

Scaled data based on original data using  
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: P974337

Luminaire Tested: FLR2-24-20-L940-CP080

Issue Date: 3/13/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P974337  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-281-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/13/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: FAIL-SAFE  
Catalog Number: FLR2-24-20-L940-CP080  
Description: SHAPER SENSE CIRCLE  
  
Light Source: FLR2-24-20-L940-CP080  
Ballast/Driver: -

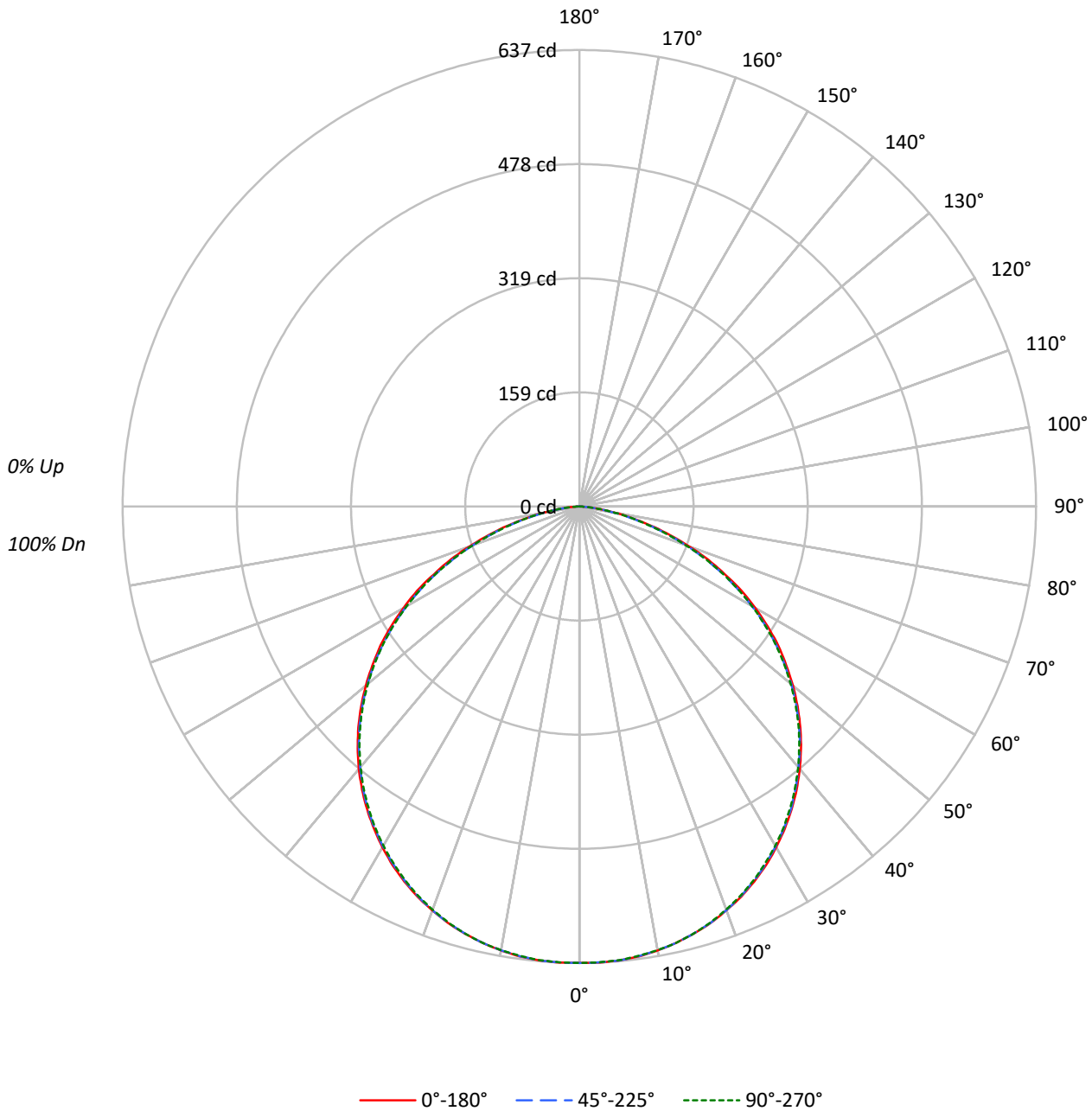
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1800.7 lumens  
Efficiency: N/A  
Efficacy: 107.8 lumens/watt  
Spacing Criteria (0/90/45): 1.28 / 1.27 / 1.39  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 16.7  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor:  
Total Harmonic Distortion (THDi):  
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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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20	
RC	80				70				50				30				10	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	
RCR																		
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	99	91	85	79	97	89	83	78	86	81	76	83	78	75	80	76	73	71
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	70	66	62	60
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	57	53	51
5	76	64	55	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44
6	70	57	48	42	69	56	48	42	54	47	41	53	46	41	51	45	41	38
7	65	52	43	37	64	51	43	37	49	42	37	48	41	36	47	41	36	34
8	61	47	39	33	59	47	38	33	45	38	33	44	37	32	43	37	32	30
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	39	33	29	27
10	53	40	32	27	52	39	32	27	38	31	27	38	31	26	37	31	26	25

