

# 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 : E2-ID-L-4FT-B-S-835-ITL89277.007.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

[TEST]ITL89277.007 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[TESTDATE]05/02/17  
[ISSUEDATE]05/16/17  
[MANUFAC]FINELITE, INC.  
[LUMCAT]FINELITE E2-ID-L-4ft-B-S-835  
[OTHER]INPUT\_ELECTRICAL: 120.0 VOLTS, 17.2 WATTS  
[OTHER]INPUT\_ELECTRICAL: 277.0 VOLTS, 20.3 WATTS  
[ABSOLUTE]LUMENS]1747  
[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL89277. 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	1747
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	102
Total Luminaire Watts	17.2
Ballast Factor	1.00
CIE Type	Semi-Indirect
Spacing Criterion (0-180)	N.A.
Spacing Criterion (90-270)	N.A.
Spacing Criterion (Diagonal)	N.A.
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	4.06 ft
Luminous Width (90-270)	0.08 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	6105	6068	6013
55	5826	5758	5735
65	5507	5384	5384
75	5124	4974	5024
85	4327	4327	4476

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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>
0.0	212.856	212.856	212.856	212.856	212.856
2.5	212.856	212.856	212.856	212.856	212.856
5.0	212.037	212.037	212.037	212.037	212.037
7.5	210.400	210.400	210.400	210.400	209.991
10.0	208.763	208.353	208.763	208.763	208.763
12.5	206.307	205.897	206.307	206.716	206.307
15.0	203.441	202.213	203.441	203.441	203.441
17.5	200.167	198.529	200.167	200.167	199.757
20.0	196.483	194.436	196.483	196.073	195.255
22.5	191.980	189.933	191.571	191.571	191.161
25.0	187.068	185.021	186.659	186.249	185.840
27.5	181.746	179.700	181.337	180.928	180.109
30.0	176.016	173.969	175.606	174.788	174.378
32.5	169.876	168.238	169.466	169.057	168.238
35.0	163.736	161.689	162.917	162.507	162.098
37.5	157.186	155.549	156.367	155.958	155.549
40.0	150.227	148.590	149.409	148.999	148.590
42.5	142.859	141.631	142.041	141.631	141.222
45.0	135.900	134.263	135.082	134.263	133.854
47.5	128.532	126.895	127.304	126.895	126.486
50.0	120.755	119.527	119.936	119.118	119.118
52.5	113.387	111.749	112.159	111.340	111.340
55.0	105.200	103.972	103.972	103.563	103.563
57.5	97.423	96.195	95.785	95.376	95.376
60.0	89.645	88.008	88.008	87.599	87.599
62.5	81.458	80.230	79.821	79.412	79.821
65.0	73.272	72.044	71.634	71.634	71.634
67.5	65.494	64.266	63.857	63.857	63.857
70.0	57.307	56.079	56.079	55.670	56.079
72.5	49.530	48.302	48.302	48.302	48.711
75.0	41.753	40.934	40.525	40.525	40.934
77.5	34.385	33.156	33.156	33.566	33.566
80.0	26.607	25.788	25.788	26.198	26.607
82.5	19.239	18.420	18.830	19.239	19.239
85.0	11.871	11.461	11.871	11.871	12.280
87.5	4.503	4.503	4.912	5.321	5.321
90.0	0.000	0.000	0.000	0.000	0.000
92.5	3.603	3.088	2.059	1.544	1.544
95.0	10.293	9.264	7.205	5.661	5.661
97.5	19.558	16.984	13.382	10.808	10.808
100.0	30.366	25.734	20.072	16.470	15.955
102.5	43.233	35.513	27.278	22.131	21.102
105.0	58.673	47.865	36.027	28.822	26.763
107.5	76.686	62.276	45.291	36.027	32.939
110.0	96.759	79.774	56.099	44.262	40.145
112.5	119.404	99.847	68.966	53.526	48.379
115.0	143.079	121.463	84.921	63.819	58.158
117.5	168.298	145.138	103.964	76.686	68.452
120.0	193.517	168.813	129.183	91.612	81.318
122.5	218.736	194.032	160.064	110.140	97.273
125.0	242.411	219.251	194.032	136.388	117.860
127.5	266.086	245.499	226.456	170.872	146.167
130.0	289.247	271.233	254.249	212.560	183.738
132.5	311.377	295.423	277.409	254.763	229.544

