

LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: FAIL-SAFE

Report Number: P1219439

Luminaire Tested: FWLSC-D-24-UNV-100-35-OPL/84-IP6X

Issue Date: 12/9/2025

Tested By:

Approved By:



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Test Information

Test Method: LM-79-2019
Report Number: P1219439
Test Lab: INNOVATION CENTER
Issue Date: 12/9/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FWLSC-D-24-UNV-100-35-OPL/84-IP6X
Description: FAILSAFE FWLDL LED FIXTURE WITH SCONE

Light Source:
Ballast/Driver: -

Summary

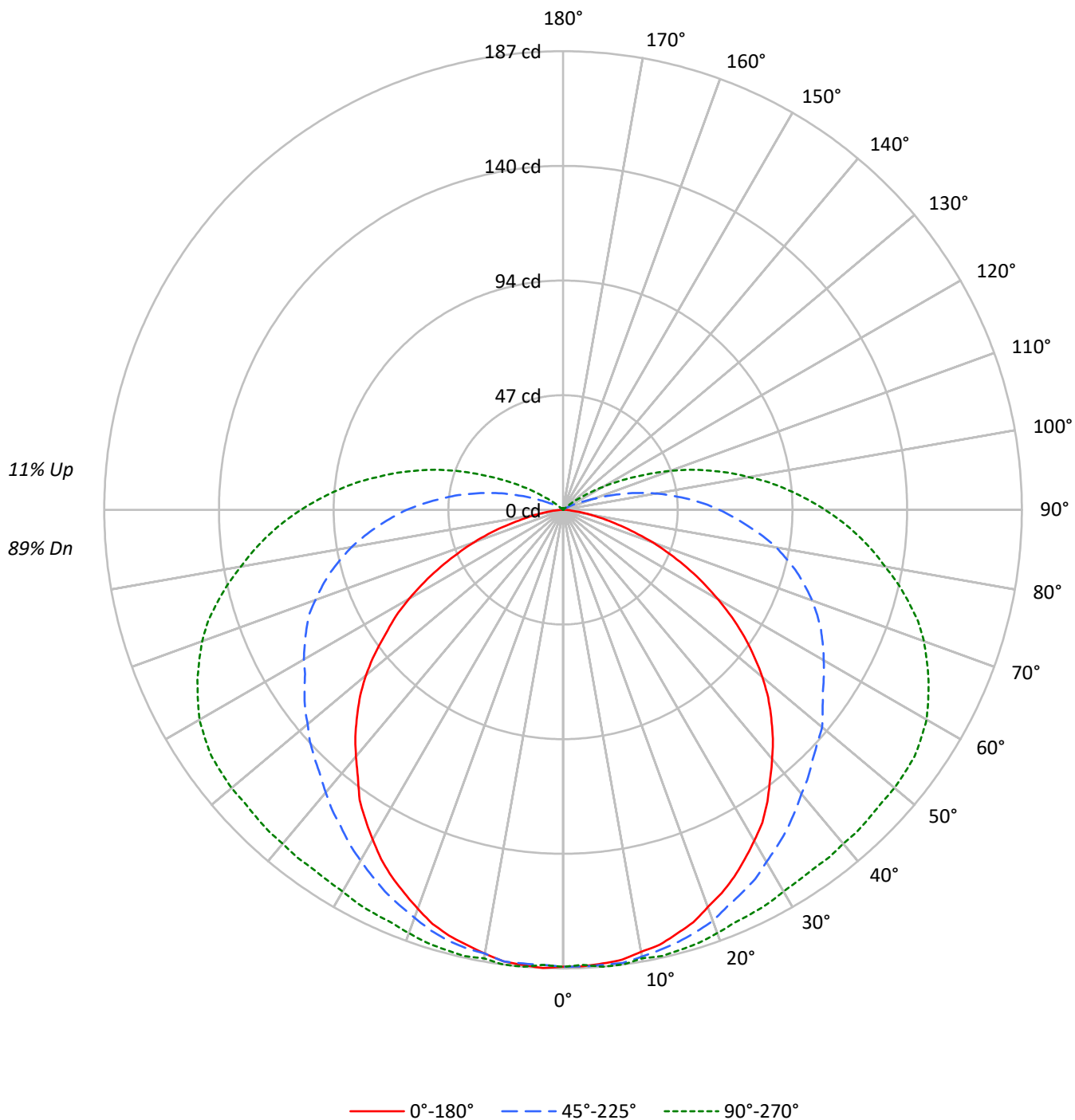
Lumens per Lamp: N/A
Luminaire Lumens: 860.1 lumens
Efficiency: N/A
Efficacy: 47.8 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.47 / 1.5
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 2' x H: 0.21')
CIE Type: Semi-Direct

