

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-S-835-ITL93249.019.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL93249.019 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-S-835

[_INPUT_ELECTRICAL]120.0 VOLTS, 16.7 WATTS

[_INPUT_ELECTRICAL]277.0 VOLTS, 18.1 WATTS

[_ABSOLUTE]LUMENS]1877

[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	1877
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	112
Total Luminaire Watts	16.7
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	3143	3228	3398
55	2783	2888	3089
65	2432	2529	2787
75	2069	2125	2416
85	1771	1737	2020

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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	371.797	371.797	371.797	371.797	371.797	371.797	371.797	371.797	371.797
2.5	371.476	371.476	371.797	371.476	371.154	371.154	371.154	370.832	370.832
5.0	369.868	369.868	369.868	369.868	369.546	369.224	368.903	368.581	368.581
7.5	367.295	366.973	366.973	366.973	366.330	366.008	365.365	365.043	364.400
10.0	362.470	362.792	362.792	362.792	362.149	361.505	360.862	360.219	359.897
12.5	357.324	357.003	357.003	357.324	357.003	355.716	355.073	353.786	353.465
15.0	349.927	350.570	349.927	350.892	350.892	349.284	347.997	346.389	345.103
17.5	340.921	341.886	341.886	342.851	342.851	341.243	338.992	337.384	336.097
20.0	331.916	332.881	333.202	333.846	334.489	332.238	329.986	327.092	326.448
22.5	321.624	322.267	322.911	324.519	325.162	322.267	319.694	316.478	315.835
25.0	310.689	311.332	311.975	314.227	314.227	311.975	309.081	304.900	303.291
27.5	298.467	298.789	300.397	302.648	302.970	300.397	296.537	293.321	291.391
30.0	286.245	286.889	288.818	290.426	291.391	288.175	284.637	280.135	279.491
32.5	272.416	274.345	275.632	278.526	279.170	275.310	272.416	267.591	265.983
35.0	259.229	260.515	262.445	265.340	265.340	262.767	258.907	254.726	252.797
37.5	246.042	247.329	249.259	251.832	252.475	250.224	245.721	241.540	239.931
40.0	232.856	233.499	235.429	238.967	239.610	236.715	232.856	227.388	225.780
42.5	218.061	219.348	221.921	225.137	225.780	223.850	219.348	214.523	212.594
45.0	204.231	205.518	207.769	210.664	211.950	210.020	204.875	200.693	199.085
47.5	190.723	191.688	193.939	197.155	198.120	195.869	191.045	186.863	185.899
50.0	176.572	178.501	180.431	183.969	184.612	182.361	177.536	173.677	172.069
52.5	163.385	164.350	166.601	170.139	170.782	168.853	164.672	160.169	160.169
55.0	149.555	151.163	153.093	155.666	156.631	155.666	151.163	147.625	146.339
57.5	137.012	138.298	139.263	142.479	143.444	141.515	137.333	134.761	133.796
60.0	124.469	124.790	126.398	129.293	130.579	128.971	125.112	121.895	120.609
62.5	112.247	112.568	113.533	116.428	117.071	115.785	112.247	109.995	108.709
65.0	99.382	100.025	101.312	102.920	104.528	102.920	100.347	97.774	97.130
67.5	88.125	88.768	88.768	90.698	91.663	91.020	87.482	86.195	85.874
70.0	76.868	77.190	76.546	78.798	79.120	78.476	76.225	75.260	74.295
72.5	66.254	65.933	65.611	66.898	67.219	67.219	65.290	64.325	63.682
75.0	55.319	55.641	54.998	55.319	55.963	55.963	54.998	53.711	54.033
77.5	45.992	45.992	44.384	45.027	44.384	45.349	44.384	44.384	44.706
80.0	36.987	36.987	35.057	35.379	34.092	35.700	35.057	35.700	35.379
82.5	28.946	28.303	26.695	26.373	25.087	26.373	26.695	27.338	27.660
85.0	20.906	20.584	18.976	17.689	16.403	18.011	18.976	19.619	20.262
87.5	14.473	13.830	11.257	10.614	8.684	9.970	11.579	13.187	13.830
90.0	9.970	9.327	7.076	5.789	3.860	4.824	6.433	8.684	9.327
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-S-835-ITL93249.019.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-S-835-ITL93249.019.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	133.27	N.A.	7.10
0-30	276.14	N.A.	14.70
0-40	439.29	N.A.	23.40
0-60	735.22	N.A.	39.20
0-80	894.08	N.A.	47.60
0-90	915.50	N.A.	48.80
10-90	880.48	N.A.	46.90
20-40	306.02	N.A.	16.30
20-50	465.55	N.A.	24.80
40-70	396.16	N.A.	21.10
60-80	158.87	N.A.	8.50
70-80	58.64	N.A.	3.10
80-90	21.41	N.A.	1.10
90-110	84.87	N.A.	4.50
90-120	193.26	N.A.	10.30
90-130	339.71	N.A.	18.10
90-150	680.00	N.A.	36.20
90-180	961.50	N.A.	51.20
110-180	876.63	N.A.	46.70
0-180	1877.00	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	35.02
10-20	98.25
20-30	142.87
30-40	163.14
40-50	159.53
50-60	136.40
60-70	100.23
70-80	58.64
80-90	21.41
90-100	21.79
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

