

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-B-8-TW-ITL86020.902.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST]ITL86020.902 Family Correlation File
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.
[TESTDATE]11/10/15
[ISSUEDATE]04/28/16
[MANUFAC]FINELITE, INC.
[LUMCAT]FINELITE HPR-LED-2X4-CS-B-8-TW
[OTHER]ies file is based on 3500K; see luminaire tech sheet at www.finelite.com for lumen adjustment factors for other CCT's & CRI
[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 38.7 WATTS
[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 39.9 WATTS
[ABSOLUTE]LUMENS]4486
[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	4486
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	116
Total Luminaire Watts	38.7
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	2300	2250	2245
55	2166	2112	2103
65	1974	1936	1939
75	1662	1695	1743
85	1086	1388	1352

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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	1698.842	1698.842	1698.842	1698.842	1698.842
2.5	1697.483	1696.803	1696.803	1696.124	1696.803
5.0	1690.687	1690.008	1689.328	1688.649	1687.969
7.5	1679.135	1677.097	1675.738	1674.378	1673.019
10.0	1660.788	1660.108	1658.070	1654.672	1653.313
12.5	1638.363	1637.683	1635.645	1632.927	1630.209
15.0	1613.220	1611.861	1608.463	1604.386	1601.668
17.5	1584.000	1581.961	1575.846	1571.768	1570.409
20.0	1550.023	1547.305	1540.510	1536.432	1535.073
22.5	1513.328	1509.251	1502.456	1497.019	1495.660
25.0	1471.876	1466.440	1459.645	1453.529	1452.170
27.5	1427.027	1420.911	1413.436	1407.321	1405.961
30.0	1379.460	1371.985	1364.510	1357.714	1356.355
32.5	1329.853	1321.699	1313.544	1306.749	1305.390
35.0	1276.849	1268.695	1259.182	1252.386	1251.707
37.5	1222.487	1213.653	1204.139	1198.703	1197.344
40.0	1166.085	1156.571	1147.058	1143.660	1140.942
42.5	1110.363	1099.490	1089.297	1085.900	1083.861
45.0	1050.564	1037.653	1028.139	1026.780	1025.421
47.5	989.405	976.494	968.340	966.301	965.622
50.0	927.568	914.656	905.822	905.822	905.143
52.5	865.730	852.139	843.985	844.664	841.266
55.0	802.533	789.622	782.826	782.147	779.429
57.5	737.297	725.066	719.629	719.629	716.911
60.0	669.344	659.830	655.753	655.073	654.394
62.5	604.108	595.274	592.556	592.556	591.876
65.0	538.873	530.039	528.680	530.039	529.359
67.5	472.958	465.483	465.483	467.521	467.521
70.0	406.363	401.606	403.645	406.363	409.761
72.5	341.127	340.448	342.486	346.564	349.961
75.0	277.931	279.290	283.367	288.124	291.521
77.5	217.452	220.849	226.965	232.402	235.799
80.0	160.371	166.486	174.641	179.398	182.116
82.5	108.726	116.880	125.035	127.753	129.112
85.0	61.158	71.351	78.147	76.788	76.108
87.5	21.066	30.579	32.618	31.938	30.579
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	613.47	N.A.	13.70
0-30	1285.92	N.A.	28.70
0-40	2074.89	N.A.	46.30
0-60	3574.23	N.A.	79.70
0-80	4401.18	N.A.	98.10
0-90	4486.21	N.A.	100.00
10-90	4325.98	N.A.	96.40
20-40	1461.42	N.A.	32.60
20-50	2258.14	N.A.	50.30
40-70	2024.81	N.A.	45.10
60-80	826.95	N.A.	18.40
70-80	301.47	N.A.	6.70
80-90	85.03	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	4486.21	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	160.23
10-20	453.25
20-30	672.45
30-40	788.97
40-50	796.72
50-60	702.61
60-70	525.48
70-80	301.47
80-90	85.03
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

