

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-B-B-8TW-ITL93249.934.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL93249.934 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-B-B-8TW

[_INPUT_ELECTRICAL]120.0 VOLTS, 13.9 WATTS

[_INPUT_ELECTRICAL]277.0 VOLTS, 14.6 WATTS

[_ABSOLUTE]LUMENS]1396

[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	1396
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	100
Total Luminaire Watts	13.9
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

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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	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	10.286	9.807	8.611	7.176	6.219	6.458	8.133	9.329	10.047
95.0	16.266	15.787	14.352	12.917	12.439	12.200	13.874	15.070	15.787
97.5	22.964	22.724	21.050	19.376	18.897	18.897	20.093	21.529	22.007
100.0	30.857	30.140	28.465	27.269	26.073	26.313	27.030	28.465	29.183
102.5	38.512	37.794	36.598	35.163	33.967	34.206	35.163	35.881	36.598
105.0	46.645	46.167	44.731	43.775	42.578	42.578	43.057	44.731	44.731
107.5	55.256	55.017	53.582	52.386	51.429	52.147	51.668	52.864	53.103
110.0	64.107	64.346	62.432	62.193	61.236	61.476	60.280	61.476	62.432
112.5	73.914	73.436	72.240	72.479	71.044	70.805	70.087	71.283	71.522
115.0	83.243	82.765	82.047	81.808	80.851	80.134	80.373	80.851	80.612
117.5	92.811	92.333	92.094	91.376	91.137	89.941	89.941	90.419	90.180
120.0	102.380	103.097	102.380	101.662	101.184	100.705	99.749	100.227	99.270
122.5	113.144	113.862	112.905	111.709	111.709	110.752	110.034	110.273	109.078
125.0	123.430	124.387	123.908	121.995	121.755	121.038	120.559	119.603	118.885
127.5	133.237	135.151	134.194	133.476	132.041	130.606	130.367	128.931	128.692
130.0	143.762	145.915	144.480	144.241	143.284	141.131	140.174	139.457	138.739
132.5	155.005	156.440	155.005	154.526	153.570	151.417	149.982	149.503	148.546

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 2D90 - HP-4C-ID-P-18IN7-8IN-B-B-8TW-ITL93249.934.IES****CANDELA TABULATION - (Cont.)**

135.0	165.291	166.487	165.769	164.812	164.334	162.181	160.507	160.028	159.550
137.5	175.577	176.533	176.533	175.098	174.380	172.228	171.032	170.075	169.596
140.0	186.580	186.580	186.341	185.623	184.666	182.753	180.839	180.361	179.404
142.5	196.148	196.387	196.148	195.430	195.430	192.799	191.125	190.168	189.211
145.0	205.477	205.716	205.716	204.760	205.238	202.367	201.171	199.975	199.497
147.5	215.285	215.045	214.567	213.610	214.328	211.696	210.261	209.544	208.826
150.0	223.657	223.657	223.417	222.700	222.939	220.547	219.590	218.873	217.677
152.5	231.550	232.029	231.311	230.833	231.311	229.398	227.962	227.245	226.049
155.0	239.444	239.923	238.966	238.487	239.205	237.291	235.856	235.378	234.660
157.5	246.381	246.860	245.903	245.185	246.142	244.228	243.750	243.032	242.076
160.0	252.122	252.601	251.883	251.883	252.122	250.687	250.208	249.730	248.773
162.5	257.385	258.102	257.863	257.145	257.863	256.906	256.428	255.949	255.471
165.0	262.408	262.886	262.647	262.169	262.886	261.690	261.451	261.212	260.733
167.5	266.953	266.714	266.714	266.474	266.953	266.474	266.235	265.996	265.757
170.0	270.302	270.302	270.062	270.541	270.302	269.823	269.823	269.823	269.823
172.5	273.172	272.933	272.933	273.172	272.933	272.933	272.933	272.694	272.694
175.0	275.086	274.847	274.847	274.847	274.847	274.847	274.847	274.847	275.086
177.5	276.043	276.043	276.043	276.043	276.043	276.043	276.043	276.043	276.043
180.0	276.521	276.521	276.521	276.521	276.521	276.521	276.521	276.521	276.521

