

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 : 2D90 - HP-4C-ID-P-18IN7-8IN-S-H-835-ITL93249.046.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL93249.046 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-18in7-8in-S-H-835

[_INPUT_ELECTRICAL]120.0 VOLTS, 15.4 WATTS

[_INPUT_ELECTRICAL]277.0 VOLTS, 15.9 WATTS

[_ABSOLUTE]LUMENS]1598

[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	1599
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	104
Total Luminaire Watts	15.4
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	1.16
Spacing Criterion (90-270)	1.18
Spacing Criterion (Diagonal)	1.28
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	3535	3631	3822
55	3130	3248	3474
65	2736	2845	3134
75	2327	2390	2717
85	1991	1954	2272

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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	418.148	418.148	418.148	418.148	418.148	418.148	418.148	418.148	418.148
2.5	417.787	417.787	418.148	417.787	417.425	417.425	417.425	417.063	417.063
5.0	415.978	415.978	415.978	415.978	415.616	415.255	414.893	414.531	414.531
7.5	413.084	412.723	412.723	412.723	411.999	411.637	410.914	410.552	409.829
10.0	407.658	408.020	408.020	408.020	407.297	406.573	405.850	405.126	404.765
12.5	401.871	401.509	401.509	401.871	401.509	400.062	399.339	397.892	397.530
15.0	393.551	394.275	393.551	394.637	394.637	392.828	391.381	389.572	388.125
17.5	383.423	384.508	384.508	385.594	385.594	383.785	381.253	379.444	377.997
20.0	373.295	374.380	374.742	375.465	376.189	373.657	371.125	367.869	367.146
22.5	361.720	362.443	363.167	364.976	365.699	362.443	359.550	355.933	355.209
25.0	349.421	350.145	350.868	353.401	353.401	350.868	347.613	342.911	341.102
27.5	335.676	336.038	337.846	340.378	340.740	337.846	333.506	329.889	327.718
30.0	321.931	322.654	324.825	326.633	327.718	324.101	320.122	315.058	314.335
32.5	306.377	308.547	309.994	313.250	313.973	309.632	306.377	300.951	299.142
35.0	291.546	292.993	295.163	298.419	298.419	295.525	291.185	286.482	284.312
37.5	276.716	278.163	280.333	283.227	283.950	281.418	276.354	271.652	269.843
40.0	261.885	262.609	264.779	268.758	269.481	266.226	261.885	255.736	253.927
42.5	245.246	246.693	249.587	253.204	253.927	251.757	246.693	241.267	239.097
45.0	229.692	231.139	233.671	236.927	238.374	236.203	230.416	225.713	223.905
47.5	214.500	215.585	218.117	221.734	222.820	220.287	214.862	210.159	209.074
50.0	198.584	200.755	202.925	206.904	207.627	205.095	199.669	195.329	193.520
52.5	183.754	184.839	187.371	191.350	192.073	189.903	185.201	180.137	180.137
55.0	168.200	170.008	172.179	175.072	176.158	175.072	170.008	166.030	164.583
57.5	154.093	155.540	156.625	160.242	161.327	159.157	154.454	151.561	150.476
60.0	139.986	140.347	142.156	145.411	146.858	145.050	140.709	137.092	135.645
62.5	126.240	126.602	127.687	130.943	131.666	130.219	126.240	123.708	122.261
65.0	111.772	112.495	113.942	115.750	117.559	115.750	112.857	109.963	109.239
67.5	99.111	99.835	99.835	102.005	103.090	102.367	98.388	96.941	96.579
70.0	86.451	86.813	86.089	88.621	88.983	88.260	85.728	84.642	83.557
72.5	74.514	74.153	73.791	75.238	75.600	75.600	73.429	72.344	71.621
75.0	62.216	62.578	61.854	62.216	62.939	62.939	61.854	60.407	60.769
77.5	51.726	51.726	49.917	50.641	49.917	51.002	49.917	49.917	50.279
80.0	41.598	41.598	39.428	39.789	38.342	40.151	39.428	40.151	39.789
82.5	32.555	31.831	30.023	29.661	28.214	29.661	30.023	30.746	31.108
85.0	23.512	23.150	21.341	19.895	18.448	20.256	21.341	22.065	22.788
87.5	16.277	15.554	12.660	11.937	9.766	11.213	13.022	14.831	15.554
90.0	11.213	10.490	7.958	6.511	4.341	5.426	7.234	9.766	10.490
92.5	8.186	7.805	6.853	5.711	4.950	5.140	6.473	7.424	7.995
95.0	12.945	12.564	11.422	10.280	9.899	9.709	11.041	11.993	12.564
97.5	18.276	18.085	16.753	15.420	15.039	15.039	15.991	17.133	17.514
100.0	24.558	23.987	22.654	21.702	20.750	20.941	21.512	22.654	23.225
102.5	30.650	30.078	29.127	27.984	27.032	27.223	27.984	28.555	29.127
105.0	37.122	36.741	35.599	34.838	33.886	33.886	34.267	35.599	35.599
107.5	43.975	43.785	42.643	41.691	40.930	41.501	41.120	42.072	42.262
110.0	51.019	51.209	49.687	49.496	48.735	48.925	47.973	48.925	49.687
112.5	58.824	58.444	57.492	57.682	56.540	56.349	55.778	56.730	56.921
115.0	66.249	65.868	65.297	65.106	64.345	63.774	63.964	64.345	64.155
117.5	73.864	73.483	73.292	72.721	72.531	71.579	71.579	71.960	71.769
120.0	81.478	82.049	81.478	80.907	80.526	80.146	79.384	79.765	79.004
122.5	90.045	90.616	89.855	88.903	88.903	88.141	87.570	87.761	86.809
125.0	98.231	98.992	98.612	97.089	96.898	96.327	95.947	95.185	94.614
127.5	106.036	107.559	106.798	106.227	105.084	103.942	103.752	102.609	102.419
130.0	114.412	116.126	114.984	114.793	114.032	112.318	111.557	110.986	110.415
132.5	123.360	124.502	123.360	122.979	122.218	120.504	119.362	118.981	118.220

