

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-B-835-ITL93249.024.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL93249.024 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-H-B-835

[_INPUT_ELECTRICAL]120.0 VOLTS, 26.1 WATTS

[_INPUT_ELECTRICAL]277.0 VOLTS, 26.9 WATTS

[_ABSOLUTE]LUMENS]2979

[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	2978
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	114
Total Luminaire Watts	26.1
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	3952	4059	4273
55	3499	3631	3884
65	3058	3180	3504
75	2601	2672	3037
85	2226	2184	2540

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	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-B-835-ITL93249.024.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-B-835-ITL93249.024.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	167.56	N.A.	5.60
0-30	347.20	N.A.	11.70
0-40	552.33	N.A.	18.50
0-60	924.41	N.A.	31.00
0-80	1124.16	N.A.	37.80
0-90	1151.08	N.A.	38.70
10-90	1107.05	N.A.	37.20
20-40	384.76	N.A.	12.90
20-50	585.35	N.A.	19.70
40-70	498.10	N.A.	16.70
60-80	199.75	N.A.	6.70
70-80	73.73	N.A.	2.50
80-90	26.92	N.A.	0.90
90-110	160.67	N.A.	5.40
90-120	366.66	N.A.	12.30
90-130	644.96	N.A.	21.70
90-150	1291.64	N.A.	43.40
90-180	1826.6	N.A.	61.30
110-180	1665.92	N.A.	55.90
0-180	2977.68	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	40.79
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

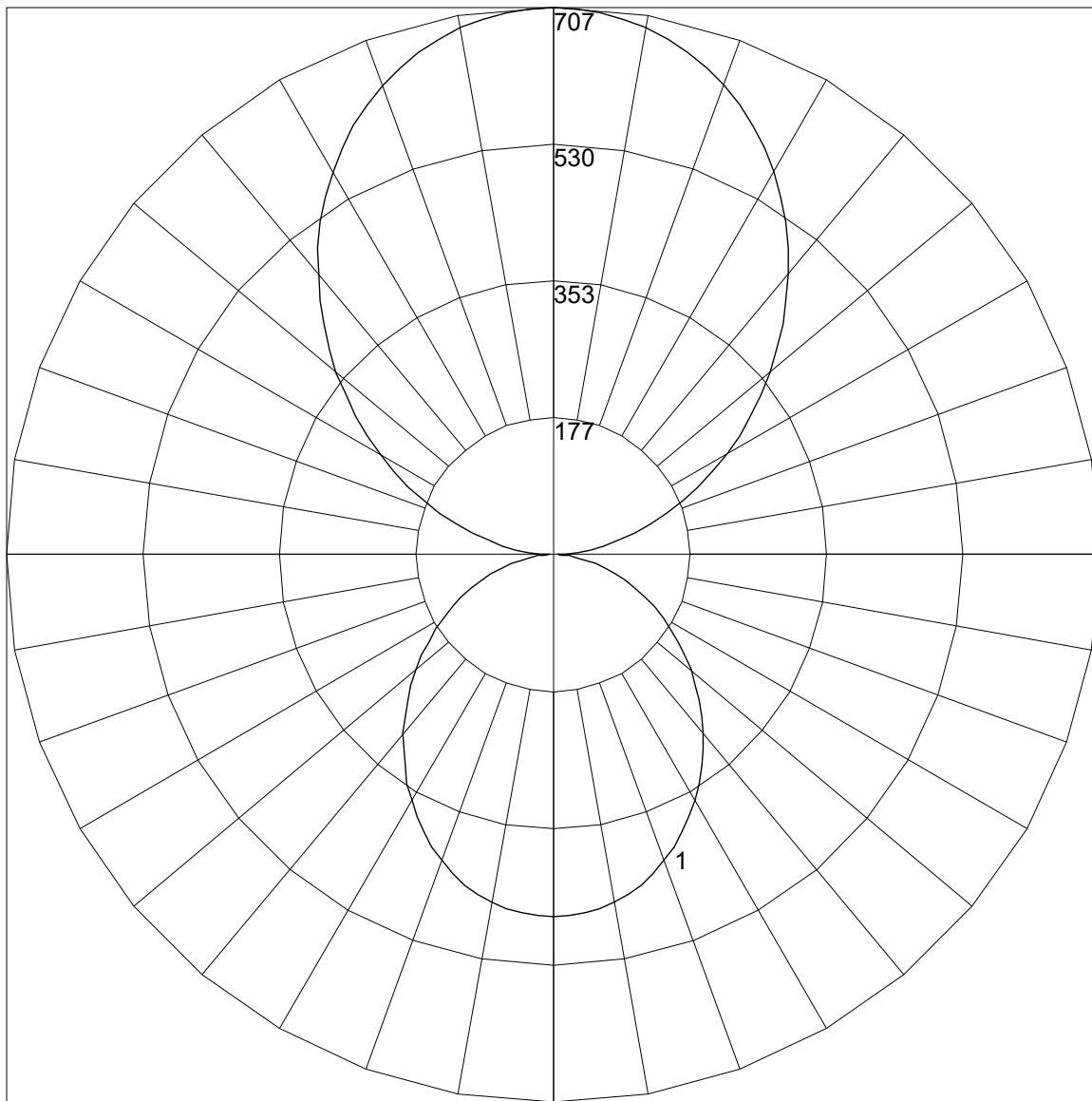
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	104	104	104	104	95	95	95	95	77	77	77	61	61	61	46	46	46	39
1	95	91	87	84	86	83	79	77	67	65	63	53	52	50	40	39	38	32
2	87	79	73	68	79	72	67	63	59	55	52	47	44	42	36	34	32	27
3	79	70	63	57	72	64	58	53	52	48	44	41	38	36	32	29	28	23
4	72	62	54	48	65	56	50	45	46	41	37	37	33	31	28	26	24	20
5	66	55	47	41	60	50	43	38	41	36	32	33	29	27	25	23	21	17
6	61	49	41	36	55	45	38	33	37	32	28	30	26	23	23	20	18	15
7	56	44	37	31	51	41	34	29	34	29	25	27	23	21	21	18	16	14
8	52	40	33	28	48	37	30	26	31	26	22	25	21	18	19	17	15	12
9	49	37	29	24	44	34	27	23	28	23	20	23	19	16	18	15	13	11
10	45	34	27	22	41	31	25	20	26	21	18	21	17	15	17	14	12	10

POLAR GRAPH



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