

# 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-SL-LED-2X2-H-835-5157.001.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

[TEST]HPR-SL-LED-2X2-H-835-5157.001  
[TESTLAB] 4141 S. Pulaski Rd. Goniophotometer Lab  
[TESTDATE]03/19/2024  
[ISSUE DATE]01/05/2024  
[MANUFAC]Finelite, Inc.  
[LUMCAT]FINELITE HPR-SL-LED-2X2-H-835-5157  
[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 34.4 WATTS  
[ABSOLUTE LUMENS]4856  
[OTHER]see [www.finelite.com](http://www.finelite.com) for source file 5157. 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	4856
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	141
Total Luminaire Watts	34.4
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.24
Spacing Criterion (90-270)	1.32
Spacing Criterion (Diagonal)	1.38
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	2.00 ft
Luminous Width (90-270)	2.00 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	4049	4331	4743
55	3813	4128	4543
65	3483	3712	4038
75	2970	3061	3252
85	3436	4218	3927

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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	1698.949	1698.949	1698.949	1698.949	1698.949
2.5	1703.562	1696.293	1693.864	1694.932	1697.755
5.0	1696.676	1689.461	1687.189	1688.750	1691.475
7.5	1685.242	1677.433	1676.490	1678.989	1682.681
10.0	1669.225	1661.459	1662.158	1666.503	1670.711
12.5	1648.824	1642.149	1644.788	1650.939	1656.570
15.0	1624.344	1618.174	1623.371	1633.202	1640.256
17.5	1595.841	1590.480	1599.317	1612.809	1622.170
20.0	1563.619	1559.384	1572.363	1590.902	1602.469
22.5	1527.392	1524.952	1542.565	1566.661	1580.328
25.0	1487.490	1487.240	1510.636	1539.984	1556.459
27.5	1444.534	1446.290	1475.211	1511.195	1531.870
30.0	1398.957	1402.219	1437.585	1480.365	1503.824
32.5	1350.030	1354.988	1395.473	1445.965	1472.670
35.0	1297.477	1304.657	1350.832	1408.436	1438.531
37.5	1242.371	1251.467	1303.061	1365.609	1399.188
40.0	1185.138	1195.997	1251.439	1318.930	1353.655
42.5	1125.738	1137.630	1196.795	1266.772	1303.488
45.0	1065.079	1077.581	1139.237	1210.677	1247.392
47.5	1003.438	1016.808	1079.677	1150.405	1186.276
50.0	943.018	953.842	1016.378	1084.858	1118.324
52.5	878.738	889.605	950.174	1014.583	1046.637
55.0	813.437	822.994	880.689	939.354	969.331
57.5	747.577	755.970	808.510	861.516	887.971
60.0	680.352	687.887	735.333	781.476	804.635
62.5	619.179	618.183	659.857	699.699	720.002
65.0	547.448	548.588	583.525	617.702	634.719
67.5	480.914	480.168	509.082	536.642	550.257
70.0	416.072	413.395	435.731	456.765	468.078
72.5	350.406	346.343	363.511	379.729	388.282
75.0	285.918	283.194	294.724	306.340	313.024
77.5	224.272	222.582	228.974	236.123	240.900
80.0	167.968	165.566	168.214	171.712	174.431
82.5	116.347	113.273	113.241	112.601	110.011
85.0	111.403	144.235	136.754	128.782	127.292
87.5	112.334	108.367	100.903	95.329	99.340
90.0	15.600	14.881	15.367	15.273	17.038
92.5	0.000	0.000	0.000	0.000	0.000
95.0	0.000	0.000	0.000	0.000	0.000
97.5	0.000	0.000	0.000	0.000	0.000
100.0	0.000	0.000	0.000	0.000	0.000
102.5	0.000	0.000	0.000	0.000	0.000
105.0	0.000	0.000	0.000	0.000	0.000
107.5	0.000	0.000	0.000	0.000	0.000
110.0	0.000	0.000	0.000	0.000	0.000
112.5	0.000	0.000	0.000	0.000	0.000
115.0	0.000	0.000	0.000	0.000	0.000
117.5	0.000	0.000	0.000	0.000	0.000
120.0	0.000	0.000	0.000	0.000	0.000
122.5	0.000	0.000	0.000	0.000	0.000
125.0	0.000	0.000	0.000	0.000	0.000
127.5	0.000	0.000	0.000	0.000	0.000
130.0	0.000	0.000	0.000	0.000	0.000
132.5	0.000	0.000	0.000	0.000	0.000

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**CANDELA TABULATION - (Cont.)**

<b>135.0</b>	0.000	0.000	0.000	0.000	0.000
<b>137.5</b>	0.000	0.000	0.000	0.000	0.000
<b>140.0</b>	0.000	0.000	0.000	0.000	0.000
<b>142.5</b>	0.000	0.000	0.000	0.000	0.000
<b>145.0</b>	0.000	0.000	0.000	0.000	0.000
<b>147.5</b>	0.000	0.000	0.000	0.000	0.000
<b>150.0</b>	0.000	0.000	0.000	0.000	0.000
<b>152.5</b>	0.000	0.000	0.000	0.000	0.000
<b>155.0</b>	0.000	0.000	0.000	0.000	0.000
<b>157.5</b>	0.000	0.000	0.000	0.000	0.000
<b>160.0</b>	0.000	0.000	0.000	0.000	0.000
<b>162.5</b>	0.000	0.000	0.000	0.000	0.000
<b>165.0</b>	0.000	0.000	0.000	0.000	0.000
<b>167.5</b>	0.000	0.000	0.000	0.000	0.000
<b>170.0</b>	0.000	0.000	0.000	0.000	0.000
<b>172.5</b>	0.000	0.000	0.000	0.000	0.000
<b>175.0</b>	0.000	0.000	0.000	0.000	0.000
<b>177.5</b>	0.000	0.000	0.000	0.000	0.000
<b>180.0</b>	0.000	0.000	0.000	0.000	0.000

