

# 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 : 4D90 - HP-2-C-D-P-37IN-11-16IN-H-835-ITL94330.001.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL94330.001 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]12/28/20

[ISSUEDATE]02/12/2021

[MANUFAC]FINELITE, INC.

[LUMCAT]4D90 HP-2-P-D-37IN-11-16IN-H-835

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 21.0 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 21.1 WATTS

[\_ABSOLUTE]LUMENS]1829

[OTHER]see [www.finelite.com](http://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](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	1814
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	86
Total Luminaire Watts	21
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)	2.71 ft
Luminous Height	0.00 ft

### LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	3103	3213	3373
55	2800	2920	3101
65	2499	2611	2796
75	2107	2224	2375
85	1589	1639	1738

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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	747.444	747.444	747.444	747.444	747.444	747.444	747.444	747.444	747.444
2.5	744.333	745.111	746.667	745.889	746.667	746.667	746.667	746.667	745.889
5.0	739.667	739.667	742.000	741.222	742.000	742.778	742.778	742.778	742.778
7.5	731.111	731.889	733.444	734.222	735.778	736.556	736.556	736.556	736.556
10.0	719.444	721.000	723.333	724.889	727.222	728.000	727.222	728.000	726.444
12.5	706.222	707.000	710.889	713.222	716.333	718.667	717.889	717.111	715.556
15.0	687.556	691.444	694.556	698.444	703.111	703.889	703.111	701.556	700.000
17.5	669.667	673.556	676.667	681.333	689.889	687.556	686.000	683.667	682.889
20.0	648.667	653.333	658.778	663.444	670.444	670.444	668.111	664.222	661.889
22.5	628.444	630.778	637.778	643.222	651.778	651.000	647.111	642.444	640.111
25.0	604.333	608.222	614.444	621.444	630.778	630.000	626.111	618.333	616.778
27.5	580.222	583.333	591.111	600.444	608.222	606.667	602.778	595.000	593.444
30.0	554.556	558.444	567.000	577.111	584.111	583.333	576.333	570.111	566.222
32.5	528.889	532.000	541.333	551.444	560.000	560.000	552.222	544.444	540.556
35.0	502.444	506.333	515.667	525.778	535.111	533.556	526.556	516.444	514.889
37.5	476.000	479.889	489.222	500.889	509.444	507.111	500.889	490.000	485.333
40.0	449.556	452.667	462.778	474.444	482.222	481.444	472.111	463.556	458.889
42.5	423.111	425.444	436.333	448.000	455.778	455.000	445.667	436.333	431.667
45.0	394.333	399.000	408.333	420.778	428.556	426.222	418.444	406.778	402.889
47.5	368.667	371.000	381.111	393.556	400.556	399.000	391.222	380.333	375.667
50.0	340.667	344.556	355.444	367.111	374.111	372.556	363.222	353.111	349.222
52.5	315.778	318.889	329.000	339.111	346.889	343.778	336.000	326.667	322.778
55.0	288.556	293.222	301.000	313.444	319.667	318.111	309.556	299.444	296.333
57.5	264.444	266.778	275.333	287.000	293.222	290.111	282.333	273.000	269.111
60.0	238.000	241.111	248.889	259.778	264.444	263.667	256.667	248.111	244.222
62.5	214.667	217.000	224.000	232.556	238.000	237.222	230.222	223.222	219.333
65.0	189.778	192.111	198.333	206.889	212.333	210.778	204.556	196.778	195.222
67.5	166.444	168.000	174.222	182.000	185.111	185.111	179.667	172.667	170.333
70.0	143.111	144.667	149.333	156.333	159.444	159.444	155.556	150.111	147.000
72.5	121.333	122.111	126.778	131.444	134.556	134.556	131.444	126.778	125.222
75.0	98.000	100.333	103.444	108.111	110.444	111.222	108.889	104.222	103.444
77.5	77.778	79.333	82.444	86.333	87.889	87.889	86.333	83.222	81.667
80.0	59.111	59.111	60.667	64.556	65.333	66.111	65.333	63.000	62.222
82.5	41.222	41.222	42.000	44.333	45.111	45.889	45.889	45.111	44.333
85.0	24.889	24.889	25.667	26.444	27.222	28.000	28.000	28.000	28.000
87.5	10.111	10.111	10.889	10.111	10.889	12.444	12.444	12.444	12.444
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 : 4D90 - HP-2-C-D-P-37IN-11-16IN-H-835-ITL94330.001.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	267.01	N.A.	14.70
0-30	552.36	N.A.	30.40
0-40	878.19	N.A.	48.40
0-60	1470.92	N.A.	81.10
0-80	1783.51	N.A.	98.30
0-90	1814.45	N.A.	100.00
10-90	1744.16	N.A.	96.10
20-40	611.18	N.A.	33.70
20-50	930.33	N.A.	51.30
40-70	792.80	N.A.	43.70
60-80	312.59	N.A.	17.20
70-80	112.52	N.A.	6.20
80-90	30.94	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	1814.45	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	70.29
10-20	196.72
20-30	285.36
30-40	325.83
40-50	319.15
50-60	273.58
60-70	200.07
70-80	112.52
80-90	30.94
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