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	857	857	857
5°	859	859	858
10°	860	859	859
15°	860	859	859
20°	859	859	857
25°	857	856	854
30°	853	851	849
35°	848	846	843
40°	840	835	834
45°	830	825	822
50°	814	808	805
55°	795	783	782
60°	762	748	748
65°	713	696	698
70°	641	622	620
75°	539	517	515
80°	394	373	390
85°	222	205	208

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 830 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	60.5	3.4
10°-20°	174.2	9.7
20°-30°	265.6	14.8
30°-40°	321.8	17.9
40°-50°	334.3	18.6
50°-60°	299.1	16.6
60°-70°	218.0	12.1
70°-80°	108.0	6.0
80°-90°	19.3	1.1
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	500.3	27.8
0°-40°	822.2	45.7
0°-60°	1455.5	80.8
0°-90°	1800.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1800.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	637	637	637	637	637	
5°	636	636	636	636	636	60
15°	617	617	617	618	617	174
25°	578	577	576	576	575	266
35°	516	516	515	514	513	323
45°	436	435	433	432	432	336
55°	339	336	334	334	334	302
65°	224	222	218	220	219	222
75°	104	102	99	101	99	110
85°	14	13	13	14	14	20
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	637.1	637.1	637.1	637.1	637.1
2.5°	637.1	636.9	636.9	637.1	636.7
5°	636.0	636.2	636.0	636.0	635.5
7.5°	633.5	633.2	633.0	633.2	632.6
10°	629.1	629.1	628.9	629.1	628.7
12.5°	623.9	623.9	623.9	624.1	623.9
15°	617.2	617.0	617.0	617.5	617.0
17.5°	609.5	609.2	609.2	609.0	608.6
20°	599.9	599.9	599.6	599.4	598.7
22.5°	589.6	589.4	588.7	588.7	587.8
25°	577.5	576.8	576.3	576.1	575.4
27.5°	564.2	563.3	562.6	562.1	561.5
30°	549.3	548.4	547.7	547.1	546.6
32.5°	533.3	532.9	531.7	531.5	530.6
35°	516.2	515.5	514.8	513.9	513.0
37.5°	497.9	497.2	495.6	495.2	494.5
40°	478.5	477.6	475.5	475.5	474.8
42.5°	457.7	456.8	455.4	454.5	454.0
45°	436.0	435.0	433.4	432.5	432.1
47.5°	412.9	412.2	410.4	409.7	409.0
50°	388.9	387.9	385.9	385.4	384.7
52.5°	363.7	363.3	360.5	360.3	359.6
55°	338.8	336.3	334.0	334.0	333.5
57.5°	311.4	309.5	306.6	306.6	306.1
60°	283.0	281.4	278.0	278.4	278.0
62.5°	255.4	251.9	248.7	250.1	249.0
65°	223.8	222.0	218.5	219.5	219.2
67.5°	195.0	191.6	188.4	190.2	189.3
70°	163.0	161.2	158.0	159.8	157.5
72.5°	132.8	131.2	128.0	130.1	127.8
75°	103.6	102.0	99.4	101.3	99.0
77.5°	75.9	74.8	72.5	74.3	74.8
80°	50.8	49.4	48.2	49.8	50.3
82.5°	29.7	28.8	28.3	28.6	29.7
85°	14.4	13.3	13.3	13.5	13.5
87.5°	3.9	3.4	3.9	4.1	4.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)