

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-B-835-ITL93249.031.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL93249.031 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-B-835

[_INPUT_ELECTRICAL]120.0 VOLTS, 19.2 WATTS

[_INPUT_ELECTRICAL]277.0 VOLTS, 20.5 WATTS

[_ABSOLUTE]LUMENS]2113

[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	2113
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	110
Total Luminaire Watts	19.2
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	3952	4059	4273
55	3499	3631	3884
65	3058	3180	3504
75	2601	2672	3037
85	2226	2184	2540

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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	467.471	467.471	467.471	467.471	467.471	467.471	467.471	467.471	467.471
2.5	467.067	467.067	467.471	467.067	466.663	466.663	466.663	466.258	466.258
5.0	465.045	465.045	465.045	465.045	464.641	464.236	463.832	463.428	463.428
7.5	461.810	461.406	461.406	461.406	460.597	460.192	459.384	458.979	458.171
10.0	455.744	456.149	456.149	456.149	455.340	454.531	453.722	452.913	452.509
12.5	449.274	448.870	448.870	449.274	448.870	447.252	446.443	444.826	444.421
15.0	439.973	440.782	439.973	441.186	441.186	439.164	437.547	435.525	433.907
17.5	428.650	429.863	429.863	431.077	431.077	429.055	426.224	424.202	422.584
20.0	417.327	418.541	418.945	419.754	420.563	417.732	414.901	411.262	410.453
22.5	404.387	405.196	406.005	408.026	408.835	405.196	401.961	397.917	397.108
25.0	390.638	391.447	392.255	395.086	395.086	392.255	388.616	383.359	381.337
27.5	375.271	375.675	377.697	380.528	380.933	377.697	372.845	368.801	366.375
30.0	359.904	360.713	363.139	365.161	366.375	362.331	357.882	352.221	351.412
32.5	342.516	344.942	346.560	350.199	351.008	346.155	342.516	336.450	334.428
35.0	325.936	327.553	329.980	333.619	333.619	330.384	325.531	320.274	317.848
37.5	309.356	310.974	313.400	316.635	317.444	314.613	308.952	303.695	301.673
40.0	292.776	293.585	296.011	300.459	301.268	297.629	292.776	285.902	283.880
42.5	274.174	275.792	279.027	283.071	283.880	281.453	275.792	269.726	267.300
45.0	256.786	258.403	261.234	264.873	266.491	264.065	257.594	252.338	250.316
47.5	239.802	241.015	243.845	247.889	249.102	246.272	240.206	234.949	233.736
50.0	222.008	224.435	226.861	231.309	232.118	229.287	223.222	218.369	216.347
52.5	205.429	206.642	209.472	213.921	214.730	212.303	207.046	201.385	201.385
55.0	188.040	190.062	192.488	195.723	196.936	195.723	190.062	185.614	183.996
57.5	172.269	173.886	175.100	179.143	180.357	177.930	172.673	169.438	168.225
60.0	156.498	156.902	158.924	162.564	164.181	162.159	157.306	153.263	151.645
62.5	141.131	141.535	142.749	146.388	147.197	145.579	141.131	138.300	136.683
65.0	124.956	125.764	127.382	129.404	131.426	129.404	126.169	122.934	122.125
67.5	110.802	111.611	111.611	114.037	115.250	114.442	109.993	108.376	107.971
70.0	96.648	97.053	96.244	99.075	99.479	98.670	95.840	94.627	93.413
72.5	83.304	82.899	82.495	84.112	84.517	84.517	82.091	80.877	80.069
75.0	69.555	69.959	69.150	69.555	70.363	70.363	69.150	67.533	67.937
77.5	57.827	57.827	55.805	56.614	55.805	57.019	55.805	55.805	56.210
80.0	46.505	46.505	44.078	44.483	42.865	44.887	44.078	44.887	44.483
82.5	36.395	35.586	33.564	33.160	31.542	33.160	33.564	34.373	34.777
85.0	26.285	25.881	23.859	22.241	20.624	22.646	23.859	24.668	25.476
87.5	18.197	17.389	14.153	13.345	10.918	12.536	14.558	16.580	17.389
90.0	12.536	11.727	8.896	7.279	4.853	6.066	8.088	10.918	11.727
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-B-835-ITL93249.031.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

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Zone	Lumens	%Lamp	%Fixt
0-20	167.56	N.A.	7.90
0-30	347.20	N.A.	16.40
0-40	552.33	N.A.	26.10
0-60	924.41	N.A.	43.80
0-80	1124.16	N.A.	53.20
0-90	1151.08	N.A.	54.50
10-90	1107.05	N.A.	52.40
20-40	384.76	N.A.	18.20
20-50	585.35	N.A.	27.70
40-70	498.10	N.A.	23.60
60-80	199.75	N.A.	9.50
70-80	73.73	N.A.	3.50
80-90	26.92	N.A.	1.30
90-110	85.12	N.A.	4.00
90-120	193.51	N.A.	9.20
90-130	339.95	N.A.	16.10
90-150	680.24	N.A.	32.20
90-180	961.75	N.A.	45.50
110-180	876.63	N.A.	41.50
0-180	2112.83	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	44.03
10-20	123.54
20-30	179.64
30-40	205.12
40-50	200.59
50-60	171.49
60-70	126.02
70-80	73.73
80-90	26.92
90-100	22.03
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

