

# 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-1X4-H-835-5156.001.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

[TEST]HPR-SL-LED-1X4-H-835-5156.001  
[TESTLAB] 4141 S. Pulaski Rd. Goniophotometer Lab  
[ISSUE DATE] 01/09/2024  
[MANUFAC] Finelite  
[LUMCAT]FINELITE HPR-SL-LED-1X4-H-835  
[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 35.2 WATTS  
[ABSOLUTE LUMENS]4764  
[OTHER]see [www.finelite.com](http://www.finelite.com) for source file 5156. 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	4764
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	135
Total Luminaire Watts	35.2
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.26
Spacing Criterion (90-270)	1.40
Spacing Criterion (Diagonal)	1.44
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	4.00 ft
Luminous Width (90-270)	1.00 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	4164	4526	4595
55	3929	4106	4011
65	3609	3506	3278
75	3082	2648	2228
85	2229	1307	1187

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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	1666.458	1666.458	1666.458	1666.458	1666.458
2.5	1665.822	1659.506	1664.057	1664.777	1663.552
5.0	1659.953	1653.675	1658.533	1660.451	1659.475
7.5	1650.103	1643.526	1651.588	1657.855	1658.047
10.0	1638.323	1631.658	1644.640	1655.872	1658.568
12.5	1622.401	1617.283	1636.631	1654.368	1660.172
15.0	1603.382	1599.611	1626.792	1652.802	1661.734
17.5	1580.136	1579.355	1615.242	1650.187	1662.767
20.0	1553.916	1555.520	1601.985	1646.271	1661.136
22.5	1523.461	1528.836	1585.236	1637.684	1655.336
25.0	1489.940	1499.480	1565.148	1623.955	1643.698
27.5	1452.587	1466.388	1540.942	1604.741	1624.166
30.0	1411.582	1428.197	1510.939	1575.967	1594.435
32.5	1367.464	1386.736	1474.646	1538.591	1554.877
35.0	1318.151	1340.703	1431.321	1489.833	1502.524
37.5	1267.467	1290.835	1380.499	1431.106	1439.766
40.0	1212.994	1237.082	1324.092	1364.876	1367.935
42.5	1155.744	1178.810	1259.849	1291.861	1290.430
45.0	1095.122	1117.905	1190.330	1212.615	1208.522
47.5	1035.764	1053.573	1115.627	1128.996	1121.661
50.0	972.275	987.102	1039.133	1043.482	1034.715
52.5	905.053	917.927	958.956	955.744	945.193
55.0	838.340	847.317	875.969	867.573	855.812
57.5	771.202	773.415	793.073	779.487	766.281
60.0	703.179	700.451	709.713	692.098	680.209
62.5	632.999	625.761	628.018	606.308	596.625
65.0	567.352	556.801	551.187	527.541	515.255
67.5	497.495	483.741	471.853	446.225	434.216
70.0	430.204	413.460	396.933	368.864	358.056
72.5	363.309	344.989	324.172	295.758	284.599
75.0	296.735	278.801	254.890	226.608	214.522
77.5	234.520	216.773	190.850	164.118	161.419
80.0	176.377	159.125	131.325	124.344	123.346
82.5	122.401	106.651	90.104	87.898	86.962
85.0	72.273	55.788	42.365	38.365	38.486
87.5	12.169	10.420	9.329	8.826	8.846
90.0	0.985	0.855	0.929	1.034	1.314
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.)

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

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	618.31	N.A.	13.00
0-30	1339.11	N.A.	28.10
0-40	2224.25	N.A.	46.70
0-60	3891.75	N.A.	81.70
0-80	4702.73	N.A.	98.70
0-90	4764.21	N.A.	100.00
10-90	4606.35	N.A.	96.70
20-40	1605.94	N.A.	33.70
20-50	2505.53	N.A.	52.60
40-70	2205.51	N.A.	46.30
60-80	810.98	N.A.	17.00
70-80	272.98	N.A.	5.70
80-90	61.48	N.A.	1.30
90-110	0.14	N.A.	0.00
90-120	0.14	N.A.	0.00
90-130	0.14	N.A.	0.00
90-150	0.14	N.A.	0.00
90-180	0.14	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	4764.35	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	157.86
10-20	460.44
20-30	720.80
30-40	885.13
40-50	899.59
50-60	767.91
60-70	538.00
70-80	272.98
80-90	61.48
90-100	0.14
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

