

# 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 : 2D90 - HP-2-C-D-P-18IN-7-8IN-B-835-ITL94330.010.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL94330.010 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]12/28/20

[ISSUEDATE]02/18/2021

[MANUFAC]FINELITE, INC.

[LUMCAT]2D90 HP-2-P-D-18IN-7-8IN-B-835

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 7.0 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 7.4 WATTS

[\_ABSOLUTE]LUMENS]625

[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	625
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	89
Total Luminaire Watts	7
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)	1.36 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	2138	2214	2323
55	1928	2012	2136
65	1721	1799	1926
75	1451	1532	1636
85	1095	1129	1197

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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	257.595	257.595	257.595	257.595	257.595	257.595	257.595	257.595	257.595
2.5	256.523	256.791	257.327	257.059	257.327	257.327	257.327	257.327	257.059
5.0	254.915	254.915	255.719	255.451	255.719	255.987	255.987	255.987	255.987
7.5	251.966	252.234	252.770	253.038	253.574	253.842	253.842	253.842	253.842
10.0	247.945	248.481	249.286	249.822	250.626	250.894	250.626	250.894	250.358
12.5	243.388	243.657	244.997	245.801	246.873	247.677	247.409	247.141	246.605
15.0	236.955	238.296	239.368	240.708	242.316	242.584	242.316	241.780	241.244
17.5	230.790	232.130	233.203	234.811	237.759	236.955	236.419	235.615	235.347
20.0	223.553	225.161	227.038	228.646	231.058	231.058	230.254	228.914	228.110
22.5	216.584	217.388	219.800	221.677	224.625	224.357	223.017	221.408	220.604
25.0	208.274	209.614	211.759	214.171	217.388	217.120	215.779	213.099	212.563
27.5	199.965	201.037	203.717	206.934	209.614	209.078	207.738	205.057	204.521
30.0	191.119	192.459	195.408	198.892	201.305	201.037	198.624	196.480	195.140
32.5	182.273	183.346	186.562	190.047	192.995	192.995	190.315	187.634	186.294
35.0	173.160	174.500	177.716	181.201	184.418	183.882	181.469	177.985	177.448
37.5	164.046	165.386	168.603	172.624	175.572	174.768	172.624	168.871	167.263
40.0	154.932	156.005	159.489	163.510	166.190	165.922	162.706	159.757	158.149
42.5	145.819	146.623	150.375	154.396	157.077	156.809	153.592	150.375	148.767
