

# 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-2X2-DCO-H-8-35-ITL85142.003.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST]ITL85142.003 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[TESTDATE]08/18/15  
[ISSUEDATE]04/28/16  
[MANUFAC]FINELITE, INC.  
[LUMCAT]FINELITE HPR-LED-F-2X2-DCO-H-8-35  
[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 42.8 WATTS  
[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 43.4 WATTS  
[ABSOLUTE LUMENS]4942  
[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL85142. 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	4942
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	115
Total Luminaire Watts	42.8
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.22
Spacing Criterion (Diagonal)	1.30
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	5213	5280	5404
55	4684	4762	4863
65	4098	4151	4246
75	3438	3447	3544
85	2581	2437	2437

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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	1976.464	1976.464	1976.464	1976.464	1976.464
2.5	1974.928	1974.161	1974.161	1974.161	1974.161
5.0	1966.482	1966.482	1965.714	1964.946	1965.714
7.5	1952.661	1951.893	1951.893	1951.125	1951.893
10.0	1934.232	1932.696	1931.161	1930.393	1930.393
12.5	1906.589	1905.821	1905.053	1905.821	1906.589
15.0	1873.571	1872.803	1874.339	1875.107	1876.643
17.5	1835.946	1834.411	1836.714	1839.018	1841.321
20.0	1790.643	1791.411	1794.482	1799.857	1802.161
22.5	1742.268	1742.268	1746.875	1753.018	1756.857
25.0	1688.518	1688.518	1694.661	1702.339	1707.714
27.5	1629.393	1629.393	1637.839	1648.589	1653.196
30.0	1564.893	1566.428	1575.643	1589.464	1594.071
32.5	1498.857	1501.161	1510.375	1526.500	1531.107
35.0	1428.982	1430.518	1441.268	1458.928	1464.303
37.5	1356.036	1358.339	1369.857	1388.286	1394.428
40.0	1280.786	1283.089	1297.678	1315.339	1321.482
42.5	1210.911	1207.839	1223.964	1240.857	1250.071
45.0	1132.589	1131.053	1147.178	1164.839	1174.053
47.5	1054.268	1054.268	1070.393	1087.286	1095.732
50.0	976.714	976.714	992.839	1008.964	1015.875
52.5	900.696	900.696	916.053	929.875	936.018
55.0	825.446	824.678	839.268	851.553	856.928
57.5	751.732	750.196	764.018	774.000	779.375
60.0	675.714	675.714	686.464	697.982	698.750
62.5	601.232	604.304	611.214	619.661	624.268
65.0	532.125	534.429	539.036	546.714	551.321
67.5	464.554	464.554	469.929	476.839	480.679
70.0	398.518	398.518	402.357	408.500	412.339
72.5	334.786	334.786	336.321	340.161	346.304
75.0	273.357	271.821	274.125	277.964	281.804
77.5	215.000	215.000	216.536	218.071	221.911
80.0	162.018	160.482	161.250	163.554	165.857
82.5	112.875	111.339	112.107	112.875	113.643
85.0	69.107	66.804	65.268	63.732	65.268
87.5	29.179	26.107	23.804	22.268	23.036
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	714.75	N.A.	14.50
0-30	1495.17	N.A.	30.30
0-40	2397.78	N.A.	48.50
0-60	4034.62	N.A.	81.60
0-80	4864.53	N.A.	98.40
0-90	4941.74	N.A.	100.00
10-90	4755.17	N.A.	96.20
20-40	1683.04	N.A.	34.10
20-50	2569.08	N.A.	52.00
40-70	2173.23	N.A.	44.00
60-80	829.91	N.A.	16.80
70-80	293.52	N.A.	5.90
80-90	77.21	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	4941.74	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	186.57
10-20	528.18
20-30	780.43
30-40	902.61
40-50	886.04
50-60	750.80
60-70	536.39
70-80	293.52
80-90	77.21
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

