

# 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-B-835-ITL93249.015.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL93249.015 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-B-835

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 24.4 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 26.1 WATTS

[\_ABSOLUTE]LUMENS]2688

[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	2689
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	110
Total Luminaire Watts	24.4
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	5029	5166	5438
55	4453	4621	4943
65	3892	4047	4459
75	3310	3400	3865
85	2833	2779	3232

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	594.893	594.893	594.893	594.893	594.893	594.893	594.893	594.893	594.893
2.5	594.378	594.378	594.893	594.378	593.863	593.863	593.863	593.349	593.349
5.0	591.805	591.805	591.805	591.805	591.290	590.776	590.261	589.746	589.746
7.5	587.688	587.173	587.173	587.173	586.144	585.630	584.600	584.086	583.057
10.0	579.969	580.484	580.484	580.484	579.454	578.425	577.396	576.367	575.852
12.5	571.735	571.221	571.221	571.735	571.221	569.162	568.133	566.074	565.560
15.0	559.899	560.928	559.899	561.443	561.443	558.870	556.811	554.238	552.180
17.5	545.490	547.034	547.034	548.577	548.577	546.004	542.402	539.829	537.771
20.0	531.081	532.625	533.139	534.168	535.197	531.595	527.993	523.361	522.332
22.5	514.613	515.642	516.671	519.245	520.274	515.642	511.525	506.379	505.350
25.0	497.116	498.145	499.175	502.777	502.777	499.175	494.543	487.853	485.280
27.5	477.561	478.075	480.649	484.251	484.765	480.649	474.473	469.327	466.239
30.0	458.006	459.035	462.123	464.695	466.239	461.093	455.433	448.228	447.199
32.5	435.877	438.965	441.023	445.655	446.684	440.509	435.877	428.158	425.585
35.0	414.778	416.837	419.924	424.556	424.556	420.439	414.264	407.574	404.486
37.5	393.679	395.737	398.825	402.942	403.971	400.369	393.164	386.474	383.901
40.0	372.580	373.609	376.697	382.358	383.387	378.755	372.580	363.831	361.258
42.5	348.908	350.966	355.083	360.229	361.258	358.171	350.966	343.247	340.159
45.0	326.779	328.838	332.440	337.072	339.130	336.042	327.808	321.118	318.545
47.5	305.166	306.709	310.312	315.458	317.002	313.399	305.680	298.990	297.446
50.0	282.522	285.610	288.698	294.359	295.388	291.786	284.066	277.891	275.318
52.5	261.423	262.967	266.570	272.230	273.260	270.172	263.482	256.277	256.277
55.0	239.295	241.868	244.956	249.073	250.617	249.073	241.868	236.207	234.149
57.5	219.225	221.284	222.827	227.974	229.517	226.430	219.740	215.623	214.079
60.0	199.155	199.670	202.243	206.874	208.933	206.360	200.185	195.038	192.980
62.5	179.600	180.114	181.658	186.290	187.319	185.261	179.600	175.998	173.939
65.0	159.015	160.045	162.103	164.676	167.249	164.676	160.559	156.442	155.413
67.5	141.004	142.033	142.033	145.121	146.665	145.636	139.975	137.916	137.402
70.0	122.993	123.507	122.478	126.080	126.595	125.566	121.963	120.419	118.876
72.5	106.010	105.496	104.981	107.040	107.554	107.554	104.466	102.923	101.893
75.0	88.513	89.028	87.999	88.513	89.543	89.543	87.999	85.940	86.455
77.5	73.590	73.590	71.017	72.046	71.017	72.560	71.017	71.017	71.531
80.0	59.181	59.181	56.093	56.607	54.549	57.122	56.093	57.122	56.607
82.5	46.315	45.286	42.713	42.198	40.140	42.198	42.713	43.742	44.257
85.0	33.450	32.935	30.362	28.304	26.245	28.818	30.362	31.391	32.421
87.5	23.158	22.128	18.012	16.982	13.895	15.953	18.526	21.099	22.128
90.0	15.953	14.924	11.322	9.263	6.175	7.719	10.292	13.895	14.924
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-B-835-ITL93249.015.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-B-835-ITL93249.015.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	213.24	N.A.	7.90
0-30	441.84	N.A.	16.40
0-40	702.88	N.A.	26.10
0-60	1176.38	N.A.	43.70
0-80	1430.58	N.A.	53.20
0-90	1464.84	N.A.	54.50
10-90	1408.81	N.A.	52.40
20-40	489.64	N.A.	18.20
20-50	744.90	N.A.	27.70
40-70	633.87	N.A.	23.60
60-80	254.20	N.A.	9.50
70-80	93.83	N.A.	3.50
80-90	34.26	N.A.	1.30
90-110	108.33	N.A.	4.00
90-120	246.29	N.A.	9.20
90-130	432.67	N.A.	16.10
90-150	865.78	N.A.	32.20
90-180	1224.06	N.A.	45.50
110-180	1115.73	N.A.	41.50
0-180	2688.9	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	56.03
10-20	157.21
20-30	228.61
30-40	261.04
40-50	255.26
50-60	218.24
60-70	160.37
70-80	93.83
80-90	34.26
90-100	28.04
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