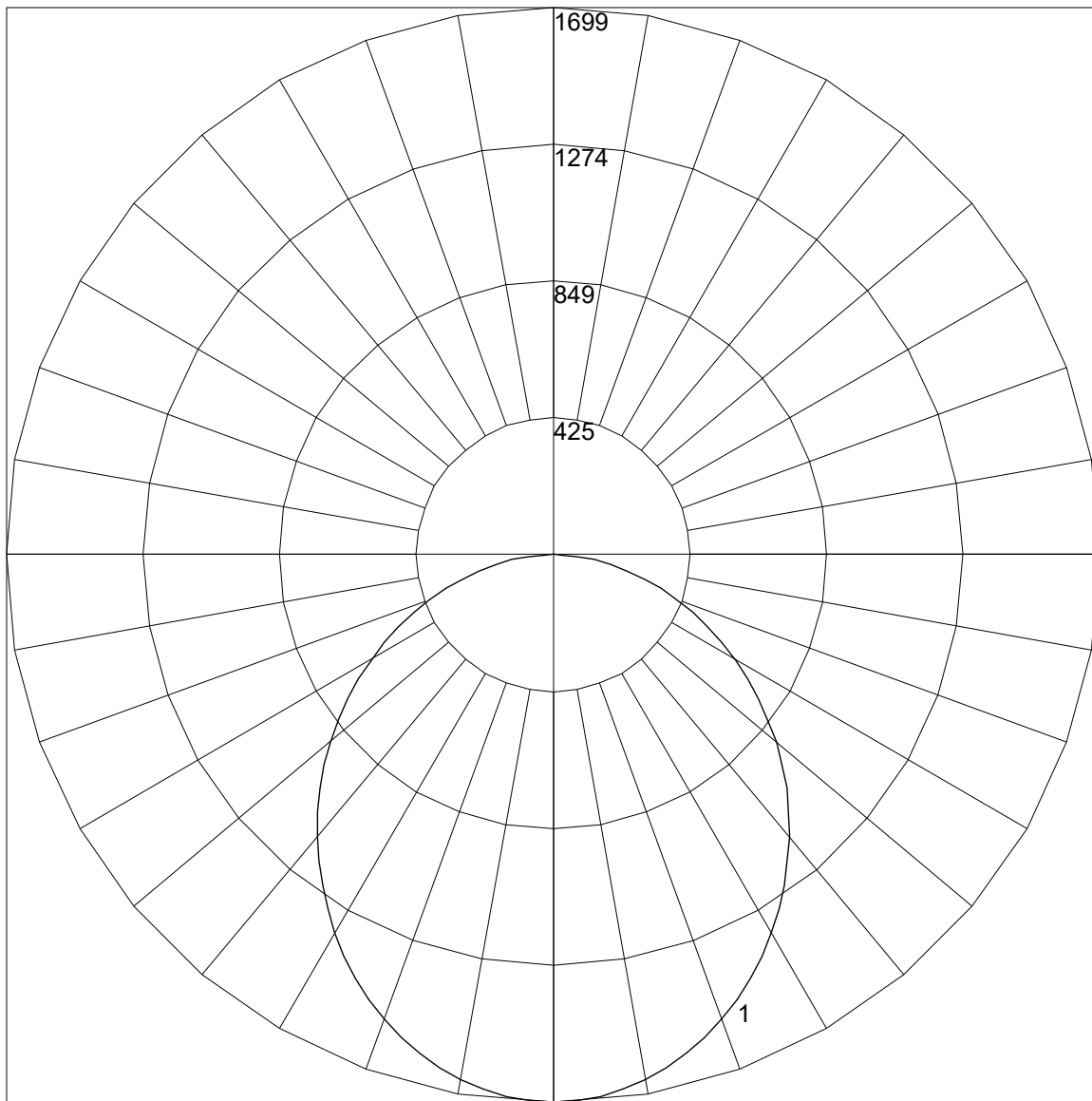
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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 = 1698.842 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (90 - 270)