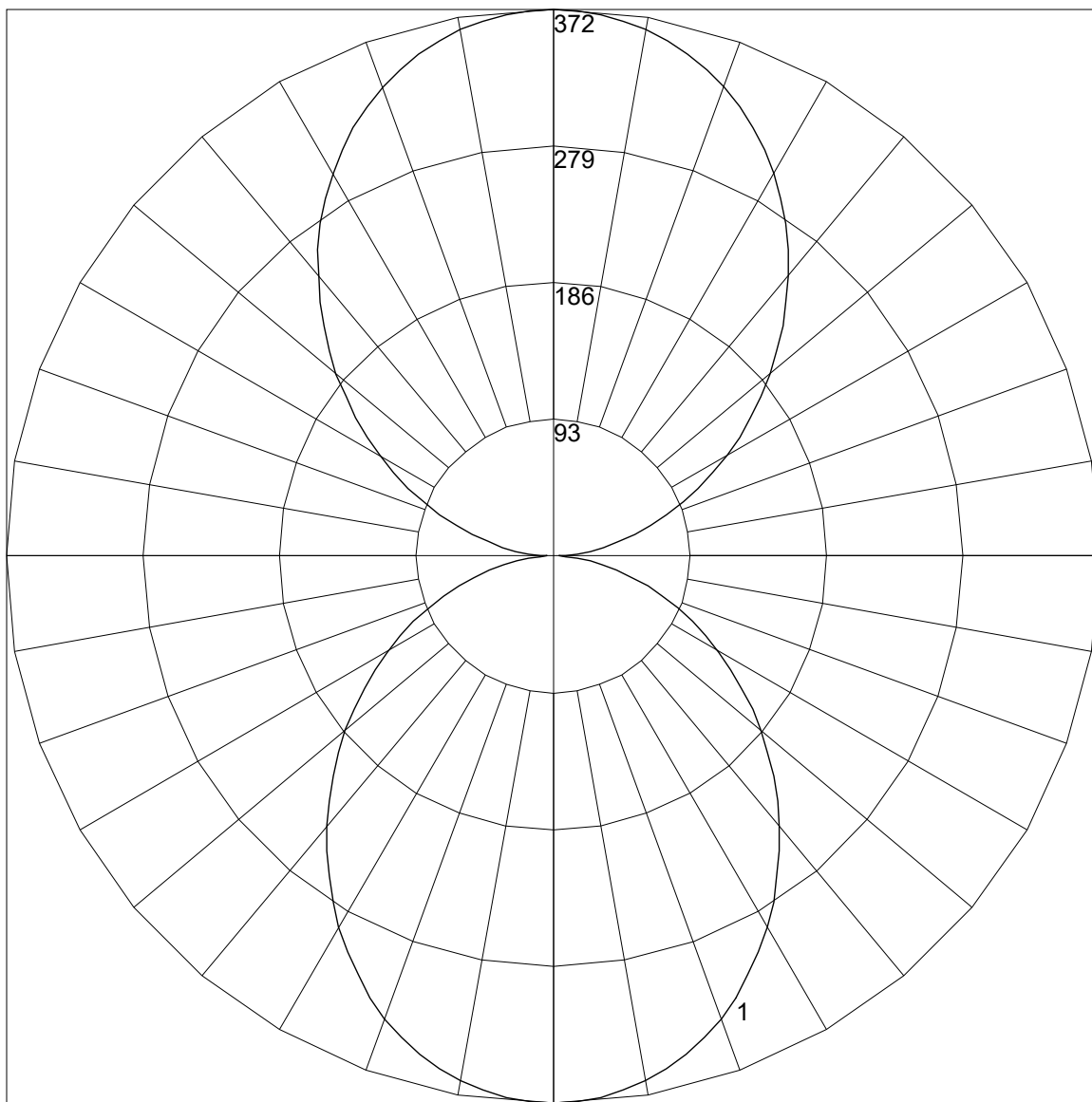
PHOTOMETRIC FILENAME : 3D90 - HP-4C-ID-P-28IN9-16IN-S-S-835-ITL93249.019.IES

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 = 371.797 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (90 - 270)