

# 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-V-8-TW-ITL86020.900.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST]ITL86020.900 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[TESTDATE]11/10/15  
[ISSUEDATE]04/15/16  
[MANUFAC]FINELITE, INC.  
[LUMCAT]FINELITE HPR-LED-2X4-CS-V-8-TW  
[OTHER]ies file is based on 3500K; see luminaire tech sheet at [www.finelite.com](http://www.finelite.com) for lumen adjustment factors for other CCT's & CRI  
[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 60.6 WATTS  
[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 60.1 WATTS  
[OTHER]see [www.finelite.com](http://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](http://www.finelite.com/download_files/series_downloads/photometry_pdf/FL_Family_Correlation_WhitePaper.pdf)  
[\_ABSOLUTELUMENS]6602

**CHARACTERISTICS**

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	6602
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	109
Total Luminaire Watts	60.6
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	3384	3312	3303
55	3187	3109	3095
65	2904	2849	2853
75	2446	2494	2565
85	1598	2042	1989

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**CANDELA TABULATION**

	<u><b>0.0</b></u>	<u><b>22.5</b></u>	<u><b>45.0</b></u>	<u><b>67.5</b></u>	<u><b>90.0</b></u>
<b>0.0</b>	2500	2500	2500	2500	2500
<b>2.5</b>	2498	2497	2497	2496	2497
<b>5.0</b>	2488	2487	2486	2485	2484
<b>7.5</b>	2471	2468	2466	2464	2462
<b>10.0</b>	2444	2443	2440	2435	2433
<b>12.5</b>	2411	2410	2407	2403	2399
<b>15.0</b>	2374	2372	2367	2361	2357
<b>17.5</b>	2331	2328	2319	2313	2311
<b>20.0</b>	2281	2277	2267	2261	2259
<b>22.5</b>	2227	2221	2211	2203	2201
<b>25.0</b>	2166	2158	2148	2139	2137
<b>27.5</b>	2100	2091	2080	2071	2069
<b>30.0</b>	2030	2019	2008	1998	1996
<b>32.5</b>	1957	1945	1933	1923	1921
<b>35.0</b>	1879	1867	1853	1843	1842
<b>37.5</b>	1799	1786	1772	1764	1762
<b>40.0</b>	1716	1702	1688	1683	1679
<b>42.5</b>	1634	1618	1603	1598	1595
<b>45.0</b>	1546	1527	1513	1511	1509
<b>47.5</b>	1456	1437	1425	1422	1421
<b>50.0</b>	1365	1346	1333	1333	1332
<b>52.5</b>	1274	1254	1242	1243	1238
<b>55.0</b>	1181	1162	1152	1151	1147
<b>57.5</b>	1085	1067	1059	1059	1055
<b>60.0</b>	985	971	965	964	963
<b>62.5</b>	889	876	872	872	871
<b>65.0</b>	793	780	778	780	779
<b>67.5</b>	696	685	685	688	688
<b>70.0</b>	598	591	594	598	603
<b>72.5</b>	502	501	504	510	515
<b>75.0</b>	409	411	417	424	429
<b>77.5</b>	320	325	334	342	347
<b>80.0</b>	236	245	257	264	268
<b>82.5</b>	160	172	184	188	190
<b>85.0</b>	90	105	115	113	112
<b>87.5</b>	31	45	48	47	45
<b>90.0</b>	0	0	0	0	0

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	902.78	N.A.	13.70
0-30	1892.35	N.A.	28.70
0-40	3053.39	N.A.	46.30
0-60	5259.8	N.A.	79.70
0-80	6476.73	N.A.	98.10
0-90	6601.86	N.A.	100.00
10-90	6366.07	N.A.	96.40
20-40	2150.61	N.A.	32.60
20-50	3323.06	N.A.	50.30
40-70	2979.7	N.A.	45.10
60-80	1216.93	N.A.	18.40
70-80	443.64	N.A.	6.70
80-90	125.13	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	6601.86	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	235.79
10-20	667.00
20-30	989.57
30-40	1161.04
40-50	1172.45
50-60	1033.95
60-70	773.29
70-80	443.64
80-90	125.13
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

