

# 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 : S12-LED-ID-DCO-4FT-2E-H-8-35-20U80D-ITL87815.003.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL87815.003 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]07/14/16

[ISSUEDATE]07/27/16

[MANUFAC]FINELITE, INC.

[LUMCAT]S12-LED-ID-DCO-4ft-2E-H-8-35-20U80D

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 28.5 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 29.2 WATTS

[ABSOLUTE]LUMENS]2591

[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL87815. 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	2590
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	91
Total Luminaire Watts	28.5
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	1.24
Spacing Criterion (90-270)	1.30
Spacing Criterion (Diagonal)	1.40
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	3.32 ft
Luminous Width (90-270)	0.36 ft
Luminous Height	0.03 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	5310	5224	5297
55	5048	4865	4944
65	4660	4340	4388
75	3969	3497	3658
85	2646	2463	2961

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S12-LED-ID-DCO-4FT-2E-H-8-35-20U80D-ITL87815.003.IES****CANDELA TABULATION**

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
<b>0.0</b>	660.333	660.333	660.333	660.333	660.333
<b>2.5</b>	659.556	659.556	660.333	659.556	660.333
<b>5.0</b>	658.000	657.222	658.000	658.000	658.000
<b>7.5</b>	653.333	654.111	654.889	654.889	655.667
<b>10.0</b>	648.667	647.111	650.222	651.000	651.000
<b>12.5</b>	641.667	640.111	644.000	646.333	646.333
<b>15.0</b>	633.889	630.778	637.000	640.111	639.333
<b>17.5</b>	623.000	619.889	627.667	631.556	631.556
<b>20.0</b>	611.333	609.000	617.556	623.000	623.778
<b>22.5</b>	597.333	595.778	605.111	612.111	612.889
<b>25.0</b>	583.333	581.778	592.667	599.667	601.222
<b>27.5</b>	567.000	567.000	577.889	586.444	588.000
<b>30.0</b>	550.667	550.667	563.111	571.667	574.000
<b>32.5</b>	532.000	532.778	546.000	555.333	557.667
<b>35.0</b>	512.556	514.111	527.333	537.444	540.556
<b>37.5</b>	492.333	494.667	507.889	518.778	521.889
<b>40.0</b>	471.333	474.444	488.444	499.333	502.444
<b>42.5</b>	449.556	452.667	466.667	477.556	480.667
<b>45.0</b>	427.000	430.111	444.111	455.778	458.111
<b>47.5</b>	403.667	407.556	420.778	431.667	434.778
<b>50.0</b>	380.333	383.444	395.889	406.778	410.667
<b>52.5</b>	355.444	358.556	370.222	381.111	384.222
<b>55.0</b>	330.556	332.889	344.556	355.444	358.556
<b>57.5</b>	304.889	308.000	318.111	328.222	331.333
<b>60.0</b>	279.222	282.333	290.889	301.000	303.333
<b>62.5</b>	252.778	255.889	263.667	273.000	275.333
<b>65.0</b>	226.333	228.667	236.444	245.000	247.333
<b>67.5</b>	199.889	201.444	208.444	217.000	220.111
<b>70.0</b>	172.667	175.778	181.222	189.000	192.889
<b>72.5</b>	145.444	148.556	154.000	162.556	166.444
<b>75.0</b>	119.778	122.889	127.556	136.889	140.778
<b>77.5</b>	94.889	97.222	103.444	113.556	116.667
<b>80.0</b>	70.778	73.889	80.889	90.222	94.111
<b>82.5</b>	48.222	52.111	59.889	70.000	74.667
<b>85.0</b>	28.778	32.667	42.778	53.667	57.556
<b>87.5</b>	10.889	17.889	29.556	38.889	42.000
<b>90.0</b>	0.000	7.778	18.667	26.444	30.333
<b>92.5</b>	3.889	6.222	14.778	22.556	25.667
<b>95.0</b>	8.556	10.111	16.333	25.667	27.222
<b>97.5</b>	14.000	16.333	22.556	28.778	31.111
<b>100.0</b>	19.444	24.889	33.444	38.111	40.444
<b>102.5</b>	26.444	34.222	42.778	52.111	54.444
<b>105.0</b>	34.222	41.222	55.222	67.667	70.778
<b>107.5</b>	42.000	50.556	67.667	83.222	87.111
<b>110.0</b>	49.778	59.889	81.667	99.556	105.000
<b>112.5</b>	56.778	69.222	95.667	115.889	122.889
<b>115.0</b>	64.556	78.556	109.667	132.222	140.000
<b>117.5</b>	72.333	87.889	122.889	147.778	157.111
<b>120.0</b>	80.111	97.222	134.556	162.556	173.444
<b>122.5</b>	88.667	106.556	145.444	176.556	186.667
<b>125.0</b>	96.444	113.556	154.000	188.222	199.111
<b>127.5</b>	103.444	119.778	161.778	197.556	210.000
<b>130.0</b>	108.111	124.444	167.222	204.556	217.778
<b>132.5</b>	112.778	128.333	170.333	209.222	222.444

