

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-4-WW-D-K-4FT-B-8TW-ITL85130.902.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST]ITL85130.902 Family Correlation File
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.
[TESTDATE]08/10/15
[ISSUEDATE]02/10/17
[MANUFAC]FINELITE, INC.
[LUMCAT]FINELITE HP-4-WW-D-K-4ft-B-8TW
[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, 11.2 WATTS
[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 14.0 WATTS
[ABSOLUTE]LUMENS]935
[OTHER]see www.finelite.com for source file ITL85130. 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	935
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	83
Total Luminaire Watts	11.2
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	2.68
Spacing Criterion (90-270)	1.32
Spacing Criterion (Diagonal)	1.82
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	0.23 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	7483	6570	2296
55	7418	6505	2228
65	7439	6283	2093
75	6292	6134	1904
85	4250	4383	1590

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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>
0.0	191.953	191.953	191.953	191.953	191.953	191.953	191.953	191.953	191.953
2.5	220.772	217.684	211.509	200.702	192.982	180.632	174.971	169.310	167.251
5.0	254.737	249.076	234.667	212.023	192.468	170.339	157.474	148.211	144.608
7.5	292.304	282.526	258.854	223.345	191.953	160.561	142.035	130.713	127.111
10.0	331.930	318.035	283.556	234.667	190.924	151.298	128.655	116.304	112.187
12.5	369.497	354.058	308.257	246.503	189.895	142.550	117.333	104.468	100.351
15.0	407.064	389.567	333.988	257.825	188.351	134.316	107.556	94.175	90.058
17.5	442.573	422.503	358.175	268.632	186.292	126.082	98.807	84.912	80.795
20.0	473.965	452.351	381.333	278.924	184.234	118.877	90.573	77.193	73.076
22.5	502.269	479.111	402.947	288.187	181.146	111.673	83.368	69.988	65.871
25.0	523.883	500.725	420.959	296.421	178.573	104.982	75.649	63.298	59.181
27.5	538.807	516.678	436.398	304.140	174.971	98.807	69.474	57.123	53.006
30.0	547.556	526.456	449.263	309.287	170.854	92.117	63.298	50.947	47.345
32.5	551.158	530.573	456.982	313.918	166.737	85.942	57.637	45.801	42.199
35.0	551.673	530.573	461.099	316.491	162.105	79.766	51.977	40.655	37.053
37.5	548.070	527.485	460.070	317.006	156.959	74.105	46.830	35.509	31.906
40.0	541.380	520.795	455.439	315.977	151.813	67.930	41.684	30.877	27.275
42.5	529.029	510.503	447.205	313.404	145.637	62.269	36.538	25.731	22.643
45.0	512.561	496.094	436.398	308.257	139.462	56.608	31.906	21.614	18.012
47.5	493.520	478.082	422.503	302.082	132.257	50.947	27.275	16.982	13.895
50.0	473.965	458.012	406.550	293.333	125.053	45.287	22.643	12.351	8.234
52.5	453.380	435.883	386.480	281.497	117.848	40.140	18.012	7.205	3.602
55.0	433.310	415.298	364.351	268.632	110.129	34.994	14.409	3.088	3.088
57.5	413.240	394.199	341.708	253.193	101.895	29.848	9.778	3.088	3.088
60.0	394.199	373.099	320.094	236.211	93.661	25.216	5.146	3.088	3.088
62.5	372.585	351.485	296.936	218.199	85.427	20.070	3.088	3.088	3.088
65.0	346.339	328.842	275.836	199.158	76.678	15.953	2.573	3.088	3.088
67.5	319.064	304.140	255.251	179.602	67.930	11.322	2.573	3.088	3.088
70.0	286.643	275.836	233.637	160.561	59.696	7.719	2.573	2.573	3.088
72.5	254.222	243.930	210.994	142.550	51.462	3.602	2.573	2.573	3.088
75.0	209.450	207.906	186.807	125.053	43.228	2.058	2.058	2.573	2.573
77.5	167.766	169.825	160.047	109.614	34.994	2.058	2.058	2.573	2.573
80.0	130.713	132.257	130.713	93.146	27.789	1.544	2.058	2.573	2.573
82.5	104.468	100.865	99.322	76.678	20.070	1.544	2.058	2.058	1.544
85.0	80.795	76.164	70.503	56.094	12.865	1.029	0.000	0.000	0.000
87.5	59.696	56.094	48.374	34.480	6.175	0.000	0.000	0.000	0.000
90.0	38.596	34.994	27.789	14.409	0.000	0.000	0.000	0.000	0.000
92.5	20.070	16.982	10.807	1.029	0.000	0.000	0.000	0.000	0.000
95.0	5.661	3.088	0.000	0.000	0.000	0.000	0.000	0.000	0.000
97.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
100.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
102.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
105.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
107.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
112.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
115.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
117.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
120.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
122.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
125.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
127.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
132.5	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	81.48	N.A.	8.70
0-30	192.95	N.A.	20.60
0-40	344.24	N.A.	36.80
0-60	673.02	N.A.	72.00
0-80	895.16	N.A.	95.80
0-90	931.39	N.A.	99.70
10-90	912.40	N.A.	97.60
20-40	262.76	N.A.	28.10
20-50	431.65	N.A.	46.20
40-70	461.86	N.A.	49.40
60-80	222.14	N.A.	23.80
70-80	89.07	N.A.	9.50
80-90	36.23	N.A.	3.90
90-110	3.18	N.A.	0.30
90-120	3.18	N.A.	0.30
90-130	3.18	N.A.	0.30
90-150	3.18	N.A.	0.30
90-180	3.18	N.A.	0.30
110-180	0.00	N.A.	0.00
0-180	934.57	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	18.99
10-20	62.49
20-30	111.47
30-40	151.29
40-50	168.89
50-60	159.89
60-70	133.07
70-80	89.07
80-90	36.23
90-100	3.18
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

