

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-B-835-5156.002.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]HPR-SL-LED-1X4-B-835-5156.002
[TESTLAB] 4141 S. Pulaski Rd. Goniophotometer Lab
[ISSUE DATE] 01/09/2024
[MANUFAC] Finelite
[LUMCAT]FINELITE HPR-SL-LED-1X4-B-835
[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 30.0 WATTS
[ABSOLUTE LUMENS]4181
[OTHER]see 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

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4181
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	139
Total Luminaire Watts	30
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	3654	3972	4033
55	3449	3603	3520
65	3167	3077	2877
75	2705	2324	1956
85	1957	1147	1042

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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	1462.523	1462.523	1462.523	1462.523	1462.523
2.5	1461.965	1456.421	1460.416	1461.048	1459.972
5.0	1456.814	1451.304	1455.568	1457.251	1456.394
7.5	1448.169	1442.397	1449.473	1454.973	1455.141
10.0	1437.831	1431.982	1443.375	1453.233	1455.598
12.5	1423.857	1419.365	1436.346	1451.912	1457.006
15.0	1407.166	1403.856	1427.711	1450.538	1458.377
17.5	1386.765	1386.079	1417.574	1448.243	1459.284
20.0	1363.753	1365.161	1405.939	1444.806	1457.852
22.5	1337.025	1341.743	1391.240	1437.270	1452.762
25.0	1307.607	1315.979	1373.611	1425.222	1442.548
27.5	1274.825	1286.937	1352.367	1408.358	1425.406
30.0	1238.837	1253.419	1326.035	1383.106	1399.314
32.5	1200.118	1217.032	1294.184	1350.304	1364.596
35.0	1156.840	1176.633	1256.161	1307.513	1318.650
37.5	1112.359	1132.868	1211.559	1255.972	1263.572
40.0	1064.552	1085.692	1162.055	1197.847	1200.532
42.5	1014.308	1034.552	1105.673	1133.768	1132.511
45.0	961.105	981.100	1044.661	1064.219	1060.627
47.5	909.011	924.641	979.101	990.833	984.396
50.0	853.291	866.304	911.967	915.784	908.090
52.5	794.295	805.595	841.602	838.783	829.523
55.0	735.747	743.626	768.771	761.402	751.081
57.5	676.825	678.767	696.020	684.096	672.506
60.0	617.127	614.732	622.861	607.402	596.967
62.5	555.535	549.183	551.163	532.110	523.612
65.0	497.922	488.662	483.734	462.983	452.200
67.5	436.613	424.543	414.109	391.617	381.078
70.0	377.557	362.862	348.357	323.724	314.238
72.5	318.848	302.771	284.501	259.565	249.771
75.0	260.422	244.682	223.697	198.877	188.270
77.5	205.820	190.245	167.495	144.034	141.665
80.0	154.792	139.652	115.254	109.127	108.251
82.5	107.422	93.599	79.077	77.141	76.320
85.0	63.429	48.961	37.181	33.670	33.777
87.5	10.680	9.145	8.187	7.746	7.763
90.0	0.864	0.751	0.815	0.908	1.153
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	542.64	N.A.	13.00
0-30	1175.24	N.A.	28.10
0-40	1952.05	N.A.	46.70
0-60	3415.49	N.A.	81.70
0-80	4127.23	N.A.	98.70
0-90	4181.18	N.A.	100.00
10-90	4042.64	N.A.	96.70
20-40	1409.41	N.A.	33.70
20-50	2198.91	N.A.	52.60
40-70	1935.6	N.A.	46.30
60-80	711.74	N.A.	17.00
70-80	239.57	N.A.	5.70
80-90	53.96	N.A.	1.30
90-110	0.12	N.A.	0.00
90-120	0.12	N.A.	0.00
90-130	0.12	N.A.	0.00
90-150	0.12	N.A.	0.00
90-180	0.12	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	4181.3	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	138.55
10-20	404.10
20-30	632.59
30-40	776.81
40-50	789.50
50-60	673.94
60-70	472.16
70-80	239.57
80-90	53.96
90-100	0.12
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