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S12-LED-ID-DCO-4FT-2E-H-8-35-20U80D-ITL87815.003.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	117.444	131.444	171.889	210.778	224.000
<b>137.5</b>	120.556	133.000	171.889	210.000	222.444
<b>140.0</b>	123.667	134.556	171.111	206.111	218.556
<b>142.5</b>	126.778	136.111	168.778	201.444	213.111
<b>145.0</b>	129.111	136.889	164.889	194.444	204.556
<b>147.5</b>	130.667	136.889	161.778	186.667	196.000
<b>150.0</b>	132.222	137.667	157.889	178.889	186.667
<b>152.5</b>	133.000	137.667	153.222	171.111	177.333
<b>155.0</b>	133.778	136.889	150.111	163.333	168.778
<b>157.5</b>	134.556	136.889	147.000	157.111	161.000
<b>160.0</b>	135.333	136.889	143.889	150.889	154.778
<b>162.5</b>	135.333	136.111	141.556	146.222	148.556
<b>165.0</b>	135.333	136.111	140.000	143.111	144.667
<b>167.5</b>	135.333	136.111	138.444	140.000	141.556
<b>170.0</b>	135.333	135.333	136.889	137.667	138.444
<b>172.5</b>	135.333	135.333	136.111	136.889	136.889
<b>175.0</b>	134.556	135.333	135.333	135.333	136.111
<b>177.5</b>	134.556	134.556	134.556	134.556	134.556
<b>180.0</b>	134.556	134.556	134.556	134.556	134.556

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S12-LED-ID-DCO-4FT-2E-H-8-35-20U80D-ITL87815.003.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	242.02	N.A.	9.30
0-30	514.68	N.A.	19.90
0-40	844.01	N.A.	32.60
0-60	1493.38	N.A.	57.60
0-80	1865.25	N.A.	72.00
0-90	1914.69	N.A.	73.90
10-90	1852.16	N.A.	71.50
20-40	601.99	N.A.	23.20
20-50	943.67	N.A.	36.40
40-70	883.65	N.A.	34.10
60-80	371.87	N.A.	14.40
70-80	137.59	N.A.	5.30
80-90	49.44	N.A.	1.90
90-110	79.15	N.A.	3.10
90-120	183.46	N.A.	7.10
90-130	317.50	N.A.	12.30
90-150	553.04	N.A.	21.30
90-180	675.79	N.A.	26.10
110-180	596.63	N.A.	23.00
0-180	2590.48	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	62.54
10-20	179.49
20-30	272.66
30-40	329.33
40-50	341.68
50-60	307.69
60-70	234.28
70-80	137.59
80-90	49.44
90-100	21.51
100-110	57.64
110-120	104.30
120-130	134.04
130-140	131.49
140-150	104.06
150-160	69.99
160-170	39.78
170-180	12.96

