

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: P974297

Luminaire Tested: FLR2-24-20-L840-CP187

Issue Date: 3/13/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P974297  
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-L840-CP187  
Description: SHAPER SENSE CIRCLE  
  
Light Source: FLR2-24-20-L840-CP187  
Ballast/Driver: -

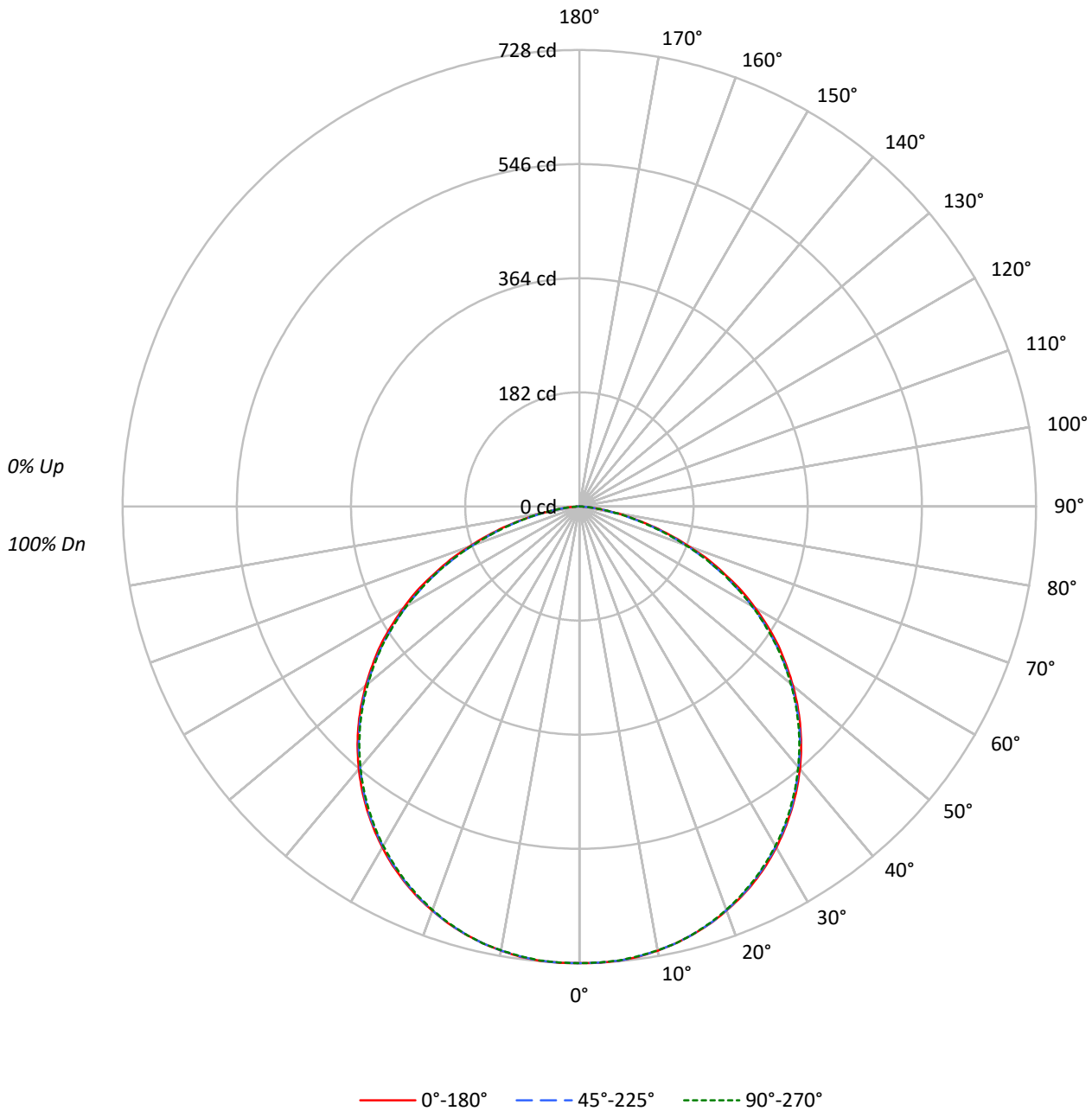
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2059.0 lumens  
Efficiency: N/A  
Efficacy: 123.3 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	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
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°	980	980	980
5°	982	982	982
10°	983	982	982
15°	983	983	983
20°	982	982	980
25°	980	978	977
30°	976	973	971
35°	969	967	964
40°	961	955	954
45°	949	943	940
50°	931	924	921
55°	909	896	895
60°	871	855	855
65°	815	796	798
70°	733	710	709
75°	616	591	588
80°	449	428	446
85°	255	235	238

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 949 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	69.2	3.4
10°-20°	199.2	9.7
20°-30°	303.7	14.8
30°-40°	368.0	17.9
40°-50°	382.2	18.6
50°-60°	342.0	16.6
60°-70°	249.2	12.1
70°-80°	123.4	6.0
80°-90°	22.1	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°	572.1	27.8
0°-40°	940.1	45.7
0°-60°	1664.3	80.8
0°-90°	2059.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2059.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	728	728	728	728	728	
5°	727	728	727	727	727	69
15°	706	706	706	706	706	199
25°	660	660	659	659	658	304
35°	590	589	589	588	587	369
45°	498	497	496	495	494	384
55°	387	384	382	382	381	345
65°	256	254	250	251	251	254
75°	118	117	114	116	113	126
85°	16	15	15	15	15	23
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	728.5	728.5	728.5	728.5	728.5
2.5°	728.5	728.2	728.2	728.5	728.0
5°	727.2	727.5	727.2	727.2	726.7
7.5°	724.3	724.1	723.8	724.1	723.3
10°	719.4	719.4	719.1	719.4	718.8
12.5°	713.3	713.3	713.3	713.6	713.3
15°	705.8	705.5	705.5	706.0	705.5
17.5°	696.9	696.6	696.6	696.4	695.8
20°	685.9	685.9	685.6	685.4	684.6
22.5°	674.1	673.9	673.1	673.1	672.0
25°	660.3	659.5	659.0	658.7	657.9
27.5°	645.1	644.1	643.3	642.8	642.0
30°	628.1	627.1	626.3	625.5	625.0
32.5°	609.8	609.3	608.0	607.7	606.7
35°	590.2	589.4	588.7	587.6	586.6
37.5°	569.3	568.5	566.7	566.2	565.4
40°	547.1	546.1	543.7	543.7	542.9
42.5°	523.3	522.3	520.7	519.7	519.1
45°	498.5	497.4	495.6	494.6	494.0
47.5°	472.1	471.3	469.2	468.4	467.6
50°	444.6	443.6	441.2	440.7	439.9
52.5°	415.9	415.4	412.2	412.0	411.2
55°	387.4	384.5	381.9	381.9	381.4
57.5°	356.0	353.9	350.5	350.5	350.0
60°	323.6	321.8	317.9	318.4	317.9
62.5°	292.0	288.1	284.4	286.0	284.7
65°	255.9	253.8	249.9	250.9	250.7
67.5°	223.0	219.0	215.4	217.5	216.4
70°	186.4	184.3	180.6	182.7	180.1
72.5°	151.9	150.0	146.4	148.7	146.1
75°	118.4	116.6	113.7	115.8	113.2
77.5°	86.8	85.5	82.9	85.0	85.5
80°	58.0	56.5	55.2	57.0	57.5
82.5°	34.0	32.9	32.4	32.7	34.0
85°	16.5	15.2	15.2	15.4	15.4
87.5°	4.4	3.9	4.4	4.7	5.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)