

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-S-835-5156.003.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]HPR-SL-LED-1X4-S-835-5156.003
[TESTLAB] 4141 S. Pulaski Rd. Goniophotometer Lab
[ISSUE DATE] 01/09/2024
[MANUFAC] Finelite
[LUMCAT]FINELITE HPR-SL-LED-1X4-S-835
[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 23.1 WATTS
[ABSOLUTE LUMENS]3248
[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	3248
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	141
Total Luminaire Watts	23.1
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	2839	3086	3133
55	2679	2799	2735
65	2461	2391	2235
75	2101	1805	1519
85	1520	891	809

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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	1136.159	1136.159	1136.159	1136.159	1136.159
2.5	1135.725	1131.419	1134.522	1135.013	1134.178
5.0	1131.724	1127.444	1130.756	1132.064	1131.398
7.5	1125.008	1120.524	1126.021	1130.294	1130.424
10.0	1116.977	1112.433	1121.284	1128.942	1130.779
12.5	1106.122	1102.632	1115.824	1127.916	1131.873
15.0	1093.155	1090.584	1109.116	1126.849	1132.938
17.5	1077.306	1076.774	1101.241	1125.066	1133.643
20.0	1059.430	1060.523	1092.202	1122.396	1132.531
22.5	1038.666	1042.331	1080.783	1116.541	1128.576
25.0	1015.812	1022.317	1067.088	1107.181	1120.642
27.5	990.346	999.755	1050.584	1094.081	1107.325
30.0	962.389	973.717	1030.129	1074.464	1087.055
32.5	932.310	945.450	1005.385	1048.982	1060.085
35.0	898.690	914.066	975.847	1015.739	1024.392
37.5	864.135	880.067	941.198	975.701	981.605
40.0	826.996	843.418	902.741	930.546	932.631
42.5	787.964	803.690	858.941	880.766	879.790
45.0	746.633	762.166	811.544	826.737	823.947
47.5	706.164	718.306	760.613	769.727	764.727
50.0	662.878	672.987	708.461	711.426	705.449
52.5	617.047	625.825	653.798	651.608	644.414
55.0	571.564	577.685	597.218	591.495	583.476
57.5	525.791	527.299	540.702	531.439	522.436
60.0	479.414	477.554	483.869	471.859	463.753
62.5	431.567	426.632	428.170	413.369	406.768
65.0	386.810	379.616	375.788	359.667	351.291
67.5	339.182	329.805	321.700	304.227	296.040
70.0	293.305	281.889	270.621	251.484	244.115
72.5	247.697	235.207	221.015	201.642	194.034
75.0	202.308	190.081	173.779	154.497	146.257
77.5	159.891	147.791	130.118	111.893	110.053
80.0	120.250	108.489	89.535	84.775	84.095
82.5	83.450	72.713	61.431	59.927	59.289
85.0	49.274	38.035	28.884	26.157	26.239
87.5	8.296	7.104	6.360	6.017	6.031
90.0	0.671	0.583	0.633	0.705	0.896
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	421.55	N.A.	13.00
0-30	912.98	N.A.	28.10
0-40	1516.45	N.A.	46.70
0-60	2653.32	N.A.	81.70
0-80	3206.23	N.A.	98.70
0-90	3248.15	N.A.	100.00
10-90	3140.52	N.A.	96.70
20-40	1094.9	N.A.	33.70
20-50	1708.22	N.A.	52.60
40-70	1503.67	N.A.	46.30
60-80	552.91	N.A.	17.00
70-80	186.11	N.A.	5.70
80-90	41.92	N.A.	1.30
90-110	0.09	N.A.	0.00
90-120	0.09	N.A.	0.00
90-130	0.09	N.A.	0.00
90-150	0.09	N.A.	0.00
90-180	0.09	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	3248.24	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	107.63
10-20	313.92
20-30	491.43
30-40	603.47
40-50	613.32
50-60	523.55
60-70	366.80
70-80	186.11
80-90	41.92
90-100	0.09
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