45.0	135.901	137.509	140.726	145.015	147.695	146.891	144.210	140.190	138.849
47.5	127.055	127.859	131.344	135.633	138.045	137.509	134.829	131.076	129.468
50.0	117.405	118.746	122.498	126.519	128.932	128.395	125.179	121.694	120.354
52.5	108.828	109.900	113.385	116.869	119.550	118.478	115.797	112.581	111.240
55.0	99.446	101.054	103.735	108.024	110.168	109.632	106.684	103.199	102.127
57.5	91.137	91.941	94.889	98.910	101.054	99.982	97.302	94.085	92.745
60.0	82.023	83.095	85.776	89.528	91.137	90.869	88.456	85.508	84.167
62.5	73.982	74.786	77.198	80.147	82.023	81.755	79.343	76.930	75.590
65.0	65.404	66.208	68.352	71.301	73.177	72.641	70.497	67.816	67.280
67.5	57.362	57.899	60.043	62.723	63.796	63.796	61.919	59.507	58.703
70.0	49.321	49.857	51.465	53.878	54.950	54.950	53.610	51.733	50.661
72.5	41.816	42.084	43.692	45.300	46.372	46.372	45.300	43.692	43.156
75.0	33.774	34.578	35.651	37.259	38.063	38.331	37.527	35.919	35.651
77.5	26.805	27.341	28.413	29.753	30.290	30.290	29.753	28.681	28.145
80.0	20.372	20.372	20.908	22.248	22.516	22.784	22.516	21.712	21.444
82.5	14.207	14.207	14.475	15.279	15.547	15.815	15.815	15.547	15.279
85.0	8.578	8.578	8.846	9.114	9.382	9.650	9.650	9.650	9.650
87.5	3.485	3.485	3.753	3.485	3.753	4.289	4.289	4.289	4.289
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 : 2D90 - HP-2-C-D-P-18IN-7-8IN-B-835-ITL94330.010.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	92.02	N.A.	14.70
0-30	190.36	N.A.	30.40
0-40	302.66	N.A.	48.40
0-60	506.93	N.A.	81.10
0-80	614.66	N.A.	98.30
0-90	625.32	N.A.	100.00
10-90	601.10	N.A.	96.10
20-40	210.64	N.A.	33.70
20-50	320.62	N.A.	51.30
40-70	273.23	N.A.	43.70
60-80	107.73	N.A.	17.20
70-80	38.78	N.A.	6.20
80-90	10.66	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	625.32	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	24.22
10-20	67.80
20-30	98.34
30-40	112.29
40-50	109.99
50-60	94.28
60-70	68.95
70-80	38.78
80-90	10.66
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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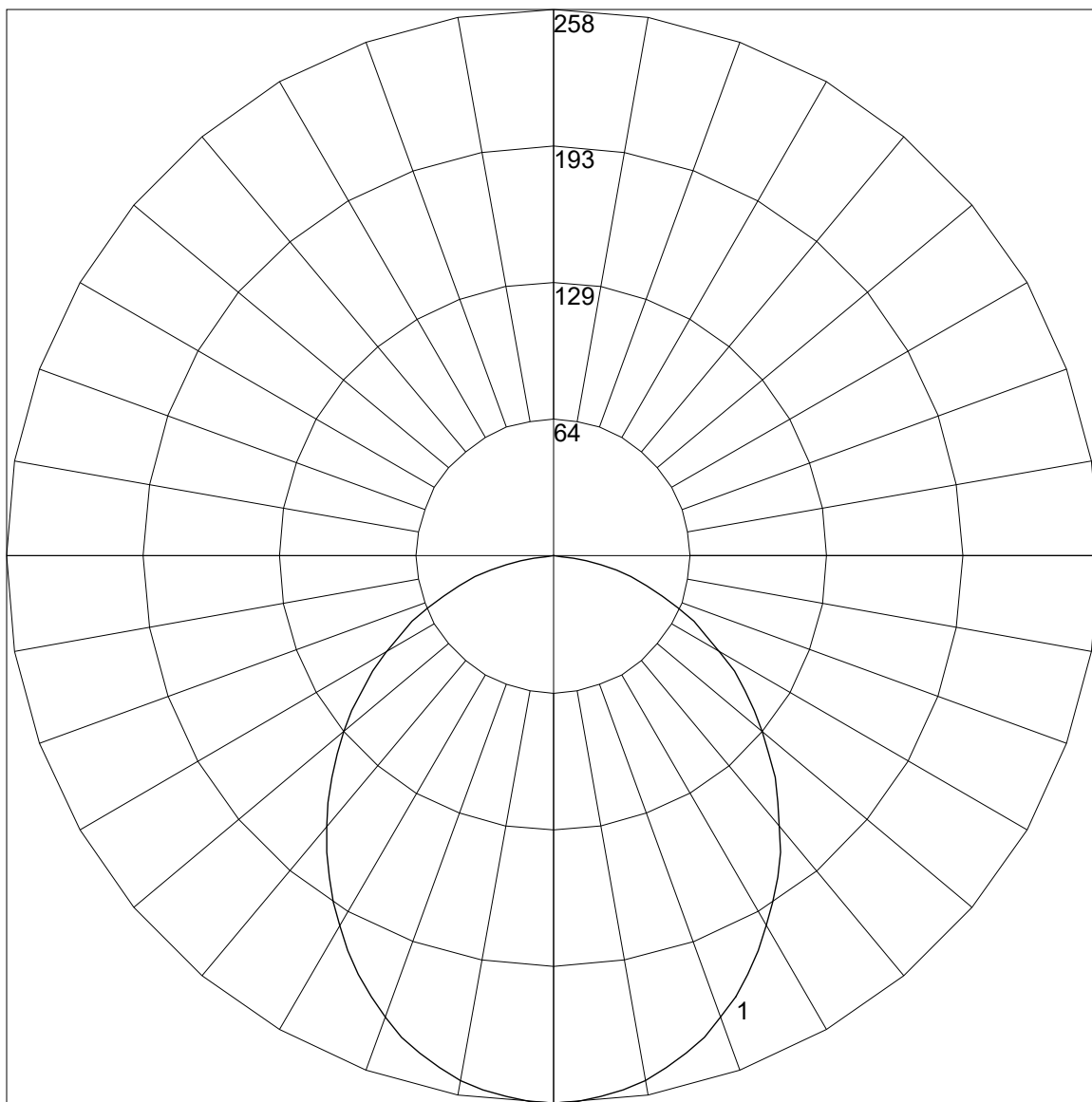
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	59	54	52
5	77	65	56	49	75	63	55	49	61	54	49	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 = 257.595 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)