

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-S-S-835-ITL93249.003.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL93249.003 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-S-S-835

[_INPUT_ELECTRICAL]120.0 VOLTS, 21.3 WATTS

[_INPUT_ELECTRICAL]277.0 VOLTS, 23.2 WATTS

[_ABSOLUTE]LUMENS]2389

[OTHER]see 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

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2389
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	112
Total Luminaire Watts	21.3
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	4000	4109	4325
55	3542	3676	3931
65	3096	3219	3547
75	2633	2704	3075
85	2254	2211	2571

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	473.204	473.204	473.204	473.204	473.204	473.204	473.204	473.204	473.204
2.5	472.795	472.795	473.204	472.795	472.385	472.385	472.385	471.976	471.976
5.0	470.748	470.748	470.748	470.748	470.339	469.929	469.520	469.111	469.111
7.5	467.473	467.064	467.064	467.064	466.245	465.836	465.017	464.608	463.789
10.0	461.333	461.742	461.742	461.742	460.924	460.105	459.286	458.467	458.058
12.5	454.783	454.374	454.374	454.783	454.374	452.737	451.918	450.281	449.871
15.0	445.368	446.187	445.368	446.596	446.596	444.550	442.912	440.866	439.228
17.5	433.907	435.135	435.135	436.363	436.363	434.316	431.451	429.404	427.767
20.0	422.445	423.673	424.082	424.901	425.720	422.854	419.989	416.305	415.486
22.5	409.346	410.165	410.983	413.030	413.849	410.165	406.890	402.796	401.978
25.0	395.428	396.247	397.066	399.931	399.931	397.066	393.382	388.060	386.013
27.5	379.873	380.282	382.329	385.195	385.604	382.329	377.417	373.324	370.868
30.0	364.318	365.137	367.593	369.639	370.868	366.774	362.271	356.540	355.722
32.5	346.716	349.172	350.810	354.494	355.312	350.400	346.716	340.576	338.529
35.0	329.933	331.570	334.026	337.710	337.710	334.436	329.524	324.202	321.746
37.5	313.150	314.787	317.243	320.518	321.337	318.471	312.740	307.419	305.372
40.0	296.366	297.185	299.641	304.144	304.963	301.279	296.366	289.408	287.361
42.5	277.537	279.174	282.449	286.542	287.361	284.905	279.174	273.034	270.578
45.0	259.935	261.572	264.438	268.122	269.759	267.303	260.753	255.432	253.385
47.5	242.742	243.970	246.836	250.929	252.157	249.292	243.151	237.830	236.602
50.0	224.731	227.187	229.643	234.146	234.965	232.099	225.959	221.047	219.000
52.5	207.948	209.176	212.041	216.544	217.363	214.907	209.585	203.854	203.854
55.0	190.346	192.393	194.849	198.124	199.351	198.124	192.393	187.890	186.252
57.5	174.381	176.019	177.247	181.340	182.568	180.112	174.791	171.516	170.288
60.0	158.417	158.826	160.873	164.557	166.195	164.148	159.236	155.142	153.505
62.5	142.862	143.271	144.499	148.183	149.002	147.365	142.862	139.996	138.359
65.0	126.488	127.307	128.944	130.991	133.037	130.991	127.716	124.441	123.623
67.5	112.161	112.980	112.980	115.436	116.664	115.845	111.342	109.705	109.295
70.0	97.834	98.243	97.424	100.290	100.699	99.880	97.015	95.787	94.559
72.5	84.325	83.916	83.507	85.144	85.553	85.553	83.097	81.869	81.050
75.0	70.407	70.817	69.998	70.407	71.226	71.226	69.998	68.361	68.770
77.5	58.536	58.536	56.490	57.308	56.490	57.718	56.490	56.490	56.899
80.0	47.075	47.075	44.619	45.028	43.391	45.437	44.619	45.437	45.028
82.5	36.841	36.022	33.976	33.566	31.929	33.566	33.976	34.794	35.204
85.0	26.608	26.198	24.151	22.514	20.877	22.923	24.151	24.970	25.789
87.5	18.421	17.602	14.327	13.508	11.052	12.690	14.736	16.783	17.602
90.0	12.690	11.871	9.006	7.368	4.912	6.140	8.187	11.052	11.871
92.5	17.602	16.783	14.736	12.280	10.643	11.052	13.918	15.964	17.192
95.0	27.835	27.017	24.561	22.105	21.286	20.877	23.742	25.789	27.017
97.5	39.297	38.888	36.022	33.157	32.338	32.338	34.385	36.841	37.660
100.0	52.806	51.578	48.712	46.665	44.619	45.028	46.256	48.712	49.940
102.5	65.905	64.677	62.630	60.174	58.127	58.536	60.174	61.402	62.630
105.0	79.823	79.004	76.548	74.910	72.864	72.864	73.682	76.548	76.548
107.5	94.559	94.150	91.694	89.647	88.009	89.237	88.419	90.466	90.875
110.0	109.705	110.114	106.839	106.430	104.793	105.202	103.155	105.202	106.839
112.5	126.488	125.669	123.623	124.032	121.576	121.166	119.938	121.985	122.394
115.0	142.452	141.634	140.406	139.996	138.359	137.131	137.540	138.359	137.950
117.5	158.826	158.008	157.598	156.370	155.961	153.914	153.914	154.733	154.323
120.0	175.200	176.428	175.200	173.972	173.153	172.335	170.697	171.516	169.879
122.5	193.621	194.849	193.211	191.165	191.165	189.527	188.299	188.708	186.662
125.0	211.222	212.860	212.041	208.767	208.357	207.129	206.310	204.673	203.445
127.5	228.006	231.280	229.643	228.415	225.959	223.503	223.094	220.637	220.228
130.0	246.017	249.701	247.245	246.836	245.198	241.514	239.877	238.649	237.421
132.5	265.256	267.712	265.256	264.438	262.800	259.116	256.660	255.841	254.204