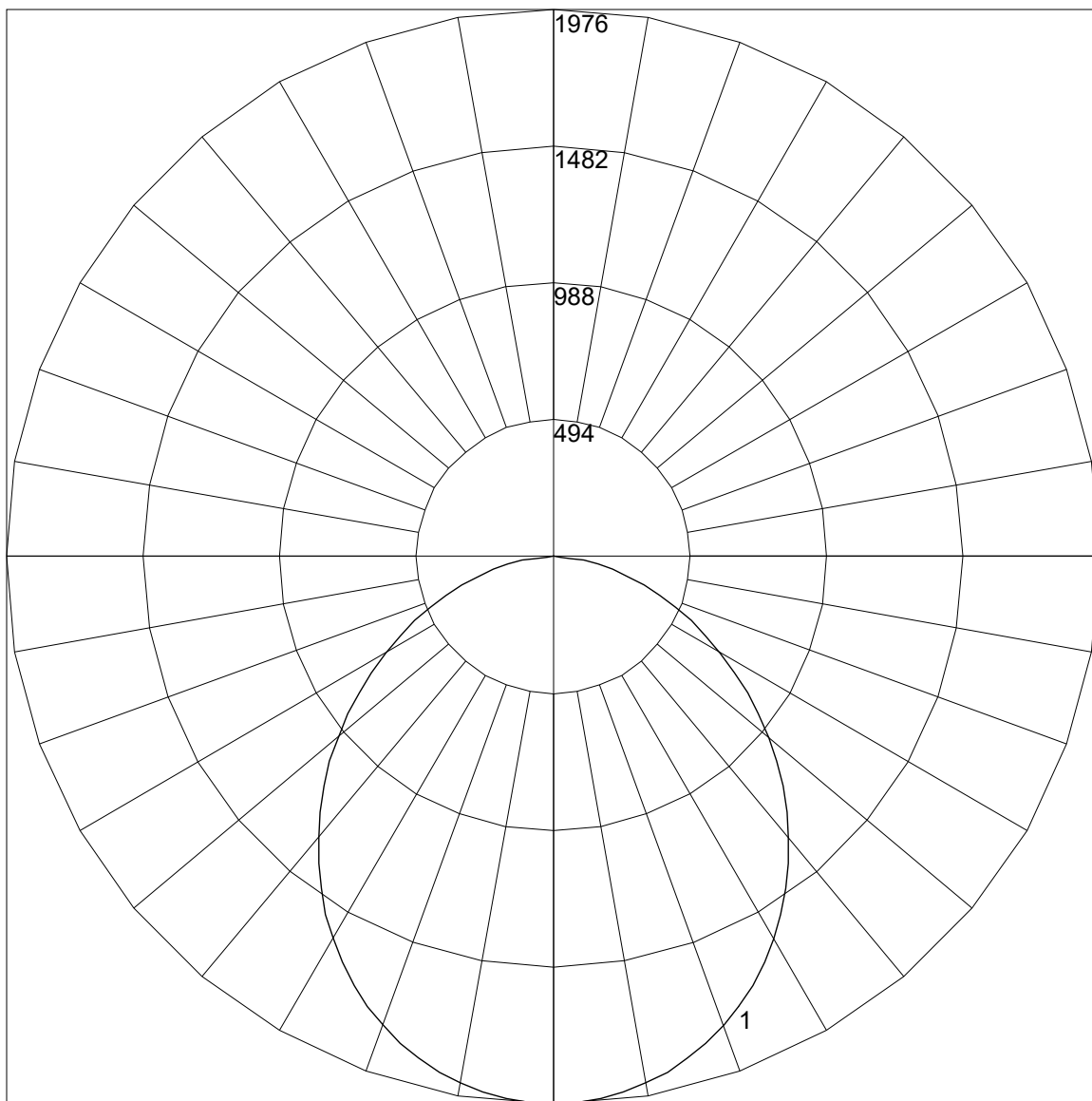
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	101	97	107	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	77	73	71
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63	61
4	84	72	64	57	81	71	63	57	68	61	56	66	60	55	64	59	54	52
5	77	65	56	49	75	64	55	49	61	54	49	59	53	48	58	52	48	45
6	71	58	50	43	70	57	49	43	56	48	43	54	47	42	52	47	42	40
7	66	53	45	38	65	52	44	38	51	43	38	49	43	38	48	42	38	36
8	62	49	40	34	60	48	40	34	47	39	34	45	39	34	44	38	34	32
9	58	45	37	31	56	44	36	31	43	36	31	42	35	31	41	35	31	29
10	54	41	33	28	53	41	33	28	40	33	28	39	32	28	38	32	28	26

POLAR GRAPH



Maximum Candela = 1976.464 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)