

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-H-835-ITL93249.017.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL93249.017 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-H-835

[_INPUT_ELECTRICAL]120.0 VOLTS, 32.7 WATTS

[_INPUT_ELECTRICAL]277.0 VOLTS, 33.1 WATTS

[_ABSOLUTE]LUMENS]3568

[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	3567
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	109
Total Luminaire Watts	32.7
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	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	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-H-835-ITL93249.017.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-H-835-ITL93249.017.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	253.26	N.A.	7.10
0-30	524.78	N.A.	14.70
0-40	834.81	N.A.	23.40
0-60	1397.19	N.A.	39.20
0-80	1699.1	N.A.	47.60
0-90	1739.79	N.A.	48.80
10-90	1673.24	N.A.	46.90
20-40	581.55	N.A.	16.30
20-50	884.72	N.A.	24.80
40-70	752.85	N.A.	21.10
60-80	301.91	N.A.	8.50
70-80	111.44	N.A.	3.10
80-90	40.69	N.A.	1.10
90-110	161.29	N.A.	4.50
90-120	367.27	N.A.	10.30
90-130	645.57	N.A.	18.10
90-150	1292.25	N.A.	36.20
90-180	1827.21	N.A.	51.20
110-180	1665.92	N.A.	46.70
0-180	3567.00	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	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

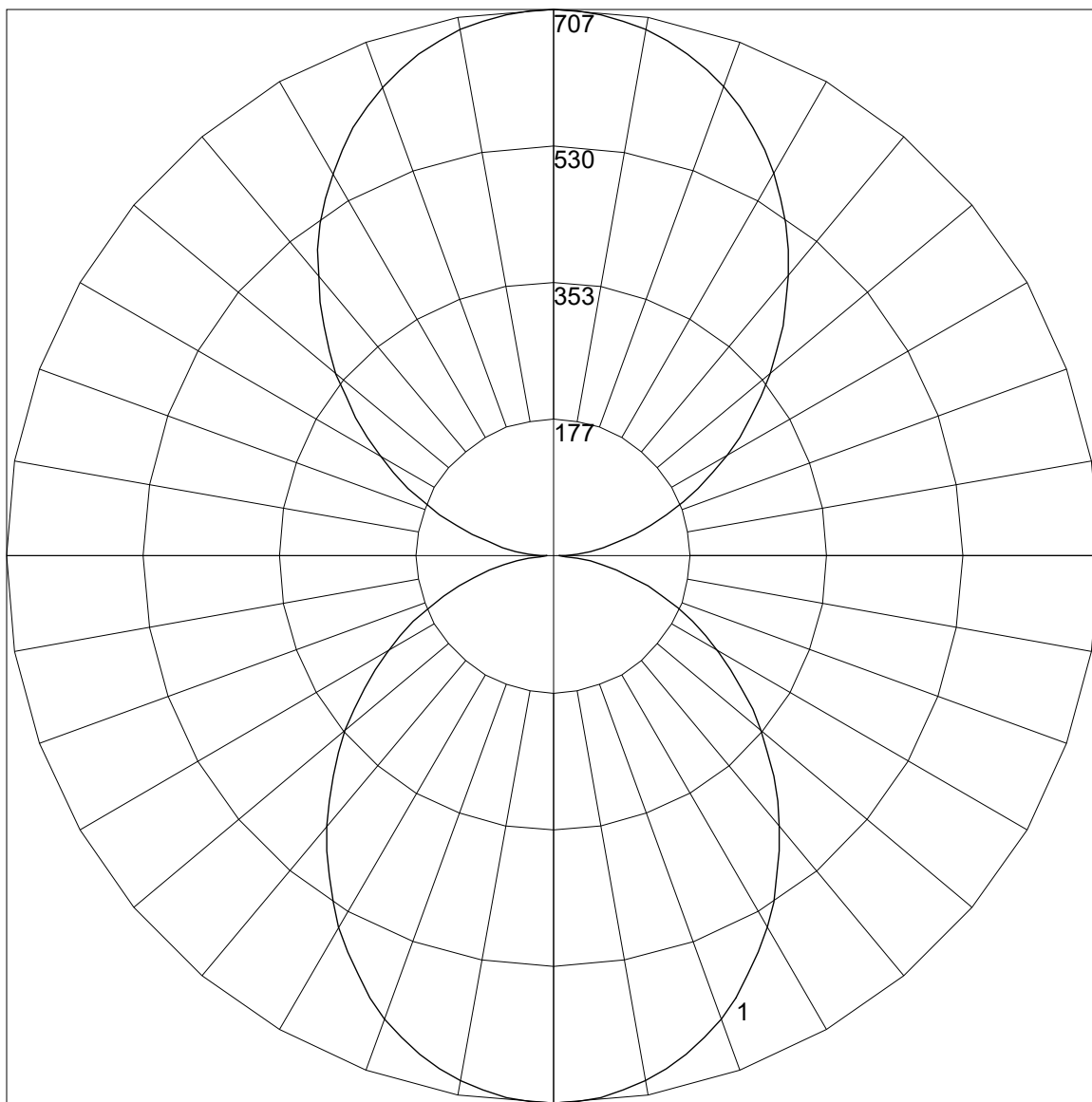
PHOTOMETRIC FILENAME : 3D90 - HP-4C-ID-P-28IN9-16IN-H-H-835-ITL93249.017.IES

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