

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 : 3D90 - HP-4C-ID-P-28IN9-16IN-S-V-835-ITL93249.029.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL93249.029 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-37in11-16in-S-V-835

[_INPUT_ELECTRICAL]120.0 VOLTS, 31.4 WATTS

[_INPUT_ELECTRICAL]277.0 VOLTS, 32.2 WATTS

[_ABSOLUTE]LUMENS]3199

[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	3199
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	102
Total Luminaire Watts	31.4
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	1.16
Spacing Criterion (90-270)	1.18
Spacing Criterion (Diagonal)	1.28
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	7680	7890	8305
55	6801	7057	7549
65	5944	6181	6811
75	5056	5193	5904
85	4327	4245	4936

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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	908.598	908.597	908.597	908.597	908.597	908.597	908.597	908.597	908.597
2.5	907.812	907.812	908.597	907.812	907.025	907.025	907.025	906.240	906.240
5.0	903.882	903.882	903.882	903.882	903.096	902.310	901.524	900.738	900.738
7.5	897.594	896.808	896.808	896.808	895.236	894.450	892.878	892.092	890.520
10.0	885.804	886.590	886.590	886.590	885.018	883.446	881.874	880.302	879.516
12.5	873.228	872.442	872.442	873.228	872.442	869.298	867.726	864.582	863.796
15.0	855.151	856.722	855.151	857.509	857.509	853.579	850.435	846.505	843.361
17.5	833.143	835.501	835.501	837.859	837.859	833.929	828.427	824.497	821.353
20.0	811.135	813.494	814.279	815.851	817.423	811.921	806.420	799.346	797.774
22.5	785.984	787.556	789.128	793.058	794.630	787.556	781.268	773.408	771.836
25.0	759.261	760.832	762.404	767.906	767.906	762.404	755.331	745.113	741.183
27.5	729.393	730.179	734.109	739.611	740.397	734.109	724.677	716.817	712.101
30.0	699.526	701.098	705.814	709.744	712.101	704.242	695.596	684.592	683.020
32.5	665.729	670.444	673.588	680.662	682.234	672.802	665.729	653.939	650.009
35.0	633.503	636.647	641.363	648.437	648.437	642.149	632.717	622.499	617.783
37.5	601.278	604.422	609.138	615.426	616.997	611.495	600.492	590.274	586.344
40.0	569.052	570.624	575.340	583.986	585.558	578.484	569.052	555.691	551.761
42.5	532.897	536.041	542.329	550.189	551.761	547.045	536.041	524.251	519.535
45.0	499.100	502.244	507.746	514.819	517.963	513.248	500.672	490.454	486.524
47.5	466.089	468.447	473.948	481.808	484.166	478.664	466.875	456.657	454.299
50.0	431.505	436.221	440.937	449.583	451.155	445.653	433.863	424.431	420.501
52.5	399.280	401.638	407.140	415.786	417.358	412.642	402.424	391.420	391.420
55.0	365.483	369.413	374.128	380.416	382.774	380.416	369.413	360.767	357.623
57.5	334.829	337.973	340.331	348.191	350.549	345.833	335.615	329.327	326.969
60.0	304.176	304.962	308.892	315.966	319.110	315.180	305.748	297.888	294.744
62.5	274.308	275.094	277.452	284.526	286.098	282.954	274.308	268.807	265.663
65.0	242.869	244.441	247.585	251.515	255.445	251.515	245.227	238.939	237.367
67.5	215.360	216.932	216.932	221.648	224.005	222.434	213.788	210.644	209.858
70.0	187.850	188.636	187.064	192.566	193.352	191.780	186.278	183.920	181.562
72.5	161.913	161.127	160.341	163.485	164.271	164.271	159.555	157.197	155.625
75.0	135.189	135.975	134.403	135.189	136.761	136.761	134.403	131.259	132.045
77.5	112.396	112.396	108.466	110.038	108.466	110.824	108.466	108.466	109.252
80.0	90.388	90.388	85.672	86.458	83.314	87.244	85.672	87.244	86.458
82.5	70.739	69.167	65.237	64.451	61.307	64.451	65.237	66.809	67.595
85.0	51.089	50.303	46.373	43.229	40.085	44.015	46.373	47.945	49.517
87.5	35.369	33.797	27.509	25.938	21.222	24.366	28.295	32.225	33.797
90.0	18.947	17.725	13.447	11.002	7.335	9.168	12.224	16.503	17.725
92.5	13.830	13.187	11.579	9.649	8.362	8.684	10.935	12.543	13.508
95.0	21.870	21.227	19.297	17.368	16.724	16.403	18.654	20.262	21.227
97.5	30.876	30.554	28.303	26.052	25.408	25.408	27.016	28.946	29.589
100.0	41.489	40.525	38.273	36.665	35.057	35.379	36.343	38.273	39.238
102.5	51.782	50.817	49.209	47.279	45.671	45.992	47.279	48.244	49.209
105.0	62.717	62.073	60.144	58.857	57.249	57.249	57.892	60.144	60.144
107.5	74.295	73.974	72.044	70.436	69.149	70.114	69.471	71.079	71.400
110.0	86.195	86.517	83.944	83.622	82.336	82.657	81.049	82.657	83.944
112.5	99.382	98.739	97.130	97.452	95.522	95.201	94.236	95.844	96.166
115.0	111.925	111.282	110.317	109.995	108.709	107.744	108.066	108.709	108.387
117.5	124.790	124.147	123.825	122.860	122.539	120.931	120.931	121.574	121.252
120.0	137.655	138.620	137.655	136.690	136.047	135.404	134.117	134.761	133.474
122.5	152.128	153.093	151.806	150.198	150.198	148.912	147.947	148.269	146.661
125.0	165.958	167.244	166.601	164.028	163.707	162.742	162.099	160.812	159.847
127.5	179.145	181.718	180.431	179.466	177.536	175.607	175.285	173.355	173.034
130.0	193.296	196.191	194.261	193.939	192.653	189.758	188.472	187.507	186.542
132.5	208.412	210.342	208.412	207.769	206.483	203.588	201.658	201.015	199.728