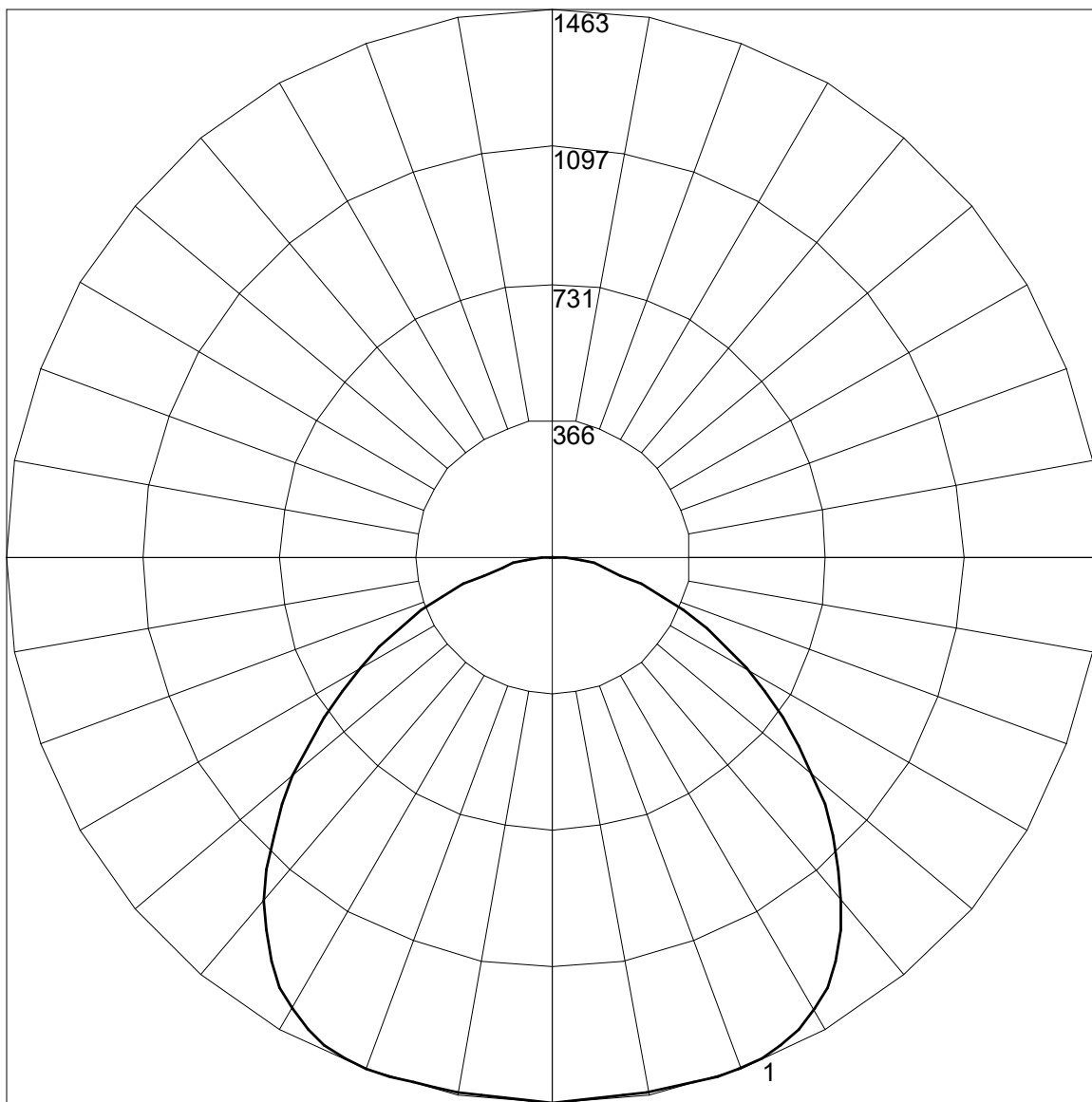
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	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 = 1462.523 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (90 - 270)