

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-S-835-ITL93249.028.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL93249.028 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-S-835

[_INPUT_ELECTRICAL]120.0 VOLTS, 18.6 WATTS

[_INPUT_ELECTRICAL]277.0 VOLTS, 19.9 WATTS

[_ABSOLUTE]LUMENS]2125

[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	2124
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	114
Total Luminaire Watts	18.6
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	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	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-S-835-ITL93249.028.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	133.27	N.A.	6.30
0-30	276.14	N.A.	13.00
0-40	439.29	N.A.	20.70
0-60	735.22	N.A.	34.60
0-80	894.08	N.A.	42.10
0-90	915.50	N.A.	43.10
10-90	880.48	N.A.	41.50
20-40	306.02	N.A.	14.40
20-50	465.55	N.A.	21.90
40-70	396.16	N.A.	18.70
60-80	158.87	N.A.	7.50
70-80	58.64	N.A.	2.80
80-90	21.41	N.A.	1.00
90-110	106.46	N.A.	5.00
90-120	242.75	N.A.	11.40
90-130	426.88	N.A.	20.10
90-150	854.74	N.A.	40.20
90-180	1208.68	N.A.	56.90
110-180	1102.21	N.A.	51.90
0-180	2124.17	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	27.15
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

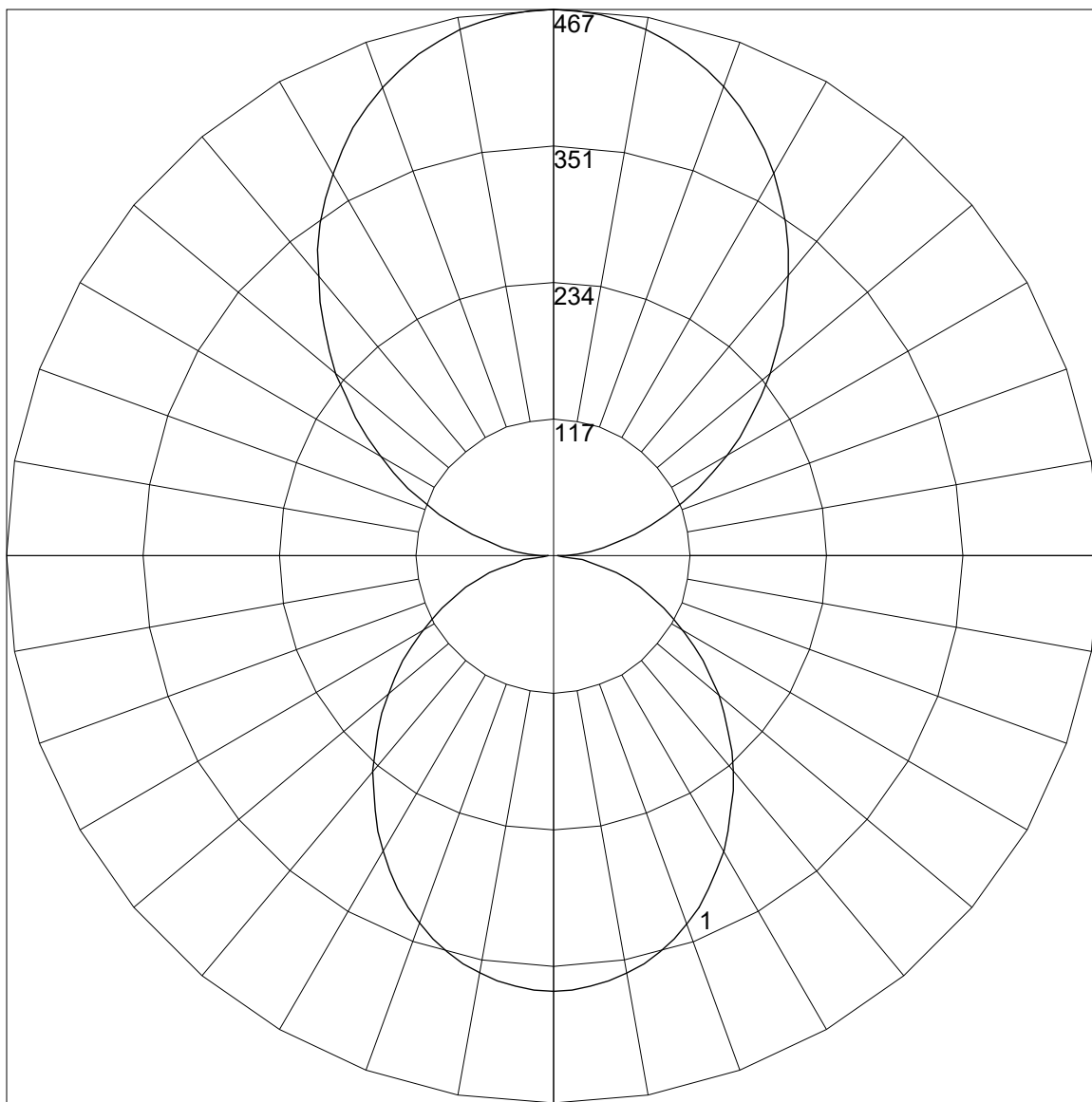
PHOTOMETRIC FILENAME : 3D90 - HP-4C-ID-P-28IN9-16IN-B-S-835-ITL93249.028.IES

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	106	106	106	106	96	96	96	96	80	80	80	64	64	64	50	50	50	43
1	96	92	88	85	88	84	81	78	70	67	65	56	55	53	44	43	42	36
2	88	80	74	69	80	74	68	64	61	57	54	49	47	44	39	37	35	30
3	80	71	63	58	73	65	59	53	54	49	45	44	40	38	34	32	30	26
4	73	63	55	49	67	57	51	45	48	43	39	39	35	32	31	28	26	22
5	67	56	48	42	61	51	44	39	43	38	33	35	31	28	28	25	23	19
6	62	50	42	36	56	46	39	34	39	33	29	32	28	25	25	22	20	17
7	57	45	37	32	52	42	35	30	35	30	26	29	25	22	23	20	18	15
8	53	41	33	28	48	38	31	26	32	27	23	26	22	19	21	18	16	14
9	49	37	30	25	45	35	28	23	29	24	20	24	20	17	20	17	14	12
10	46	34	27	22	42	32	25	21	27	22	18	22	19	16	18	15	13	11

POLAR GRAPH



Maximum Candela = 467.471 Located At Horizontal Angle = 0, Vertical Angle = 180
1 - Vertical Plane Through Horizontal Angles (90 - 270)