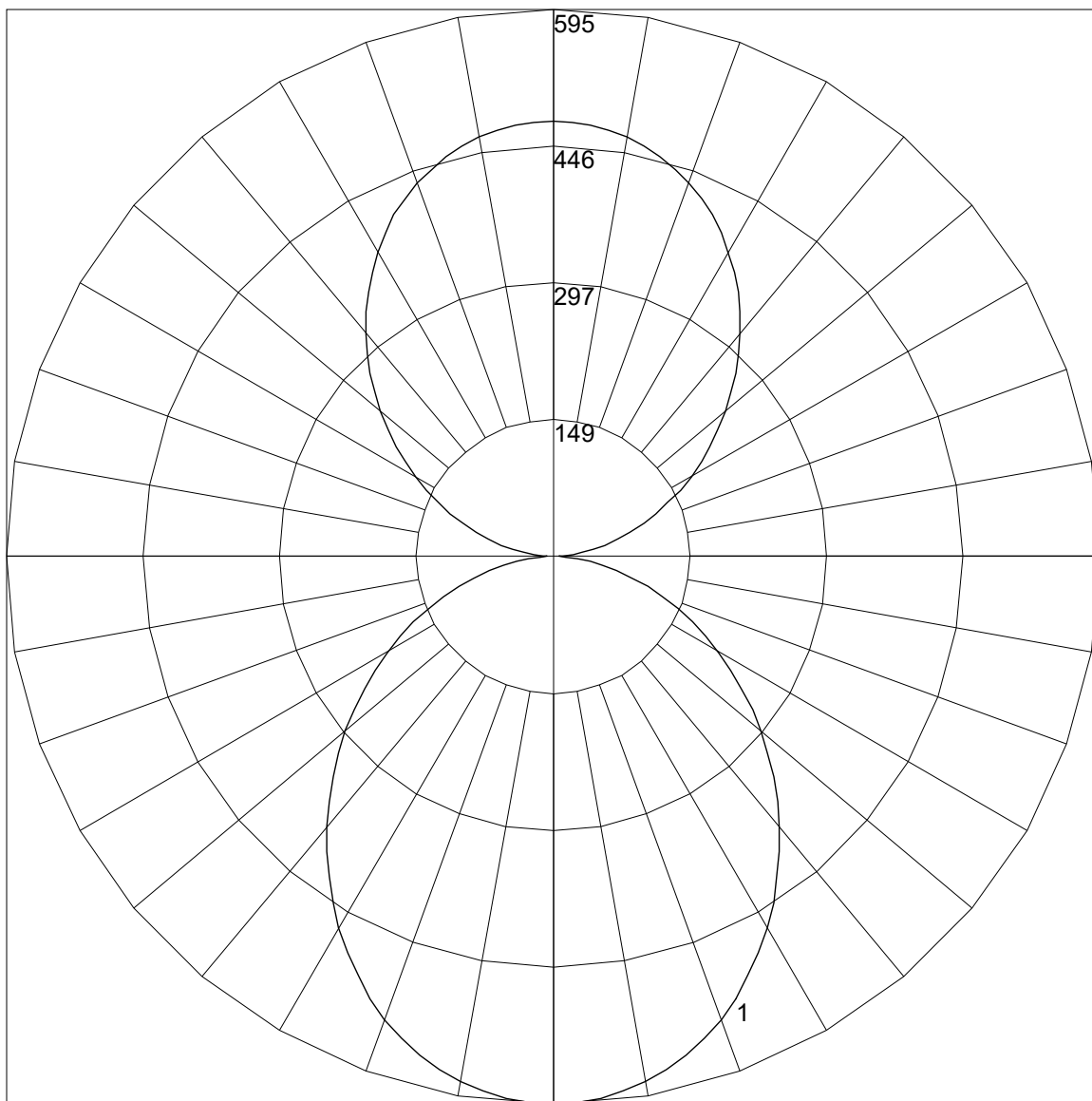
PHOTOMETRIC FILENAME : 4D90 - HP-4C-ID-P-37IN11-16IN-S-B-835-ITL93249.015.IES

## 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	108	108	108	108	100	100	100	100	86	86	86	72	72	72	60	60	60	54
1	99	94	90	87	91	88	84	81	75	73	70	64	62	60	53	52	51	46
2	90	82	76	71	83	77	71	67	66	62	58	56	53	50	47	45	43	38
3	82	73	65	59	76	68	61	56	58	53	49	50	46	43	42	39	37	33
4	75	64	56	50	69	60	53	47	52	46	42	44	40	37	37	34	32	28
5	69	57	49	43	64	54	46	41	46	41	36	40	35	32	34	30	28	24
6	64	52	43	38	59	48	41	36	42	36	32	36	32	28	31	27	24	22
7	59	47	39	33	55	44	36	31	38	32	28	33	28	25	28	24	22	19
8	55	42	35	29	51	40	33	28	35	29	25	30	26	22	26	22	20	17
9	51	39	31	26	47	36	30	25	32	26	22	28	23	20	24	20	18	16
10	48	36	28	24	44	33	27	22	29	24	20	26	21	18	22	19	16	14

POLAR GRAPH



Maximum Candela = 594.893 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)