

# 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 : HP-2-WW-D-K-4FT-B-8TW-ITL85137.902.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST]ITL85137.902 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[TESTDATE]08/15/15  
[ISSUEDATE]02/10/17  
[MANUFAC]FINELITE, INC.  
[LUMCAT]FINELITE HP-2-WW-D-K-4ft-B-8TW  
[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, 11.1 WATTS  
[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 13.8 WATTS  
[ABSOLUTE]LUMENS]772  
[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL85137. 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)

**CHARACTERISTICS**

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	772
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	70
Total Luminaire Watts	11.1
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.90
Spacing Criterion (90-270)	1.30
Spacing Criterion (Diagonal)	1.48
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	0.11 ft
Luminous Width (90-270)	4.00 ft
Luminous Height	0.03 ft

**LUMINANCE DATA (cd/sq.m)**

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	8084	9318	5911
55	5106	7417	5474
65	3638	5178	4916
75	3737	3993	4179
85	4219	4175	3198

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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>	<u>112.5</u>	<u>135.0</u>	<u>157.5</u>	<u>180.0</u>
<b>0.0</b>	249.591	249.591	249.591	249.591	249.591	249.591	249.591	249.591	249.591
<b>2.5</b>	292.304	287.673	279.953	265.544	249.076	232.608	219.743	212.023	208.936
<b>5.0</b>	335.532	329.357	311.860	282.012	248.561	217.684	194.526	180.632	176.000
<b>7.5</b>	373.614	367.439	342.222	298.480	247.532	202.760	172.398	155.930	150.784
<b>10.0</b>	405.520	398.316	367.953	312.889	245.988	188.865	154.386	137.918	133.287
<b>12.5</b>	429.193	421.988	389.053	325.754	243.930	176.515	139.977	125.053	120.936
<b>15.0</b>	444.117	438.971	406.550	336.561	241.871	164.678	129.170	115.789	112.702
<b>17.5</b>	453.895	449.263	417.871	345.310	238.784	154.386	120.421	109.614	107.041
<b>20.0</b>	458.526	454.409	424.561	352.000	235.696	145.123	113.731	104.468	102.409
<b>22.5</b>	458.012	454.409	427.135	356.117	231.579	136.889	108.070	100.351	98.807
<b>25.0</b>	453.895	451.322	426.620	357.661	227.462	129.170	103.439	96.749	94.690
<b>27.5</b>	447.205	444.632	422.503	356.632	222.830	122.480	98.807	93.146	91.088
<b>30.0</b>	438.456	435.883	415.298	353.544	217.170	115.789	94.690	89.029	86.971
<b>32.5</b>	425.076	424.047	405.520	347.883	210.994	110.129	91.088	84.912	82.854
<b>35.0</b>	409.123	408.608	393.170	339.135	204.304	104.468	86.456	80.795	78.222
<b>37.5</b>	388.538	390.082	378.760	328.842	196.585	98.807	82.339	76.164	73.076
<b>40.0</b>	363.322	367.439	362.807	317.006	188.351	93.661	77.708	71.018	67.415
<b>42.5</b>	333.474	341.193	344.281	303.111	180.117	88.000	73.076	64.842	61.240
<b>45.0</b>	298.994	311.860	323.696	287.673	171.368	82.854	68.444	58.667	54.035
<b>47.5</b>	267.602	279.953	302.082	271.205	161.076	77.708	62.784	51.977	48.374
<b>50.0</b>	231.579	247.532	277.380	253.708	150.784	72.561	57.123	45.801	42.713
<b>52.5</b>	197.614	214.596	251.649	235.181	139.977	67.415	50.947	40.140	37.053
<b>55.0</b>	167.766	184.234	224.374	216.140	129.170	61.754	44.257	34.994	31.906
<b>57.5</b>	143.579	157.474	198.643	197.099	118.877	56.094	38.596	29.333	26.760
<b>60.0</b>	124.538	134.830	172.912	178.058	107.556	50.433	32.936	24.187	21.614
<b>62.5</b>	111.158	117.333	149.754	159.532	96.749	44.772	27.789	19.556	16.982
