

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-V-835-ITL93249.039.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL93249.039 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-V-835

[_INPUT_ELECTRICAL]120.0 VOLTS, 22.8 WATTS

[_INPUT_ELECTRICAL]277.0 VOLTS, 23.1 WATTS

[_ABSOLUTE]LUMENS]2405

[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	2405
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	106
Total Luminaire Watts	22.8
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	4544	4668	4914
55	4024	4176	4466
65	3517	3657	4030
75	2991	3072	3493
85	2560	2512	2921

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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	537.592	537.592	537.592	537.592	537.592	537.592	537.592	537.592	537.592
2.5	537.127	537.127	537.592	537.127	536.662	536.662	536.662	536.197	536.197
5.0	534.802	534.802	534.802	534.802	534.337	533.872	533.407	532.942	532.942
7.5	531.081	530.616	530.616	530.616	529.686	529.221	528.291	527.826	526.896
10.0	524.106	524.571	524.571	524.571	523.641	522.711	521.780	520.850	520.385
12.5	516.665	516.200	516.200	516.665	516.200	514.340	513.410	511.550	511.084
15.0	505.969	506.899	505.969	507.364	507.364	505.039	503.179	500.853	498.993
17.5	492.948	494.343	494.343	495.738	495.738	493.413	490.157	487.832	485.972
20.0	479.926	481.322	481.787	482.717	483.647	480.392	477.136	472.951	472.021
22.5	465.045	465.975	466.905	469.230	470.161	465.975	462.255	457.604	456.674
25.0	449.233	450.164	451.094	454.349	454.349	451.094	446.908	440.863	438.537
27.5	431.562	432.027	434.352	437.607	438.072	434.352	428.772	424.121	421.331
30.0	413.890	414.820	417.610	419.936	421.331	416.680	411.565	405.054	404.124
32.5	393.893	396.683	398.544	402.729	403.659	398.079	393.893	386.917	384.592
35.0	374.826	376.687	379.477	383.662	383.662	379.942	374.361	368.316	365.525
37.5	355.759	357.620	360.410	364.130	365.060	361.805	355.294	349.249	346.924
40.0	336.693	337.623	340.413	345.528	346.459	342.273	336.693	328.787	326.462
42.5	315.300	317.161	320.881	325.531	326.462	323.671	317.161	310.185	307.395
45.0	295.304	297.164	300.419	304.604	306.465	303.674	296.234	290.188	287.863
47.5	275.772	277.167	280.422	285.073	286.468	283.212	276.237	270.191	268.796
50.0	255.310	258.100	260.890	266.006	266.936	263.680	256.705	251.124	248.799
52.5	236.243	237.638	240.893	246.009	246.939	244.149	238.103	231.592	231.592
55.0	216.246	218.571	221.361	225.082	226.477	225.082	218.571	213.456	211.595
57.5	198.109	199.969	201.364	206.015	207.410	204.620	198.574	194.854	193.459
60.0	179.972	180.438	182.763	186.948	188.808	186.483	180.903	176.252	174.392
62.5	162.301	162.766	164.161	168.346	169.276	167.416	162.301	159.045	157.185
65.0	143.699	144.629	146.489	148.814	151.140	148.814	145.094	141.374	140.444
67.5	127.422	128.352	128.352	131.143	132.538	131.608	126.492	124.632	124.167
70.0	111.146	111.611	110.681	113.936	114.401	113.471	110.216	108.820	107.425
72.5	95.799	95.334	94.869	96.729	97.194	97.194	94.404	93.009	92.079
75.0	79.988	80.453	79.523	79.988	80.918	80.918	79.523	77.662	78.128
77.5	66.501	66.501	64.176	65.106	64.176	65.571	64.176	64.176	64.641
80.0	53.480	53.480	50.690	51.155	49.295	51.620	50.690	51.620	51.155
82.5	41.854	40.924	38.599	38.134	36.273	38.134	38.599	39.529	39.994
85.0	30.228	29.763	27.438	25.578	23.717	26.043	27.438	28.368	29.298
87.5	20.927	19.997	16.277	15.347	12.556	14.416	16.742	19.067	19.997
90.0	14.416	13.486	10.231	8.371	5.580	6.976	9.301	12.556	13.486
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-V-835-ITL93249.039.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-V-835-ITL93249.039.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	192.70	N.A.	8.00
0-30	399.28	N.A.	16.60
0-40	635.18	N.A.	26.40
0-60	1063.07	N.A.	44.20
0-80	1292.78	N.A.	53.70
0-90	1323.74	N.A.	55.00
10-90	1273.11	N.A.	52.90
20-40	442.48	N.A.	18.40
20-50	673.15	N.A.	28.00
40-70	572.81	N.A.	23.80
60-80	229.71	N.A.	9.50
70-80	84.79	N.A.	3.50
80-90	30.96	N.A.	1.30
90-110	95.76	N.A.	4.00
90-120	217.66	N.A.	9.00
90-130	382.36	N.A.	15.90
90-150	765.08	N.A.	31.80
90-180	1081.67	N.A.	45.00
110-180	985.92	N.A.	41.00
0-180	2405.42	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	50.63
10-20	142.07
20-30	206.59
30-40	235.89
40-50	230.67
50-60	197.22
60-70	144.92
70-80	84.79
80-90	30.96
90-100	24.81
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

