

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-2X4-CS-H-837-XXIC-ITL86020.203.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL86020.203 Family Correlation File
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.
[TESTDATE]11/10/15
[ISSUEDATE]05/21/2021
[MANUFAC]FINELITE, INC.
[LUMCAT]FINELITE HPR-LED-2X4-CS-H-837-XXIC
[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 38.1 WATTS
[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 38.8 WATTS
[ABSOLUTE]LUMENS]4406
[OTHER]see www.finelite.com for source file ITL86020. 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	4406
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	116
Total Luminaire Watts	38.1
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.22
Spacing Criterion (90-270)	1.20
Spacing Criterion (Diagonal)	1.32
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.83 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	2259	2210	2204
55	2127	2075	2066
65	1938	1902	1904
75	1632	1664	1712
85	1067	1363	1327

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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	1668.533	1668.533	1668.533	1668.533	1668.533
2.5	1667.198	1666.531	1666.531	1665.863	1666.531
5.0	1660.524	1659.856	1659.189	1658.522	1657.854
7.5	1649.178	1647.176	1645.841	1644.506	1643.171
10.0	1631.158	1630.490	1628.488	1625.151	1623.816
12.5	1609.133	1608.466	1606.463	1603.794	1601.124
15.0	1584.439	1583.104	1579.767	1575.762	1573.093
17.5	1555.740	1553.738	1547.731	1543.727	1542.392
20.0	1522.369	1519.700	1513.026	1509.021	1507.686
22.5	1486.329	1482.325	1475.650	1470.311	1468.976
25.0	1445.617	1440.278	1433.603	1427.597	1426.262
27.5	1401.568	1395.561	1388.219	1382.213	1380.878
30.0	1354.849	1347.507	1340.166	1333.491	1332.157
32.5	1306.127	1298.119	1290.110	1283.435	1282.101
35.0	1254.069	1246.060	1236.717	1230.042	1229.375
37.5	1200.676	1192.000	1182.656	1177.317	1175.982
40.0	1145.281	1135.937	1126.593	1123.256	1120.587
42.5	1090.553	1079.874	1069.863	1066.526	1064.524
45.0	1031.821	1019.140	1009.796	1008.461	1007.126
47.5	971.753	959.073	951.064	949.061	948.394
50.0	911.019	898.338	889.662	889.662	888.994
52.5	850.284	836.936	828.927	829.595	826.257
55.0	788.215	775.534	768.860	768.192	765.523
57.5	724.143	712.130	706.790	706.790	704.121
60.0	657.402	648.058	644.054	643.386	642.719
62.5	593.330	584.654	581.984	581.984	581.317
65.0	529.259	520.582	519.247	520.582	519.915
67.5	464.520	457.178	457.178	459.180	459.180
70.0	399.113	394.441	396.443	399.113	402.450
72.5	335.041	334.374	336.376	340.381	343.718
75.0	272.972	274.307	278.311	282.983	286.320
77.5	213.572	216.909	222.916	228.255	231.592
80.0	157.509	163.516	171.525	176.197	178.867
82.5	106.786	114.795	122.804	125.474	126.808
85.0	60.067	70.078	76.753	75.418	74.750
87.5	20.690	30.034	32.036	31.368	30.034
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	602.53	N.A.	13.70
0-30	1262.98	N.A.	28.70
0-40	2037.87	N.A.	46.30
0-60	3510.46	N.A.	79.70
0-80	4322.66	N.A.	98.10
0-90	4406.17	N.A.	100.00
10-90	4248.8	N.A.	96.40
20-40	1435.35	N.A.	32.60
20-50	2217.86	N.A.	50.30
40-70	1988.69	N.A.	45.10
60-80	812.20	N.A.	18.40
70-80	296.09	N.A.	6.70
80-90	83.51	N.A.	1.90
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	4406.17	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	157.37
10-20	445.16
20-30	660.45
30-40	774.89
40-50	782.51
50-60	690.07
60-70	516.11
70-80	296.09
80-90	83.51
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