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 4D90 - HP-4C-ID-P-37IN11-16IN-S-S-835-ITL93249.003.IES****CANDELA TABULATION - (Cont.)**

135.0	282.858	284.905	283.677	282.039	281.221	277.537	274.671	273.853	273.034
137.5	300.460	302.097	302.097	299.641	298.413	294.729	292.682	291.045	290.226
140.0	319.290	319.290	318.880	317.652	316.015	312.740	309.466	308.647	307.010
142.5	335.664	336.073	335.664	334.436	334.436	329.933	327.067	325.430	323.793
145.0	351.628	352.038	352.038	350.400	351.219	346.307	344.260	342.213	341.395
147.5	368.411	368.002	367.183	365.546	366.774	362.271	359.815	358.587	357.359
150.0	382.738	382.738	382.329	381.101	381.510	377.417	375.780	374.552	372.505
152.5	396.247	397.066	395.838	395.019	395.838	392.563	390.107	388.879	386.832
155.0	409.755	410.574	408.937	408.118	409.346	406.071	403.615	402.796	401.568
157.5	421.626	422.445	420.808	419.580	421.217	417.942	417.124	415.896	414.258
160.0	431.451	432.269	431.041	431.041	431.451	428.995	428.176	427.357	425.720
162.5	440.456	441.684	441.275	440.047	441.275	439.638	438.819	438.000	437.182
165.0	449.053	449.871	449.462	448.643	449.871	447.825	447.415	447.006	446.187
167.5	456.830	456.421	456.421	456.011	456.830	456.011	455.602	455.193	454.783
170.0	462.561	462.561	462.152	462.970	462.561	461.742	461.742	461.742	461.742
172.5	467.473	467.064	467.064	467.473	467.064	467.064	467.064	466.654	466.654
175.0	470.748	470.339	470.339	470.339	470.339	470.339	470.339	470.339	470.748
177.5	472.385	472.385	472.385	472.385	472.385	472.385	472.385	472.385	472.385
180.0	473.204	473.204	473.204	473.204	473.204	473.204	473.204	473.204	473.204

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 4D90 - HP-4C-ID-P-37IN11-16IN-S-S-835-ITL93249.003.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	169.62	N.A.	7.10
0-30	351.46	N.A.	14.70
0-40	559.10	N.A.	23.40
0-60	935.74	N.A.	39.20
0-80	1137.94	N.A.	47.60
0-90	1165.2	N.A.	48.80
10-90	1120.63	N.A.	46.90
20-40	389.48	N.A.	16.30
20-50	592.53	N.A.	24.80
40-70	504.21	N.A.	21.10
60-80	202.20	N.A.	8.50
70-80	74.63	N.A.	3.10
80-90	27.25	N.A.	1.10
90-110	108.02	N.A.	4.50
90-120	245.98	N.A.	10.30
90-130	432.36	N.A.	18.10
90-150	865.47	N.A.	36.20
90-180	1223.75	N.A.	51.20
110-180	1115.73	N.A.	46.70
0-180	2388.94	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	44.57
10-20	125.05
20-30	181.84
30-40	207.64
40-50	203.05
50-60	173.60
60-70	127.57
70-80	74.63
80-90	27.25
90-100	27.73
100-110	80.29
110-120	137.96
120-130	186.38
130-140	215.53
140-150	217.57
150-160	187.22
160-170	126.42
170-180	44.64

