

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-V-H-835-ITL93249.036.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL93249.036 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-V-H-835

[_INPUT_ELECTRICAL]120.0 VOLTS, 21.9 WATTS

[_INPUT_ELECTRICAL]277.0 VOLTS, 22.3 WATTS

[_ABSOLUTE]LUMENS]2420

[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	2420
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	110
Total Luminaire Watts	21.9
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	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	19.997	19.067	16.742	13.951	12.091	12.556	15.812	18.137	19.532
95.0	31.623	30.693	27.903	25.112	24.182	23.717	26.973	29.298	30.693
97.5	44.644	44.179	40.924	37.669	36.739	36.739	39.064	41.854	42.784
100.0	59.991	58.596	55.340	53.015	50.690	51.155	52.550	55.340	56.736
102.5	74.872	73.477	71.152	68.362	66.036	66.501	68.362	69.757	71.152
105.0	90.684	89.754	86.963	85.103	82.778	82.778	83.708	86.963	86.963
107.5	107.425	106.960	104.170	101.845	99.985	101.380	100.450	102.775	103.240
110.0	124.632	125.097	121.377	120.912	119.052	119.517	117.191	119.517	121.377
112.5	143.699	142.769	140.444	140.909	138.118	137.653	136.258	138.583	139.048
115.0	161.836	160.906	159.510	159.045	157.185	155.790	156.255	157.185	156.720
117.5	180.438	179.507	179.042	177.647	177.182	174.857	174.857	175.787	175.322
120.0	199.039	200.434	199.039	197.644	196.714	195.784	193.924	194.854	192.994
122.5	219.966	221.361	219.501	217.176	217.176	215.316	213.921	214.386	212.060
125.0	239.963	241.823	240.893	237.173	236.708	235.313	234.383	232.523	231.127
127.5	259.030	262.750	260.890	259.495	256.705	253.915	253.450	250.659	250.194
130.0	279.492	283.678	280.887	280.422	278.562	274.377	272.516	271.121	269.726
132.5	301.349	304.139	301.349	300.419	298.559	294.373	291.583	290.653	288.793

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 2D90 - HP-4C-ID-P-18IN7-8IN-V-H-835-ITL93249.036.IES****CANDELA TABULATION - (Cont.)**

135.0	321.346	323.671	322.276	320.416	319.486	315.300	312.045	311.115	310.185
137.5	341.343	343.203	343.203	340.413	339.018	334.832	332.507	330.647	329.717
140.0	362.735	362.735	362.270	360.875	359.015	355.294	351.574	350.644	348.784
142.5	381.337	381.802	381.337	379.942	379.942	374.826	371.571	369.711	367.851
145.0	399.474	399.939	399.939	398.079	399.009	393.428	391.103	388.778	387.848
147.5	418.541	418.075	417.145	415.285	416.680	411.565	408.775	407.379	405.984
150.0	434.817	434.817	434.352	432.957	433.422	428.772	426.911	425.516	423.191
152.5	450.164	451.094	449.699	448.768	449.699	445.978	443.188	441.793	439.467
155.0	465.510	466.440	464.580	463.650	465.045	461.325	458.534	457.604	456.209
157.5	478.996	479.926	478.066	476.671	478.531	474.811	473.881	472.486	470.625
160.0	490.157	491.087	489.692	489.692	490.157	487.367	486.437	485.507	483.647
162.5	500.388	501.784	501.318	499.923	501.318	499.458	498.528	497.598	496.668
165.0	510.154	511.084	510.619	509.689	511.084	508.759	508.294	507.829	506.899
167.5	518.990	518.525	518.525	518.060	518.990	518.060	517.595	517.130	516.665
170.0	525.501	525.501	525.036	525.966	525.501	524.571	524.571	524.571	524.571
172.5	531.081	530.616	530.616	531.081	530.616	530.616	530.616	530.151	530.151
175.0	534.802	534.337	534.337	534.337	534.337	534.337	534.337	534.337	534.802
177.5	536.662	536.662	536.662	536.662	536.662	536.662	536.662	536.662	536.662
180.0	537.592	537.592	537.592	537.592	537.592	537.592	537.592	537.592	537.592

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 2D90 - HP-4C-ID-P-18IN7-8IN-V-H-835-ITL93249.036.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	149.88	N.A.	6.20
0-30	310.57	N.A.	12.80
0-40	494.05	N.A.	20.40
0-60	826.87	N.A.	34.20
0-80	1005.55	N.A.	41.60
0-90	1029.63	N.A.	42.60
10-90	990.25	N.A.	40.90
20-40	344.17	N.A.	14.20
20-50	523.59	N.A.	21.60
40-70	445.55	N.A.	18.40
60-80	178.67	N.A.	7.40
70-80	65.95	N.A.	2.70
80-90	24.08	N.A.	1.00
90-110	122.41	N.A.	5.10
90-120	279.14	N.A.	11.50
90-130	490.88	N.A.	20.30
90-150	982.92	N.A.	40.60
90-180	1389.95	N.A.	57.40
110-180	1267.54	N.A.	52.40
0-180	2419.58	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	31.20
100-110	91.21
110-120	156.73
120-130	211.75
130-140	244.86
140-150	247.18
150-160	212.69
160-170	143.62
170-180	50.72