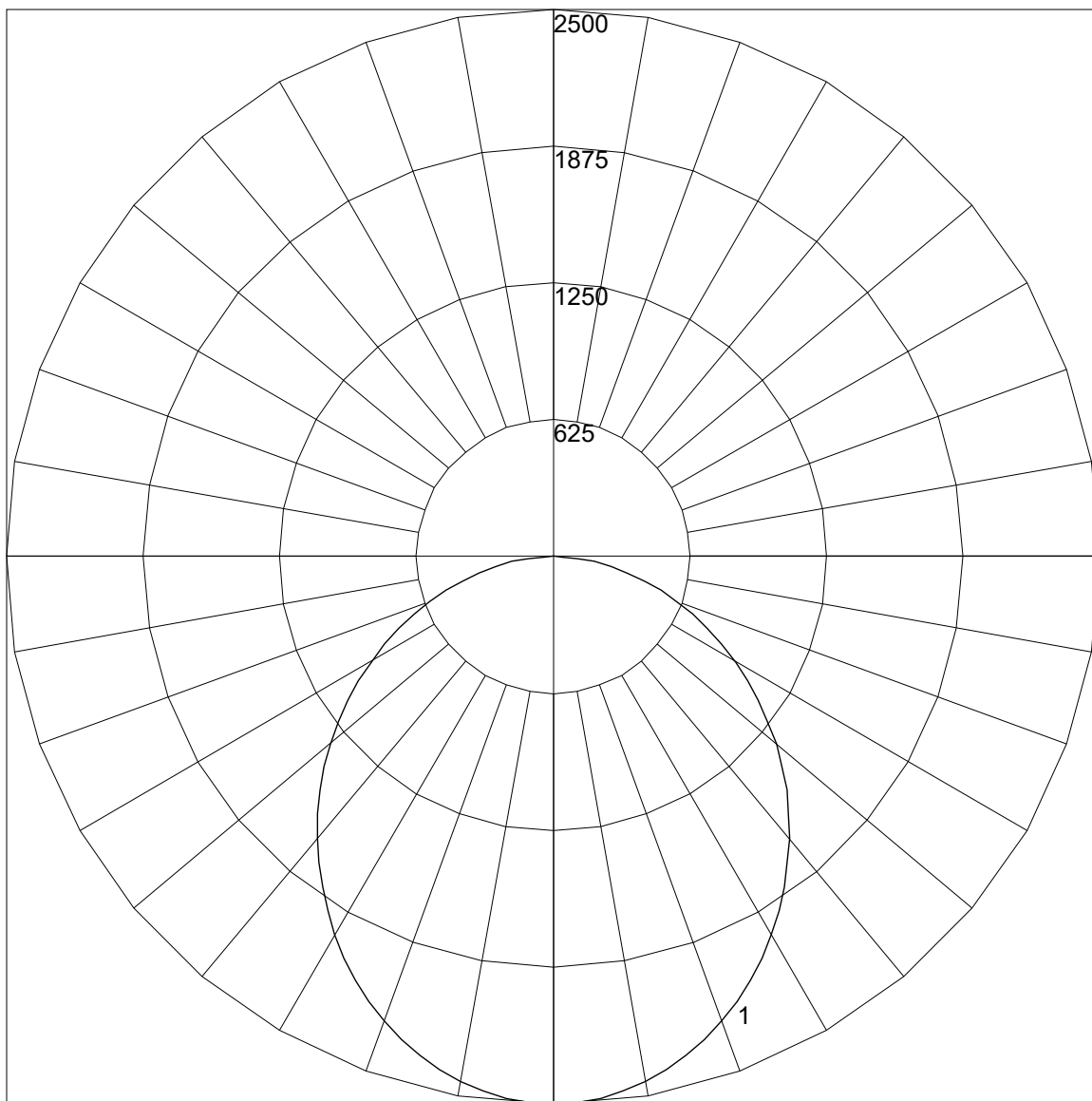
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	70	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 = 2500 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)