

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-B-H-835-ITL93249.027.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL93249.027 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-B-H-835

[_INPUT_ELECTRICAL]120.0 VOLTS, 27.7 WATTS

[_INPUT_ELECTRICAL]277.0 VOLTS, 28.4 WATTS

[_ABSOLUTE]LUMENS]2949

[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	2949
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	106
Total Luminaire Watts	27.7
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	17.389	16.580	14.558	12.132	10.514	10.918	13.749	15.771	16.984
95.0	27.498	26.689	24.263	21.837	21.028	20.624	23.454	25.476	26.689
97.5	38.821	38.417	35.586	32.755	31.947	31.947	33.968	36.395	37.204
100.0	52.166	50.953	48.122	46.100	44.078	44.483	45.696	48.122	49.335
102.5	65.106	63.893	61.871	59.445	57.423	57.827	59.445	60.658	61.871
105.0	78.856	78.047	75.620	74.003	71.981	71.981	72.790	75.620	75.620
107.5	93.413	93.009	90.583	88.561	86.943	88.156	87.348	89.370	89.774
110.0	108.376	108.780	105.545	105.141	103.523	103.927	101.906	103.927	105.545
112.5	124.956	124.147	122.125	122.529	120.103	119.699	118.485	120.507	120.912
115.0	140.727	139.918	138.705	138.300	136.683	135.470	135.874	136.683	136.278
117.5	156.902	156.093	155.689	154.476	154.071	152.049	152.049	152.858	152.454
120.0	173.078	174.291	173.078	171.864	171.056	170.247	168.629	169.438	167.821
122.5	191.275	192.488	190.871	188.849	188.849	187.231	186.018	186.422	184.400
125.0	208.664	210.281	209.472	206.237	205.833	204.620	203.811	202.194	200.980
127.5	225.244	228.479	226.861	225.648	223.222	220.795	220.391	217.965	217.560
130.0	243.037	246.676	244.250	243.845	242.228	238.588	236.971	235.758	234.544
132.5	262.043	264.469	262.043	261.234	259.616	255.977	253.551	252.742	251.124

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 3D90 - HP-4C-ID-P-28IN9-16IN-B-H-835-ITL93249.027.IES****CANDELA TABULATION - (Cont.)**

135.0	279.431	281.453	280.240	278.623	277.814	274.174	271.344	270.535	269.726
137.5	296.820	298.438	298.438	296.011	294.798	291.159	289.137	287.519	286.710
140.0	315.422	315.422	315.017	313.804	312.187	308.952	305.717	304.908	303.290
142.5	331.597	332.002	331.597	330.384	330.384	325.936	323.105	321.488	319.870
145.0	347.368	347.773	347.773	346.155	346.964	342.111	340.089	338.067	337.259
147.5	363.948	363.544	362.735	361.118	362.331	357.882	355.456	354.243	353.030
150.0	378.102	378.102	377.697	376.484	376.889	372.845	371.227	370.014	367.992
152.5	391.447	392.255	391.042	390.233	391.042	387.807	385.381	384.168	382.146
155.0	404.791	405.600	403.983	403.174	404.387	401.152	398.726	397.917	396.704
157.5	416.519	417.327	415.710	414.497	416.114	412.879	412.070	410.857	409.240
160.0	426.224	427.033	425.820	425.820	426.224	423.798	422.989	422.180	420.563
162.5	435.120	436.334	435.929	434.716	435.929	434.312	433.503	432.694	431.885
165.0	443.613	444.421	444.017	443.208	444.421	442.399	441.995	441.591	440.782
167.5	451.296	450.892	450.892	450.487	451.296	450.487	450.083	449.678	449.274
170.0	456.957	456.957	456.553	457.362	456.957	456.149	456.149	456.149	456.149
172.5	461.810	461.406	461.406	461.810	461.406	461.406	461.406	461.001	461.001
175.0	465.045	464.641	464.641	464.641	464.641	464.641	464.641	464.641	465.045
177.5	466.663	466.663	466.663	466.663	466.663	466.663	466.663	466.663	466.663
180.0	467.471	467.471	467.471	467.471	467.471	467.471	467.471	467.471	467.471

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Zone	Lumens	%Lamp	%Fixt
0-20	253.26	N.A.	8.60
0-30	524.78	N.A.	17.80
0-40	834.81	N.A.	28.30
0-60	1397.19	N.A.	47.40
0-80	1699.1	N.A.	57.60
0-90	1739.79	N.A.	59.00
10-90	1673.24	N.A.	56.70
20-40	581.55	N.A.	19.70
20-50	884.72	N.A.	30.00
40-70	752.85	N.A.	25.50
60-80	301.91	N.A.	10.20
70-80	111.44	N.A.	3.80
80-90	40.69	N.A.	1.40
90-110	107.32	N.A.	3.60
90-120	243.61	N.A.	8.30
90-130	427.74	N.A.	14.50
90-150	855.59	N.A.	29.00
90-180	1209.53	N.A.	41.00
110-180	1102.21	N.A.	37.40
0-180	2949.32	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	28.01
100-110	79.31
110-120	136.29
120-130	184.13
130-140	212.92
140-150	214.94
150-160	184.95
160-170	124.89
170-180	44.10

