

# 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-2X2-CS-B-8-35-ITL86019.002.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL86019.002 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]11/30/15

[ISSUEDATE]04/28/16

[MANUFAC]FINELITE, INC.

[LUMCAT]FINELITE HPR-LED-2X2-CS-B-8-3500K

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 37.2 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 38.1 WATTS

[ABSOLUTE]LUMENS]4161

[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL86098. 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	4161
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	112
Total Luminaire Watts	37.2
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)	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	4404	4382	4432
55	4124	4124	4201
65	3778	3815	3925
75	3209	3362	3567
85	2255	2813	2864

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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	1556.643	1556.643	1556.643	1556.643	1556.643
2.5	1555.286	1555.286	1555.964	1555.286	1555.286
5.0	1549.857	1549.857	1549.857	1549.179	1549.857
7.5	1539.000	1539.679	1539.679	1539.000	1539.000
10.0	1525.429	1526.107	1524.071	1523.393	1521.357
12.5	1505.071	1506.429	1505.071	1502.357	1501.679
15.0	1481.321	1482.000	1479.964	1477.929	1477.250
17.5	1452.821	1454.179	1451.464	1449.429	1449.429
20.0	1421.607	1422.286	1419.571	1417.536	1417.536
22.5	1385.643	1386.321	1382.929	1382.929	1382.250
25.0	1349.000	1348.321	1344.250	1345.607	1343.571
27.5	1306.929	1306.250	1302.857	1304.214	1302.179
30.0	1262.821	1260.786	1258.750	1260.786	1259.429
32.5	1216.000	1213.964	1211.929	1213.964	1214.643
35.0	1165.786	1165.786	1161.714	1165.786	1167.821
37.5	1116.250	1114.893	1112.179	1116.929	1120.321
40.0	1064.000	1059.929	1061.286	1066.036	1070.107
42.5	1011.750	1009.036	1006.321	1013.786	1015.821
45.0	956.786	950.679	952.036	960.179	962.893
47.5	900.464	897.071	896.393	904.536	907.929
50.0	843.464	840.071	841.429	848.893	854.321
52.5	785.107	782.393	784.429	791.893	797.321
55.0	726.750	724.036	726.750	734.893	740.321
57.5	667.714	665.000	669.750	677.214	682.643
60.0	608.679	605.286	612.071	619.536	624.964
62.5	549.643	544.893	553.714	561.179	567.286
65.0	490.607	486.536	495.357	503.500	509.607
67.5	430.893	428.179	436.321	446.500	451.929
70.0	372.536	369.821	377.964	388.143	392.893
72.5	311.464	313.500	322.321	332.500	337.929
75.0	255.143	257.857	267.357	278.214	283.643
77.5	200.857	204.929	215.107	225.286	231.393
80.0	149.964	155.393	165.571	175.071	180.500
82.5	101.786	107.893	120.107	126.214	128.929
85.0	60.393	66.500	75.321	75.321	76.679
87.5	24.429	29.179	31.893	33.250	34.607
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	564.26	N.A.	13.60
0-30	1184.04	N.A.	28.50
0-40	1912.91	N.A.	46.00
0-60	3302.95	N.A.	79.40
0-80	4078.83	N.A.	98.00
0-90	4161.1	N.A.	100.00
10-90	4013.99	N.A.	96.50
20-40	1348.65	N.A.	32.40
20-50	2086.16	N.A.	50.10
40-70	1881.3	N.A.	45.20
60-80	775.88	N.A.	18.60
70-80	284.62	N.A.	6.80
80-90	82.27	N.A.	2.00
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	4161.1	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	147.12
10-20	417.14
20-30	619.78
30-40	728.87
40-50	737.50
50-60	652.54
60-70	491.26
70-80	284.62
80-90	82.27
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