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 2D90 - HP-4C-ID-P-18IN7-8IN-B-B-8TW-ITL93249.934.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	99.12	N.A.	7.10
0-30	205.38	N.A.	14.70
0-40	326.72	N.A.	23.40
0-60	546.81	N.A.	39.20
0-80	664.97	N.A.	47.60
0-90	680.89	N.A.	48.80
10-90	654.85	N.A.	46.90
20-40	227.60	N.A.	16.30
20-50	346.25	N.A.	24.80
40-70	294.64	N.A.	21.10
60-80	118.16	N.A.	8.50
70-80	43.61	N.A.	3.10
80-90	15.93	N.A.	1.10
90-110	63.12	N.A.	4.50
90-120	143.74	N.A.	10.30
90-130	252.65	N.A.	18.10
90-150	505.74	N.A.	36.20
90-180	715.11	N.A.	51.20
110-180	651.99	N.A.	46.70
0-180	1396.00	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	16.20
100-110	46.92
110-120	80.62
120-130	108.92
130-140	125.95
140-150	127.14
150-160	109.40
160-170	73.87
170-180	26.09

IES INDOOR REPORT

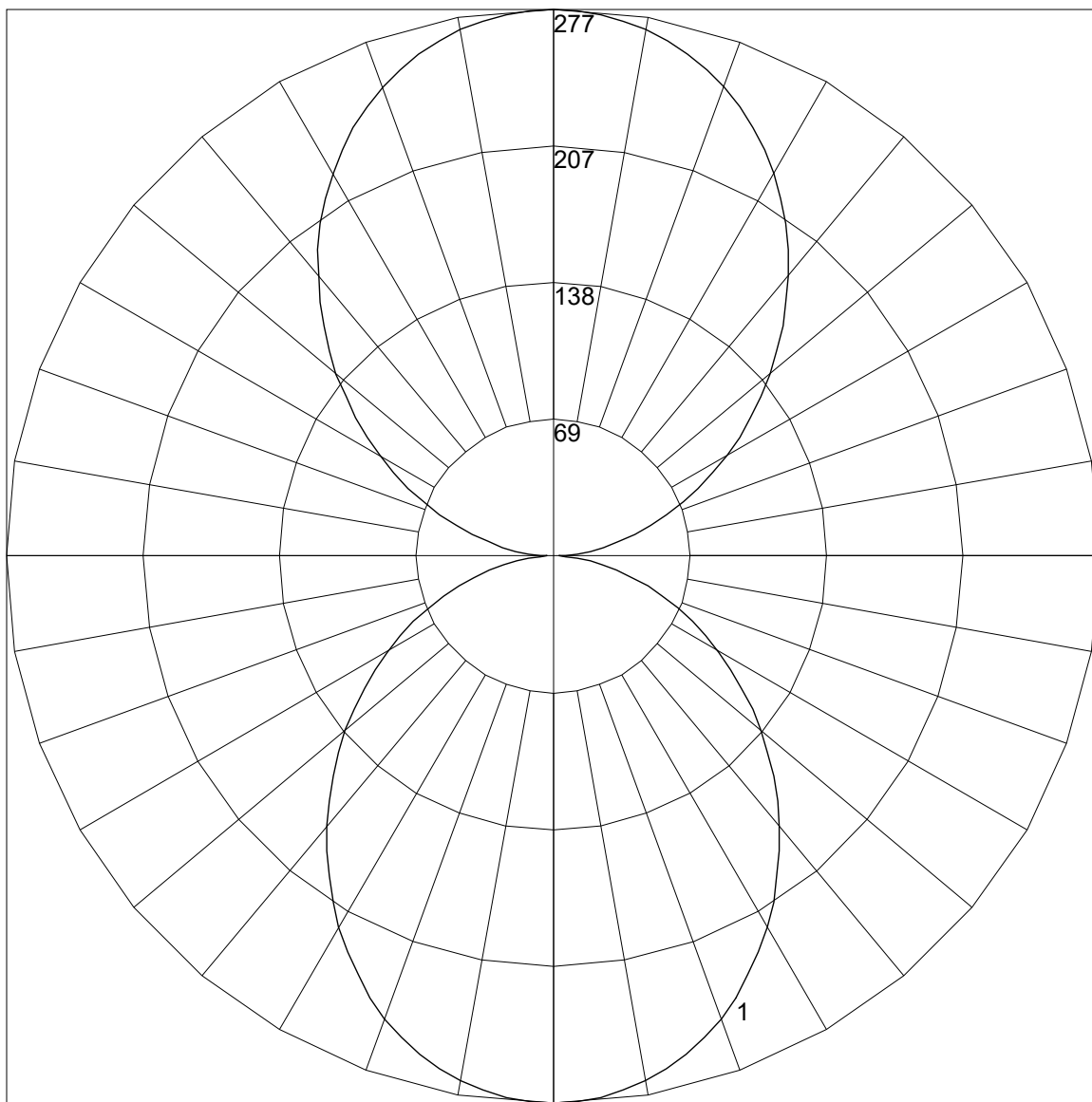
PHOTOMETRIC FILENAME : 2D90 - HP-4C-ID-P-18IN7-8IN-B-B-8TW-ITL93249.934.IES

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