

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-V-835-ITL93249.032.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL93249.032 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-V-835

[_INPUT_ELECTRICAL]120.0 VOLTS, 25.3 WATTS

[_INPUT_ELECTRICAL]277.0 VOLTS, 25.6 WATTS

[_ABSOLUTE]LUMENS]2714

[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	2714
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	107
Total Luminaire Watts	25.3
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

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	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-V-835-ITL93249.032.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-V-835-ITL93249.032.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	192.70	N.A.	7.10
0-30	399.28	N.A.	14.70
0-40	635.18	N.A.	23.40
0-60	1063.07	N.A.	39.20
0-80	1292.78	N.A.	47.60
0-90	1323.74	N.A.	48.80
10-90	1273.11	N.A.	46.90
20-40	442.48	N.A.	16.30
20-50	673.15	N.A.	24.80
40-70	572.81	N.A.	21.10
60-80	229.71	N.A.	8.50
70-80	84.79	N.A.	3.10
80-90	30.96	N.A.	1.10
90-110	122.72	N.A.	4.50
90-120	279.45	N.A.	10.30
90-130	491.19	N.A.	18.10
90-150	983.23	N.A.	36.20
90-180	1390.26	N.A.	51.20
110-180	1267.54	N.A.	46.70
0-180	2714.00	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	31.50
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

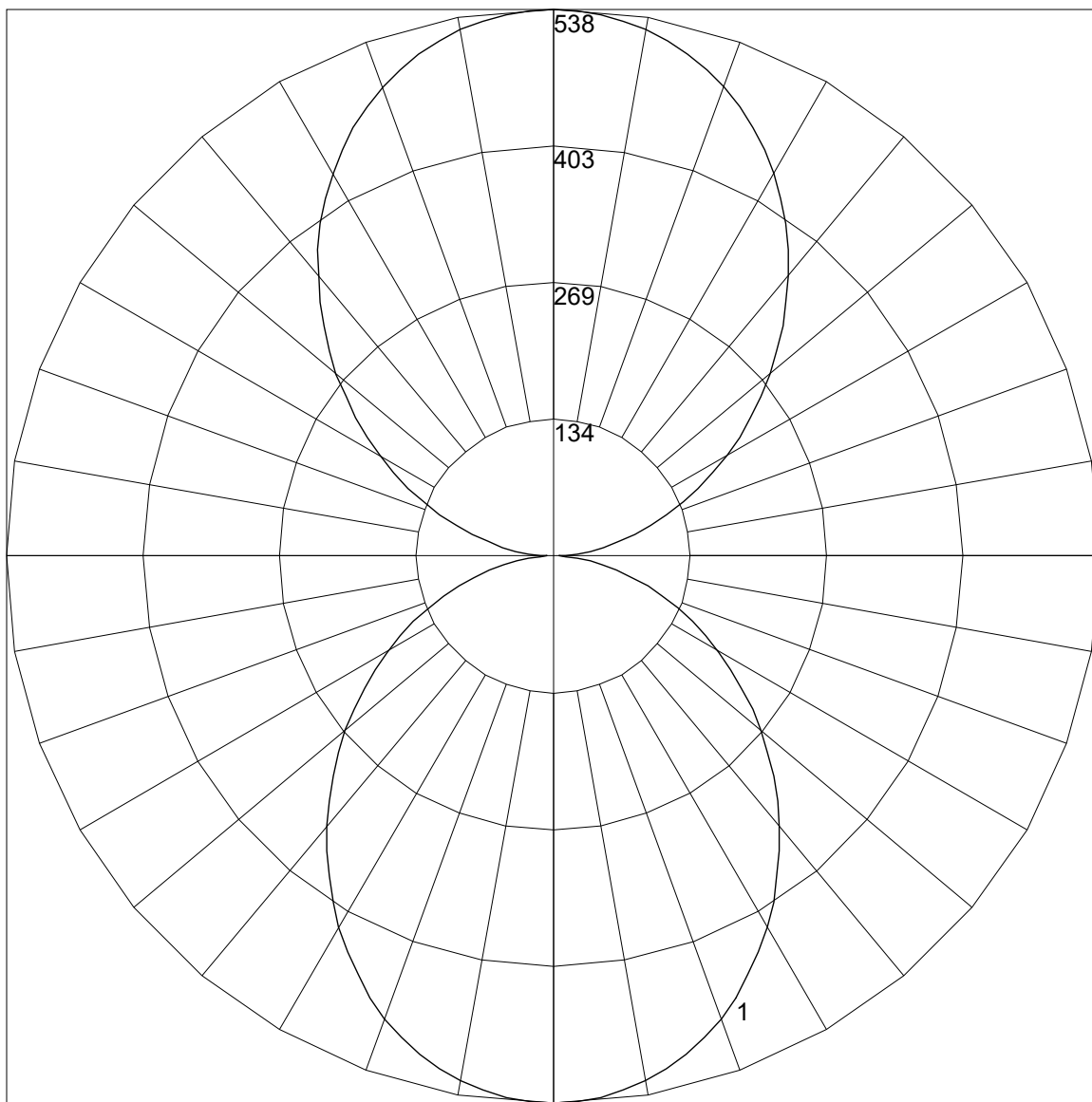
PHOTOMETRIC FILENAME : 2D90 - HP-4C-ID-P-18IN7-8IN-V-V-835-ITL93249.032.IES

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