

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-H-835-ITL93249.030.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL93249.030 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-H-835

[_INPUT_ELECTRICAL]120.0 VOLTS, 25.8 WATTS

[_INPUT_ELECTRICAL]277.0 VOLTS, 26.6 WATTS

[_ABSOLUTE]LUMENS]2701

[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	2702
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	105
Total Luminaire Watts	25.8
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	5973	6135	6458
55	5289	5488	5870
65	4622	4807	5296
75	3932	4038	4591
85	3365	3301	3839

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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	706.554	706.554	706.554	706.554	706.554	706.554	706.554	706.554	706.554
2.5	705.943	705.943	706.554	705.943	705.332	705.332	705.332	704.721	704.721
5.0	702.887	702.887	702.887	702.887	702.276	701.664	701.053	700.442	700.442
7.5	697.997	697.386	697.386	697.386	696.164	695.552	694.330	693.719	692.496
10.0	688.829	689.440	689.440	689.440	688.218	686.995	685.773	684.551	683.939
12.5	679.050	678.439	678.439	679.050	678.439	675.994	674.771	672.327	671.715
15.0	664.992	666.215	664.992	666.826	666.826	663.770	661.325	658.269	655.824
17.5	647.878	649.712	649.712	651.546	651.546	648.490	644.211	641.155	638.710
20.0	630.765	632.598	633.209	634.432	635.654	631.376	627.097	621.596	620.374
22.5	611.206	612.428	613.651	616.707	617.929	612.428	607.539	601.427	600.204
25.0	590.425	591.647	592.870	597.148	597.148	592.870	587.369	579.423	576.367
27.5	567.199	567.810	570.866	575.145	575.756	570.866	563.532	557.420	553.753
30.0	543.973	545.196	548.863	551.919	553.753	547.641	540.917	532.360	531.138
32.5	517.692	521.359	523.803	529.304	530.527	523.192	517.692	508.523	505.467
35.0	492.632	495.077	498.744	504.245	504.245	499.355	492.021	484.075	480.408
37.5	467.573	470.017	473.685	478.574	479.797	475.518	466.961	459.016	455.960
40.0	442.513	443.736	447.403	454.126	455.349	449.848	442.513	432.123	429.067
42.5	414.398	416.842	421.732	427.844	429.067	425.399	416.842	407.674	404.007
45.0	388.116	390.561	394.839	400.340	402.785	399.118	389.338	381.392	378.337
47.5	362.445	364.279	368.557	374.669	376.503	372.224	363.056	355.111	353.277
50.0	335.552	339.219	342.887	349.610	350.832	346.554	337.386	330.051	326.995
52.5	310.493	312.326	316.605	323.328	324.550	320.883	312.938	304.381	304.381
55.0	284.211	287.267	290.934	295.824	297.657	295.824	287.267	280.543	278.099
57.5	260.374	262.819	264.652	270.764	272.598	268.931	260.985	256.095	254.262
60.0	236.537	237.148	240.204	245.705	248.150	245.094	237.759	231.647	229.202
62.5	213.311	213.922	215.756	221.257	222.479	220.034	213.311	209.032	206.588
65.0	188.863	190.085	192.530	195.586	198.642	195.586	190.696	185.807	184.584
67.5	167.470	168.693	168.693	172.360	174.194	172.971	166.248	163.803	163.192
70.0	146.078	146.689	145.467	149.745	150.357	149.134	144.856	143.022	141.189
72.5	125.908	125.297	124.686	127.131	127.742	127.742	124.075	122.241	121.019
75.0	105.127	105.739	104.516	105.127	106.350	106.350	104.516	102.071	102.683
77.5	87.403	87.403	84.346	85.569	84.346	86.180	84.346	84.346	84.958
80.0	70.289	70.289	66.621	67.233	64.788	67.844	66.621	67.844	67.233
82.5	55.008	53.786	50.730	50.119	47.674	50.119	50.730	51.953	52.564
85.0	39.728	39.117	36.061	33.616	31.172	34.227	36.061	37.284	38.506
87.5	27.504	26.282	21.392	20.170	16.503	18.947	22.003	25.059	26.282
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-H-835-ITL93249.030.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	253.26	N.A.	9.40
0-30	524.78	N.A.	19.40
0-40	834.81	N.A.	30.90
0-60	1397.19	N.A.	51.70
0-80	1699.1	N.A.	62.90
0-90	1739.79	N.A.	64.40
10-90	1673.24	N.A.	61.90
20-40	581.55	N.A.	21.50
20-50	884.72	N.A.	32.70
40-70	752.85	N.A.	27.90
60-80	301.91	N.A.	11.20
70-80	111.44	N.A.	4.10
80-90	40.69	N.A.	1.50
90-110	85.73	N.A.	3.20
90-120	194.12	N.A.	7.20
90-130	340.56	N.A.	12.60
90-150	680.86	N.A.	25.20
90-180	962.36	N.A.	35.60
110-180	876.63	N.A.	32.40
0-180	2702.15	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	66.55
10-20	186.72
20-30	271.51
30-40	310.03
40-50	303.17
50-60	259.20
60-70	190.47
70-80	111.44
80-90	40.69
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

