

# 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 : 4D90 - HP-4C-ID-P-37IN11-16IN-V-V-8TW-ITL93249.900.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL93249.900 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]03/20/20

[ISSUEDATE]09/28/20

[MANUFAC]FINELITE, INC.

[LUMCAT]FINELITE HP-4C-ID-P-37in11-16in-V-V-8TW

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 59.2 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 60.0 WATTS

[\_ABSOLUTE]LUMENS]5836

[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL93249. 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	5836
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	99
Total Luminaire Watts	59.2
Ballast Factor	1.00
CIE Type	General Diffuse
Spacing Criterion (0-180)	N.A.
Spacing Criterion (90-270)	N.A.
Spacing Criterion (Diagonal)	N.A.
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	0.33 ft
Luminous Width (90-270)	2.88 ft
Luminous Height	0.02 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	9772	10038	10567
55	8653	8979	9604
65	7563	7864	8665
75	6432	6607	7511
85	5505	5401	6280

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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	1156	1156	1156	1156	1156	1156	1156	1156	1156
2.5	1155	1155	1156	1155	1154	1154	1154	1153	1153
5.0	1150	1150	1150	1150	1149	1148	1147	1146	1146
7.5	1142	1141	1141	1141	1139	1138	1136	1135	1133
10.0	1127	1128	1128	1128	1126	1124	1122	1120	1119
12.5	1111	1110	1110	1111	1110	1106	1104	1100	1099
15.0	1088	1090	1088	1091	1091	1086	1082	1077	1073
17.5	1060	1063	1063	1066	1066	1061	1054	1049	1045
20.0	1032	1035	1036	1038	1040	1033	1026	1017	1015
22.5	1000	1002	1004	1009	1011	1002	994	984	982
25.0	966	968	970	977	977	970	961	948	943
27.5	928	929	934	941	942	934	922	912	906
30.0	890	892	898	903	906	896	885	871	869
32.5	847	853	857	866	868	856	847	832	827
35.0	806	810	816	825	825	817	805	792	786
37.5	765	769	775	783	785	778	764	751	746
40.0	724	726	732	743	745	736	724	707	702
42.5	678	682	690	700	702	696	682	667	661
45.0	635	639	646	655	659	653	637	624	619
47.5	593	596	603	613	616	609	594	581	578
50.0	549	555	561	572	574	567	552	540	535
52.5	508	511	518	529	531	525	512	498	498
55.0	465	470	476	484	487	484	470	459	455
57.5	426	430	433	443	446	440	427	419	416
60.0	387	388	393	402	406	401	389	379	375
62.5	349	350	353	362	364	360	349	342	338
65.0	309	311	315	320	325	320	312	304	302
67.5	274	276	276	282	285	283	272	268	267
70.0	239	240	238	245	246	244	237	234	231
72.5	206	205	204	208	209	209	203	200	198
75.0	172	173	171	172	174	174	171	167	168
77.5	143	143	138	140	138	141	138	138	139
80.0	115	115	109	110	106	111	109	111	110
82.5	90	88	83	82	78	82	83	85	86
85.0	65	64	59	55	51	56	59	61	63
87.5	45	43	35	33	27	31	36	41	43
90.0	31	29	22	18	12	15	20	27	29
92.5	43	41	36	30	26	27	34	39	42
95.0	68	66	60	54	52	51	58	63	66
97.5	96	95	88	81	79	79	84	90	92
100.0	129	126	119	114	109	110	113	119	122
102.5	161	158	153	147	142	143	147	150	153
105.0	195	193	187	183	178	178	180	187	187
107.5	231	230	224	219	215	218	216	221	222
110.0	268	269	261	260	256	257	252	257	261
112.5	309	307	302	303	297	296	293	298	299
115.0	348	346	343	342	338	335	336	338	337
117.5	388	386	385	382	381	376	376	378	377
120.0	428	431	428	425	423	421	417	419	415
122.5	473	476	472	467	467	463	460	461	456
125.0	516	520	518	510	509	506	504	500	497
127.5	557	565	561	558	552	546	545	539	538
130.0	601	610	604	603	599	590	586	583	580
132.5	648	654	648	646	642	633	627	625	621