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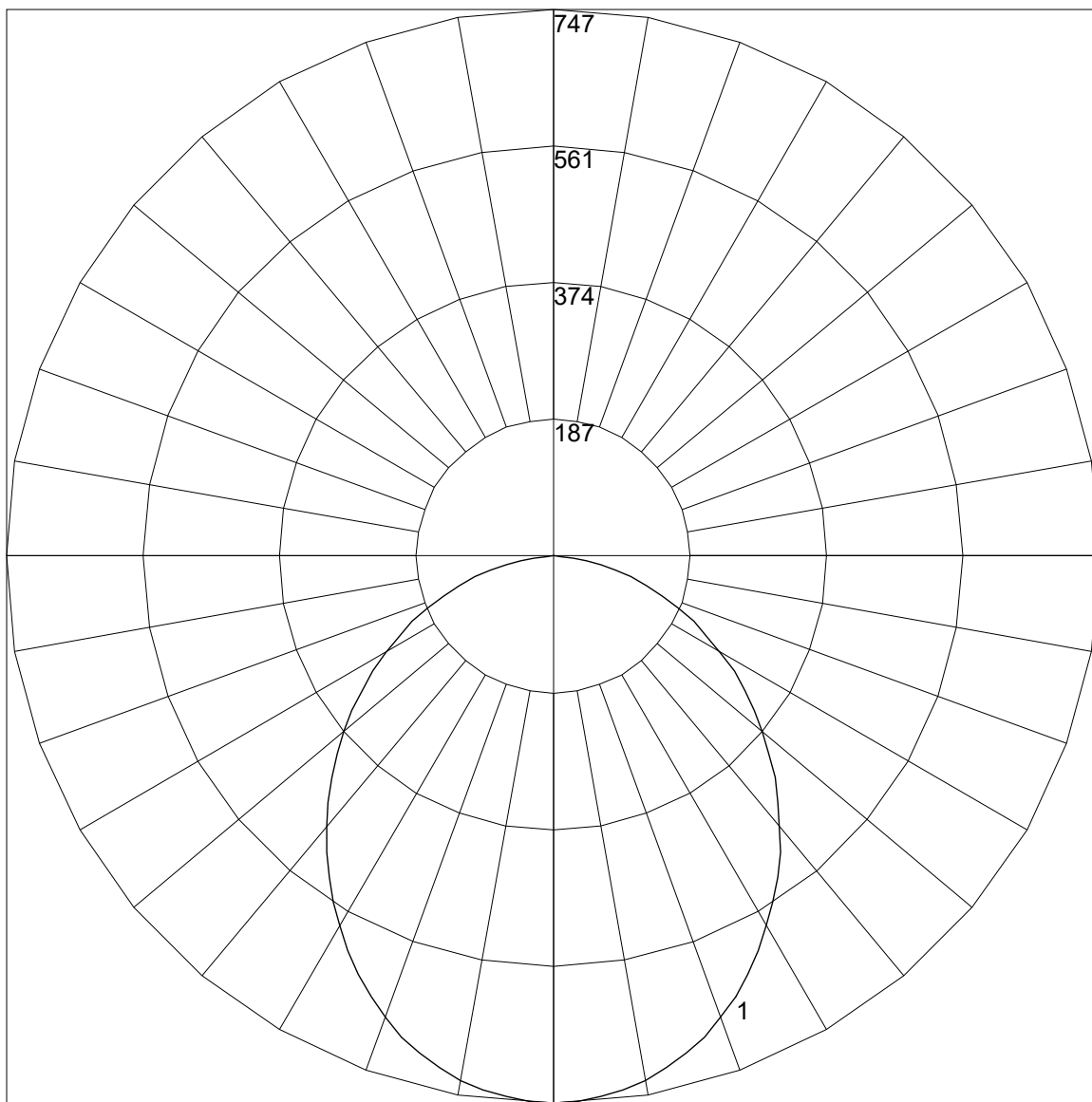
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	105	100	97	106	102	99	95	98	95	92	94	92	89	91	89	87	85
2	100	92	85	79	97	90	84	79	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	67	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 = 747.444 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)