

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-B-835-ITL93249.047.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL93249.047 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-B-835

[_INPUT_ELECTRICAL]120.0 VOLTS, 11.5 WATTS

[_INPUT_ELECTRICAL]277.0 VOLTS, 12.2 WATTS

[_ABSOLUTE]LUMENS]1250

[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	1250
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	109
Total Luminaire Watts	11.5
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	2337	2401	2528
55	2070	2148	2297
65	1809	1881	2073
75	1539	1580	1797
85	1317	1292	1502

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 2D90 - HP-4C-ID-P-18IN7-8IN-S-B-835-ITL93249.047.IES

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	276.521	276.521	276.521	276.521	276.521	276.521	276.521	276.521	276.521
2.5	276.282	276.282	276.521	276.282	276.043	276.043	276.043	275.803	275.803
5.0	275.086	275.086	275.086	275.086	274.847	274.607	274.368	274.129	274.129
7.5	273.172	272.933	272.933	272.933	272.454	272.215	271.737	271.498	271.019
10.0	269.584	269.823	269.823	269.823	269.345	268.866	268.388	267.910	267.670
12.5	265.757	265.517	265.517	265.757	265.517	264.561	264.082	263.125	262.886
15.0	260.255	260.733	260.255	260.973	260.973	259.777	258.820	257.624	256.667
17.5	253.557	254.275	254.275	254.993	254.993	253.797	252.122	250.926	249.969
20.0	246.860	247.577	247.816	248.295	248.773	247.099	245.424	243.272	242.793
22.5	239.205	239.683	240.162	241.358	241.836	239.683	237.770	235.378	234.899
25.0	231.072	231.550	232.029	233.703	233.703	232.029	229.876	226.766	225.570
27.5	221.982	222.221	223.417	225.092	225.331	223.417	220.547	218.155	216.720
30.0	212.893	213.371	214.806	216.002	216.720	214.328	211.696	208.347	207.869
32.5	202.607	204.042	204.999	207.151	207.630	204.760	202.607	199.019	197.822
35.0	192.799	193.756	195.191	197.344	197.344	195.430	192.560	189.450	188.015
37.5	182.992	183.949	185.384	187.298	187.776	186.101	182.753	179.643	178.447
40.0	173.184	173.663	175.098	177.729	178.208	176.055	173.184	169.118	167.922
42.5	162.181	163.138	165.052	167.444	167.922	166.487	163.138	159.550	158.114
45.0	151.895	152.852	154.526	156.679	157.636	156.201	152.374	149.264	148.068
47.5	141.849	142.566	144.241	146.633	147.350	145.676	142.088	138.978	138.261
50.0	131.323	132.759	134.194	136.825	137.304	135.629	132.041	129.171	127.975
52.5	121.516	122.234	123.908	126.539	127.018	125.583	122.473	119.124	119.124
55.0	111.230	112.426	113.862	115.775	116.493	115.775	112.426	109.795	108.838
57.5	101.901	102.858	103.576	105.968	106.685	105.250	102.141	100.227	99.509
60.0	92.572	92.811	94.008	96.160	97.117	95.921	93.051	90.659	89.702
62.5	83.483	83.722	84.439	86.592	87.071	86.114	83.483	81.808	80.851
65.0	73.914	74.393	75.350	76.546	77.742	76.546	74.632	72.718	72.240
67.5	65.542	66.021	66.021	67.456	68.173	67.695	65.064	64.107	63.868
70.0	57.170	57.409	56.931	58.605	58.844	58.366	56.692	55.974	55.256
72.5	49.276	49.037	48.798	49.755	49.994	49.994	48.559	47.841	47.363
75.0	41.143	41.383	40.904	41.143	41.622	41.622	40.904	39.947	40.186
77.5	34.206	34.206	33.010	33.489	33.010	33.728	33.010	33.010	33.249
80.0	27.509	27.509	26.073	26.313	25.356	26.552	26.073	26.552	26.313
82.5	21.529	21.050	19.854	19.615	18.658	19.615	19.854	20.332	20.572
85.0	15.548	15.309	14.113	13.156	12.200	13.396	14.113	14.591	15.070
87.5	10.764	10.286	8.372	7.894	6.458	7.415	8.611	9.807	10.286
90.0	7.415	6.937	5.263	4.306	2.870	3.588	4.784	6.458	6.937
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-B-835-ITL93249.047.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

