

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-2-C-D-P-28IN-9-16IN-V-8TW-ITL94330.904.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL94330.904 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]12/28/20

[ISSUEDATE]02/18/2021

[MANUFAC]FINELITE, INC.

[LUMCAT]3D90 HP-2-P-D-28IN-9-16IN-V-8TW

[_INPUT_ELECTRICAL]120.0 VOLTS, 20.1 WATTS

[_INPUT_ELECTRICAL]277.0 VOLTS, 20.0 WATTS

[_ABSOLUTE]LUMENS]1554

[OTHER]see www.finelite.com for source file ITL94330. 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	1554
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	77
Total Luminaire Watts	20.1
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.12
Spacing Criterion (90-270)	1.18
Spacing Criterion (Diagonal)	1.28
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	0.71 ft
Luminous Width (90-270)	2.02 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	3560	3686	3869
55	3211	3350	3558
65	2866	2996	3207
75	2417	2551	2724
85	1823	1880	1994

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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	640.360	640.360	640.360	640.360	640.360	640.360	640.360	640.360	640.360
2.5	637.695	638.361	639.694	639.028	639.694	639.694	639.694	639.694	639.028
5.0	633.697	633.697	635.696	635.030	635.696	636.362	636.362	636.362	636.362
7.5	626.367	627.033	628.366	629.032	630.365	631.032	631.032	631.032	631.032
10.0	616.372	617.705	619.704	621.036	623.035	623.702	623.035	623.702	622.369
12.5	605.044	605.710	609.042	611.041	613.706	615.706	615.039	614.373	613.040
15.0	589.052	592.383	595.049	598.380	602.379	603.045	602.379	601.046	599.713
17.5	573.726	577.057	579.723	583.721	591.051	589.052	587.719	585.720	585.054
20.0	555.734	559.732	564.397	568.395	574.392	574.392	572.393	569.061	567.062
22.5	538.409	540.408	546.405	551.070	558.400	557.733	554.402	550.403	548.404
25.0	517.752	521.084	526.415	532.412	540.408	539.742	536.410	529.747	528.414
27.5	497.096	499.761	506.424	514.421	521.084	519.751	516.420	509.756	508.424
30.0	475.106	478.438	485.768	494.430	500.427	499.761	493.764	488.433	485.101
32.5	453.117	455.782	463.778	472.441	479.771	479.771	473.107	466.444	463.112
35.0	430.461	433.793	441.789	450.451	458.447	457.115	451.118	442.455	441.122
37.5	407.805	411.137	419.133	429.128	436.458	434.459	429.128	419.799	415.801
40.0	385.149	387.815	396.477	406.472	413.136	412.469	404.473	397.143	393.145
42.5	362.493	364.492	373.821	383.816	390.480	389.814	381.817	373.821	369.823
45.0	337.838	341.837	349.833	360.494	367.158	365.159	358.495	348.500	345.168
47.5	315.849	317.848	326.511	337.172	343.169	341.837	335.173	325.844	321.846
50.0	291.860	295.192	304.521	314.516	320.513	319.181	311.185	302.522	299.190
52.5	270.537	273.203	281.865	290.528	297.191	294.526	287.862	279.866	276.534
55.0	247.215	251.213	257.877	268.538	273.869	272.536	265.206	256.544	253.879
57.5	226.558	228.557	235.887	245.882	251.213	248.548	241.884	233.888	230.556
60.0	203.902	206.568	213.231	222.560	226.558	225.892	219.895	212.565	209.233
62.5	183.912	185.911	191.908	199.238	203.902	203.236	197.239	191.242	187.910
65.0	162.589	164.588	169.919	177.249	181.913	180.580	175.250	168.586	167.253
67.5	142.598	143.931	149.262	155.925	158.591	158.591	153.926	147.929	145.930
70.0	122.608	123.941	127.939	133.936	136.601	136.601	133.270	128.605	125.940
72.5	103.950	104.617	108.615	112.613	115.278	115.278	112.613	108.615	107.282
75.0	83.960	85.959	88.624	92.622	94.621	95.288	93.289	89.291	88.624
77.5	66.635	67.967	70.633	73.965	75.297	75.297	73.965	71.299	69.967
80.0	50.642	50.642	51.975	55.307	55.973	56.640	55.973	53.974	53.308
82.5	35.316	35.316	35.983	37.982	38.648	39.315	39.315	38.648	37.982
85.0	21.323	21.323	21.989	22.656	23.322	23.989	23.989	23.989	23.989
87.5	8.663	8.663	9.329	8.663	9.329	10.662	10.662	10.662	10.662
90.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 3D90 - HP-2-C-D-P-28IN-9-16IN-V-8TW-ITL94330.904.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	228.75	N.A.	14.70
0-30	473.23	N.A.	30.40
0-40	752.38	N.A.	48.40
0-60	1260.18	N.A.	81.10
0-80	1527.99	N.A.	98.30
0-90	1554.5	N.A.	100.00
10-90	1494.28	N.A.	96.10
20-40	523.62	N.A.	33.70
20-50	797.05	N.A.	51.30
40-70	679.22	N.A.	43.70
60-80	267.81	N.A.	17.20
70-80	96.40	N.A.	6.20
80-90	26.51	N.A.	1.70
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.00	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	1554.5	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	60.22
10-20	168.54
20-30	244.47
30-40	279.15
40-50	273.42
50-60	234.38
60-70	171.41
70-80	96.40
80-90	26.51
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

