

# 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-1X4-DCO-H-8-35-ITL85141.002.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST]ITL85141.002 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[TESTDATE]08/18/15  
[ISSUEDATE]04/28/16  
[MANUFAC]FINELITE, INC.  
[LUMCAT]FINELITE HPR-LED-F-1X4-DCO-H-8-35  
[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 42.8 WATTS  
[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 43.4 WATTS  
[ABSOLUTE]LUMENS]4509  
[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL85141. 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	4510
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	105
Total Luminaire Watts	42.8
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.18
Spacing Criterion (Diagonal)	1.30
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.83 ft
Luminous Width (90-270)	0.81 ft
Luminous Height	0.00 ft

**LUMINANCE DATA (cd/sq.m)**

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	5307	5173	4989
55	4826	4600	4373
65	4295	3997	3662
75	3636	3210	2799
85	2937	1717	1355



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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	1838.816	1838.816	1838.816	1838.816	1838.816
2.5	1837.684	1837.684	1838.816	1837.684	1837.684
5.0	1828.632	1829.763	1830.895	1830.895	1830.895
7.5	1816.184	1817.316	1819.579	1819.579	1819.579
10.0	1799.211	1796.948	1802.605	1803.737	1800.342
12.5	1774.316	1773.184	1779.974	1782.237	1776.579
15.0	1746.026	1742.632	1752.816	1752.816	1748.290
17.5	1710.948	1706.421	1718.869	1717.737	1710.948
20.0	1672.474	1667.948	1678.132	1674.737	1669.079
22.5	1631.737	1624.948	1632.869	1629.474	1620.421
25.0	1584.211	1576.290	1583.079	1576.290	1568.369
27.5	1531.026	1523.105	1529.895	1519.711	1508.395
30.0	1475.579	1467.658	1469.921	1457.474	1445.026
32.5	1414.474	1407.684	1406.553	1390.711	1378.263
35.0	1351.105	1345.447	1339.790	1321.684	1308.105
37.5	1286.605	1279.816	1270.763	1249.263	1235.684
40.0	1218.711	1211.921	1200.605	1175.711	1163.263
42.5	1148.553	1142.895	1125.921	1101.026	1087.447
45.0	1078.395	1070.474	1051.237	1026.342	1013.895
47.5	1008.237	1001.447	978.816	950.526	938.079
50.0	936.947	930.158	905.263	876.974	863.395
52.5	866.790	860.000	832.842	803.421	794.368
55.0	795.500	786.447	758.158	731.000	720.816
57.5	725.342	716.290	690.263	660.842	648.395
60.0	657.447	647.263	620.105	590.684	578.237
62.5	588.421	579.368	552.211	520.526	510.342
65.0	521.658	512.605	485.447	453.763	444.711
67.5	456.026	448.105	420.947	389.263	381.342
70.0	391.526	384.737	356.447	328.158	320.237
72.5	329.290	323.632	296.474	270.447	262.526
75.0	270.447	264.789	238.763	215.000	208.211
77.5	215.000	209.342	184.447	164.079	156.158
80.0	166.342	156.158	132.395	113.158	106.368
82.5	117.684	106.368	83.737	70.158	64.500
85.0	73.553	62.237	43.000	36.211	33.947
87.5	32.816	20.368	14.711	13.579	12.447
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	666.38	N.A.	14.80
0-30	1392.3	N.A.	30.90
0-40	2225.92	N.A.	49.40
0-60	3714.48	N.A.	82.40
0-80	4449.48	N.A.	98.70
0-90	4509.77	N.A.	100.00
10-90	4335.98	N.A.	96.10
20-40	1559.55	N.A.	34.60
20-50	2368.75	N.A.	52.50
40-70	1968.57	N.A.	43.70
60-80	735.00	N.A.	16.30
70-80	254.99	N.A.	5.70
80-90	60.29	N.A.	1.30
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	4509.77	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	173.80
10-20	492.58
20-30	725.92
30-40	833.63
40-50	809.21
50-60	679.35
60-70	480.01
70-80	254.99
80-90	60.29
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