<b>65.0</b>	100.865	104.982	128.655	142.035	85.942	38.596	22.129	14.409	12.351
<b>67.5</b>	94.175	95.205	110.643	124.538	75.649	32.936	16.982	9.778	7.719
<b>70.0</b>	89.544	88.515	95.719	107.556	65.357	26.760	12.351	5.661	3.602
<b>72.5</b>	84.912	82.854	83.883	92.117	55.064	20.585	7.719	1.544	0.515
<b>75.0</b>	81.310	78.222	74.620	77.708	45.287	15.439	3.602	0.000	0.000
<b>77.5</b>	77.708	74.105	66.901	65.357	36.023	9.778	0.515	0.000	0.000
<b>80.0</b>	73.591	69.988	61.240	53.006	27.789	5.146	0.000	0.000	0.000
<b>82.5</b>	68.959	65.357	55.579	43.228	20.070	1.029	0.000	0.000	0.000
<b>85.0</b>	63.813	60.211	49.918	34.480	12.351	0.000	0.000	0.000	0.000
<b>87.5</b>	56.094	53.006	43.228	27.275	6.175	0.000	0.000	0.000	0.000
<b>90.0</b>	47.860	44.772	34.994	19.556	0.000	0.000	0.000	0.000	0.000
<b>92.5</b>	39.626	36.023	26.246	10.807	0.000	0.000	0.000	0.000	0.000
<b>95.0</b>	30.877	27.789	17.497	3.088	0.000	0.000	0.000	0.000	0.000
<b>97.5</b>	22.643	20.070	9.778	0.000	0.000	0.000	0.000	0.000	0.000
<b>100.0</b>	14.924	11.836	3.088	0.000	0.000	0.000	0.000	0.000	0.000
<b>102.5</b>	7.205	4.632	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>105.0</b>	1.029	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>107.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>110.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>112.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>115.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>117.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>120.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>122.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>125.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>127.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>130.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>132.5</b>	0.000	0.000	0.000	0.000	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	0.000	0.000	0.000	0.000
137.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
140.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
142.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
145.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
147.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
152.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
155.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
157.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
160.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
162.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
165.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
167.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
172.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
175.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
177.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
180.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	98.97	N.A.	12.80
0-30	217.91	N.A.	28.20
0-40	362.94	N.A.	47.00
0-60	616.94	N.A.	79.90
0-80	736.18	N.A.	95.40
0-90	761.90	N.A.	98.70
10-90	737.56	N.A.	95.60
20-40	263.96	N.A.	34.20
20-50	406.29	N.A.	52.60
40-70	328.22	N.A.	42.50
60-80	119.24	N.A.	15.40
70-80	45.03	N.A.	5.80
80-90	25.72	N.A.	3.30
90-110	9.91	N.A.	1.30
90-120	9.91	N.A.	1.30
90-130	9.91	N.A.	1.30
90-150	9.91	N.A.	1.30
90-180	9.91	N.A.	1.30
110-180	0.00	N.A.	0.00
0-180	771.81	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	24.34
10-20	74.64
20-30	118.93
30-40	145.03
40-50	142.32
50-60	111.68
60-70	74.21
70-80	45.03
80-90	25.72
90-100	9.25
100-110	0.67
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**

