

# 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-D-4FT-V-8TW-ITL85124.900.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST]ITL85124.900 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[TESTDATE] 08/05/15  
[ISSUEDATE]02/10/17  
[MANUFAC]FINELITE, INC.  
[LUMCAT]FINELITE HP-4-D-4ft-V-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, 40.7 WATTS, 0.310 AMPS  
[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 41.7 WATTS, 0.144 AMPS  
[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL85124. 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]3705

**CHARACTERISTICS**

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3705
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	91
Total Luminaire Watts	40.7
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.18
Spacing Criterion (Diagonal)	1.30
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	4.00 ft
Luminous Width (90-270)	0.32 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	10114	9984	9784
55	9391	9246	9043
65	8550	8491	8353
75	7592	7624	7592
85	6400	6591	6591

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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>	1436	1436	1436	1436	1436
<b>2.5</b>	1434	1434	1434	1433	1434
<b>5.0</b>	1428	1428	1427	1427	1427
<b>7.5</b>	1417	1416	1416	1416	1415
<b>10.0</b>	1404	1400	1401	1401	1397
<b>12.5</b>	1385	1379	1382	1382	1376
<b>15.0</b>	1363	1353	1358	1357	1350
<b>17.5</b>	1337	1325	1331	1328	1322
<b>20.0</b>	1307	1293	1300	1295	1288
<b>22.5</b>	1272	1258	1264	1257	1251
<b>25.0</b>	1236	1221	1226	1219	1212
<b>27.5</b>	1195	1181	1185	1176	1170
<b>30.0</b>	1153	1139	1140	1132	1125
<b>32.5</b>	1107	1093	1094	1085	1078
<b>35.0</b>	1060	1047	1048	1037	1030
<b>37.5</b>	1011	999	998	987	983
<b>40.0</b>	961	950	949	938	933
<b>42.5</b>	910	900	899	888	882
<b>45.0</b>	859	849	848	836	831
<b>47.5</b>	807	798	796	785	781
<b>50.0</b>	754	746	743	733	729
<b>52.5</b>	701	693	691	681	675
<b>55.0</b>	647	639	637	628	623
<b>57.5</b>	594	587	585	577	573
<b>60.0</b>	540	534	532	525	522
<b>62.5</b>	487	485	480	475	471
<b>65.0</b>	434	432	431	425	424
<b>67.5</b>	383	382	380	376	376
<b>70.0</b>	333	332	331	327	328
<b>72.5</b>	283	283	283	281	282
<b>75.0</b>	236	236	237	235	236
<b>77.5</b>	190	190	192	191	193
<b>80.0</b>	147	147	149	149	150
<b>82.5</b>	106	108	108	109	109
<b>85.0</b>	67	68	69	70	69
<b>87.5</b>	30	31	32	32	32
<b>90.0</b>	0	0	0	0	0

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	517.54	N.A.	14.00
0-30	1080.17	N.A.	29.20
0-40	1733.1	N.A.	46.80
0-60	2953.05	N.A.	79.70
0-80	3628.5	N.A.	97.90
0-90	3705.37	N.A.	100.00
10-90	3569.98	N.A.	96.30
20-40	1215.55	N.A.	32.80
20-50	1867.2	N.A.	50.40
40-70	1645.18	N.A.	44.40
60-80	675.45	N.A.	18.20
70-80	250.22	N.A.	6.80
80-90	76.88	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	3705.37	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	135.39
10-20	382.15
20-30	562.63
30-40	652.93
40-50	651.65
50-60	568.30
60-70	425.23
70-80	250.22
80-90	76.88
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

