

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-H-H-835-ITL93249.033.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL93249.033 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-H-H-835

[_INPUT_ELECTRICAL]120.0 VOLTS, 19.4 WATTS

[_INPUT_ELECTRICAL]277.0 VOLTS, 19.8 WATTS

[_ABSOLUTE]LUMENS]2111

[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	2111
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	109
Total Luminaire Watts	19.4
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	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	15.554	14.831	13.022	10.852	9.405	9.766	12.299	14.107	15.192
95.0	24.597	23.873	21.703	19.533	18.809	18.448	20.980	22.788	23.873
97.5	34.725	34.363	31.831	29.299	28.576	28.576	30.384	32.555	33.278
100.0	46.662	45.577	43.045	41.236	39.428	39.789	40.874	43.045	44.130
102.5	58.237	57.152	55.343	53.173	51.364	51.726	53.173	54.258	55.343
105.0	70.535	69.812	67.642	66.195	64.386	64.386	65.110	67.642	67.642
107.5	83.557	83.196	81.025	79.217	77.770	78.855	78.132	79.940	80.302
110.0	96.941	97.303	94.409	94.047	92.600	92.962	91.153	92.962	94.409
112.5	111.772	111.048	109.239	109.601	107.431	107.069	105.984	107.793	108.154
115.0	125.879	125.155	124.070	123.708	122.261	121.176	121.538	122.261	121.900
117.5	140.347	139.624	139.262	138.177	137.815	136.007	136.007	136.730	136.368
120.0	154.816	155.901	154.816	153.731	153.008	152.284	150.837	151.561	150.114
122.5	171.094	172.179	170.732	168.923	168.923	167.476	166.391	166.753	164.944
125.0	186.648	188.094	187.371	184.477	184.115	183.030	182.307	180.860	179.775
127.5	201.478	204.372	202.925	201.840	199.669	197.499	197.137	194.967	194.605
130.0	217.394	220.649	218.479	218.117	216.670	213.415	211.968	210.883	209.798
132.5	234.395	236.565	234.395	233.671	232.224	228.969	226.798	226.075	224.628

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 2D90 - HP-4C-ID-P-18IN7-8IN-H-H-835-ITL93249.033.IES****CANDELA TABULATION - (Cont.)**

135.0	249.948	251.757	250.672	249.225	248.502	245.246	242.714	241.991	241.267
137.5	265.502	266.949	266.949	264.779	263.694	260.438	258.630	257.183	256.459
140.0	282.142	282.142	281.780	280.695	279.248	276.354	273.460	272.737	271.290
142.5	296.610	296.972	296.610	295.525	295.525	291.546	289.014	287.567	286.120
145.0	310.717	311.079	311.079	309.632	310.356	306.015	304.207	302.398	301.675
147.5	325.548	325.186	324.463	323.016	324.101	320.122	317.952	316.867	315.782
150.0	338.208	338.208	337.846	336.761	337.123	333.506	332.059	330.974	329.165
152.5	350.145	350.868	349.783	349.060	349.783	346.889	344.719	343.634	341.825
155.0	362.082	362.805	361.358	360.635	361.720	358.826	356.656	355.933	354.847
157.5	372.572	373.295	371.848	370.763	372.210	369.316	368.593	367.507	366.061
160.0	381.253	381.976	380.891	380.891	381.253	379.083	378.359	377.636	376.189
162.5	389.211	390.296	389.934	388.849	389.934	388.487	387.764	387.040	386.317
165.0	396.807	397.530	397.168	396.445	397.530	395.722	395.360	394.998	394.275
167.5	403.680	403.318	403.318	402.956	403.680	402.956	402.594	402.233	401.871
170.0	408.744	408.744	408.382	409.105	408.744	408.020	408.020	408.020	408.020
172.5	413.084	412.723	412.723	413.084	412.723	412.723	412.723	412.361	412.361
175.0	415.978	415.616	415.616	415.616	415.616	415.616	415.616	415.616	415.978
177.5	417.425	417.425	417.425	417.425	417.425	417.425	417.425	417.425	417.425
180.0	418.148	418.148	418.148	418.148	418.148	418.148	418.148	418.148	418.148