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 2D90 - HP-4C-ID-P-18IN7-8IN-S-B-835-ITL93249.047.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	99.12	N.A.	7.90
0-30	205.38	N.A.	16.40
0-40	326.72	N.A.	26.10
0-60	546.81	N.A.	43.70
0-80	664.97	N.A.	53.20
0-90	680.89	N.A.	54.50
10-90	654.85	N.A.	52.40
20-40	227.60	N.A.	18.20
20-50	346.25	N.A.	27.70
40-70	294.64	N.A.	23.60
60-80	118.16	N.A.	9.50
70-80	43.61	N.A.	3.50
80-90	15.93	N.A.	1.30
90-110	50.38	N.A.	4.00
90-120	114.54	N.A.	9.20
90-130	201.22	N.A.	16.10
90-150	402.64	N.A.	32.20
90-180	569.26	N.A.	45.50
110-180	518.88	N.A.	41.50
0-180	1250.15	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	26.04
10-20	73.07
20-30	106.26
30-40	121.34
40-50	118.65
50-60	101.44
60-70	74.54
70-80	43.61
80-90	15.93
90-100	13.04
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

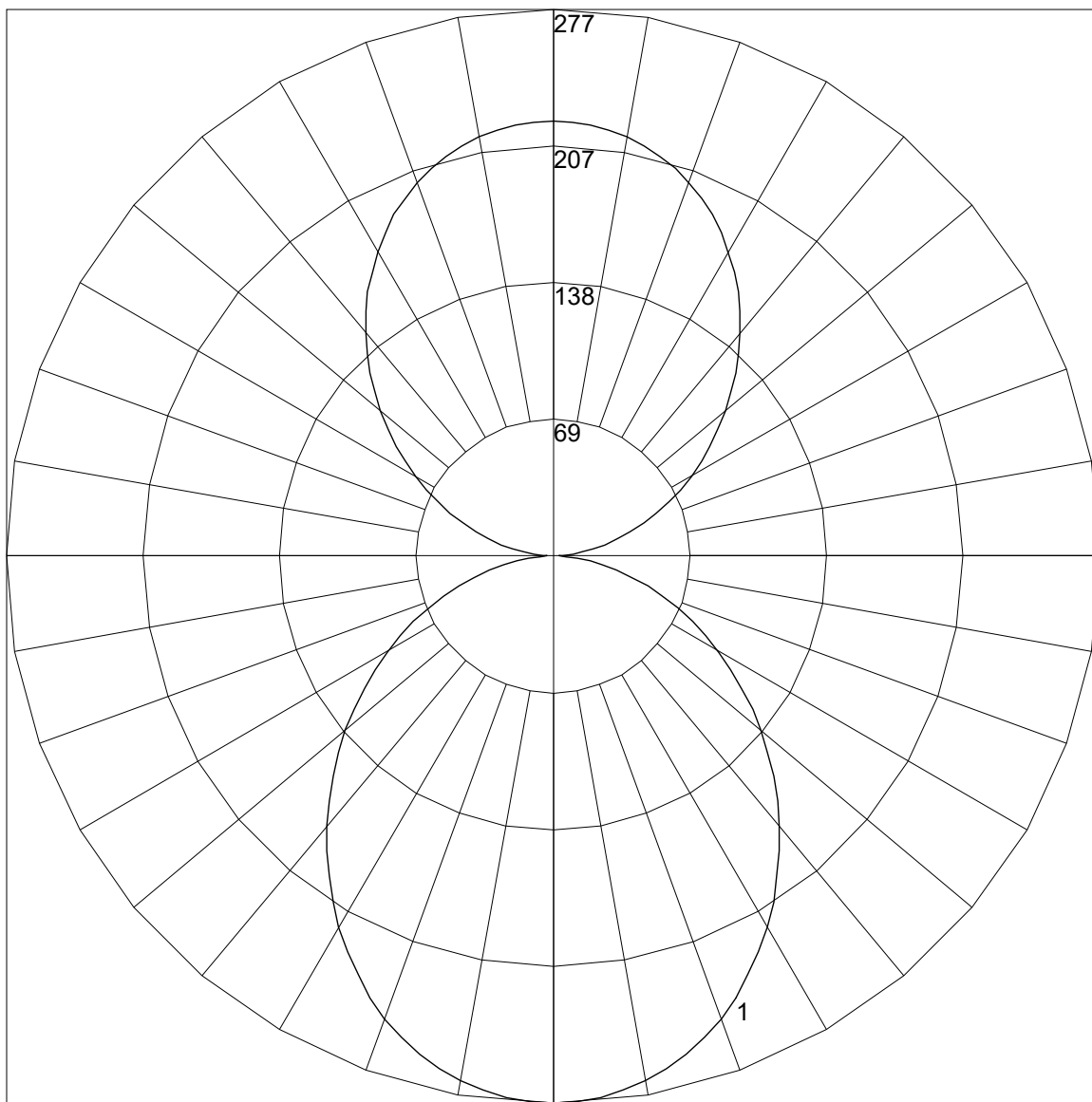
PHOTOMETRIC FILENAME : 2D90 - HP-4C-ID-P-18IN7-8IN-S-B-835-ITL93249.047.IES

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 = 276.521 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (90 - 270)