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**CANDELA TABULATION - (Cont.)**

<b>135.0</b>	331.450	318.068	297.996	291.820	275.350
<b>137.5</b>	348.949	339.170	318.068	318.068	312.407
<b>140.0</b>	366.447	358.213	339.170	335.567	336.596
<b>142.5</b>	382.402	375.197	360.272	349.978	351.522
<b>145.0</b>	397.328	390.637	380.858	366.447	364.389
<b>147.5</b>	410.709	404.019	399.387	383.946	379.314
<b>150.0</b>	423.062	416.886	415.856	402.475	396.813
<b>152.5</b>	433.870	428.208	429.752	419.974	414.827
<b>155.0</b>	443.649	437.987	441.075	434.899	430.782
<b>157.5</b>	452.398	447.251	450.339	447.766	444.163
<b>160.0</b>	460.118	455.486	458.059	457.545	455.486
<b>162.5</b>	466.809	462.692	465.265	464.236	463.721
<b>165.0</b>	472.470	469.382	471.441	470.412	469.382
<b>167.5</b>	476.588	474.529	476.073	476.073	474.529
<b>170.0</b>	480.190	479.161	480.190	480.190	479.676
<b>172.5</b>	482.764	482.249	482.764	482.764	483.278
<b>175.0</b>	485.337	484.822	484.822	484.822	484.822
<b>177.5</b>	486.366	485.852	485.852	485.852	485.852
<b>180.0</b>	486.881	486.881	486.881	486.881	486.881

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	77.43	N.A.	4.40
0-30	163.16	N.A.	9.30
0-40	264.85	N.A.	15.20
0-60	461.65	N.A.	26.40
0-80	576.21	N.A.	33.00
0-90	589.46	N.A.	33.70
10-90	569.34	N.A.	32.60
20-40	187.42	N.A.	10.70
20-50	291.27	N.A.	16.70
40-70	268.13	N.A.	15.30
60-80	114.56	N.A.	6.60
70-80	43.24	N.A.	2.50
80-90	13.25	N.A.	0.80
90-110	51.43	N.A.	2.90
90-120	144.61	N.A.	8.30
90-130	309.16	N.A.	17.70
90-150	777.62	N.A.	44.50
90-180	1158.00	N.A.	66.30
110-180	1106.56	N.A.	63.30
0-180	1747.46	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	20.12
10-20	57.31
20-30	85.73
30-40	101.69
40-50	103.85
50-60	92.96
60-70	71.32
70-80	43.24
80-90	13.25
90-100	9.41
100-110	42.02
110-120	93.18
120-130	164.55
130-140	231.00
140-150	237.46
150-160	201.42
160-170	132.83
170-180	46.12