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : 4D90 - HP-4C-ID-P-37IN11-16IN-V-V-8TW-ITL93249.900.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	691	696	693	689	687	678	671	669	667
<b>137.5</b>	734	738	738	732	729	720	715	711	709
<b>140.0</b>	780	780	779	776	772	764	756	754	750
<b>142.5</b>	820	821	820	817	817	806	799	795	791
<b>145.0</b>	859	860	860	856	858	846	841	836	834
<b>147.5</b>	900	899	897	893	896	885	879	876	873
<b>150.0</b>	935	935	934	931	932	922	918	915	910
<b>152.5</b>	968	970	967	965	967	959	953	950	945
<b>155.0</b>	1001	1003	999	997	1000	992	986	984	981
<b>157.5</b>	1030	1032	1028	1025	1029	1021	1019	1016	1012
<b>160.0</b>	1054	1056	1053	1053	1054	1048	1046	1044	1040
<b>162.5</b>	1076	1079	1078	1075	1078	1074	1072	1070	1068
<b>165.0</b>	1097	1099	1098	1096	1099	1094	1093	1092	1090
<b>167.5</b>	1116	1115	1115	1114	1116	1114	1113	1112	1111
<b>170.0</b>	1130	1130	1129	1131	1130	1128	1128	1128	1128
<b>172.5</b>	1142	1141	1141	1142	1141	1141	1141	1140	1140
<b>175.0</b>	1150	1149	1149	1149	1149	1149	1149	1149	1150
<b>177.5</b>	1154	1154	1154	1154	1154	1154	1154	1154	1154
<b>180.0</b>	1156	1156	1156	1156	1156	1156	1156	1156	1156

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : 4D90 - HP-4C-ID-P-37IN11-16IN-V-V-8TW-ITL93249.900.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	414.36	N.A.	7.10
0-30	858.59	N.A.	14.70
0-40	1365.84	N.A.	23.40
0-60	2285.95	N.A.	39.20
0-80	2779.91	N.A.	47.60
0-90	2846.48	N.A.	48.80
10-90	2737.61	N.A.	46.90
20-40	951.48	N.A.	16.30
20-50	1447.5	N.A.	24.80
40-70	1231.74	N.A.	21.10
60-80	493.96	N.A.	8.50
70-80	182.33	N.A.	3.10
80-90	66.58	N.A.	1.10
90-110	263.88	N.A.	4.50
90-120	600.90	N.A.	10.30
90-130	1056.22	N.A.	18.10
90-150	2114.27	N.A.	36.20
90-180	2989.52	N.A.	51.20
110-180	2725.64	N.A.	46.70
0-180	5836.00	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	108.88
10-20	305.49
20-30	444.23
30-40	507.25
40-50	496.03
50-60	424.08
60-70	311.63
70-80	182.33
80-90	66.58
90-100	67.74
100-110	196.14
110-120	337.02
120-130	455.32
130-140	526.53
140-150	531.51
150-160	457.35
160-170	308.83
170-180	109.06