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 2D90 - HP-4C-ID-P-18IN7-8IN-S-H-835-ITL93249.046.IES****CANDELA TABULATION - (Cont.)**

135.0	131.546	132.498	131.926	131.165	130.784	129.071	127.738	127.358	126.977
137.5	139.732	140.493	140.493	139.351	138.780	137.066	136.114	135.353	134.972
140.0	148.489	148.489	148.298	147.727	146.966	145.443	143.920	143.539	142.778
142.5	156.103	156.294	156.103	155.532	155.532	153.438	152.106	151.344	150.583
145.0	163.528	163.718	163.718	162.957	163.338	161.053	160.101	159.149	158.769
147.5	171.333	171.143	170.762	170.000	170.571	168.477	167.335	166.764	166.193
150.0	177.996	177.996	177.806	177.234	177.425	175.521	174.760	174.189	173.237
152.5	184.278	184.659	184.088	183.707	184.088	182.565	181.423	180.851	179.900
155.0	190.560	190.941	190.180	189.799	190.370	188.847	187.705	187.324	186.753
157.5	196.081	196.462	195.700	195.129	195.891	194.368	193.987	193.416	192.654
160.0	200.650	201.031	200.460	200.460	200.650	199.508	199.127	198.746	197.985
162.5	204.838	205.409	205.219	204.648	205.219	204.457	204.077	203.696	203.315
165.0	208.836	209.217	209.026	208.645	209.217	208.265	208.074	207.884	207.503
167.5	212.453	212.262	212.262	212.072	212.453	212.072	211.882	211.691	211.501
170.0	215.118	215.118	214.928	215.309	215.118	214.737	214.737	214.737	214.737
172.5	217.403	217.212	217.212	217.403	217.212	217.212	217.212	217.022	217.022
175.0	218.925	218.735	218.735	218.735	218.735	218.735	218.735	218.735	218.925
177.5	219.687	219.687	219.687	219.687	219.687	219.687	219.687	219.687	219.687
180.0	220.068	220.068	220.068	220.068	220.068	220.068	220.068	220.068	220.068

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Zone	Lumens	%Lamp	%Fixt
0-20	149.88	N.A.	9.40
0-30	310.57	N.A.	19.40
0-40	494.05	N.A.	30.90
0-60	826.87	N.A.	51.70
0-80	1005.55	N.A.	62.90
0-90	1029.63	N.A.	64.40
10-90	990.25	N.A.	61.90
20-40	344.17	N.A.	21.50
20-50	523.59	N.A.	32.70
40-70	445.55	N.A.	27.90
60-80	178.67	N.A.	11.20
70-80	65.95	N.A.	4.10
80-90	24.08	N.A.	1.50
90-110	50.74	N.A.	3.20
90-120	114.90	N.A.	7.20
90-130	201.58	N.A.	12.60
90-150	403.00	N.A.	25.20
90-180	569.62	N.A.	35.60
110-180	518.88	N.A.	32.40
0-180	1599.25	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	39.38
10-20	110.50
20-30	160.69
30-40	183.48
40-50	179.42
50-60	153.40
60-70	112.72
70-80	65.95
80-90	24.08
90-100	13.40
100-110	37.34
110-120	64.16
120-130	86.68
130-140	100.24
140-150	101.18
150-160	87.07
160-170	58.79
170-180	20.76

