

# 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-DD-S-8-35-ITL85154.001.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST]ITL85154.001 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[TESTDATE]08/27/15  
[ISSUE DATE]04/28/16  
[MANUFAC]FINELITE, INC.  
[LUMCAT]FINELITE HPR-LED-F-2X2-DD-S-8-35  
[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 28.5 WATTS  
[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 29.4 WATTS  
[ABSOLUTE LUMENS]2720  
[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL85154. 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	2720
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	95
Total Luminaire Watts	28.5
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.18
Spacing Criterion (90-270)	1.20
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	2867	2879	2901
55	2582	2597	2621
65	2284	2297	2337
75	1938	1951	1971
85	1518	1518	1518

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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	1097.778	1097.778	1097.778	1097.778	1097.778
2.5	1096.722	1096.722	1096.722	1096.722	1096.194
5.0	1091.972	1091.444	1091.972	1091.444	1091.972
7.5	1083.000	1083.000	1083.528	1083.528	1083.528
10.0	1072.972	1072.444	1071.917	1071.917	1070.861
12.5	1056.083	1056.083	1056.611	1056.611	1056.611
15.0	1036.556	1037.083	1037.611	1038.139	1038.667
17.5	1014.917	1015.444	1016.500	1016.500	1017.556
20.0	989.583	990.111	991.694	992.222	992.750
22.5	961.083	962.139	963.722	964.778	965.833
25.0	930.472	932.056	933.639	935.222	935.750
27.5	896.694	898.806	900.917	902.500	903.556
30.0	862.389	863.444	865.556	867.667	869.250
32.5	827.028	826.500	828.083	831.250	832.306
35.0	788.500	787.972	790.083	793.250	794.306
37.5	746.278	747.861	749.972	753.139	754.722
40.0	706.694	706.694	708.806	712.500	713.556
42.5	664.472	664.472	667.639	670.278	671.861
45.0	622.778	622.250	625.417	628.583	630.167
47.5	580.556	580.028	583.194	586.361	587.944
50.0	538.333	538.333	541.500	544.139	545.722
52.5	496.639	496.111	499.278	501.917	504.028
55.0	454.944	454.944	457.583	460.750	461.806
57.5	414.306	414.306	417.472	419.583	422.750
60.0	374.194	374.194	377.361	378.944	382.111
62.5	334.611	334.611	336.722	339.361	342.000
65.0	296.611	296.083	298.194	300.306	303.472
67.5	259.139	258.611	260.722	262.306	263.889
70.0	223.250	222.722	223.778	225.889	227.472
72.5	187.361	187.889	189.472	191.056	192.111
75.0	154.111	154.639	155.167	156.750	156.750
77.5	122.444	122.972	123.500	124.556	124.556
80.0	92.889	93.417	93.944	95.000	94.472
82.5	65.444	65.972	66.500	67.028	67.028
85.0	40.639	40.639	40.639	41.167	40.639
87.5	16.889	16.889	16.889	15.833	14.778
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	395.93	N.A.	14.60
0-30	825.40	N.A.	30.30
0-40	1319.37	N.A.	48.50
0-60	2212.03	N.A.	81.30
0-80	2673.79	N.A.	98.30
0-90	2720.19	N.A.	100.00
10-90	2616.61	N.A.	96.20
20-40	923.43	N.A.	33.90
20-50	1406.13	N.A.	51.70
40-70	1188.86	N.A.	43.70
60-80	461.75	N.A.	17.00
70-80	165.56	N.A.	6.10
80-90	46.40	N.A.	1.70
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	2720.19	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	103.58
10-20	292.36
20-30	429.47
30-40	493.97
40-50	482.70
50-60	409.97
60-70	296.20
70-80	165.56
80-90	46.40
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

