

# 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-R-4FT-B-8TW-ITL85135.902.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST]ITL85135.902 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[TESTDATE]08/13/15  
[ISSUEDATE]02/10/17  
[MANUFAC]FINELITE, INC.  
[LUMCAT]FINELITE HP-2-R-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, 20.2 WATTS  
[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 21.7 WATTS  
[ABSOLUTE]LUMENS]1692  
[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL85135. 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	1692
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	84
Total Luminaire Watts	20.2
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.14
Spacing Criterion (Diagonal)	1.28
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	4.00 ft
Luminous Width (90-270)	0.18 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	8541	8198	7856
55	7832	7478	7110
65	7136	6803	6470
75	6460	6128	5917
85	5827	5468	5379

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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>
<b>0.0</b>	687.018	687.018	687.018	687.018	687.018
<b>2.5</b>	685.988	685.988	685.988	685.988	685.988
<b>5.0</b>	682.901	682.386	681.871	681.871	681.357
<b>7.5</b>	677.754	677.240	676.211	675.696	675.181
<b>10.0</b>	671.064	668.491	667.977	667.462	666.433
<b>12.5</b>	661.801	658.199	658.713	656.140	653.567
<b>15.0</b>	650.480	645.333	645.848	642.246	639.158
<b>17.5</b>	637.614	630.924	630.409	626.292	621.661
<b>20.0</b>	621.661	614.456	612.912	607.766	602.620
<b>22.5</b>	604.164	596.959	594.901	587.696	583.064
<b>25.0</b>	585.637	577.404	574.316	566.082	560.936
<b>27.5</b>	565.567	556.304	552.702	543.439	537.778
<b>30.0</b>	543.953	535.719	529.544	520.281	514.105
<b>32.5</b>	521.310	513.076	506.901	496.094	490.947
<b>35.0</b>	497.637	489.404	482.199	470.877	465.216
<b>37.5</b>	473.965	465.731	458.012	445.661	441.029
<b>40.0</b>	449.263	441.544	432.795	420.444	415.813
<b>42.5</b>	424.561	416.842	407.579	395.228	391.111
<b>45.0</b>	397.801	391.111	381.848	370.012	365.895
<b>47.5</b>	372.070	366.409	357.146	345.825	340.164
<b>50.0</b>	347.368	340.678	331.930	321.123	315.977
<b>52.5</b>	321.637	315.462	307.228	296.421	292.304
<b>55.0</b>	295.906	290.760	282.526	272.234	268.632
<b>57.5</b>	271.205	266.058	258.339	249.076	245.988
<b>60.0</b>	246.503	241.871	234.667	226.433	223.345
<b>62.5</b>	222.316	218.713	212.023	204.819	201.216
<b>65.0</b>	198.643	195.041	189.380	182.175	180.117
<b>67.5</b>	175.485	172.398	167.251	162.105	159.532
<b>70.0</b>	153.357	150.269	145.123	141.520	139.462
<b>72.5</b>	131.743	128.655	124.538	121.450	119.906
<b>75.0</b>	110.129	107.556	104.468	101.380	100.865
<b>77.5</b>	90.058	88.000	85.427	82.854	82.339
<b>80.0</b>	69.988	68.959	66.901	64.842	65.357
<b>82.5</b>	51.977	50.947	49.404	48.374	48.374
<b>85.0</b>	33.450	32.421	31.392	30.877	30.877
<b>87.5</b>	15.439	14.924	14.409	14.409	14.409
<b>90.0</b>	0.000	0.000	0.000	0.000	0.000

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	246.10	N.A.	14.50
0-30	509.65	N.A.	30.10
0-40	810.54	N.A.	47.90
0-60	1357.42	N.A.	80.20
0-80	1656.31	N.A.	97.90
0-90	1691.59	N.A.	100.00
10-90	1626.91	N.A.	96.20
20-40	564.44	N.A.	33.40
20-50	858.84	N.A.	50.80
40-70	734.49	N.A.	43.40
60-80	298.90	N.A.	17.70
70-80	111.28	N.A.	6.60
80-90	35.28	N.A.	2.10
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	1691.59	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	64.68
10-20	181.42
20-30	263.55
30-40	300.89
40-50	294.40
50-60	252.48
60-70	187.61
70-80	111.28
80-90	35.28
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

