

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-V-S-835-ITL93249.022.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL93249.022 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-V-S-835

[_INPUT_ELECTRICAL]120.0 VOLTS, 27.8 WATTS

[_INPUT_ELECTRICAL]277.0 VOLTS, 28.7 WATTS

[_ABSOLUTE]LUMENS]3265

[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	3264
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	117
Total Luminaire Watts	27.8
Ballast Factor	1.00
CIE Type	Semi-Indirect
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	33.797	32.225	28.295	23.579	20.436	21.222	26.724	30.653	33.011
95.0	53.447	51.875	47.159	42.443	40.871	40.085	45.587	49.517	51.875
97.5	75.454	74.668	69.167	63.665	62.093	62.093	66.023	70.739	72.311
100.0	101.392	99.034	93.532	89.602	85.672	86.458	88.816	93.532	95.890
102.5	126.543	124.186	120.256	115.540	111.610	112.396	115.540	117.898	120.256
105.0	153.267	151.695	146.979	143.835	139.905	139.905	141.477	146.979	146.979
107.5	181.562	180.776	176.060	172.131	168.987	171.345	169.773	173.702	174.488
110.0	210.644	211.430	205.142	204.356	201.212	201.998	198.068	201.998	205.142
112.5	242.869	241.297	237.367	238.153	233.437	232.651	230.293	234.223	235.009
115.0	273.522	271.950	269.592	268.807	265.663	263.305	264.091	265.663	264.877
117.5	304.962	303.390	302.604	300.246	299.460	295.530	295.530	297.102	296.316
120.0	336.401	338.759	336.401	334.043	332.471	330.899	327.755	329.327	326.183
122.5	371.770	374.128	370.984	367.055	367.055	363.911	361.553	362.339	358.409
125.0	405.568	408.712	407.140	400.852	400.066	397.708	396.136	392.992	390.634
127.5	437.793	444.081	440.937	438.579	433.863	429.147	428.361	423.645	422.859
130.0	472.376	479.450	474.734	473.948	470.804	463.731	460.587	458.229	455.871
132.5	509.318	514.034	509.318	507.746	504.602	497.528	492.812	491.240	488.096

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 3D90 - HP-4C-ID-P-28IN9-16IN-V-S-835-ITL93249.022.IES****CANDELA TABULATION - (Cont.)**

135.0	543.115	547.045	544.687	541.543	539.971	532.897	527.395	525.823	524.251
137.5	576.912	580.056	580.056	575.340	572.982	565.909	561.979	558.835	557.263
140.0	613.067	613.067	612.282	609.924	606.780	600.492	594.204	592.632	589.488
142.5	644.507	645.293	644.507	642.149	642.149	633.503	628.001	624.857	621.713
145.0	675.160	675.946	675.946	672.802	674.374	664.942	661.013	657.083	655.511
147.5	707.386	706.600	705.028	701.884	704.242	695.596	690.880	688.522	686.164
150.0	734.895	734.895	734.109	731.751	732.537	724.677	721.533	719.175	715.245
152.5	760.832	762.404	760.047	758.475	760.047	753.759	749.043	746.685	742.755
155.0	786.770	788.342	785.198	783.626	785.984	779.696	774.980	773.408	771.050
157.5	809.563	811.135	807.992	805.634	808.778	802.490	800.918	798.560	795.416
160.0	828.427	829.999	827.641	827.641	828.427	823.711	822.139	820.567	817.423
162.5	845.719	848.077	847.291	844.933	847.291	844.147	842.575	841.003	839.431
165.0	862.224	863.796	863.010	861.438	863.796	859.866	859.081	858.295	856.722
167.5	877.158	876.372	876.372	875.586	877.158	875.586	874.800	874.014	873.228
170.0	888.162	888.162	887.376	888.948	888.162	886.590	886.590	886.590	886.590
172.5	897.594	896.808	896.808	897.594	896.808	896.808	896.808	896.022	896.022
175.0	903.882	903.096	903.096	903.096	903.096	903.096	903.096	903.096	903.882
177.5	907.025	907.025	907.025	907.025	907.025	907.025	907.025	907.025	907.025
180.0	908.597	908.597	908.597	908.597	908.597	908.597	908.597	908.597	908.597

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 3D90 - HP-4C-ID-P-28IN9-16IN-V-S-835-ITL93249.022.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	133.27	N.A.	4.10
0-30	276.14	N.A.	8.50
0-40	439.29	N.A.	13.50
0-60	735.22	N.A.	22.50
0-80	894.08	N.A.	27.40
0-90	915.50	N.A.	28.00
10-90	880.48	N.A.	27.00
20-40	306.02	N.A.	9.40
20-50	465.55	N.A.	14.30
40-70	396.16	N.A.	12.10
60-80	158.87	N.A.	4.90
70-80	58.64	N.A.	1.80
80-90	21.41	N.A.	0.70
90-110	206.03	N.A.	6.30
90-120	470.92	N.A.	14.40
90-130	828.80	N.A.	25.40
90-150	1660.4	N.A.	50.90
90-180	2348.34	N.A.	72.00
110-180	2142.31	N.A.	65.60
0-180	3263.83	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	51.87
100-110	154.16
110-120	264.89
120-130	357.88
130-140	413.85
140-150	417.76
150-160	359.47
160-170	242.74
170-180	85.72