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 2D90 - HP-4C-ID-P-18IN7-8IN-H-H-835-ITL93249.033.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	149.88	N.A.	7.10
0-30	310.57	N.A.	14.70
0-40	494.05	N.A.	23.40
0-60	826.87	N.A.	39.20
0-80	1005.55	N.A.	47.60
0-90	1029.63	N.A.	48.80
10-90	990.25	N.A.	46.90
20-40	344.17	N.A.	16.30
20-50	523.59	N.A.	24.80
40-70	445.55	N.A.	21.10
60-80	178.67	N.A.	8.50
70-80	65.95	N.A.	3.10
80-90	24.08	N.A.	1.10
90-110	95.45	N.A.	4.50
90-120	217.36	N.A.	10.30
90-130	382.06	N.A.	18.10
90-150	764.77	N.A.	36.20
90-180	1081.37	N.A.	51.20
110-180	985.92	N.A.	46.70
0-180	2111.00	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	24.50
100-110	70.95
110-120	121.91
120-130	164.70
130-140	190.46
140-150	192.26
150-160	165.43
160-170	111.71
170-180	39.45

IES INDOOR REPORT

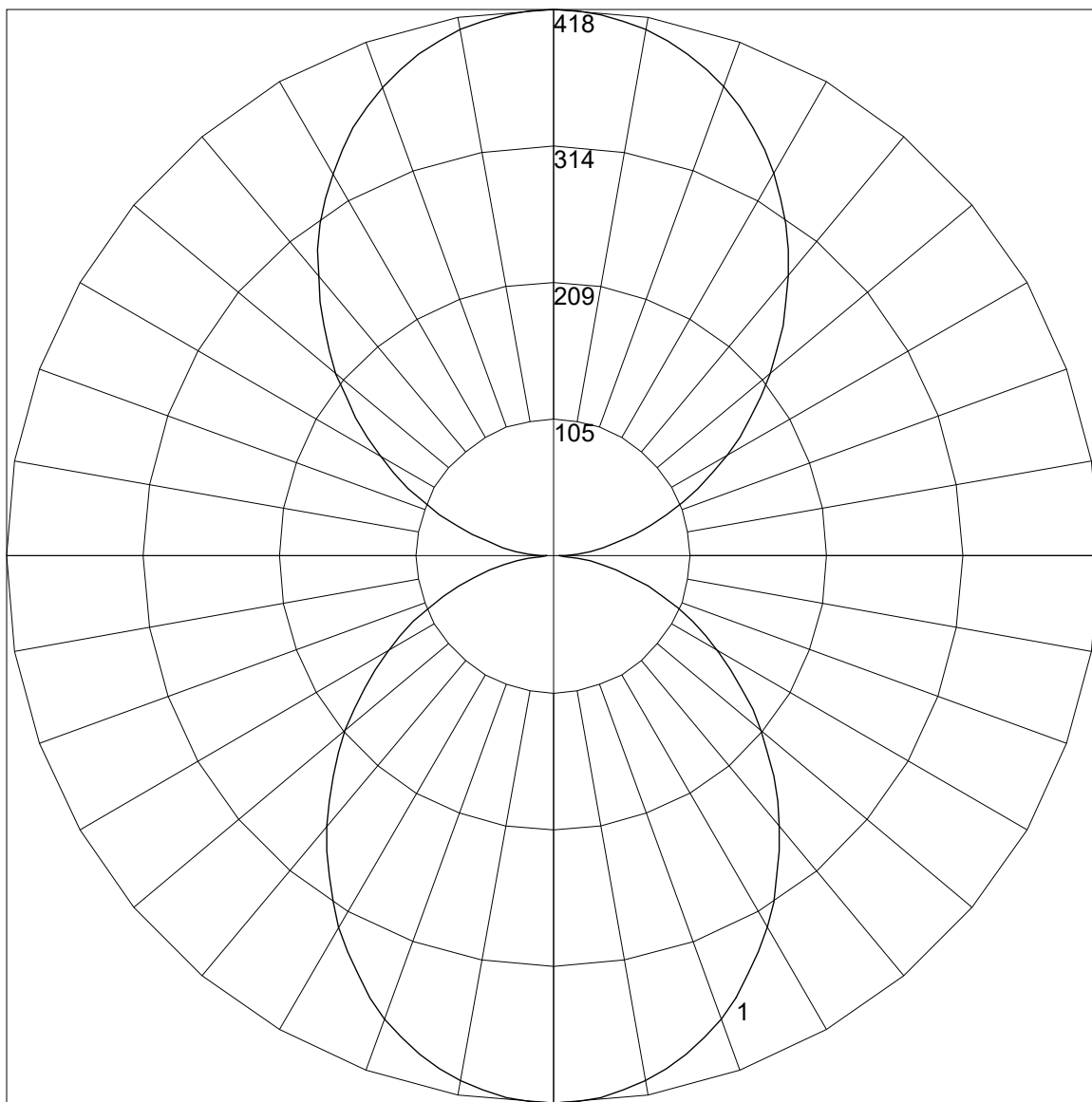
PHOTOMETRIC FILENAME : 2D90 - HP-4C-ID-P-18IN7-8IN-H-H-835-ITL93249.033.IES

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