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fxt
0-20	619.72	N.A.	12.80
0-30	1318.21	N.A.	27.10
0-40	2167.34	N.A.	44.60
0-60	3839.54	N.A.	79.10
0-80	4734.09	N.A.	97.50
0-90	4854.06	N.A.	100.00
10-90	4693.55	N.A.	96.70
20-40	1547.62	N.A.	31.90
20-50	2430.98	N.A.	50.10
40-70	2252.05	N.A.	46.40
60-80	894.55	N.A.	18.40
70-80	314.70	N.A.	6.50
80-90	119.97	N.A.	2.50
90-110	2.12	N.A.	0.00
90-120	2.12	N.A.	0.00
90-130	2.12	N.A.	0.00
90-150	2.12	N.A.	0.00
90-180	2.12	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	4856.18	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	160.51
10-20	459.21
20-30	698.49
30-40	849.13
40-50	883.36
50-60	788.83
60-70	579.85
70-80	314.70
80-90	119.97
90-100	2.12
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

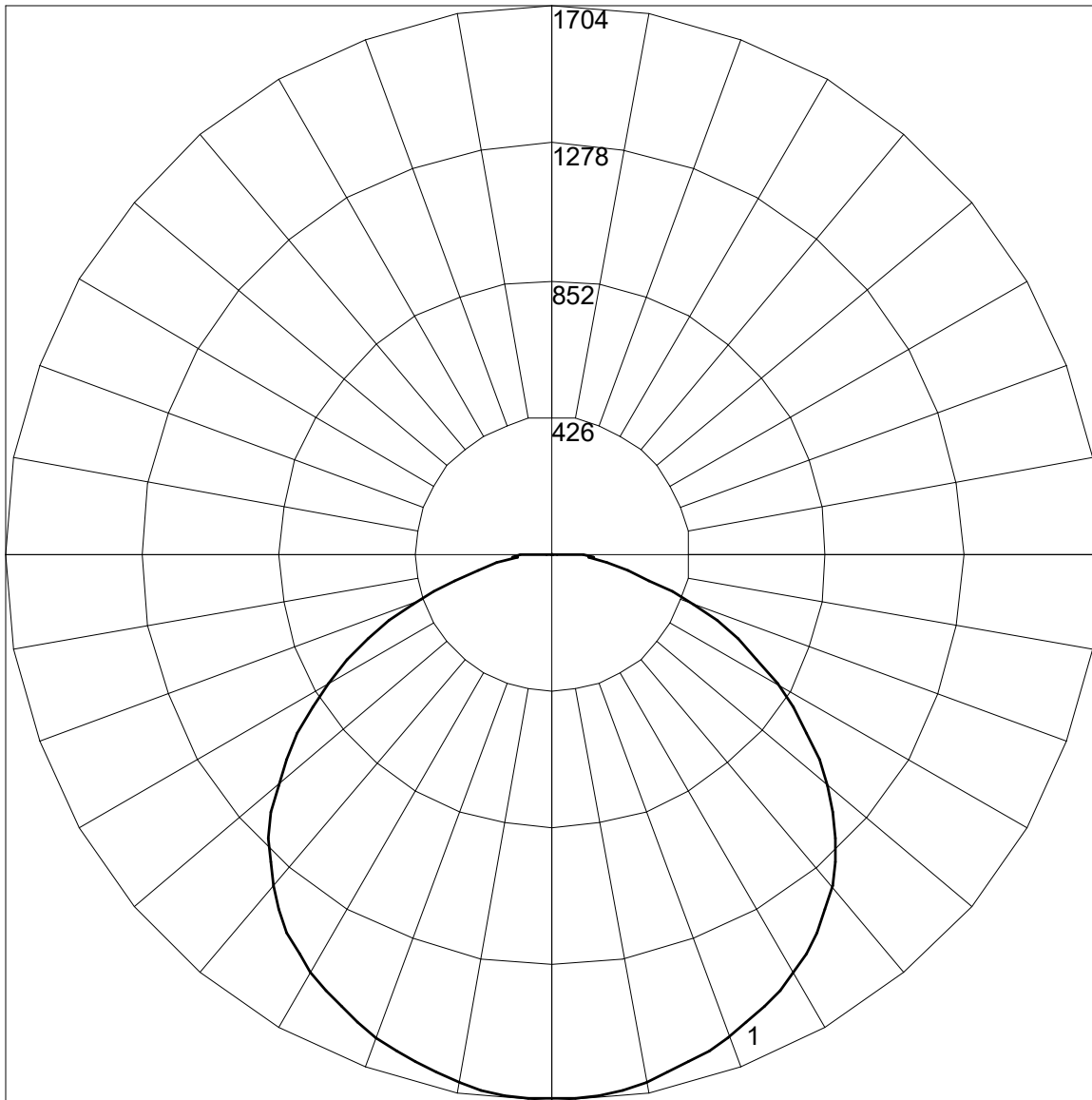
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83
2	99	90	84	78	96	88	82	77	85	80	75	82	77	73	79	75	72	69
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	58
4	82	70	61	55	80	69	61	54	66	59	54	64	58	53	62	57	52	50
5	76	63	54	47	74	62	53	47	60	52	46	58	51	46	56	50	45	43
6	70	56	47	41	68	56	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	36	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

POLAR GRAPH



Maximum Candela = 1703.562 Located At Horizontal Angle = 0, Vertical Angle = 2.5  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)