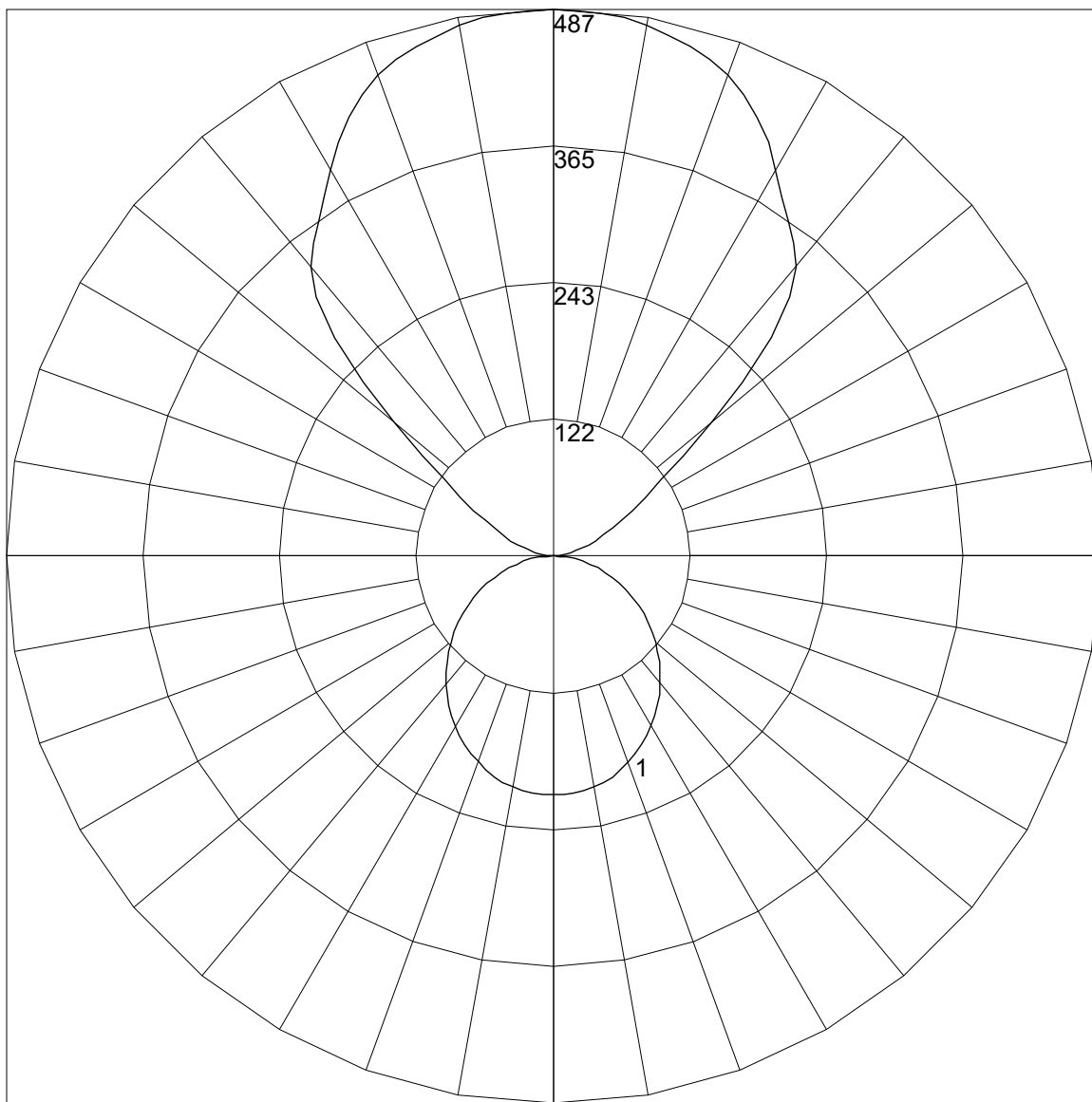
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	103	103	103	103	93	93	93	93	74	74	74	57	57	57	41	41	41	34
1	94	90	86	82	85	81	78	75	65	63	61	50	48	47	36	35	34	28
2	85	78	72	67	77	71	66	61	57	53	50	44	41	39	32	30	29	23
3	78	69	61	56	70	62	56	51	50	45	42	38	35	33	28	26	24	20
4	71	61	53	47	64	55	48	43	44	39	35	34	31	28	25	23	21	17
5	65	54	46	40	59	49	42	37	39	34	30	31	27	24	22	20	18	15
6	60	48	40	35	54	44	37	32	35	30	26	28	24	21	20	18	16	13
7	55	43	36	30	50	39	33	28	32	27	23	25	21	19	18	16	14	11
8	51	39	32	26	46	36	29	24	29	24	20	23	19	16	17	14	13	10
9	48	36	28	23	43	33	26	22	27	22	18	21	17	15	16	13	11	9
10	44	33	26	21	40	30	24	19	24	20	16	19	16	13	14	12	10	8

POLAR GRAPH



Maximum Candela = 486.881 Located At Horizontal Angle = 0, Vertical Angle = 180  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)