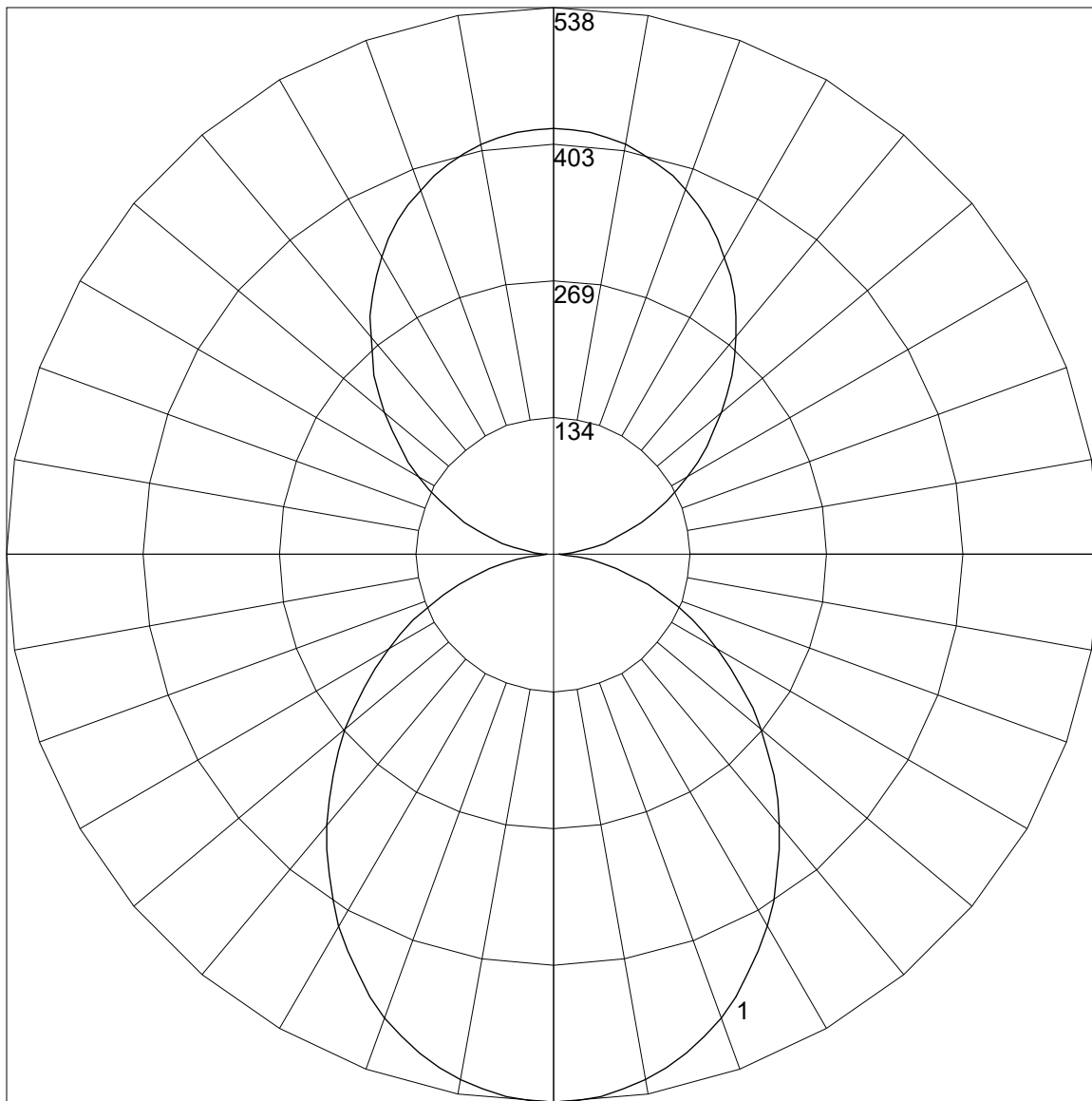
PHOTOMETRIC FILENAME : 2D90 - HP-4C-ID-P-18IN7-8IN-H-V-835-ITL93249.039.IES

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	108	108	108	108	101	101	101	101	86	86	86	73	73	73	61	61	61	55
1	99	94	91	87	92	88	84	81	75	73	71	64	62	61	54	52	51	46
2	90	83	76	71	83	77	71	67	66	62	59	56	53	51	47	45	43	39
3	82	73	65	59	76	68	61	56	58	53	49	50	46	43	42	39	37	33
4	75	64	56	50	70	60	53	48	52	47	42	45	40	37	38	34	32	28
5	69	57	49	43	64	54	46	41	47	41	37	40	36	32	34	31	28	25
6	64	52	43	38	59	48	41	36	42	36	32	36	32	28	31	27	25	22
7	59	47	39	33	55	44	37	31	38	32	28	33	28	25	28	25	22	19
8	55	42	35	29	51	40	33	28	35	29	25	30	26	22	26	22	20	17
9	51	39	31	26	47	37	30	25	32	26	23	28	23	20	24	20	18	16
10	48	36	28	24	44	34	27	23	30	24	20	26	21	18	22	19	16	14

POLAR GRAPH



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