IES INDOOR REPORT

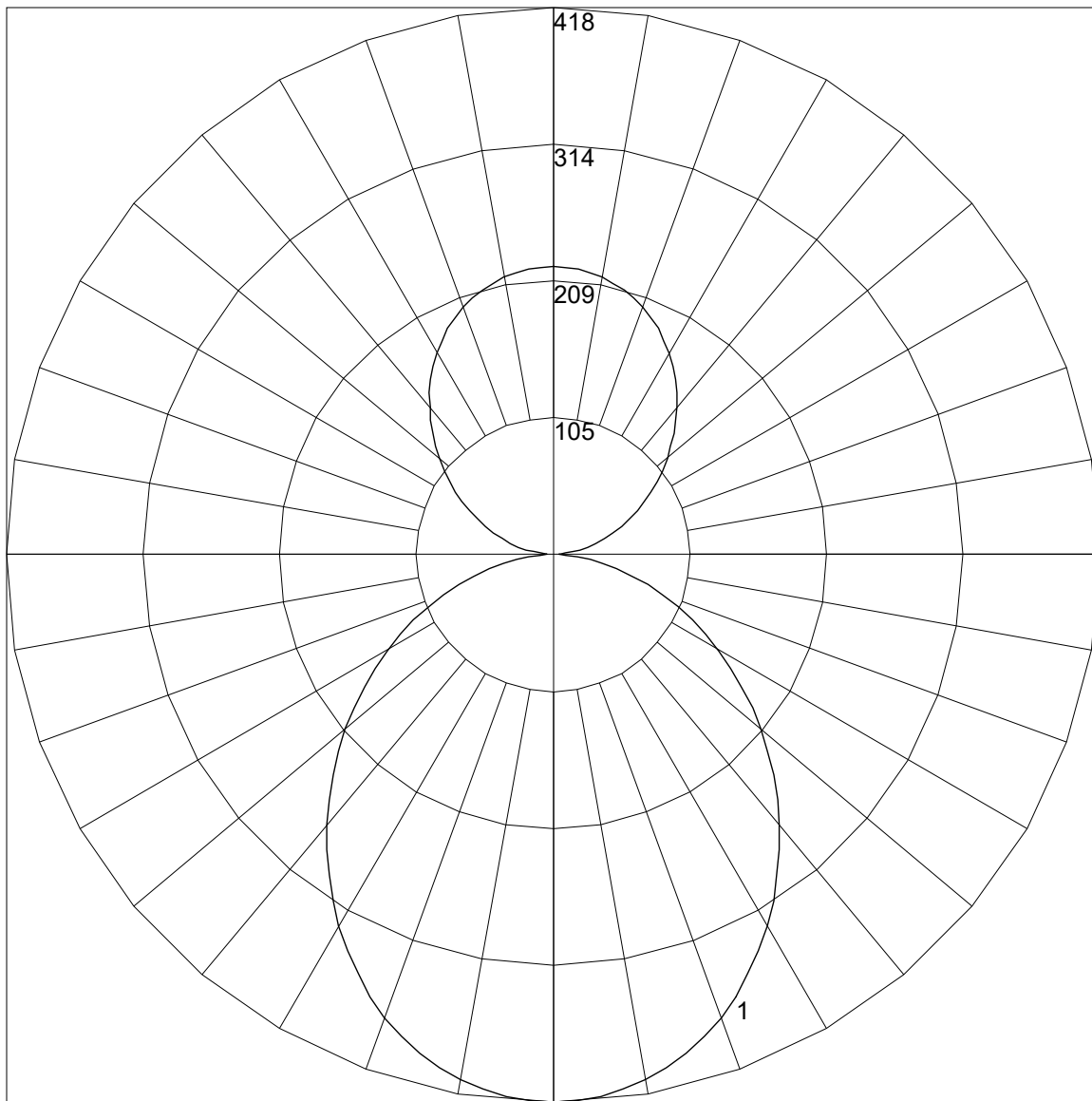
PHOTOMETRIC FILENAME : 2D90 - HP-4C-ID-P-18IN7-8IN-S-H-835-ITL93249.046.IES

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	111	111	111	111	104	104	104	104	91	91	91	80	80	80	69	69	69	64
1	101	96	92	89	95	91	87	84	80	77	75	70	68	66	61	60	58	54
2	92	84	78	73	86	79	74	69	70	66	62	62	59	56	54	52	49	45
3	84	74	67	61	79	70	63	58	62	57	52	55	51	47	48	45	42	39
4	77	66	58	52	72	62	55	49	55	50	45	49	44	41	43	39	36	33
5	71	59	51	44	66	56	48	43	50	44	39	44	39	35	39	35	32	29
6	65	53	45	39	61	50	43	37	45	39	34	40	35	31	35	31	28	25
7	61	48	40	34	57	45	38	33	41	35	30	36	31	28	32	28	25	23
8	56	44	36	30	53	41	34	29	37	31	27	33	28	25	30	26	23	20
9	52	40	32	27	49	38	31	26	34	28	24	31	26	22	27	23	20	18
10	49	37	29	25	46	35	28	24	32	26	22	28	24	20	25	21	19	17

POLAR GRAPH



Maximum Candela = 418.148 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (90 - 270)