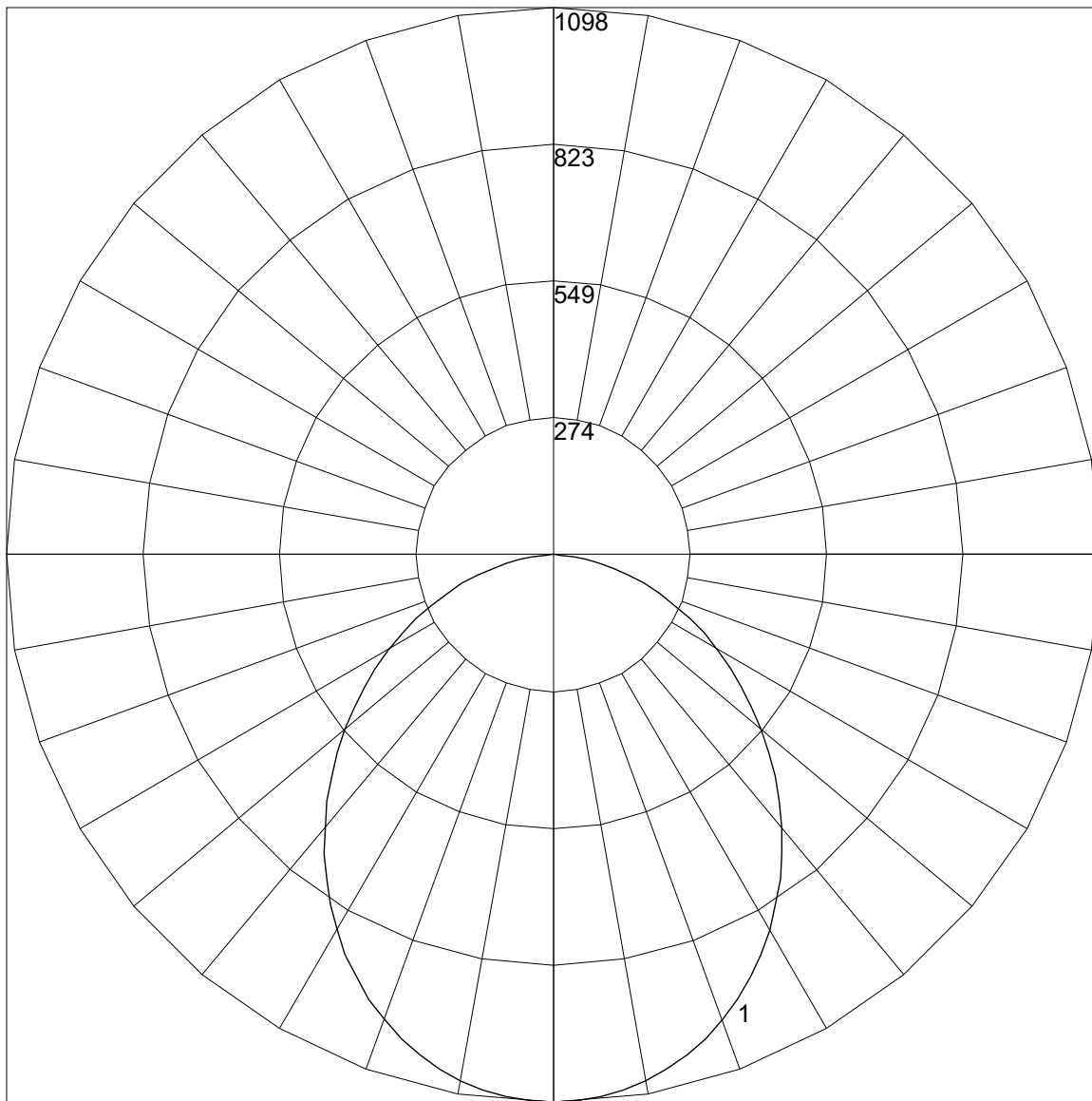
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	61
4	84	72	63	57	81	71	63	57	68	61	56	66	60	55	64	59	54	52
5	77	65	56	49	75	63	55	49	61	54	49	59	53	48	58	52	48	45
6	71	58	50	43	69	57	49	43	56	48	43	54	47	42	52	47	42	40
7	66	53	44	38	65	52	44	38	51	43	38	49	43	38	48	42	37	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	34	28	53	41	33	28	40	33	28	39	33	28	38	32	28	26

POLAR GRAPH



Maximum Candela = 1097.778 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)