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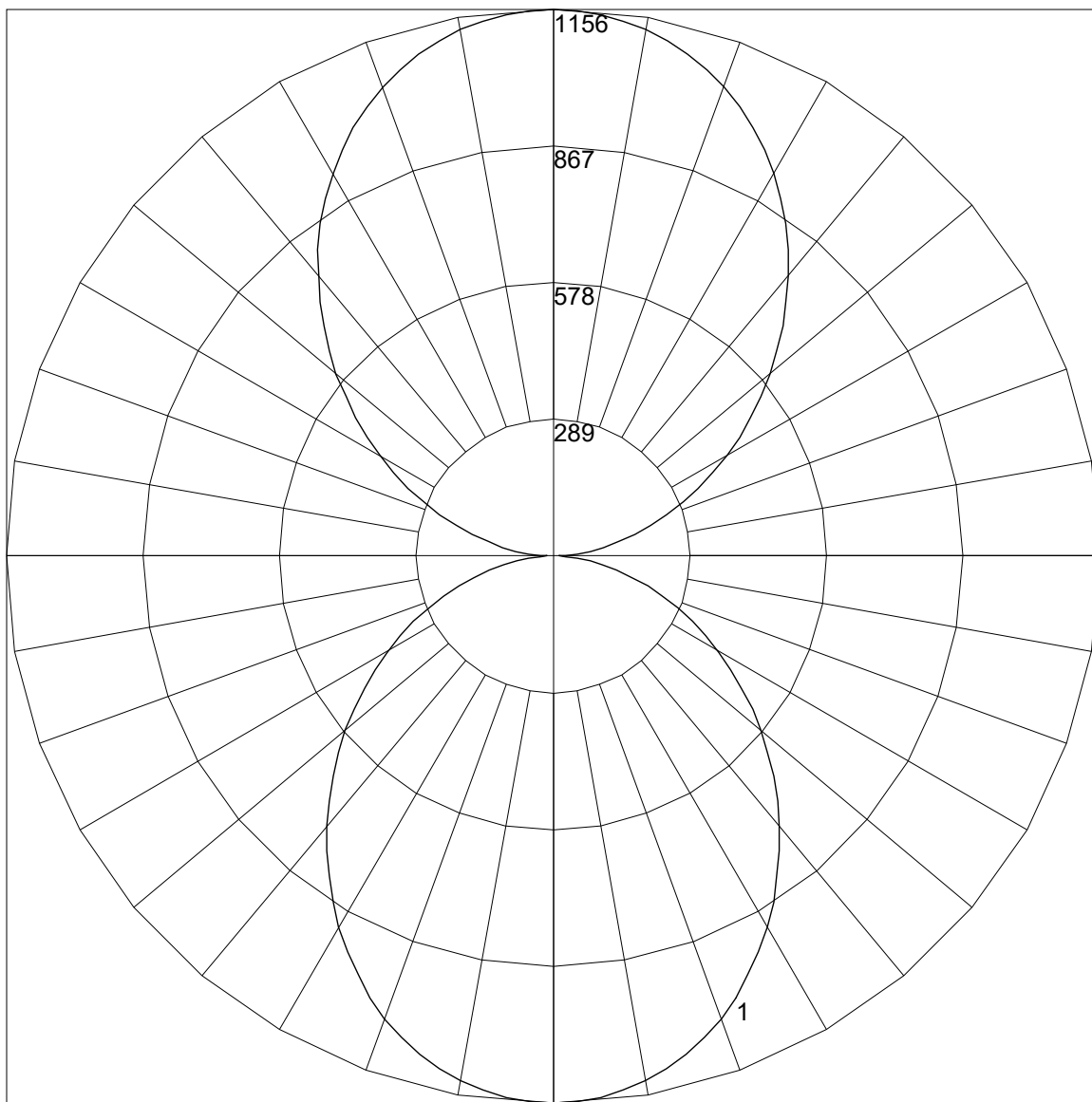
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	107	107	107	107	98	98	98	98	83	83	83	68	68	68	55	55	55	49
1	97	93	89	86	90	86	83	80	72	70	68	60	58	57	49	47	46	41
2	89	81	75	70	82	75	70	65	63	60	56	53	50	47	43	41	39	34
3	81	72	64	58	74	66	60	55	56	51	47	47	43	40	38	35	33	29
4	74	63	56	49	68	59	52	46	50	45	40	42	38	35	34	31	29	25
5	68	57	48	42	63	52	45	40	45	39	35	37	33	30	31	28	25	22
6	63	51	43	37	58	47	40	35	40	35	30	34	30	26	28	25	22	19
7	58	46	38	32	53	43	36	31	37	31	27	31	27	23	25	22	20	17
8	54	42	34	29	50	39	32	27	33	28	24	28	24	21	23	20	18	15
9	50	38	31	26	46	35	29	24	31	25	21	26	22	19	22	18	16	14
10	47	35	28	23	43	33	26	22	28	23	19	24	20	17	20	17	15	13

POLAR GRAPH



Maximum Candela = 1156 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)