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 3D90 - HP-4C-ID-P-28IN9-16IN-S-V-835-ITL93249.029.IES****CANDELA TABULATION - (Cont.)**

135.0	222.242	223.850	222.885	221.599	220.956	218.061	215.810	215.167	214.523
137.5	236.072	237.358	237.358	235.429	234.464	231.569	229.961	228.675	228.031
140.0	250.867	250.867	250.545	249.580	248.294	245.721	243.148	242.505	241.218
142.5	263.732	264.053	263.732	262.767	262.767	259.229	256.978	255.691	254.405
145.0	276.275	276.597	276.597	275.310	275.953	272.094	270.486	268.878	268.234
147.5	289.462	289.140	288.497	287.210	288.175	284.637	282.707	281.743	280.778
150.0	300.718	300.718	300.397	299.432	299.754	296.537	295.251	294.286	292.678
152.5	311.332	311.975	311.010	310.367	311.010	308.437	306.508	305.543	303.935
155.0	321.946	322.589	321.302	320.659	321.624	319.051	317.121	316.478	315.513
157.5	331.273	331.916	330.630	329.665	330.951	328.378	327.735	326.770	325.483
160.0	338.992	339.635	338.670	338.670	338.992	337.062	336.419	335.776	334.489
162.5	346.067	347.032	346.711	345.746	346.711	345.424	344.781	344.138	343.494
165.0	352.822	353.465	353.143	352.500	353.465	351.857	351.535	351.213	350.570
167.5	358.932	358.611	358.611	358.289	358.932	358.289	357.967	357.646	357.324
170.0	363.435	363.435	363.113	363.757	363.435	362.792	362.792	362.792	362.792
172.5	367.295	366.973	366.973	367.295	366.973	366.973	366.973	366.651	366.651
175.0	369.868	369.546	369.546	369.546	369.546	369.546	369.546	369.546	369.868
177.5	371.154	371.154	371.154	371.154	371.154	371.154	371.154	371.154	371.154
180.0	371.797	371.797	371.797	371.797	371.797	371.797	371.797	371.797	371.797

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 3D90 - HP-4C-ID-P-28IN9-16IN-S-V-835-ITL93249.029.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	325.68	N.A.	10.20
0-30	674.84	N.A.	21.10
0-40	1073.53	N.A.	33.60
0-60	1796.72	N.A.	56.20
0-80	2184.96	N.A.	68.30
0-90	2236.77	N.A.	69.90
10-90	2151.2	N.A.	67.20
20-40	747.85	N.A.	23.40
20-50	1137.71	N.A.	35.60
40-70	968.13	N.A.	30.30
60-80	388.24	N.A.	12.10
70-80	143.30	N.A.	4.50
80-90	51.81	N.A.	1.60
90-110	85.73	N.A.	2.70
90-120	194.12	N.A.	6.10
90-130	340.56	N.A.	10.60
90-150	680.86	N.A.	21.30
90-180	962.36	N.A.	30.10
110-180	876.63	N.A.	27.40
0-180	3199.13	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	85.57
10-20	240.11
20-30	349.16
30-40	398.69
40-50	389.87
50-60	333.32
60-70	244.94
70-80	143.30
80-90	51.81
90-100	22.65
100-110	63.08
110-120	108.39
120-130	146.44
130-140	169.35
140-150	170.95
150-160	147.10
160-170	99.33
170-180	35.08

