

# 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-B-835-ITL94330.002.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL94330.002 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]12/28/20

[ISSUEDATE]02/18/2021

[MANUFAC]FINELITE, INC.

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

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 13.6 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 14.2 WATTS

[\_ABSOLUTE]LUMENS]1200

[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	1201
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	88
Total Luminaire Watts	13.6
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	2053	2126	2231
55	1852	1932	2052
65	1653	1728	1850
75	1394	1472	1571
85	1051	1084	1150

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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	494.550	494.550	494.550	494.550	494.550	494.550	494.550	494.550	494.550
2.5	492.491	493.006	494.035	493.521	494.035	494.035	494.035	494.035	493.521
5.0	489.404	489.404	490.947	490.433	490.947	491.462	491.462	491.462	491.462
7.5	483.743	484.257	485.287	485.801	486.831	487.345	487.345	487.345	487.345
10.0	476.024	477.053	478.597	479.626	481.170	481.684	481.170	481.684	480.655
12.5	467.275	467.790	470.363	471.907	473.965	475.509	474.994	474.480	473.450
15.0	454.924	457.497	459.556	462.129	465.216	465.731	465.216	464.187	463.158
17.5	443.088	445.661	447.719	450.807	456.468	454.924	453.895	452.351	451.836
20.0	429.193	432.281	435.883	438.971	443.602	443.602	442.059	439.485	437.942
22.5	415.813	417.357	421.988	425.591	431.252	430.737	428.164	425.076	423.532
25.0	399.860	402.433	406.550	411.181	417.357	416.842	414.269	409.123	408.094
27.5	383.907	385.965	391.111	397.287	402.433	401.404	398.831	393.684	392.655
30.0	366.924	369.497	375.158	381.848	386.480	385.965	381.333	377.216	374.643
32.5	349.942	352.000	358.176	364.866	370.526	370.526	365.380	360.234	357.661
35.0	332.445	335.018	341.193	347.883	354.059	353.029	348.398	341.708	340.678
37.5	314.947	317.521	323.696	331.415	337.076	335.532	331.415	324.211	321.123
40.0	297.450	299.509	306.199	313.918	319.064	318.550	312.374	306.714	303.626
42.5	279.953	281.497	288.702	296.421	301.567	301.053	294.877	288.702	285.614