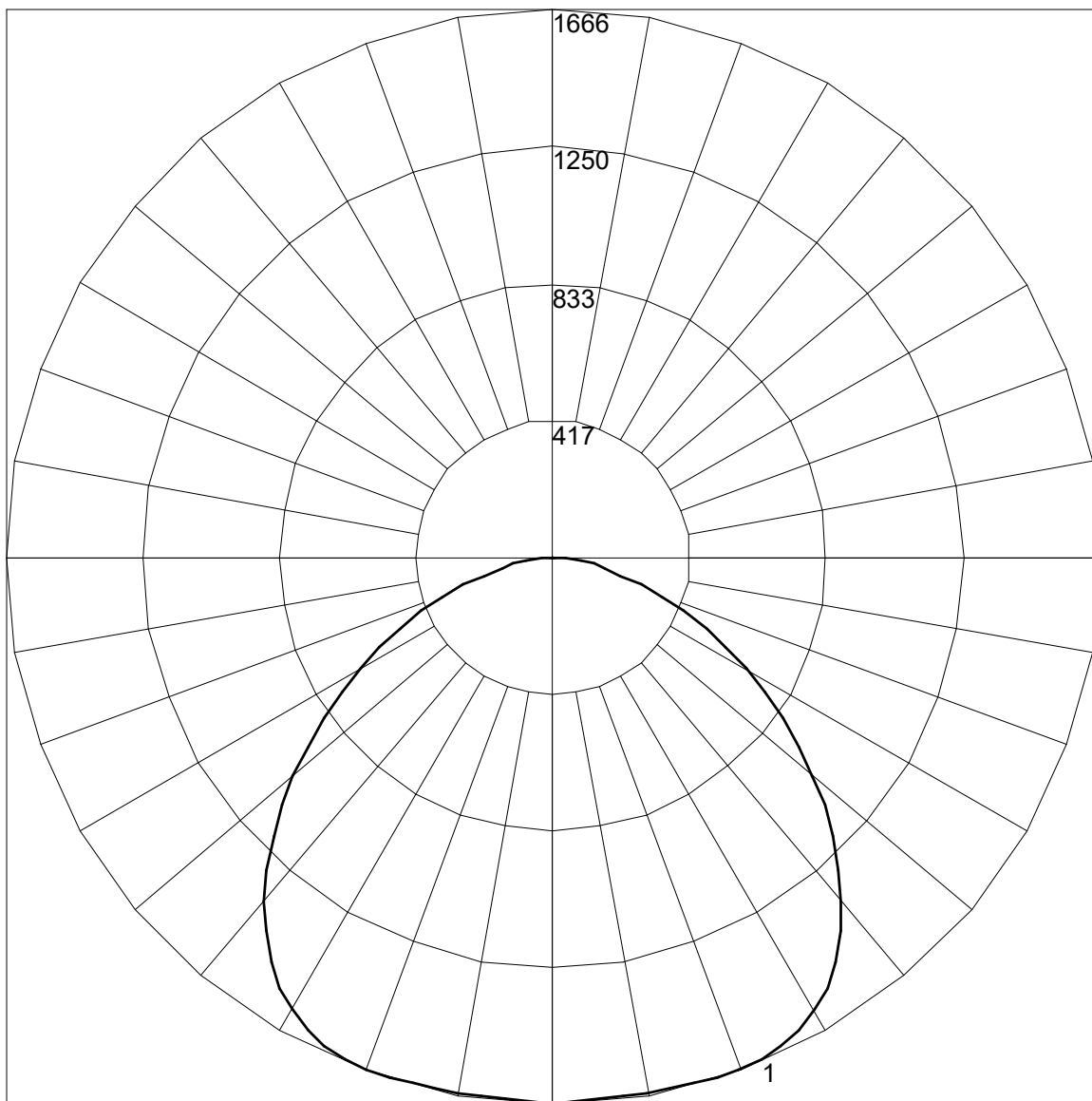
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	79	97	90	84	78	86	81	77	83	79	75	80	76	73	71
3	91	81	73	66	88	79	72	66	76	70	65	73	68	63	71	66	62	60
4	83	72	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	51
5	77	64	55	49	75	63	54	48	61	53	48	59	52	47	57	51	47	45
6	71	58	49	42	69	57	48	42	55	47	42	53	46	41	52	46	41	39
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34
8	61	48	39	33	59	47	39	33	46	38	33	44	38	33	43	37	33	31
9	57	44	35	30	56	43	35	30	42	35	30	41	34	30	40	34	29	28
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

POLAR GRAPH



Maximum Candela = 1666.458 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)