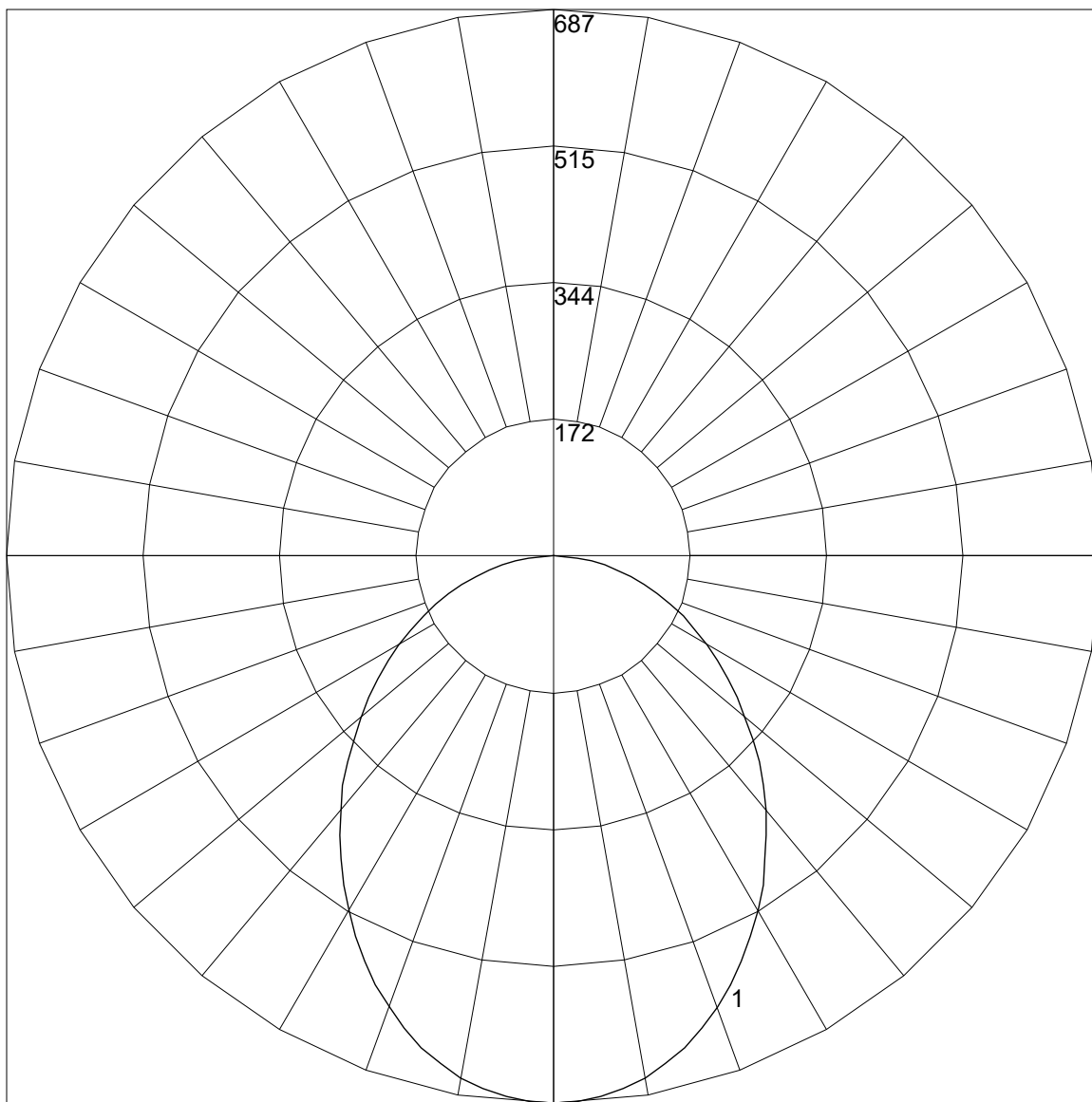
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	95	98	95	92	94	91	89	90	88	86	84
2	99	91	84	79	97	89	83	78	86	81	76	82	78	74	79	76	73	71
3	91	80	72	66	88	79	71	65	76	70	64	73	68	63	71	66	62	60
4	83	72	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	52
5	77	64	55	49	75	63	55	49	61	54	48	59	53	48	57	52	47	45
6	71	58	49	43	69	57	49	43	55	48	42	54	47	42	52	46	42	40
7	66	53	44	38	64	52	44	38	50	43	38	49	42	37	48	42	37	35
8	62	48	40	34	60	48	40	34	46	39	34	45	38	34	44	38	33	32
9	58	44	36	31	56	44	36	31	43	36	31	42	35	30	41	35	30	28
10	54	41	33	28	53	41	33	28	40	33	28	39	32	28	38	32	28	26

POLAR GRAPH



Maximum Candela = 687.018 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)