IES INDOOR REPORT

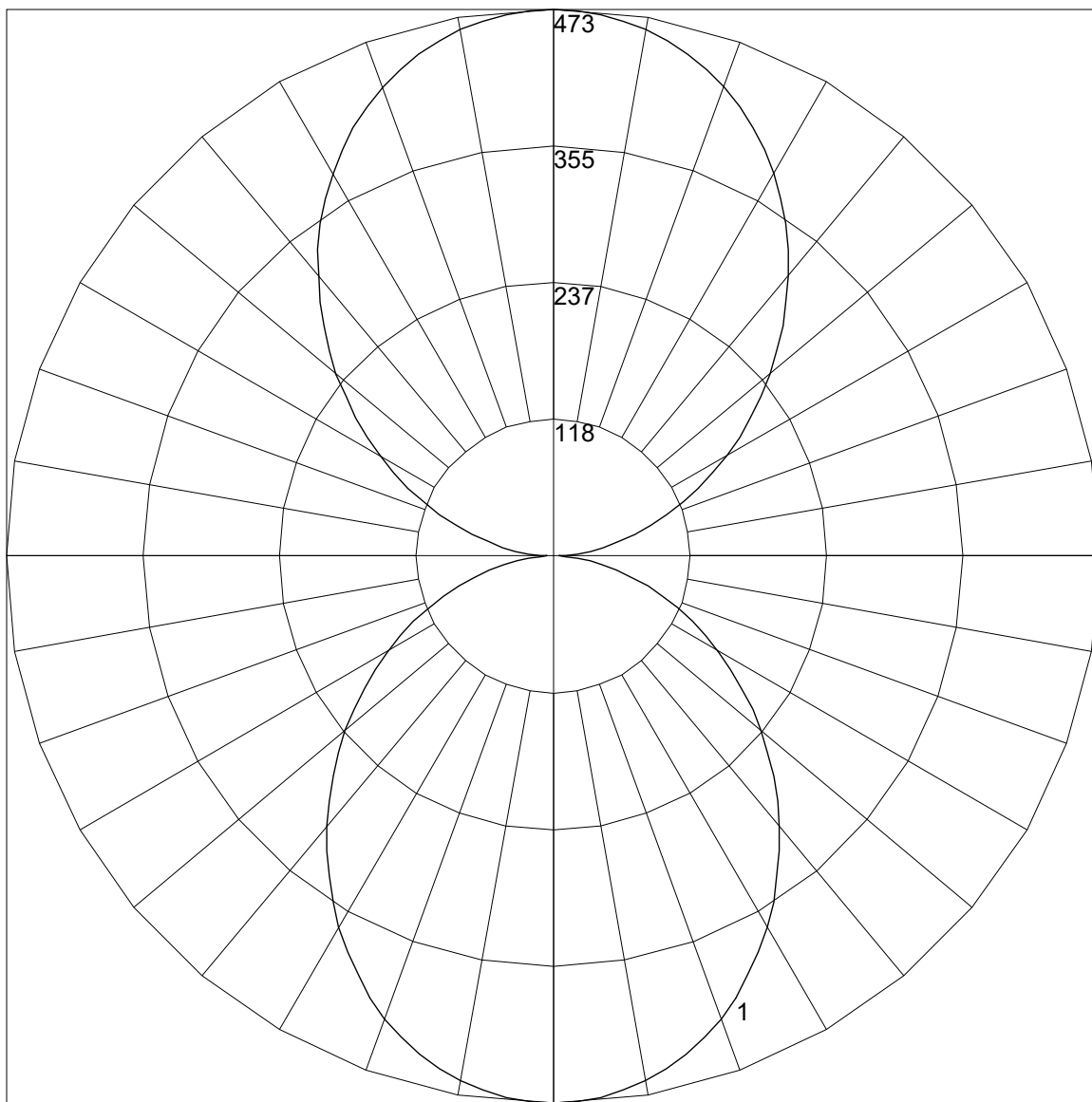
PHOTOMETRIC FILENAME : 4D90 - HP-4C-ID-P-37IN11-16IN-S-S-835-ITL93249.003.IES

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	62	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 = 473.204 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (90 - 270)