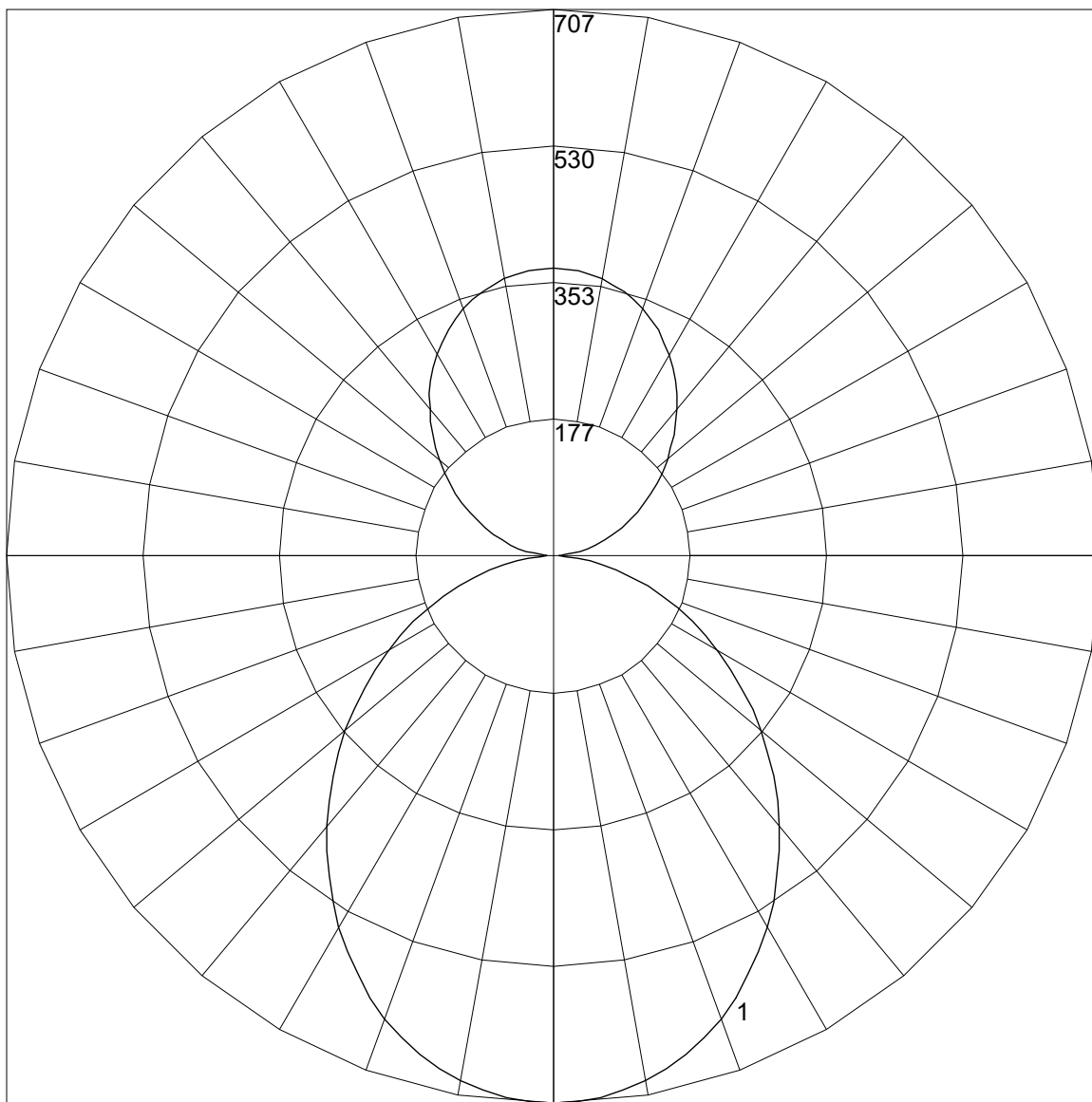
PHOTOMETRIC FILENAME : 3D90 - HP-4C-ID-P-28IN9-16IN-S-H-835-ITL93249.030.IES

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	111	111	111	111	104	104	104	104	91	91	91	80	80	80	69	69	69	64
1	101	96	92	89	95	91	87	84	80	77	75	70	68	66	61	60	58	54
2	92	84	78	73	86	79	74	69	70	66	62	62	59	56	54	52	49	45
3	84	74	67	61	79	70	63	58	62	57	52	55	51	47	48	45	42	39
4	77	66	58	52	72	62	55	49	55	50	45	49	44	41	43	39	36	33
5	71	59	51	44	66	56	48	43	50	44	39	44	39	35	39	35	32	29
6	65	53	45	39	61	50	43	37	45	39	34	40	35	31	35	31	28	25
7	61	48	40	34	57	45	38	33	41	35	30	36	31	28	32	28	25	23
8	56	44	36	30	53	41	34	29	37	31	27	33	28	25	30	26	23	20
9	52	40	32	27	49	38	31	26	34	28	24	31	26	22	27	23	20	18
10	49	37	29	25	46	35	28	24	32	26	22	28	24	20	25	21	19	17

POLAR GRAPH



Maximum Candela = 706.554 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (90 - 270)