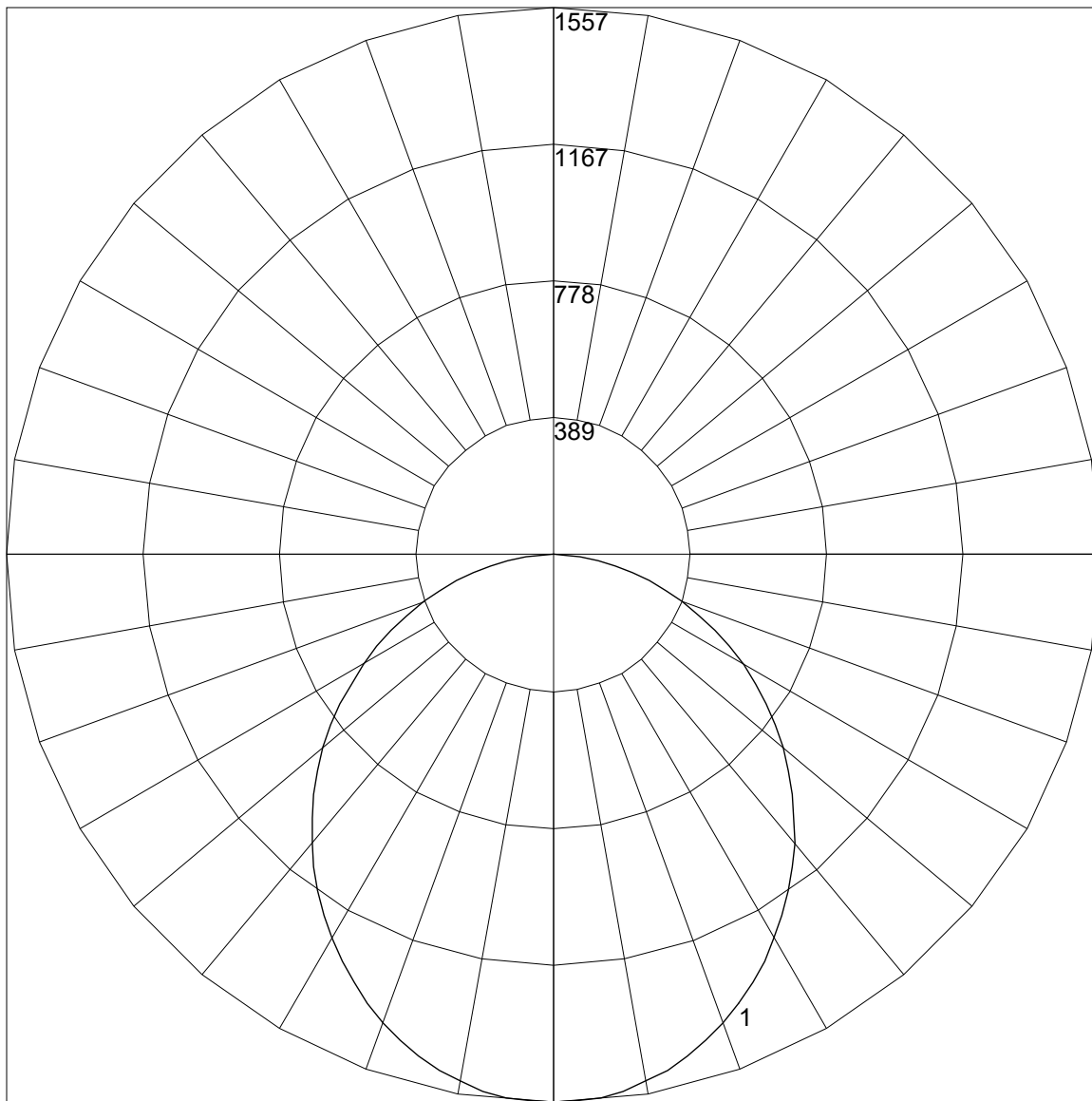
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	104	100	96	106	102	98	94	97	94	91	94	91	89	90	88	86	84
2	99	91	84	78	96	89	83	77	85	80	75	82	78	74	79	75	72	70
3	90	80	72	65	88	78	71	65	75	69	63	72	67	62	70	65	61	59
4	83	71	62	55	80	69	61	55	67	60	54	65	58	53	62	57	53	51
5	76	63	54	48	74	62	54	47	60	53	47	58	52	46	56	51	46	44
6	70	57	48	42	68	56	48	42	54	47	41	53	46	41	51	45	40	38
7	65	52	43	37	64	51	43	37	49	42	37	48	41	36	47	41	36	34
8	61	47	39	33	59	47	39	33	45	38	33	44	37	33	43	37	32	30
9	57	43	35	30	55	43	35	30	42	35	30	41	34	29	40	34	29	27
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

POLAR GRAPH



Maximum Candela = 1556.643 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)