

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-S-835-ITL93249.044.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL93249.044 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-S-835

[_INPUT_ELECTRICAL]120.0 VOLTS, 11.1 WATTS

[_INPUT_ELECTRICAL]277.0 VOLTS, 11.9 WATTS

[_ABSOLUTE]LUMENS]1257

[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	1257
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	113
Total Luminaire Watts	11.1
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	1860	1911	2012
55	1647	1709	1828
65	1440	1497	1650
75	1225	1258	1430
85	1048	1028	1196

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	220.068	220.068	220.068	220.068	220.068	220.068	220.068	220.068	220.068
2.5	219.877	219.877	220.068	219.877	219.687	219.687	219.687	219.497	219.497
5.0	218.925	218.925	218.925	218.925	218.735	218.545	218.354	218.164	218.164
7.5	217.403	217.212	217.212	217.212	216.831	216.641	216.260	216.070	215.689
10.0	214.547	214.737	214.737	214.737	214.357	213.976	213.595	213.214	213.024
12.5	211.501	211.311	211.311	211.501	211.311	210.549	210.168	209.407	209.217
15.0	207.123	207.503	207.123	207.694	207.694	206.742	205.980	205.029	204.267
17.5	201.792	202.363	202.363	202.934	202.934	201.983	200.650	199.698	198.937
20.0	196.462	197.033	197.223	197.604	197.985	196.652	195.320	193.606	193.226
22.5	190.370	190.751	191.131	192.083	192.464	190.751	189.228	187.324	186.943
25.0	183.897	184.278	184.659	185.992	185.992	184.659	182.946	180.471	179.519
27.5	176.663	176.854	177.806	179.138	179.328	177.806	175.521	173.617	172.475
30.0	169.429	169.810	170.952	171.904	172.475	170.571	168.477	165.812	165.431
32.5	161.243	162.386	163.147	164.860	165.241	162.957	161.243	158.388	157.436
35.0	153.438	154.200	155.342	157.055	157.055	155.532	153.248	150.773	149.631
37.5	145.633	146.394	147.537	149.060	149.440	148.108	145.443	142.968	142.016
40.0	137.828	138.209	139.351	141.445	141.826	140.112	137.828	134.592	133.640
42.5	129.071	129.832	131.355	133.259	133.640	132.498	129.832	126.977	125.835
45.0	120.885	121.646	122.979	124.692	125.454	124.312	121.266	118.791	117.839
47.5	112.889	113.460	114.793	116.697	117.268	115.935	113.080	110.605	110.034
50.0	104.513	105.655	106.798	108.892	109.272	107.940	105.084	102.800	101.848
52.5	96.708	97.279	98.612	100.706	101.087	99.944	97.469	94.804	94.804
55.0	88.522	89.474	90.616	92.139	92.710	92.139	89.474	87.380	86.618
57.5	81.098	81.859	82.430	84.334	84.905	83.763	81.288	79.765	79.194
60.0	73.673	73.864	74.815	76.529	77.290	76.338	74.054	72.150	71.389
62.5	66.439	66.629	67.201	68.914	69.295	68.533	66.439	65.106	64.345
65.0	58.824	59.205	59.967	60.918	61.870	60.918	59.395	57.873	57.492
67.5	52.161	52.542	52.542	53.684	54.255	53.875	51.781	51.019	50.829
70.0	45.498	45.689	45.308	46.641	46.831	46.450	45.118	44.547	43.975
72.5	39.216	39.026	38.836	39.597	39.787	39.787	38.645	38.074	37.693
75.0	32.744	32.934	32.553	32.744	33.124	33.124	32.553	31.792	31.982
77.5	27.223	27.223	26.271	26.652	26.271	26.842	26.271	26.271	26.461
80.0	21.892	21.892	20.750	20.941	20.179	21.131	20.750	21.131	20.941
82.5	17.133	16.753	15.801	15.610	14.849	15.610	15.801	16.181	16.372
85.0	12.374	12.184	11.232	10.470	9.709	10.661	11.232	11.613	11.993
87.5	8.567	8.186	6.663	6.282	5.140	5.902	6.853	7.805	8.186
90.0	5.902	5.521	4.188	3.427	2.284	2.856	3.807	5.140	5.521
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-S-835-ITL93249.044.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-S-835-ITL93249.044.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	78.88	N.A.	6.30
0-30	163.45	N.A.	13.00
0-40	260.01	N.A.	20.70
0-60	435.18	N.A.	34.60
0-80	529.21	N.A.	42.10
0-90	541.89	N.A.	43.10
10-90	521.16	N.A.	41.50
20-40	181.13	N.A.	14.40
20-50	275.56	N.A.	21.90
40-70	234.49	N.A.	18.70
60-80	94.03	N.A.	7.50
70-80	34.71	N.A.	2.80
80-90	12.67	N.A.	1.00
90-110	62.98	N.A.	5.00
90-120	143.59	N.A.	11.40
90-130	252.51	N.A.	20.10
90-150	505.60	N.A.	40.20
90-180	714.96	N.A.	56.90
110-180	651.99	N.A.	51.90
0-180	1256.85	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	20.73
10-20	58.16
20-30	84.57
30-40	96.56
40-50	94.43
50-60	80.73
60-70	59.33
70-80	34.71
80-90	12.67
90-100	16.06
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