IES INDOOR REPORT

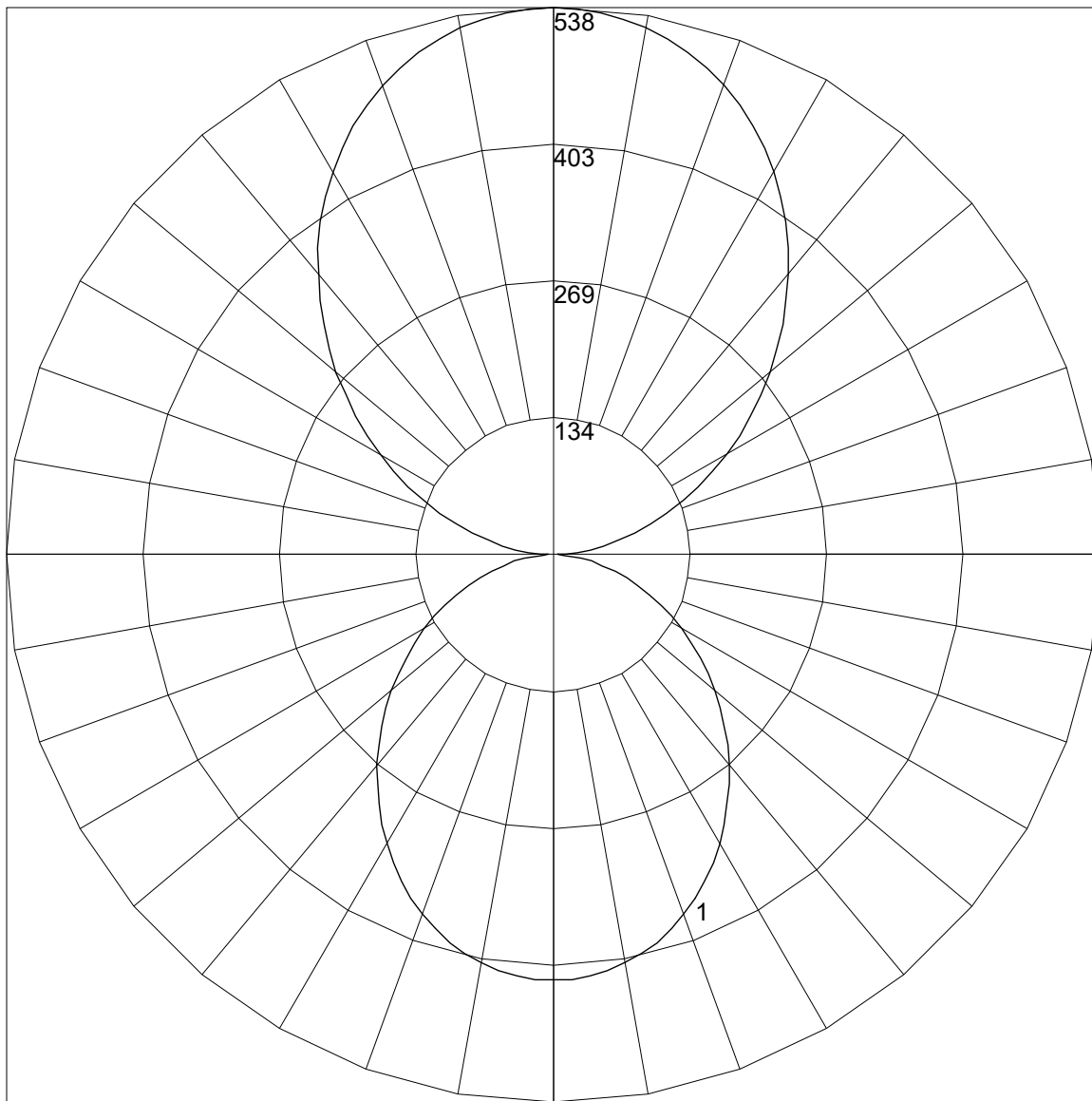
PHOTOMETRIC FILENAME : 2D90 - HP-4C-ID-P-18IN7-8IN-V-H-835-ITL93249.036.IES

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	49	49	49	43
1	96	92	88	84	88	84	81	78	69	67	65	56	54	53	43	42	41	36
2	87	80	74	69	80	73	68	64	61	57	54	49	46	44	38	37	35	30
3	80	70	63	57	73	65	58	53	54	49	45	43	40	37	34	32	30	25
4	73	62	55	49	66	57	51	45	48	43	39	39	35	32	30	28	26	22
5	67	56	48	42	61	51	44	39	43	37	33	35	31	28	27	25	23	19
6	62	50	42	36	56	46	39	34	38	33	29	31	27	24	25	22	20	17
7	57	45	37	32	52	41	35	30	35	29	26	29	25	22	23	20	18	15
8	53	41	33	28	48	38	31	26	32	26	23	26	22	19	21	18	16	13
9	49	37	30	25	45	34	28	23	29	24	20	24	20	17	19	16	14	12
10	46	34	27	22	42	32	25	21	27	22	18	22	18	16	18	15	13	11

POLAR GRAPH



Maximum Candela = 537.592 Located At Horizontal Angle = 0, Vertical Angle = 180
1 - Vertical Plane Through Horizontal Angles (90 - 270)