Input Watts (W): 18
Input Voltage (V): 122
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: >0.9
Total Harmonic Distortion (THDi): <20
Frequency (hertz): 60
Stabilization Time: HR
Operation Time: HR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Luminous Intensity Polar Plot



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	17.7	2.1
10°-20°	51.5	6.0
20°-30°	79.7	9.3
30°-40°	100.2	11.7
40°-50°	112.8	13.1
50°-60°	116.8	13.6
60°-70°	111.7	13.0
70°-80°	97.2	11.3
80°-90°	76.1	8.8
90°-100°	52.3	6.1
100°-110°	29.3	3.4
110°-120°	11.5	1.3
120°-130°	2.6	0.3
130°-140°	0.2	0.0
140°-150°	0.2	0.0
150°-160°	0.2	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-30°	148.9	17.3
0°-40°	249.1	29.0
0°-60°	478.6	55.7
0°-90°	763.7	88.8
90°-120°	93.0	10.8
90°-150°	96.1	11.2
90°-180°	96.0	11.2
0°-180°	860.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	186	186	186	186	186	
5°	186	186	187	186	186	18
15°	179	182	186	182	180	51
25°	165	172	182	172	165	76
35°	145	159	178	158	144	91
45°	120	144	177	143	119	93
55°	90	129	175	129	88	80
65°	56	116	164	115	55	55
75°	23	99	146	98	22	25
85°	3	76	121	76	3	4
90°	0	64	107	64	0	0
95°	0	51	92	50	0	0
105°	0	25	62	26	0	0
115°	1	6	31	7	0	1
125°	0	0	9	1	1	0
135°	0	0	0	1	1	0
145°	0	0	0	1	1	0
155°	0	0	0	1	1	0
165°	1	1	0	1	1	0
175°	1	1	0	1	1	0
180°	1	1	1	1	1	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
2.5°	186.3	185.0	186.3	187.0	185.7	185.7	185.7	185.7	187.0
5°	185.7	185.0	186.3	188.3	187.0	186.3	185.7	185.0	186.3
7.5°	185.0	184.3	186.3	187.6	187.0	186.3	185.7	184.3	185.7
10°	183.0	183.0	185.0	187.0	185.7	185.0	183.7	183.0	183.7
12.5°	181.7	181.7	183.7	186.3	186.3	184.3	183.0	181.7	181.7
15°	179.0	179.0	182.3	185.7	185.7	184.3	181.7	179.7	179.7
17.5°	176.4	177.0	180.4	185.0	185.0	183.0	179.7	177.0	177.0
20°	172.4	173.7	178.4	183.0	183.7	181.0	177.0	173.7	173.1
22.5°	169.1	169.7	175.0	181.0	182.3	179.0	174.4	170.4	169.1
25°	165.1	166.4	172.4	179.7	181.7	177.7	171.7	166.4	165.1
27.5°	160.5	162.5	169.7	178.4	181.0	176.4	168.4	162.5	160.5
30°	155.8	157.8	165.8	175.7	179.7	173.7	165.1	157.8	155.2
32.5°	151.2	153.2	162.5	174.4	179.0	172.4	161.8	153.2	149.9
35°	145.2	147.9	159.1	173.1	178.4	171.1	157.8	147.9	144.5
37.5°	138.6	141.9	155.2	171.7	178.4	169.7	154.5	141.9	137.3
40°	132.6	135.9	151.2	170.4	177.7	168.4	150.5	135.9	131.3
42.5°	126.6	130.6	147.9	169.7	177.7	167.8	146.5	130.0	125.3
45°	120.0	124.7	143.9	168.4	177.0	166.4	143.2	124.0	118.7
47.5°	113.4	118.7	140.6	166.4	176.4	164.4	139.9	118.0	112.1
50°	106.1	112.1	137.9	165.1	176.4	163.1	135.9	112.1	104.8
