

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-H-S-835-ITL93249.025.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL93249.025 Family Correlation File
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.
[TESTDATE]03/20/20
[ISSUE DATE]09/28/20
[MANUFAC]FINELITE, INC.
[LUMCAT]FINELITE HP-4C-ID-P-37in11-16in-H-S-835
[INPUT_ELECTRICAL]120.0 VOLTS, 23.5 WATTS
[INPUT_ELECTRICAL]277.0 VOLTS, 24.5 WATTS
[ABSOLUTE LUMENS]2743
[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	2744
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	117
Total Luminaire Watts	23.5
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	18.947	17.725	13.447	11.002	7.335	9.168	12.224	16.503	17.725
92.5	26.282	25.059	22.003	18.336	15.891	16.503	20.781	23.837	25.671
95.0	41.562	40.340	36.672	33.005	31.783	31.172	35.450	38.506	40.340
97.5	58.676	58.065	53.786	49.508	48.285	48.285	51.341	55.008	56.231
100.0	78.846	77.012	72.734	69.677	66.621	67.233	69.066	72.734	74.567
102.5	98.404	96.570	93.514	89.847	86.791	87.403	89.847	91.681	93.514
105.0	119.185	117.963	114.296	111.851	108.795	108.795	110.017	114.296	114.296
107.5	141.189	140.577	136.910	133.854	131.409	133.243	132.020	135.077	135.688
110.0	163.803	164.414	159.525	158.914	156.469	157.080	154.024	157.080	159.525
112.5	188.863	187.640	184.584	185.195	181.528	180.917	179.083	182.139	182.751
115.0	212.700	211.477	209.644	209.032	206.588	204.754	205.365	206.588	205.976
117.5	237.148	235.925	235.314	233.481	232.869	229.814	229.814	231.036	230.425
120.0	261.596	263.430	261.596	259.762	258.540	257.318	254.873	256.095	253.650
122.5	289.100	290.934	288.489	285.433	285.433	282.988	281.155	281.766	278.710
125.0	315.382	317.827	316.605	311.715	311.104	309.270	308.048	305.603	303.769
127.5	340.442	345.331	342.887	341.053	337.386	333.719	333.107	329.440	328.829
130.0	367.335	372.836	369.168	368.557	366.112	360.611	358.167	356.333	354.500
132.5	396.062	399.729	396.062	394.839	392.394	386.893	383.226	382.004	379.559

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 3D90 - HP-4C-ID-P-28IN9-16IN-H-S-835-ITL93249.025.IES****CANDELA TABULATION - (Cont.)**

135.0	422.343	425.399	423.566	421.121	419.899	414.398	410.119	408.897	407.674
137.5	448.625	451.070	451.070	447.403	445.569	440.068	437.012	434.567	433.345
140.0	476.741	476.741	476.130	474.296	471.851	466.961	462.072	460.849	458.404
142.5	501.189	501.800	501.189	499.355	499.355	492.632	488.354	485.909	483.464
145.0	525.026	525.637	525.637	523.192	524.415	517.080	514.024	510.968	509.746
147.5	550.085	549.474	548.252	545.807	547.641	540.917	537.250	535.416	533.583
150.0	571.478	571.478	570.866	569.033	569.644	563.532	561.087	559.254	556.197
152.5	591.647	592.870	591.036	589.814	591.036	586.146	582.479	580.646	577.590
155.0	611.817	613.040	610.595	609.372	611.206	606.316	602.649	601.427	599.593
157.5	629.542	630.765	628.320	626.486	628.931	624.041	622.819	620.985	618.540
160.0	644.211	645.433	643.600	643.600	644.211	640.544	639.322	638.099	635.654
162.5	657.658	659.491	658.880	657.046	658.880	656.435	655.213	653.990	652.768
165.0	670.493	671.715	671.104	669.882	671.715	668.659	668.048	667.437	666.215
167.5	682.106	681.495	681.495	680.884	682.106	680.884	680.272	679.661	679.050
170.0	690.663	690.663	690.052	691.274	690.663	689.440	689.440	689.440	689.440
172.5	697.997	697.386	697.386	697.997	697.386	697.386	697.386	696.775	696.775
175.0	702.887	702.276	702.276	702.276	702.276	702.276	702.276	702.276	702.887
177.5	705.332	705.332	705.332	705.332	705.332	705.332	705.332	705.332	705.332
180.0	706.554	706.554	706.554	706.554	706.554	706.554	706.554	706.554	706.554

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 3D90 - HP-4C-ID-P-28IN9-16IN-H-S-835-ITL93249.025.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	133.27	N.A.	4.90
0-30	276.14	N.A.	10.10
0-40	439.29	N.A.	16.00
0-60	735.22	N.A.	26.80
0-80	894.08	N.A.	32.60
0-90	916.36	N.A.	33.40
10-90	881.34	N.A.	32.10
20-40	306.02	N.A.	11.20
20-50	465.55	N.A.	17.00
40-70	396.16	N.A.	14.40
60-80	158.87	N.A.	5.80
70-80	58.64	N.A.	2.10
80-90	22.27	N.A.	0.80
90-110	161.29	N.A.	5.90
90-120	367.27	N.A.	13.40
90-130	645.57	N.A.	23.50
90-150	1292.25	N.A.	47.10
90-180	1827.21	N.A.	66.60
110-180	1665.92	N.A.	60.70
0-180	2743.57	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	22.27
90-100	41.41
100-110	119.88
110-120	205.99
120-130	278.30
130-140	321.82
140-150	324.86
150-160	279.54
160-170	188.76
170-180	66.66

