

# 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-DL-ITL90629.900.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

[TEST]ITL90629.900 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[ISSUE DATE]07/09/18  
[MANUFACTURER]FINELITE, INC.  
[LUMCAT]FINELITE HP-4-D-4ft-V-835-DL  
[OTHER]ies file is based on 3500K; see luminaire tech sheet at  
[more][www.finelite.com](http://www.finelite.com) for lumen adjustment factors for other CCT's & CRI'  
[INPUT\_ELECTRICAL]120.0 VOLTS, 40.6 WATTS  
[INPUT\_ELECTRICAL]277.0 VOLTS, 41.4 WATTS  
[ABSOLUTE LUMENS]4096  
[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL90629. 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	4096
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	101
Total Luminaire Watts	40.6
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.26
Spacing Criterion (Diagonal)	1.38
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	4.00 ft
Luminous Width (90-270)	0.32 ft
Luminous Height	0.08 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	8673	8045	7871
55	8020	7373	7244
65	7204	6604	6595
75	5940	5689	5866
85	3858	4844	5297

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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>
0.0	1251	1251	1251	1251	1251
2.5	1249	1249	1250	1251	1252
5.0	1243	1244	1247	1249	1250
7.5	1234	1237	1242	1244	1246
10.0	1222	1224	1232	1236	1238
12.5	1207	1207	1220	1226	1226
15.0	1187	1188	1204	1210	1210
17.5	1164	1166	1184	1192	1192
20.0	1138	1140	1160	1169	1169
22.5	1108	1112	1135	1144	1143
25.0	1077	1082	1106	1116	1117
27.5	1042	1050	1077	1086	1087
30.0	1006	1015	1043	1054	1056
32.5	968	979	1010	1021	1022
35.0	924	940	973	986	987
37.5	883	903	936	948	953
40.0	842	862	898	912	915
42.5	797	820	858	875	878
45.0	752	779	818	836	841
47.5	706	737	777	797	803
50.0	661	694	735	756	763
52.5	617	650	694	718	724
55.0	569	604	651	677	683
57.5	521	561	608	635	644
60.0	475	517	565	594	605
62.5	428	471	521	552	562
65.0	382	425	477	510	520
67.5	333	382	435	468	480
70.0	288	336	391	426	440
72.5	243	293	347	385	398
75.0	199	249	307	345	358
77.5	155	208	266	306	320
80.0	115	169	228	269	284
82.5	80	134	194	235	251
85.0	50	104	165	206	219
87.5	28	80	139	180	192
90.0	10	61	120	160	173
92.5	9	59	114	152	164
95.0	8	57	111	147	159
97.5	8	55	107	142	154
100.0	7	52	104	137	149
102.5	7	50	100	132	143
105.0	6	48	96	127	138
107.5	6	46	93	123	133
110.0	6	43	89	118	128
112.5	6	41	86	113	123
115.0	5	39	82	109	118
117.5	5	37	78	104	113
120.0	4	34	74	99	107
122.5	4	32	70	94	102
125.0	4	30	66	89	97
127.5	4	27	62	84	92
130.0	3	25	58	79	87
132.5	3	23	54	74	81

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CANDELA TABULATION - (Cont.)

135.0	3	21	50	69	76
137.5	2	18	46	64	71
140.0	2	16	41	59	66
142.5	2	14	36	54	61
145.0	2	12	32	50	55
147.5	2	10	28	45	50
150.0	1	9	24	40	45
152.5	1	7	21	35	39
155.0	1	5	17	30	34
157.5	1	4	14	24	29
160.0	1	3	11	19	24
162.5	1	2	9	15	19
165.0	1	1	6	11	15
167.5	1	1	4	7	10
170.0	1	1	2	5	7
172.5	1	1	1	2	3
175.0	0	0	0	0	0
177.5	0	0	0	0	0
180.0	0	0	0	0	0

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	456.92	N.A.	11.20
0-30	963.80	N.A.	23.50
0-40	1567.07	N.A.	38.30
0-60	2762.54	N.A.	67.40
0-80	3536.61	N.A.	86.30
0-90	3706.67	N.A.	90.50
10-90	3588.16	N.A.	87.60
20-40	1110.15	N.A.	27.10
20-50	1733.27	N.A.	42.30
40-70	1657.18	N.A.	40.50
60-80	774.07	N.A.	18.90
70-80	312.36	N.A.	7.60
80-90	170.06	N.A.	4.20
90-110	199.90	N.A.	4.90
90-120	272.18	N.A.	6.60
90-130	325.03	N.A.	7.90
90-150	379.21	N.A.	9.30
90-180	389.65	N.A.	9.50
110-180	189.75	N.A.	4.60
0-180	4096.32	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	118.51
10-20	338.41
20-30	506.89
30-40	603.26
40-50	623.12
50-60	572.35
60-70	461.71
70-80	312.36
80-90	170.06
90-100	108.90
100-110	91.00
110-120	72.28
120-130	52.84
130-140	34.78
140-150	19.40
150-160	8.28
160-170	2.04
170-180	0.12