IES INDOOR REPORT

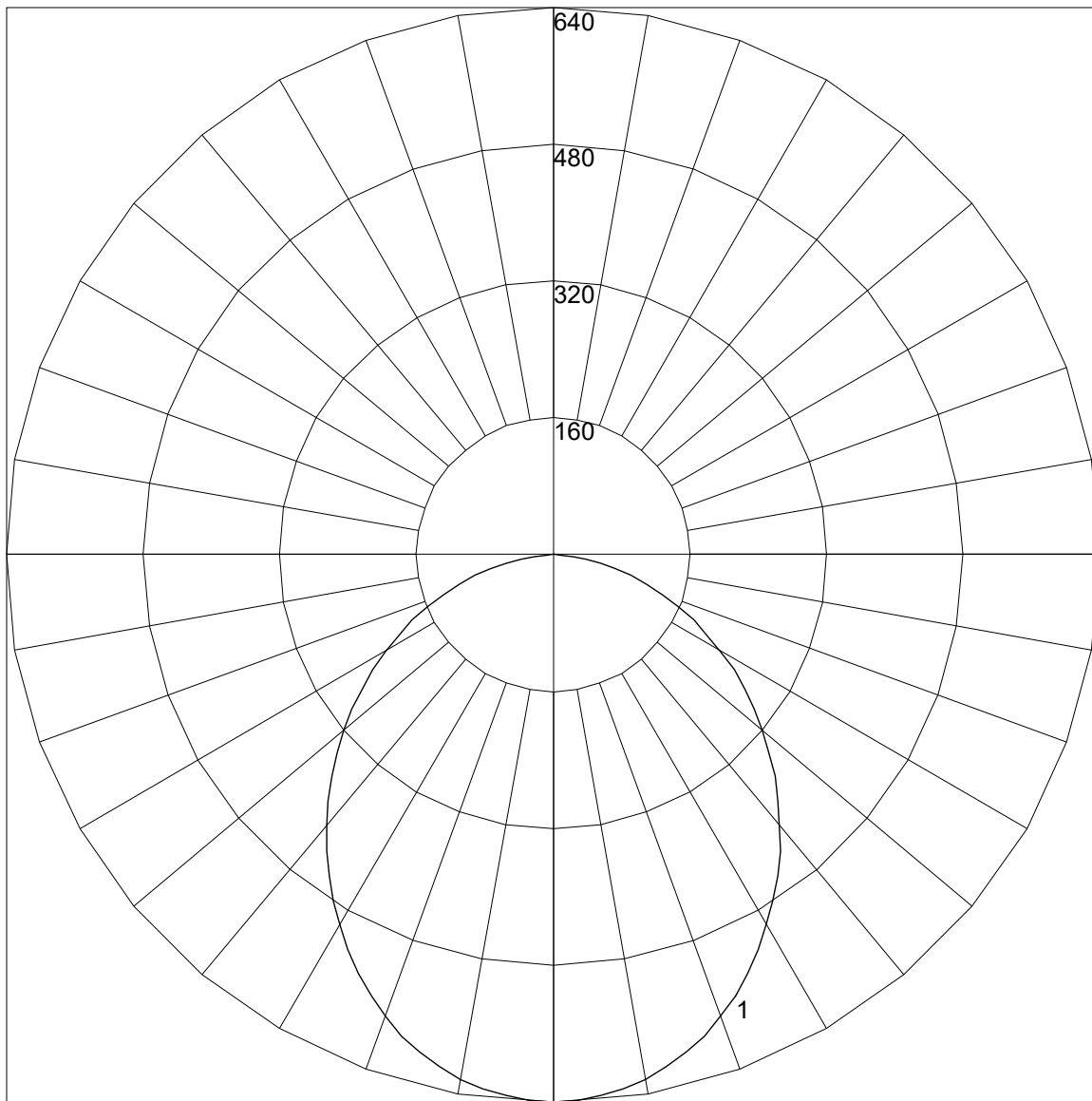
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	97	106	102	98	95	98	95	92	94	92	89	90	88	87	85
2	100	92	85	79	97	90	84	78	86	81	77	83	79	75	80	76	73	71
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	66	63	60
4	84	72	63	57	81	71	63	56	68	61	56	66	60	55	64	58	54	52
5	77	65	56	49	75	63	55	49	61	54	48	59	53	48	58	52	47	45
6	71	58	50	43	69	57	49	43	56	48	43	54	47	42	52	47	42	40
7	66	53	44	38	65	52	44	38	51	43	38	49	43	38	48	42	37	36
8	62	49	40	34	60	48	40	34	47	39	34	45	39	34	44	38	34	32
9	58	45	37	31	56	44	36	31	43	36	31	42	35	31	41	35	31	29
10	54	41	34	28	53	41	33	28	40	33	28	39	33	28	38	32	28	26

POLAR GRAPH



Maximum Candela = 640.36 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (90 - 270)