

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-S-835-ITL93249.035.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL93249.035 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-S-835

[_INPUT_ELECTRICAL]120.0 VOLTS, 9.9 WATTS

[_INPUT_ELECTRICAL]277.0 VOLTS, 10.8 WATTS

[_ABSOLUTE]LUMENS]1111

[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	1111
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	112
Total Luminaire Watts	9.9
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	1860	1911	2012
55	1647	1709	1828
65	1440	1497	1650
75	1225	1258	1430
85	1048	1028	1196

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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	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	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-S-835-ITL93249.035.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-S-835-ITL93249.035.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	78.88	N.A.	7.10
0-30	163.45	N.A.	14.70
0-40	260.01	N.A.	23.40
0-60	435.18	N.A.	39.20
0-80	529.21	N.A.	47.60
0-90	541.89	N.A.	48.80
10-90	521.16	N.A.	46.90
20-40	181.13	N.A.	16.30
20-50	275.56	N.A.	24.80
40-70	234.49	N.A.	21.10
60-80	94.03	N.A.	8.50
70-80	34.71	N.A.	3.10
80-90	12.67	N.A.	1.10
90-110	50.23	N.A.	4.50
90-120	114.39	N.A.	10.30
90-130	201.07	N.A.	18.10
90-150	402.49	N.A.	36.20
90-180	569.11	N.A.	51.20
110-180	518.88	N.A.	46.70
0-180	1111.00	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	12.90
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

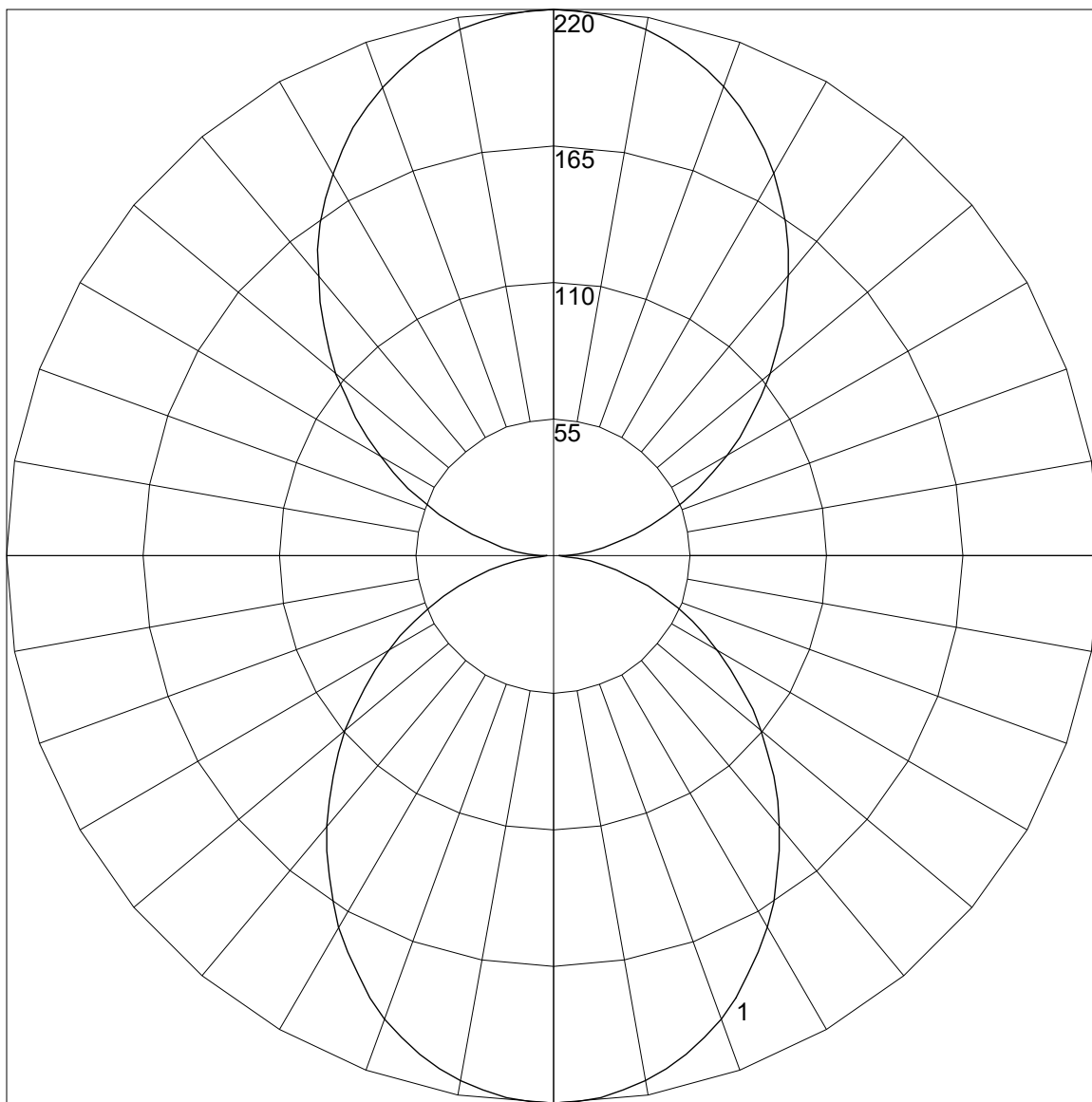
PHOTOMETRIC FILENAME : 2D90 - HP-4C-ID-P-18IN7-8IN-S-S-835-ITL93249.035.IES

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 = 220.068 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (90 - 270)