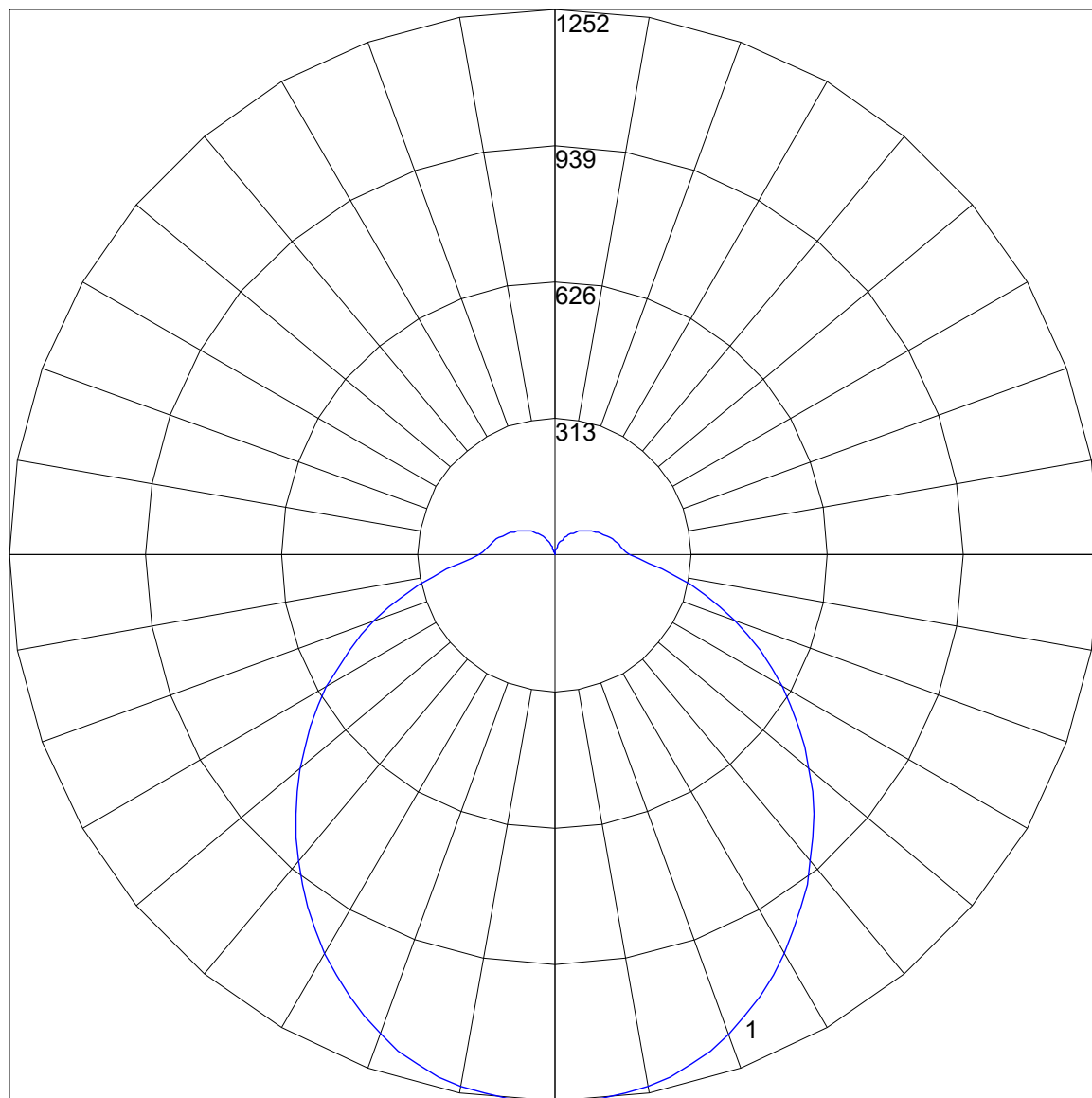
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	117	117	117	117	113	113	113	113	106	106	106	99	99	99	93	93	93	90
1	105	100	96	91	102	97	93	89	91	88	84	85	83	80	80	78	76	73
2	95	87	80	74	92	84	78	72	79	74	69	74	70	66	70	66	63	60
3	87	76	68	61	84	74	66	60	69	63	57	65	60	55	62	57	53	50
4	79	67	58	51	76	65	57	50	61	54	49	58	52	47	55	50	45	43
5	73	60	51	44	70	58	50	43	55	48	42	52	46	41	49	44	39	37
6	67	54	45	38	65	52	44	38	50	42	37	47	41	36	45	39	35	32
7	62	49	40	34	60	48	39	33	45	38	32	43	36	32	41	35	31	29
8	58	44	36	30	56	43	35	30	41	34	29	39	33	28	37	32	27	25
9	54	41	33	27	52	40	32	27	38	31	26	36	30	25	35	29	25	23
10	51	38	30	24	49	37	29	24	35	28	24	34	27	23	32	27	23	21

POLAR GRAPH



Maximum Candela = 1252 Located At Horizontal Angle = 90, Vertical Angle = 2.5  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)