45.0	260.912	264.000	270.176	278.409	283.556	282.012	276.866	269.146	266.573
47.5	243.930	245.474	252.164	260.398	265.029	264.000	258.854	251.649	248.561
50.0	225.404	227.977	235.181	242.901	247.532	246.503	240.328	233.637	231.064
52.5	208.936	210.994	217.684	224.374	229.521	227.462	222.316	216.140	213.567
55.0	190.924	194.012	199.158	207.392	211.509	210.480	204.819	198.129	196.070
57.5	174.971	176.515	182.175	189.895	194.012	191.953	186.807	180.632	178.059
60.0	157.474	159.532	164.678	171.883	174.971	174.456	169.825	164.164	161.591
62.5	142.035	143.579	148.211	153.871	157.474	156.959	152.328	147.696	145.123
65.0	125.567	127.111	131.228	136.889	140.491	139.462	135.345	130.199	129.170
67.5	110.129	111.158	115.275	120.421	122.480	122.480	118.877	114.246	112.702
70.0	94.690	95.719	98.807	103.439	105.497	105.497	102.924	99.322	97.263
72.5	80.281	80.795	83.883	86.971	89.029	89.029	86.971	83.883	82.854
75.0	64.842	66.386	68.444	71.532	73.076	73.591	72.047	68.959	68.444
77.5	51.462	52.491	54.550	57.123	58.152	58.152	57.123	55.064	54.035
80.0	39.111	39.111	40.140	42.713	43.228	43.743	43.228	41.684	41.170
82.5	27.275	27.275	27.789	29.333	29.848	30.363	30.363	29.848	29.333
85.0	16.468	16.468	16.982	17.497	18.012	18.526	18.526	18.526	18.526
87.5	6.690	6.690	7.205	6.690	7.205	8.234	8.234	8.234	8.234
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-B-835-ITL94330.002.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	176.67	N.A.	14.70
0-30	365.47	N.A.	30.40
0-40	581.06	N.A.	48.40
0-60	973.24	N.A.	81.10
0-80	1180.07	N.A.	98.30
0-90	1200.54	N.A.	100.00
10-90	1154.03	N.A.	96.10
20-40	404.39	N.A.	33.70
20-50	615.56	N.A.	51.30
40-70	524.56	N.A.	43.70
60-80	206.83	N.A.	17.20
70-80	74.45	N.A.	6.20
80-90	20.47	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	1200.54	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	46.51
10-20	130.16
20-30	188.81
30-40	215.59
40-50	211.17
50-60	181.01
60-70	132.38
70-80	74.45
80-90	20.47
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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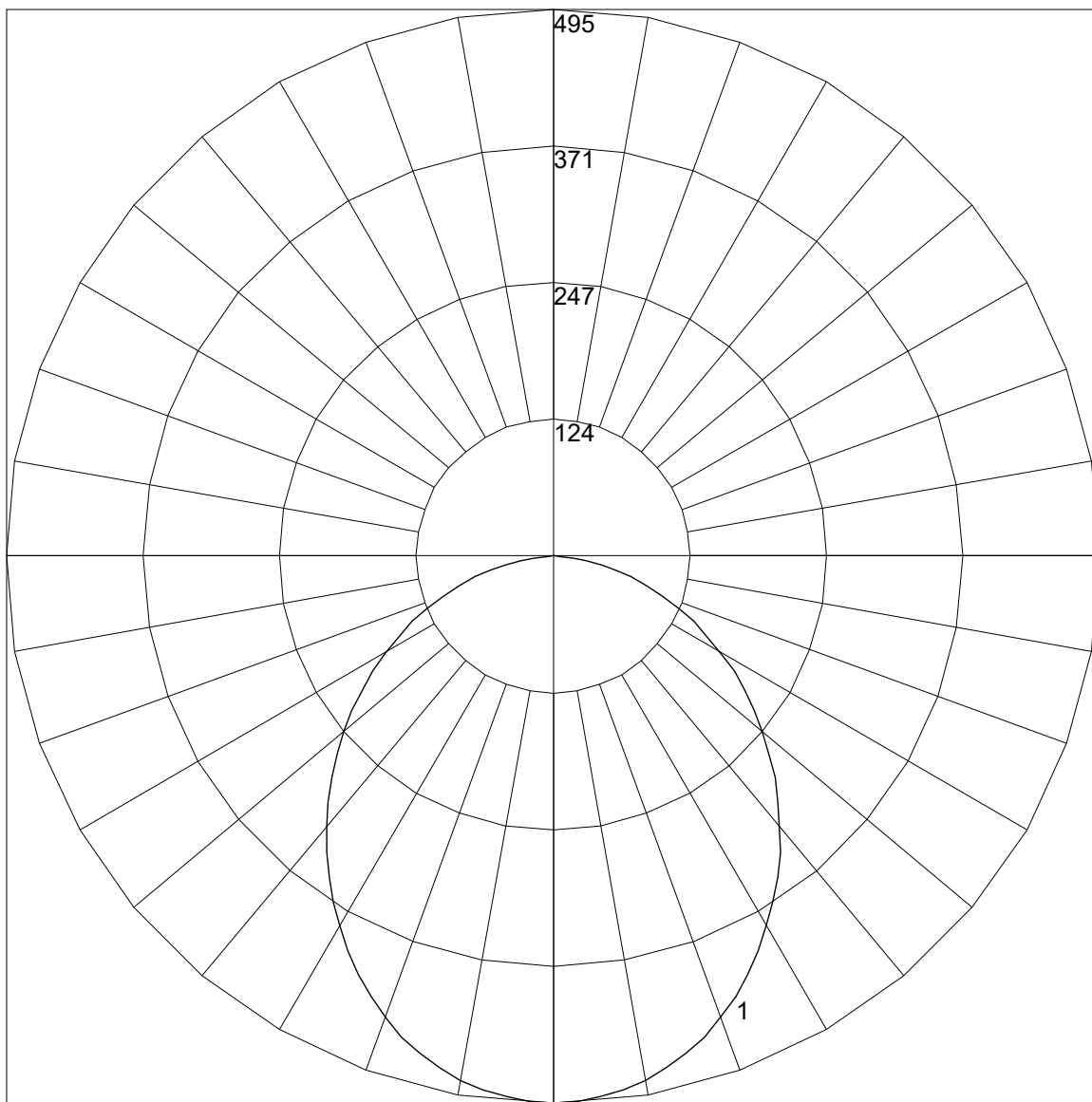
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	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 = 494.55 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)