	1775.629	1771.552	1772.911	1770.193	1768.154
17.5	1743.691	1740.293	1738.934	1736.216	1736.216
20.0	1706.317	1702.919	1700.201	1697.483	1697.483
22.5	1664.185	1660.788	1658.749	1655.351	1655.351
25.0	1617.297	1613.220	1611.182	1607.784	1608.463
27.5	1566.332	1561.575	1558.857	1556.139	1557.498
30.0	1510.610	1505.853	1503.815	1501.097	1502.456
32.5	1450.811	1446.734	1444.015	1441.977	1443.336
35.0	1388.293	1383.537	1381.498	1379.460	1381.498
37.5	1322.378	1318.301	1316.263	1314.224	1316.942
40.0	1253.745	1248.988	1247.629	1246.270	1248.309
42.5	1183.073	1178.996	1177.637	1176.278	1178.996
45.0	1111.043	1106.286	1105.606	1104.927	1107.645
47.5	1036.973	1032.896	1032.896	1032.216	1034.255
50.0	962.904	959.506	959.506	958.147	960.185
52.5	888.834	885.436	885.436	886.795	881.359
55.0	815.444	812.046	812.726	812.046	806.610
57.5	742.734	741.375	741.375	737.977	735.938
60.0	670.023	668.664	668.664	664.587	661.869
62.5	599.351	597.992	596.633	592.556	590.517
65.0	530.039	528.680	525.961	520.525	517.127
67.5	461.405	460.726	457.328	451.892	449.174
70.0	395.490	396.170	391.413	386.656	383.938
72.5	332.293	332.973	327.537	325.498	324.139
75.0	272.494	271.815	267.058	263.660	264.340
77.5	215.413	214.054	210.656	207.938	207.938
80.0	162.409	160.371	157.653	155.614	155.614
82.5	114.162	112.803	110.764	106.687	106.687
85.0	69.992	67.954	65.915	61.838	60.479
87.5	29.220	27.861	23.104	20.386	19.707
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	675.38	N.A.	14.20
0-30	1417.00	N.A.	29.90
0-40	2280.92	N.A.	48.10
0-60	3860.77	N.A.	81.40
0-80	4666.75	N.A.	98.40
0-90	4742.49	N.A.	100.00
10-90	4566.51	N.A.	96.30
20-40	1605.53	N.A.	33.90
20-50	2458.73	N.A.	51.80
40-70	2100.59	N.A.	44.30
60-80	805.99	N.A.	17.00
70-80	285.25	N.A.	6.00
80-90	75.73	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	4742.49	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	175.98
10-20	499.40
20-30	741.62
30-40	863.91
40-50	853.19
50-60	726.66
60-70	520.74
70-80	285.25
80-90	75.73
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

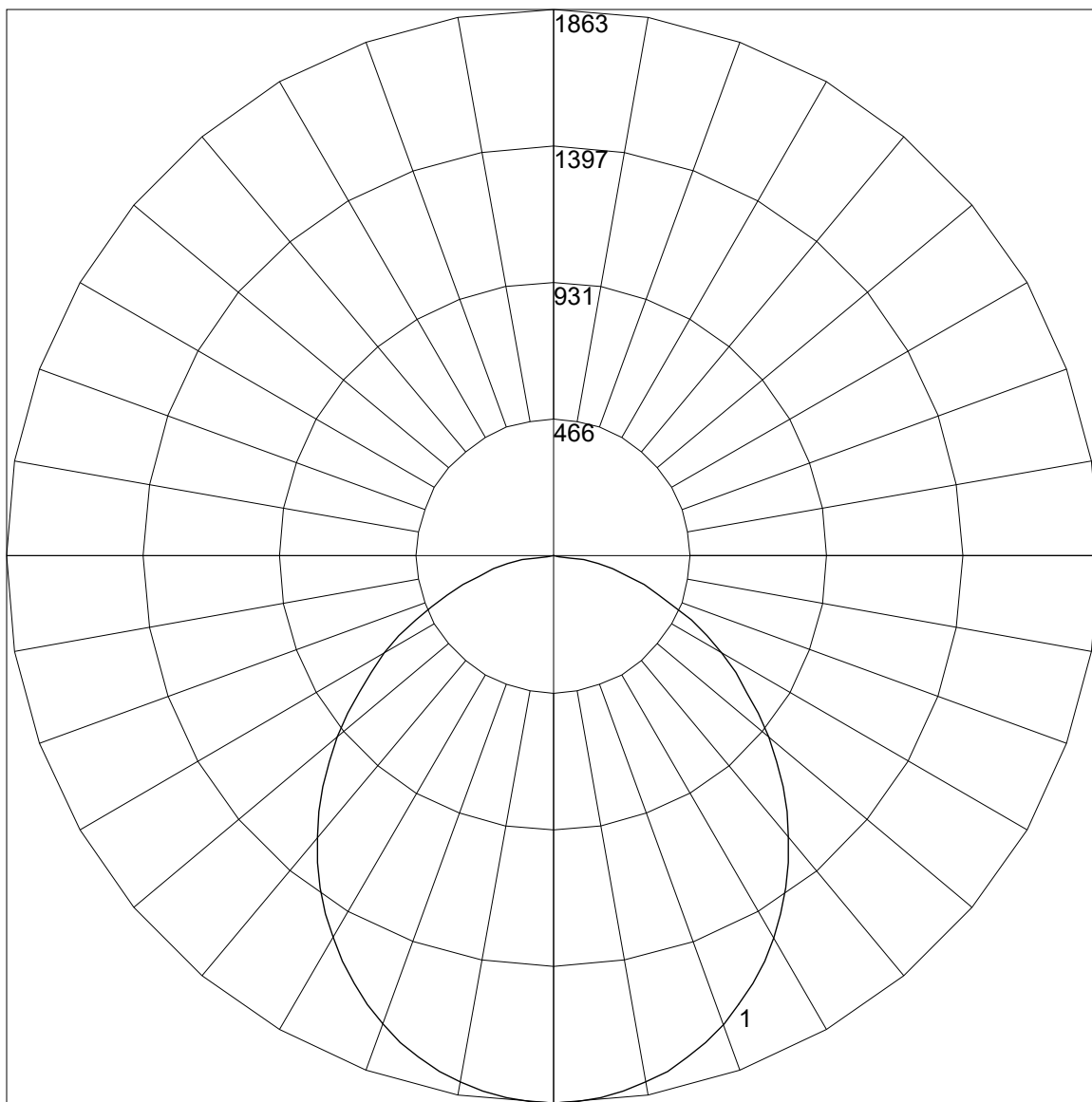
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	105	100	97	106	102	99	95	98	95	92	94	92	89	91	89	87	85
2	100	92	85	80	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	67	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	34	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 = 1862.61 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)