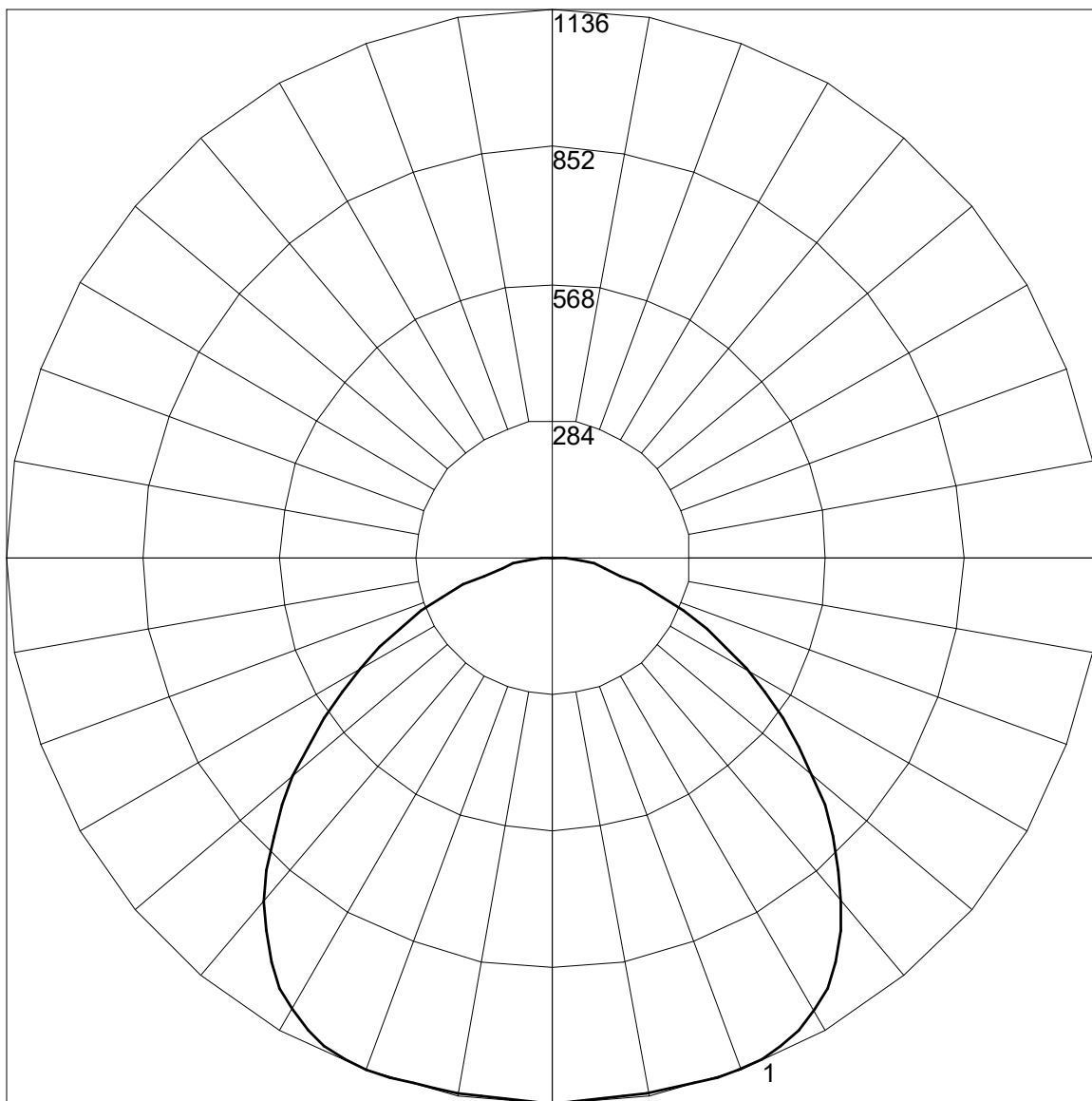
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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 = 1136.159 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (90 - 270)