52.5°	98.1	105.4	133.3	163.8	175.7	161.8	132.6	105.4	96.8
55°	90.2	99.5	129.3	162.5	175.0	160.5	128.6	98.8	88.2
57.5°	81.6	92.8	126.0	160.5	173.1	159.1	124.7	92.2	80.9
60°	72.9	86.9	122.7	157.8	171.1	156.5	122.0	86.2	72.3
62.5°	64.3	80.9	119.4	155.2	167.8	153.8	118.7	80.9	63.7
65°	55.7	75.6	116.0	151.2	164.4	149.9	115.4	74.9	55.0
67.5°	47.1	70.3	112.1	147.2	160.5	145.9	112.1	69.6	46.4
70°	39.1	63.7	108.1	142.6	156.5	141.2	107.4	63.0	38.5
72.5°	30.5	59.0	103.4	137.9	151.8	135.9	102.8	58.3	30.5
75°	23.2	54.4	98.8	131.9	145.9	131.3	98.1	53.7	22.5
77.5°	16.6	49.1	93.5	126.6	139.9	125.3	92.8	48.4	15.9
80°	11.3	43.8	88.2	120.7	133.3	120.0	87.5	43.8	10.6
82.5°	6.6	38.5	82.2	114.7	127.3	113.4	81.6	38.5	6.0
85°	3.3	33.2	75.6	108.1	120.7	107.4	75.6	33.2	3.3
87.5°	2.0	28.5	69.6	101.4	114.0	100.8	69.6	27.8	1.3
90°	0.0	23.2	63.7	94.8	106.8	94.2	63.7	22.5	0.0
92.5°	0.0	18.6	57.7	87.5	99.5	86.9	57.0	17.9	0.0
95°	0.0	13.9	51.1	80.9	92.2	80.2	50.4	13.9	0.0
97.5°	0.0	10.6	44.4	73.6	84.9	72.9	44.4	9.9	0.0
100°	0.0	7.3	38.5	65.6	76.9	65.6	37.8	7.3	0.0
102.5°	0.0	4.6	31.8	58.3	69.6	57.7	31.8	4.6	0.0
105°	0.0	2.7	25.2	51.1	61.7	51.1	25.9	3.3	0.0
107.5°	0.0	1.3	18.6	43.1	54.4	43.1	19.9	1.3	0.0
110°	0.0	0.0	12.6	35.1	46.4	35.8	15.3	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	0.7	0.0	8.6	27.2	38.5	29.2	10.6	0.0	0.0
115°	0.7	0.0	6.0	20.6	31.2	22.5	7.3	0.0	0.0
117.5°	0.7	0.0	4.6	15.3	24.5	16.6	5.3	0.7	0.7
120°	0.0	0.0	2.0	11.3	18.6	12.6	2.7	0.7	0.7
122.5°	0.0	0.0	0.0	8.0	13.3	8.6	0.7	0.7	0.0
125°	0.0	0.0	0.0	5.3	8.6	6.0	0.7	0.7	0.7
127.5°	0.0	0.0	0.0	2.0	6.0	2.7	0.7	0.7	0.7
130°	0.0	0.0	0.0	0.0	2.0	0.0	0.7	0.7	0.7
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.7	0.7
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.7	0.7
137.5°	0.0	0.0	0.0	0.0	0.0	0.7	0.7	0.7	0.7
140°	0.0	0.0	0.0	0.0	0.0	0.7	0.7	0.7	0.7
142.5°	0.0	0.0	0.0	0.0	0.0	0.7	0.7	0.7	0.7
145°	0.0	0.0	0.0	0.0	0.0	0.7	0.7	1.3	0.7
147.5°	0.0	0.0	0.0	0.0	0.0	0.7	0.7	1.3	0.7
150°	0.0	0.0	0.0	0.0	0.7	0.7	0.7	1.3	0.7
152.5°	0.0	0.0	0.0	0.0	0.7	0.7	0.7	1.3	0.7
155°	0.0	0.0	0.0	0.0	0.0	0.7	0.7	1.3	0.7
157.5°	0.0	0.0	0.0	0.0	0.0	0.7	0.7	0.7	0.7
160°	0.0	0.0	0.7	0.7	0.0	0.7	0.7	0.7	0.7
162.5°	0.7	0.0	0.7	0.7	0.7	0.0	0.7	0.7	0.7
165°	0.7	0.7	0.7	0.7	0.0	0.0	0.7	0.7	0.7
167.5°	0.7	0.7	0.7	0.7	0.0	0.0	0.7	0.7	0.7
170°	0.7	0.7	0.7	0.0	0.0	0.0	0.0	0.7	0.7
172.5°	0.7	0.7	0.7	0.0	0.0	0.0	0.0	0.7	0.7
175°	0.7	0.7	0.7	0.0	0.0	0.0	0.7	0.7	0.7
177.5°	0.7	0.7	0.7	0.0	0.0	0.0	0.7	0.7	0.7
180°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7