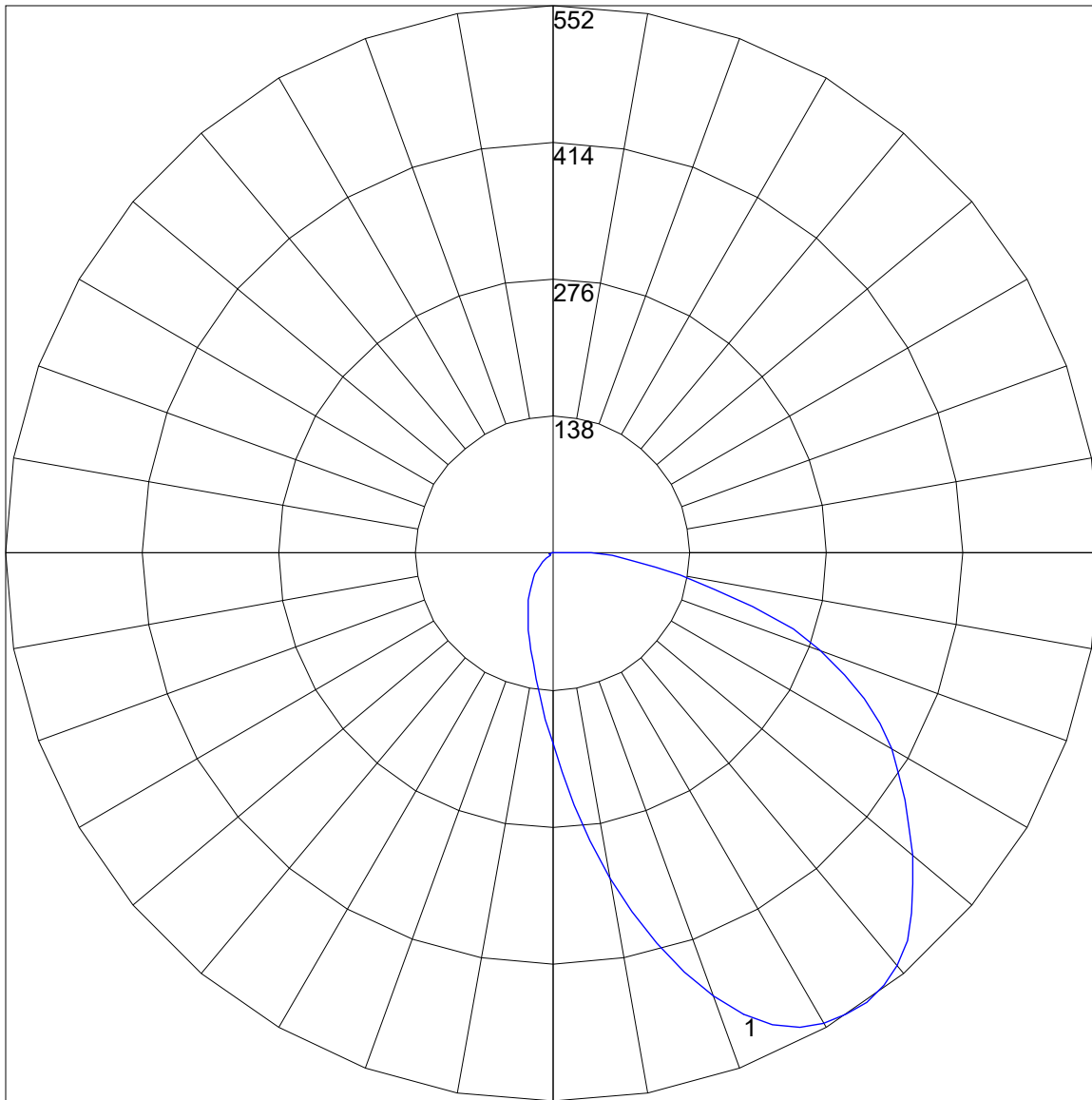
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	107	101	97	92	104	99	95	91	95	91	88	91	88	85	87	85	82	80
2	96	87	79	73	93	85	78	72	81	75	70	78	73	69	75	71	67	65
3	87	75	66	59	84	74	65	59	71	63	58	68	62	56	65	60	55	53
4	79	66	57	49	77	65	56	49	62	54	48	60	53	47	57	51	47	44
5	72	58	49	42	70	57	48	41	55	47	41	53	46	40	51	45	40	38
6	66	52	43	36	64	51	42	36	49	41	35	47	40	35	46	39	34	32
7	61	47	38	31	59	46	37	31	44	36	31	43	36	30	42	35	30	28
8	57	43	34	27	55	42	33	27	40	33	27	39	32	27	38	31	27	25
9	53	39	30	24	51	38	30	24	37	29	24	36	29	24	35	28	24	22
10	49	36	27	22	48	35	27	22	34	27	22	33	26	21	32	26	21	19

POLAR GRAPH



Maximum Candela = 551.673 Located At Horizontal Angle = 0, Vertical Angle = 35
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)