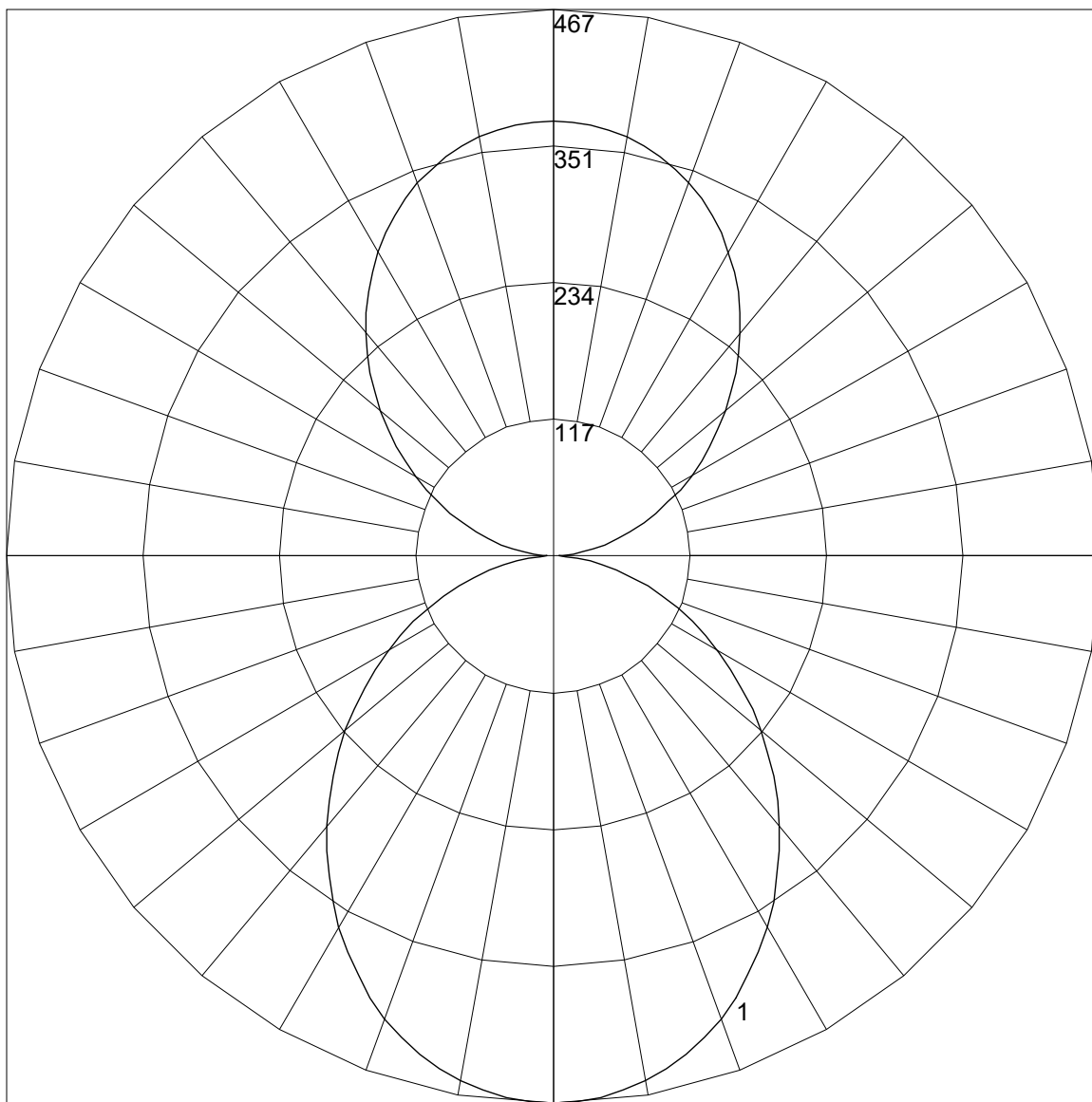
PHOTOMETRIC FILENAME : 3D90 - HP-4C-ID-P-28IN9-16IN-S-B-835-ITL93249.031.IES

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	100	100	100	100	86	86	86	72	72	72	60	60	60	54
1	99	94	90	87	91	88	84	81	75	73	70	64	62	60	53	52	51	46
2	90	82	76	71	83	77	71	67	66	62	58	56	53	50	47	45	43	38
3	82	73	65	59	76	68	61	56	58	53	49	50	46	43	42	39	37	33
4	75	64	56	50	69	60	53	47	52	46	42	44	40	37	37	34	32	28
5	69	57	49	43	64	54	46	41	46	41	36	40	35	32	34	30	28	24
6	64	52	43	38	59	48	41	36	42	36	32	36	32	28	31	27	24	22
7	59	47	39	33	55	44	36	31	38	32	28	33	28	25	28	24	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	36	30	25	32	26	22	28	23	20	24	20	18	16
10	48	36	28	24	44	33	27	22	29	24	20	26	21	18	22	19	16	14

POLAR GRAPH



Maximum Candela = 467.471 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (90 - 270)