IES INDOOR REPORT

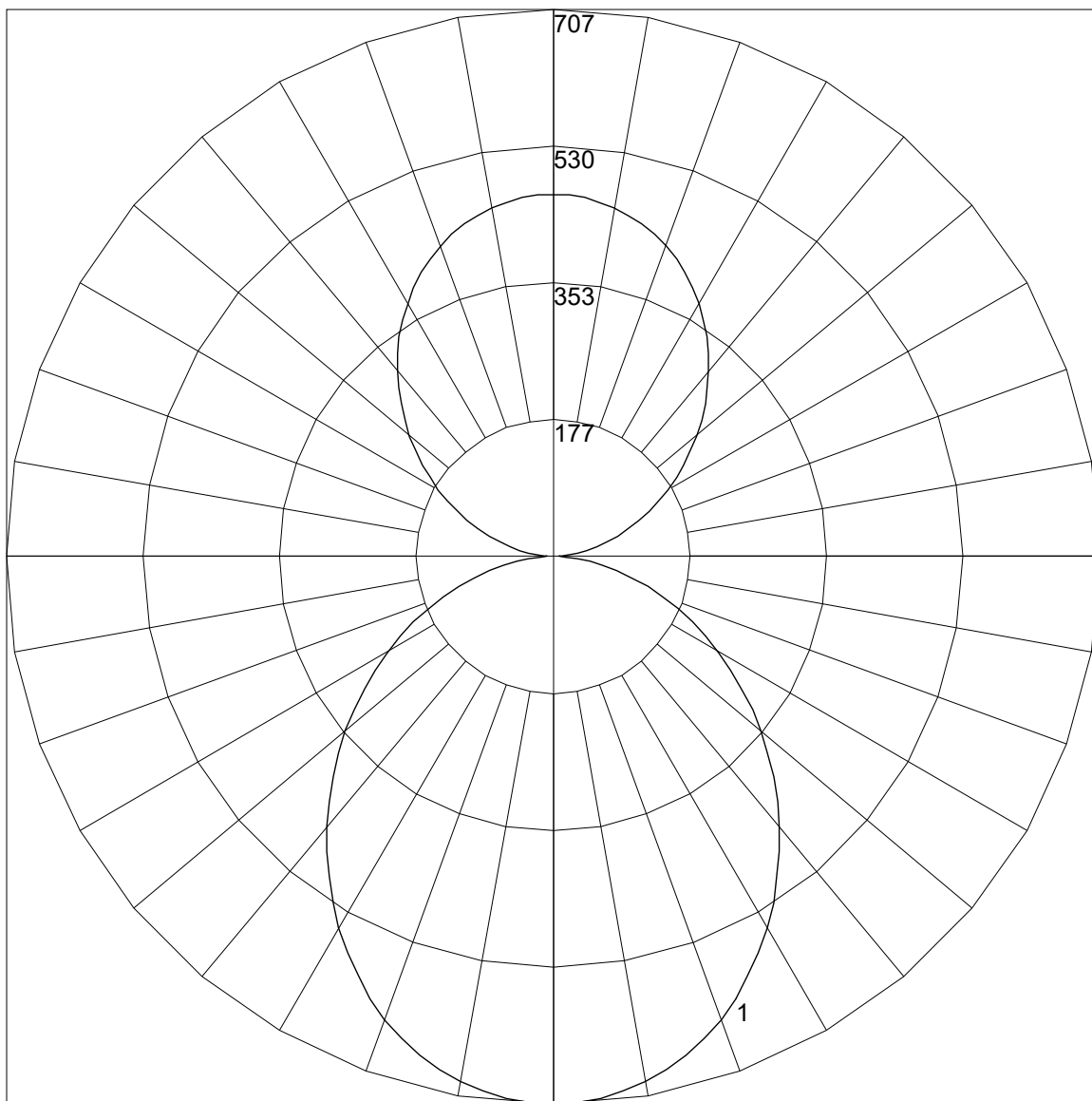
PHOTOMETRIC FILENAME : 3D90 - HP-4C-ID-P-28IN9-16IN-B-H-835-ITL93249.027.IES

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	109	109	109	109	102	102	102	102	88	88	88	76	76	76	64	64	64	59
1	100	95	91	88	93	89	86	83	77	75	73	67	65	63	57	55	54	50
2	91	83	77	72	85	78	73	68	68	64	60	59	56	53	50	48	46	42
3	83	73	66	60	77	69	62	57	60	55	51	52	48	45	44	42	39	35
4	76	65	57	51	71	61	54	48	53	48	43	46	42	39	40	37	34	30
5	70	58	50	44	65	55	47	42	48	42	38	42	37	33	36	32	30	27
6	64	52	44	38	60	49	42	36	43	37	33	38	33	29	33	29	26	23
7	60	47	39	34	56	45	37	32	39	33	29	34	30	26	30	26	23	21
8	55	43	35	30	52	41	33	28	36	30	26	32	27	23	28	24	21	19
9	52	39	32	27	48	37	30	25	33	27	23	29	24	21	25	22	19	17
10	48	36	29	24	45	34	28	23	30	25	21	27	22	19	24	20	17	15

POLAR GRAPH



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