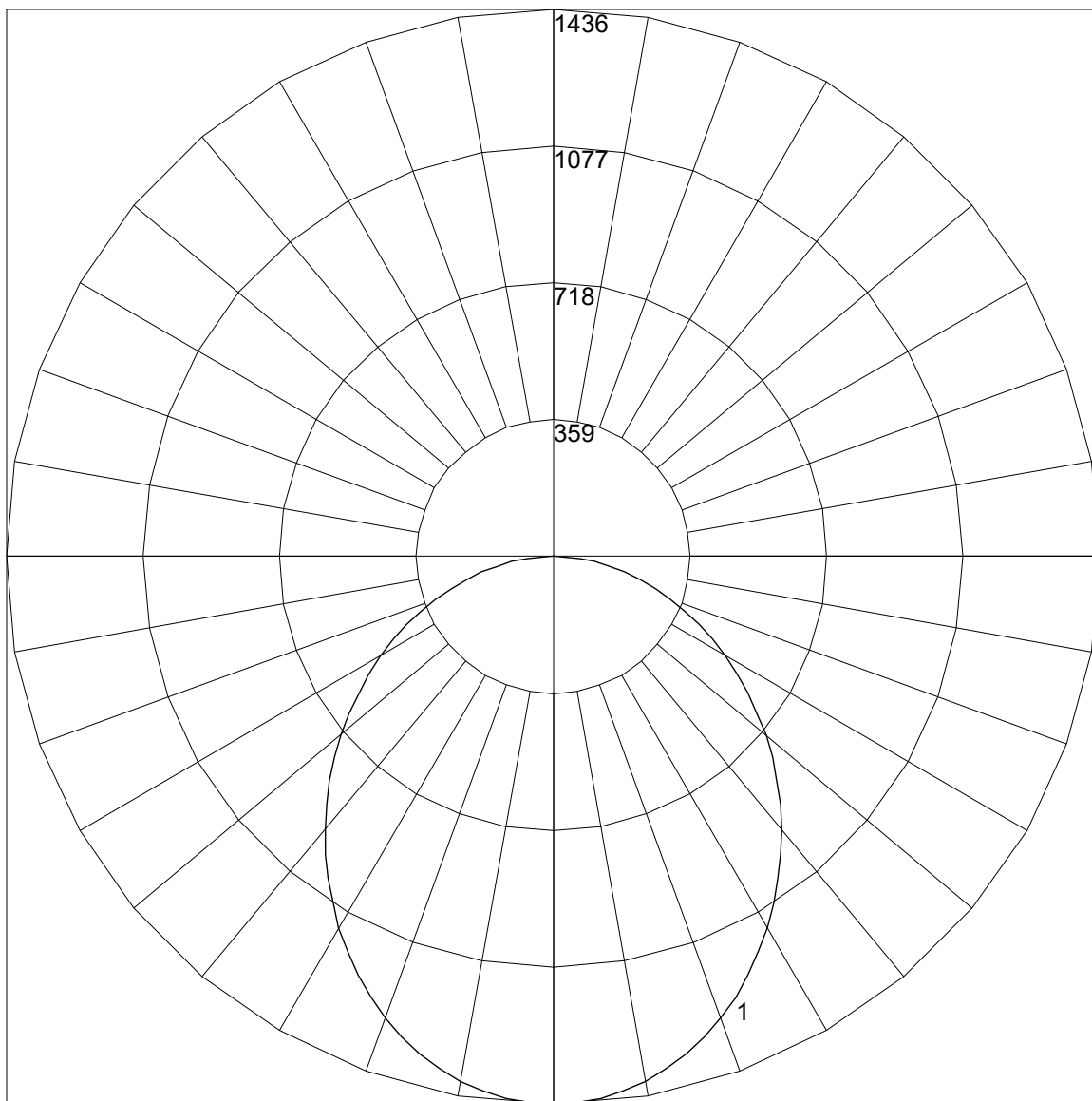
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	78	85	80	76	82	78	74	79	76	72	70
3	91	80	72	66	88	78	71	65	75	69	64	73	67	63	70	66	62	59
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	57	53	51
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	57	51	46	44
6	71	57	49	42	69	57	48	42	55	47	42	53	46	41	51	46	41	39
7	66	52	44	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34
8	61	48	39	33	60	47	39	33	46	38	33	44	38	33	43	37	33	31
9	57	44	36	30	56	43	35	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25

POLAR GRAPH



Maximum Candela = 1436 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)