IES INDOOR REPORT

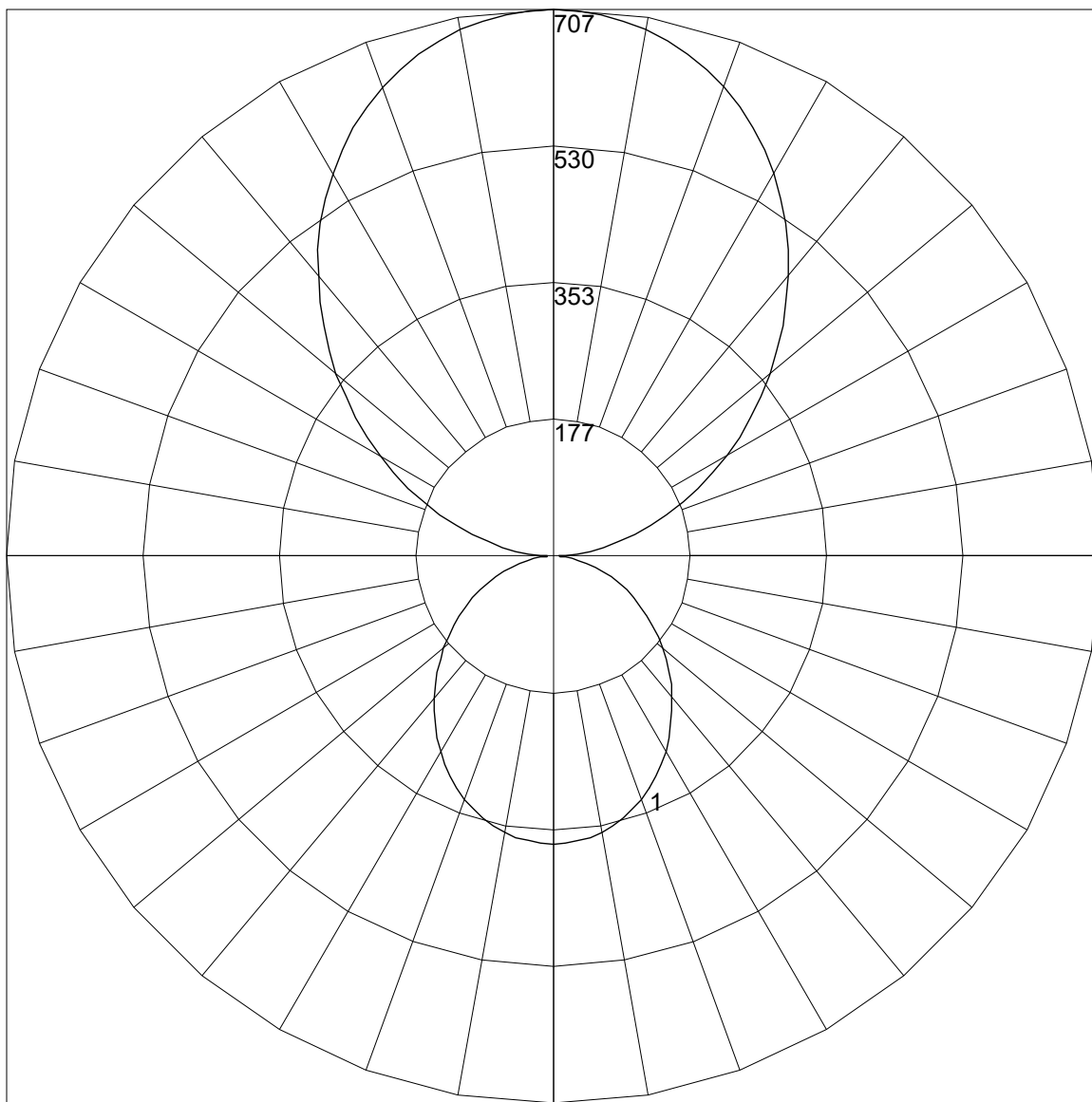
PHOTOMETRIC FILENAME : 3D90 - HP-4C-ID-P-28IN9-16IN-H-S-835-ITL93249.025.IES

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	103	103	103	103	93	93	93	93	74	74	74	57	57	57	41	41	41	33
1	94	90	86	83	85	81	78	75	65	63	61	50	48	47	36	35	34	28
2	86	78	72	67	77	71	66	62	57	53	50	44	41	39	32	30	29	24
3	78	69	62	56	70	62	56	51	50	46	42	39	36	33	28	26	25	20
4	71	61	53	47	64	55	49	44	44	40	36	34	31	29	25	23	21	17
5	65	54	46	41	59	49	42	37	40	35	31	31	27	25	23	20	19	15
6	60	49	41	35	54	44	37	32	36	31	27	28	24	22	21	18	16	13
7	56	44	36	31	50	40	33	28	32	27	24	25	22	19	19	16	15	12
8	52	40	32	27	46	36	30	25	29	24	21	23	20	17	17	15	13	11
9	48	36	29	24	43	33	27	22	27	22	19	21	18	15	16	14	12	10
10	45	33	26	21	40	30	24	20	25	20	17	20	16	14	15	12	11	9

POLAR GRAPH



Maximum Candela = 706.554 Located At Horizontal Angle = 0, Vertical Angle = 180
1 - Vertical Plane Through Horizontal Angles (90 - 270)