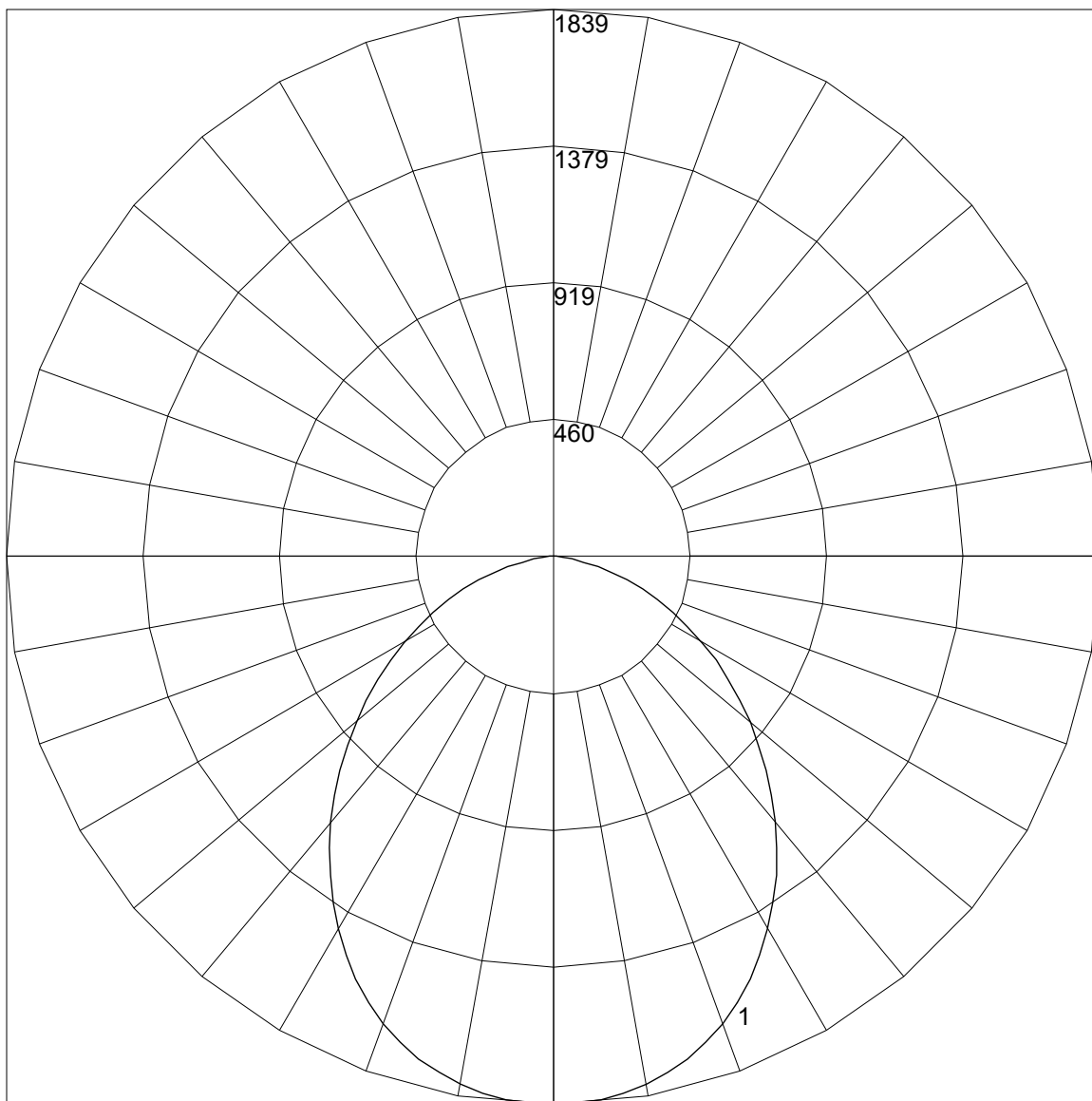
COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	101	97	107	103	99	96	98	95	93	95	92	90	91	89	87	85
2	100	92	86	80	97	90	84	79	87	82	77	83	79	76	80	77	74	72
3	92	81	74	67	89	80	73	67	77	71	66	74	69	64	72	67	63	61
4	84	73	64	58	82	71	63	57	69	62	56	66	60	56	64	59	55	53
5	78	65	56	50	75	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	43	38	36
8	62	49	41	35	61	48	40	35	47	40	35	46	39	34	45	39	34	32
9	58	45	37	32	57	44	37	32	43	36	31	42	36	31	41	35	31	29
10	55	42	34	29	53	41	34	29	40	33	29	39	33	28	38	33	28	27



POLAR GRAPH



Maximum Candela = 1838.816 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)