IES INDOOR REPORT

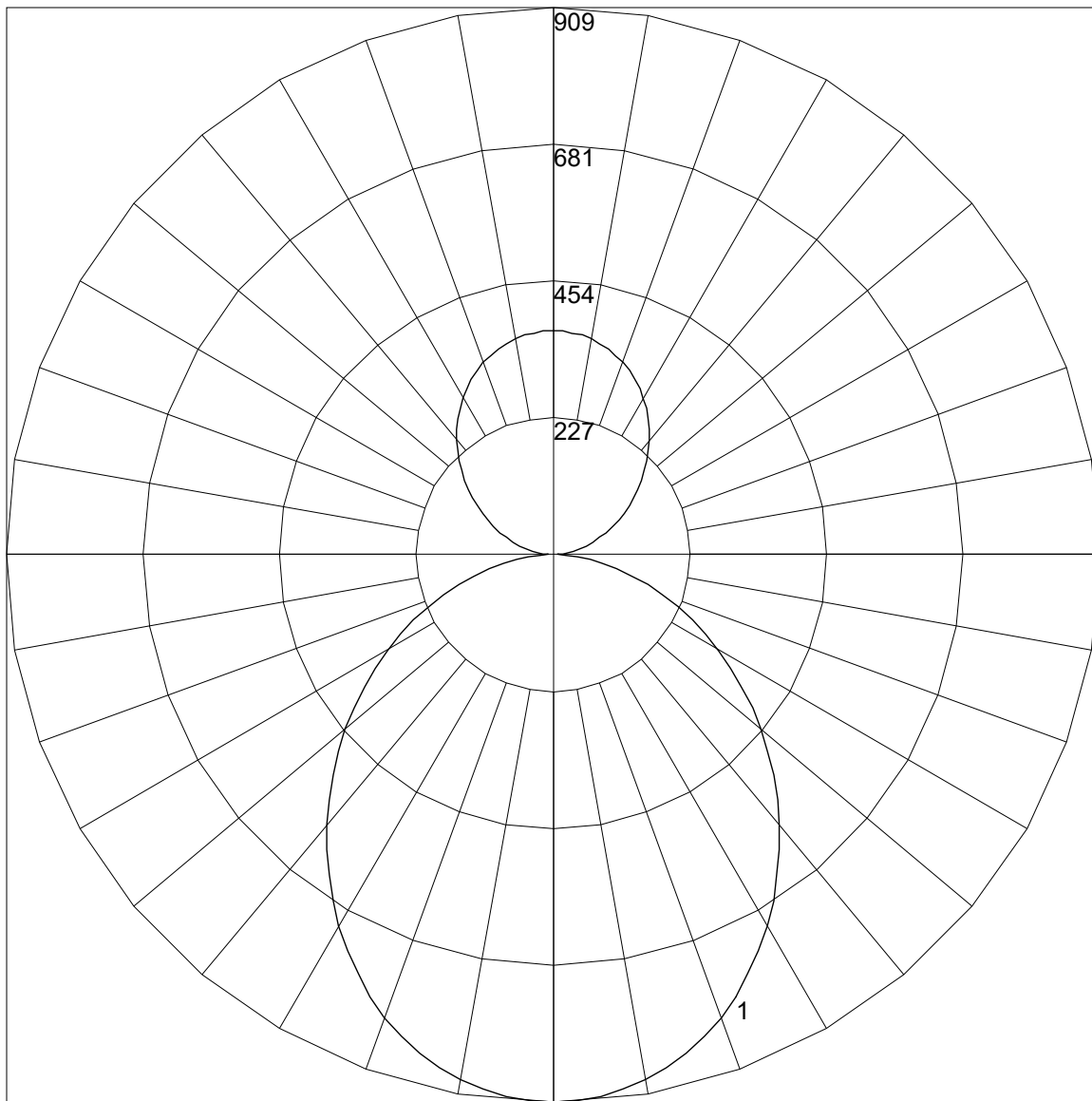
PHOTOMETRIC FILENAME : 3D90 - HP-4C-ID-P-28IN9-16IN-S-V-835-ITL93249.029.IES

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	112	112	112	112	106	106	106	106	94	94	94	84	84	84	74	74	74	70
1	102	98	94	90	96	92	89	86	83	80	78	74	72	70	66	64	63	59
2	93	85	79	74	88	81	75	71	73	68	64	65	62	59	58	55	53	49
3	85	75	68	62	80	71	65	59	64	59	54	58	53	50	51	48	45	42
4	78	67	59	52	73	63	56	50	57	51	47	51	47	43	46	42	39	36
5	72	60	51	45	68	57	49	44	51	45	40	46	41	37	42	38	34	31
6	66	54	45	39	62	51	44	38	46	40	35	42	37	33	38	34	30	28
7	61	49	41	35	58	46	39	34	42	36	31	38	33	29	35	30	27	25
8	57	44	36	31	54	42	35	30	39	32	28	35	30	26	32	28	24	22
9	53	41	33	28	50	39	32	27	36	30	25	32	27	24	29	25	22	20
10	50	37	30	25	47	36	29	24	33	27	23	30	25	21	27	23	20	18

POLAR GRAPH



Maximum Candela = 908.598 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (90 - 270)