

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-H-835-ITL93249.043.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL93249.043 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-H-835

[_INPUT_ELECTRICAL]120.0 VOLTS, 16.5 WATTS

[_INPUT_ELECTRICAL]277.0 VOLTS, 17.0 WATTS

[_ABSOLUTE]LUMENS]1745

[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	1745
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	106
Total Luminaire Watts	16.5
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	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	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-H-835-ITL93249.043.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-H-835-ITL93249.043.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	149.88	N.A.	8.60
0-30	310.57	N.A.	17.80
0-40	494.05	N.A.	28.30
0-60	826.87	N.A.	47.40
0-80	1005.55	N.A.	57.60
0-90	1029.63	N.A.	59.00
10-90	990.25	N.A.	56.70
20-40	344.17	N.A.	19.70
20-50	523.59	N.A.	30.00
40-70	445.55	N.A.	25.50
60-80	178.67	N.A.	10.20
70-80	65.95	N.A.	3.80
80-90	24.08	N.A.	1.40
90-110	63.48	N.A.	3.60
90-120	144.10	N.A.	8.30
90-130	253.02	N.A.	14.50
90-150	506.11	N.A.	29.00
90-180	715.47	N.A.	41.00
110-180	651.99	N.A.	37.40
0-180	1745.1	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	16.57
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

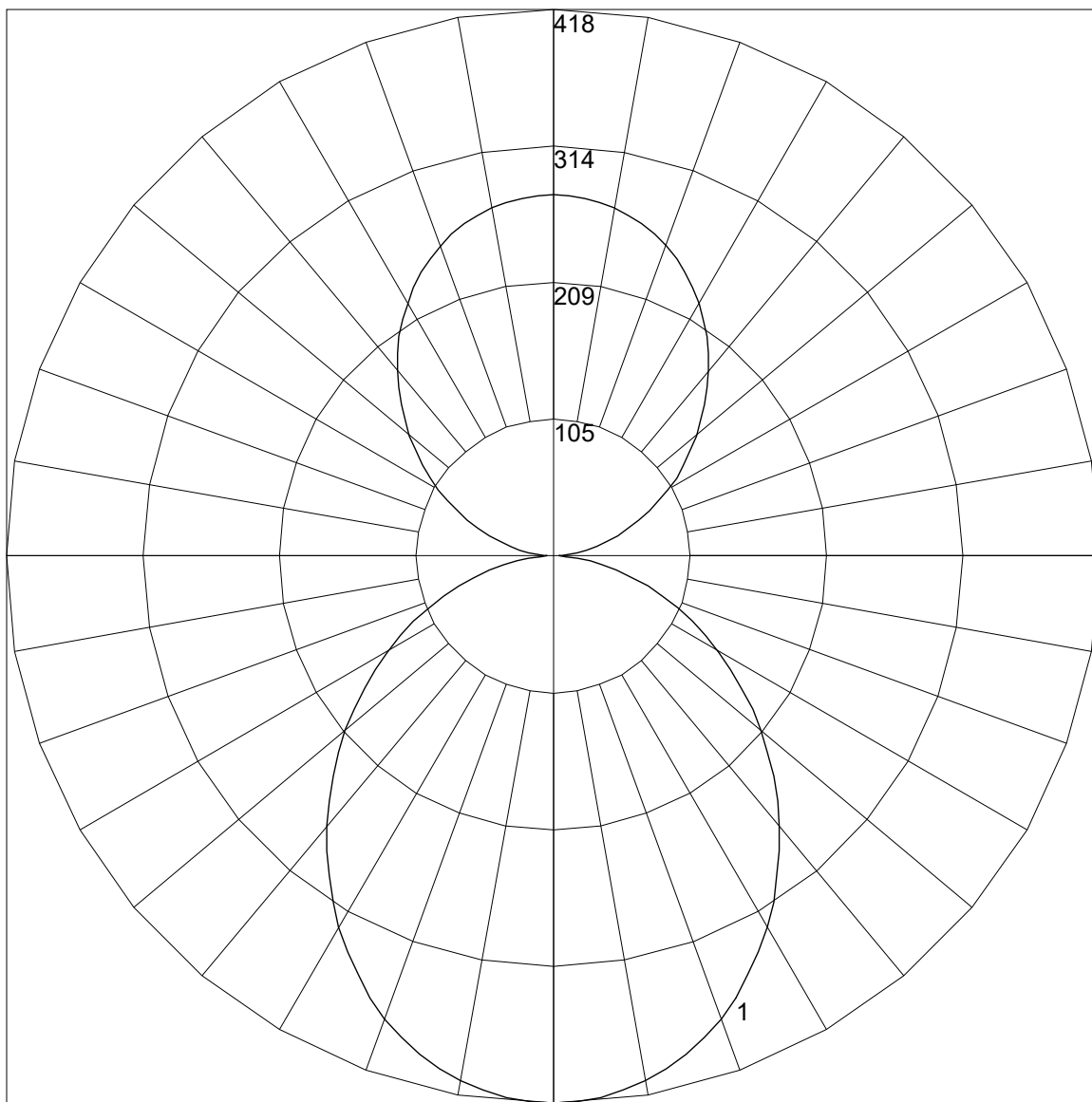
PHOTOMETRIC FILENAME : 2D90 - HP-4C-ID-P-18IN7-8IN-B-H-835-ITL93249.043.IES

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	109	109	109	109	102	102	102	102	88	88	88	76	76	76	64	64	64	59
1	100	95	91	88	93	89	86	83	77	75	73	67	65	63	57	56	54	50
2	91	83	77	72	85	78	73	68	68	64	60	59	56	53	50	48	46	42
3	83	73	66	60	77	69	62	57	60	55	51	52	48	45	44	42	39	35
4	76	65	57	51	71	61	54	48	53	48	43	46	42	39	40	37	34	30
5	70	58	50	44	65	55	47	42	48	42	38	42	37	33	36	32	30	27
6	64	52	44	38	60	49	42	36	43	37	33	38	33	29	33	29	26	23
7	60	47	39	34	56	45	37	32	39	33	29	34	30	26	30	26	23	21
8	55	43	35	30	52	41	33	28	36	30	26	32	27	23	28	24	21	19
9	52	39	32	27	48	37	30	25	33	27	23	29	24	21	25	22	19	17
10	48	36	29	24	45	34	28	23	30	25	21	27	22	19	24	20	17	15

POLAR GRAPH



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