IES INDOOR REPORT

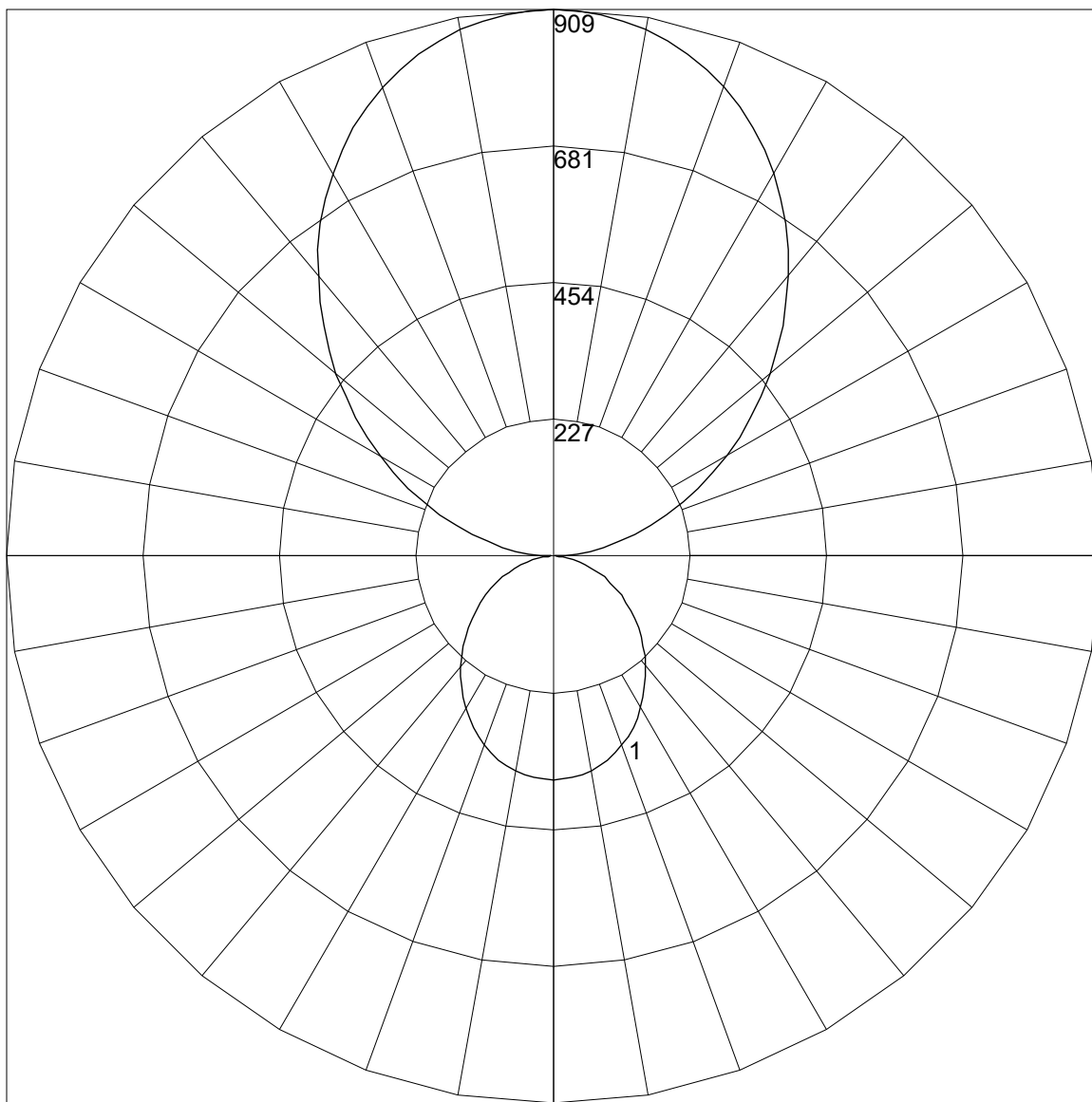
PHOTOMETRIC FILENAME : 3D90 - HP-4C-ID-P-28IN9-16IN-V-S-835-ITL93249.022.IES

COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

RC RW	80				70				50			30			10			0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	102	102	102	102	91	91	91	91	71	71	71	53	53	53	36	36	36	28
1	93	89	85	81	83	79	76	73	62	60	58	46	45	44	32	31	30	24
2	85	77	72	67	75	69	64	60	54	51	48	41	38	37	28	27	26	20
3	77	68	61	55	69	61	55	50	48	44	40	36	33	31	25	23	22	17
4	70	60	53	47	63	54	48	43	43	38	34	32	29	26	22	20	19	14
5	65	53	46	40	58	48	41	36	38	33	30	29	25	23	20	18	16	13
6	59	48	40	34	53	43	36	32	34	29	26	26	23	20	18	16	14	11
7	55	43	35	30	49	39	32	28	31	26	23	23	20	18	17	14	13	10
8	51	39	32	26	45	35	29	24	28	23	20	21	18	16	15	13	11	9
9	47	35	28	23	42	32	26	21	26	21	18	20	16	14	14	12	10	8
10	44	32	25	21	39	29	23	19	24	19	16	18	15	13	13	11	9	7

POLAR GRAPH



Maximum Candela = 908.597 Located At Horizontal Angle = 0, Vertical Angle = 180
1 - Vertical Plane Through Horizontal Angles (90 - 270)