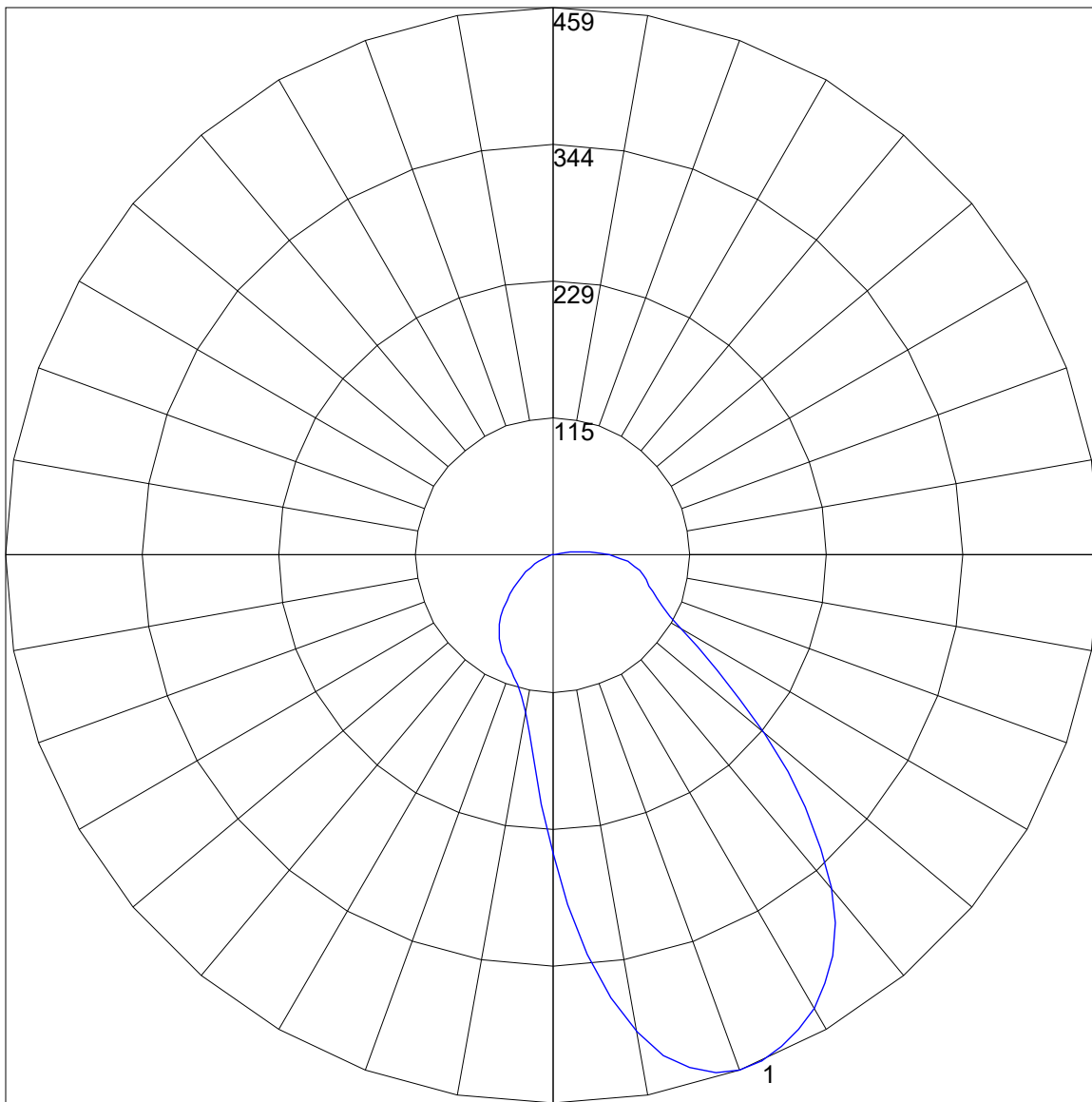
Effective Floor Cavity Reflectance 0.20

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	110	110	110	105	105	105	101	101	101	99
1	108	103	99	95	105	101	97	94	97	93	90	92	90	87	89	87	85	82
2	99	91	84	78	96	89	82	77	85	80	75	81	77	73	78	75	71	69
3	90	80	72	66	88	78	71	65	75	69	64	72	67	62	70	65	61	59
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	62	57	53	51
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	56	51	46	44
6	71	57	49	42	69	56	48	42	55	47	42	53	46	41	51	45	41	39
7	65	52	43	37	64	51	43	37	50	42	37	48	41	37	47	41	36	34
8	61	48	39	33	59	47	39	33	45	38	33	44	38	33	43	37	32	31
9	57	44	36	30	55	43	35	30	42	35	30	41	34	29	40	34	29	27
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

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POLAR GRAPH



Maximum Candela = 458.526 Located At Horizontal Angle = 0, Vertical Angle = 20  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)