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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room Dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	11.2	12.7	11.7	13.2	13.8	16.3	17.8	16.8	18.4	18.9
	3H	12.5	14.0	13.1	14.5	15.1	19.4	20.8	20.0	21.4	22.0
	4H	12.9	14.3	13.5	14.8	15.5	21.0	22.3	21.5	22.9	23.5
	6H	13.1	14.4	13.7	15.0	15.6	22.5	23.8	23.1	24.4	25.0
	8H	13.2	14.4	13.7	15.0	15.6	23.3	24.5	23.9	25.1	25.8
	12H	13.2	14.3	13.7	14.9	15.6	24.1	25.3	24.7	25.9	26.6
4H	2H	12.9	14.2	13.4	14.8	15.4	16.6	18.0	17.2	18.5	19.1
	3H	14.5	15.7	15.1	16.3	16.9	20.0	21.2	20.5	21.7	22.4
	4H	15.1	16.2	15.7	16.8	17.5	21.7	22.8	22.3	23.4	24.1
	6H	15.4	16.4	16.1	17.0	17.7	23.5	24.5	24.1	25.1	25.8
	8H	15.5	16.4	16.1	17.1	17.8	24.4	25.3	25.0	25.9	26.6
	12H	15.6	16.4	16.2	17.0	17.8	25.4	26.2	26.0	26.8	27.6
8H	4H	16.6	17.5	17.2	18.1	18.9	21.9	22.8	22.5	23.4	24.1
	6H	17.3	18.0	17.9	18.7	19.4	23.9	24.6	24.5	25.3	26.0
	8H	17.5	18.2	18.1	18.8	19.6	24.9	25.6	25.6	26.3	27.0
	12H	17.6	18.2	18.2	18.9	19.7	26.1	26.7	26.7	27.4	28.1
12H	4H	17.1	17.9	17.7	18.6	19.3	21.9	22.7	22.5	23.4	24.1
	6H	17.9	18.6	18.6	19.3	20.0	23.9	24.6	24.6	25.3	26.0
	8H	18.3	18.9	18.9	19.6	20.3	25.0	25.6	25.7	26.3	27.1

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