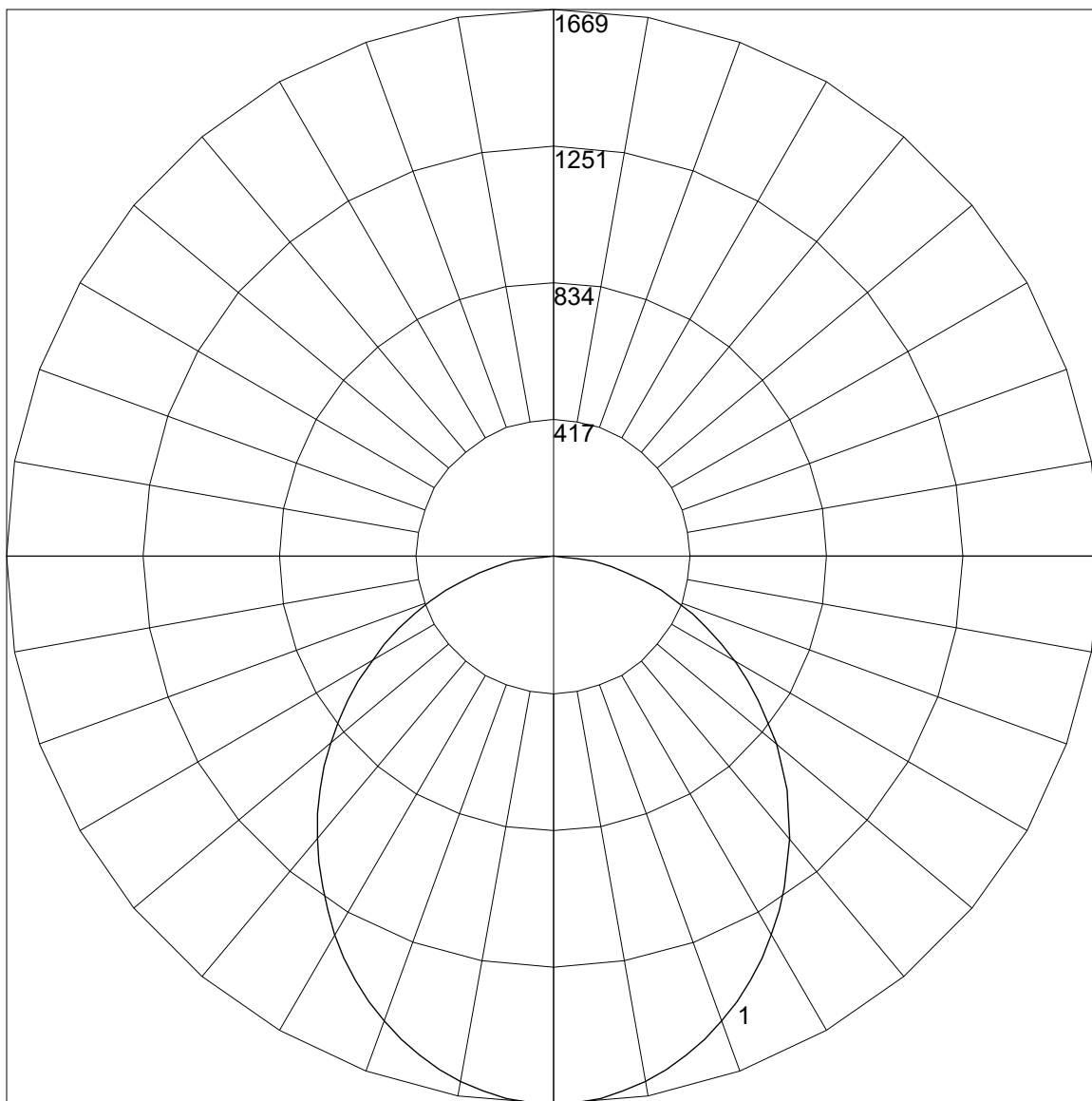
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	98	94	91	94	91	89	90	88	86	84
2	99	91	84	78	96	89	83	77	85	80	76	82	78	74	79	76	72	70
3	90	80	72	65	88	78	71	65	75	69	64	73	67	63	70	65	61	59
4	83	71	62	56	81	70	61	55	67	60	54	65	59	54	63	57	53	51
5	76	63	55	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44
6	71	57	48	42	69	56	48	42	54	47	41	53	46	41	51	45	41	39
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	34
8	61	47	39	33	59	47	39	33	45	38	33	44	38	33	43	37	32	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 = 1668.533 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (90 - 270)