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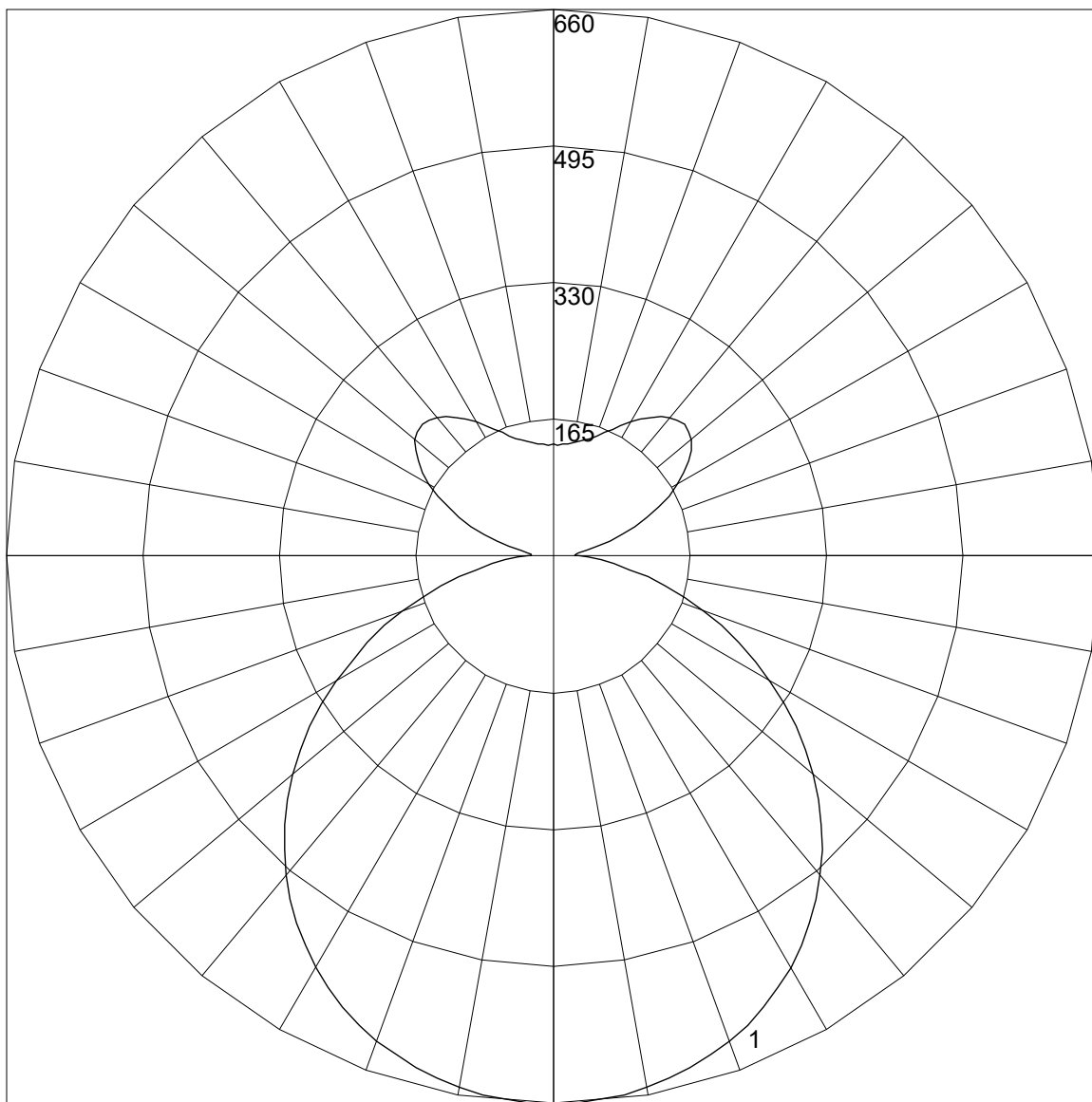
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	113	113	113	113	107	107	107	107	97	97	97	87	87	87	78	78	78	74
1	103	98	94	90	97	93	90	86	84	81	79	76	74	72	68	67	65	61
2	93	85	79	73	88	81	75	70	74	69	65	66	63	59	60	57	54	51
3	85	75	67	61	80	71	64	58	65	59	54	58	54	50	53	49	46	43
4	78	66	58	51	73	63	55	49	57	51	46	52	47	43	47	43	39	36
5	71	59	50	44	67	56	48	42	51	45	40	47	41	37	42	38	34	31
6	66	53	44	38	62	51	43	37	46	40	35	42	37	32	38	34	30	28
7	61	48	39	33	58	46	38	32	42	35	30	38	33	29	35	30	27	24
8	57	44	35	30	54	42	34	29	38	32	27	35	30	25	32	27	24	22
9	53	40	32	27	50	38	31	26	35	29	24	32	27	23	30	25	21	19
10	49	37	29	24	47	35	28	23	32	26	22	30	24	21	27	23	19	18

POLAR GRAPH



Maximum Candela = 660.333 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)