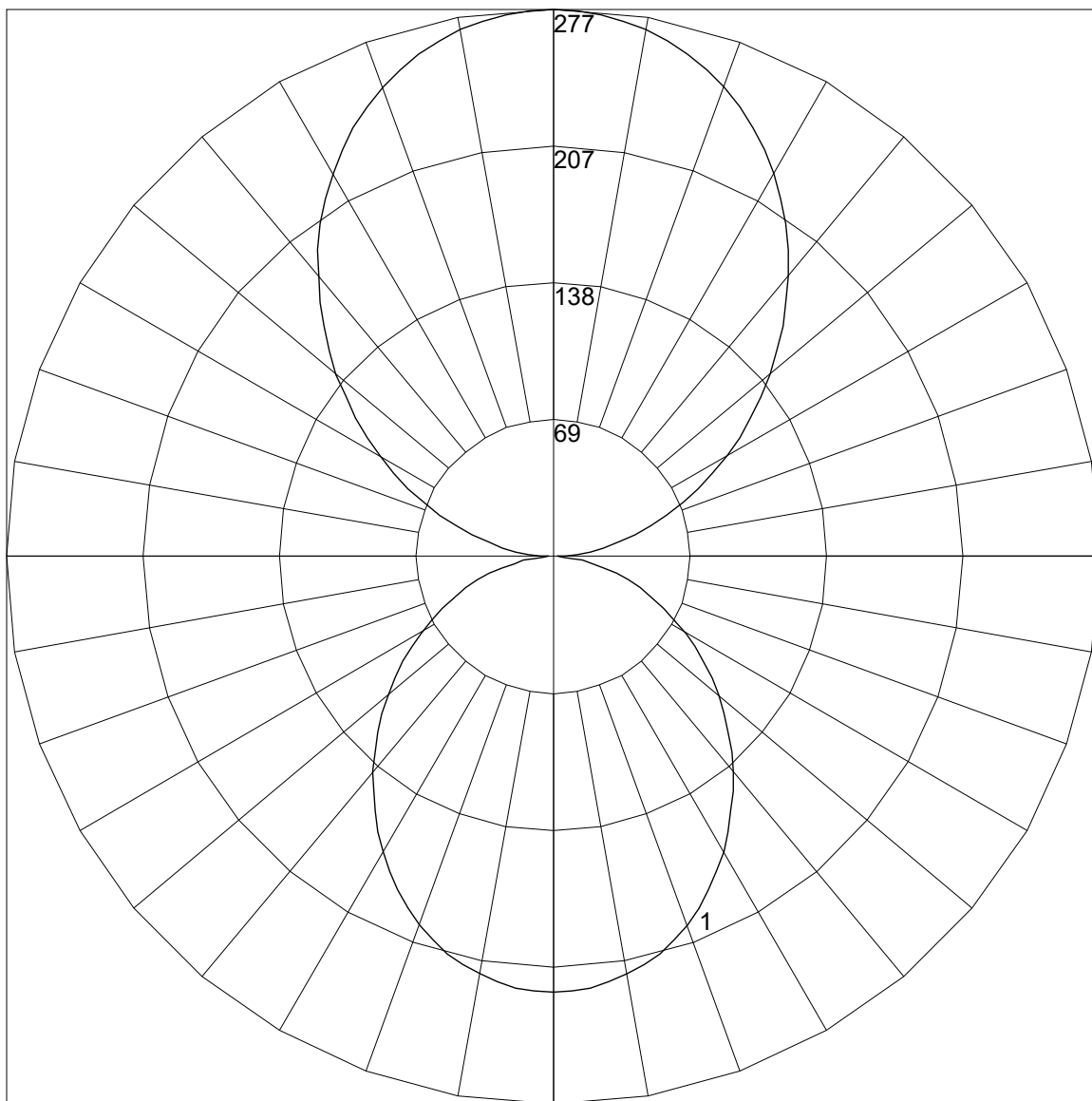
PHOTOMETRIC FILENAME : 2D90 - HP-4C-ID-P-18IN7-8IN-B-S-835-ITL93249.044.IES

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	105	105	105	105	96	96	96	96	79	79	79	64	64	64	50	50	50	43
1	96	92	88	85	88	84	81	78	70	67	65	56	55	53	44	43	42	36
2	88	80	74	69	80	74	68	64	61	57	54	49	47	44	39	37	35	30
3	80	71	63	58	73	65	59	53	54	49	45	44	40	38	34	32	30	26
4	73	62	55	49	67	57	51	45	48	43	39	39	35	32	31	28	26	22
5	67	56	48	42	61	51	44	39	43	38	33	35	31	28	28	25	23	19
6	62	50	42	36	56	46	39	34	39	33	29	32	28	25	25	22	20	17
7	57	45	37	32	52	42	35	30	35	30	26	29	25	22	23	20	18	15
8	53	41	33	28	48	38	31	26	32	27	23	26	22	19	21	18	16	14
9	49	37	30	25	45	35	28	23	29	24	20	24	20	17	20	17	14	12
10	46	34	27	22	42	32	25	21	27	22	18	22	19	16	18	15	13	11

POLAR GRAPH



Maximum Candela = 276.521 Located At Horizontal Angle = 0, Vertical Angle = 180
1 - Vertical Plane Through Horizontal Angles (90 - 270)