

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: P974129

Luminaire Tested: FLR2-24-20-L930-CP187

Issue Date: 3/13/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P974129  
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-L930-CP187  
Description: SHAPER SENSE CIRCLE  
  
Light Source: FLR2-24-20-L930-CP187  
Ballast/Driver: -

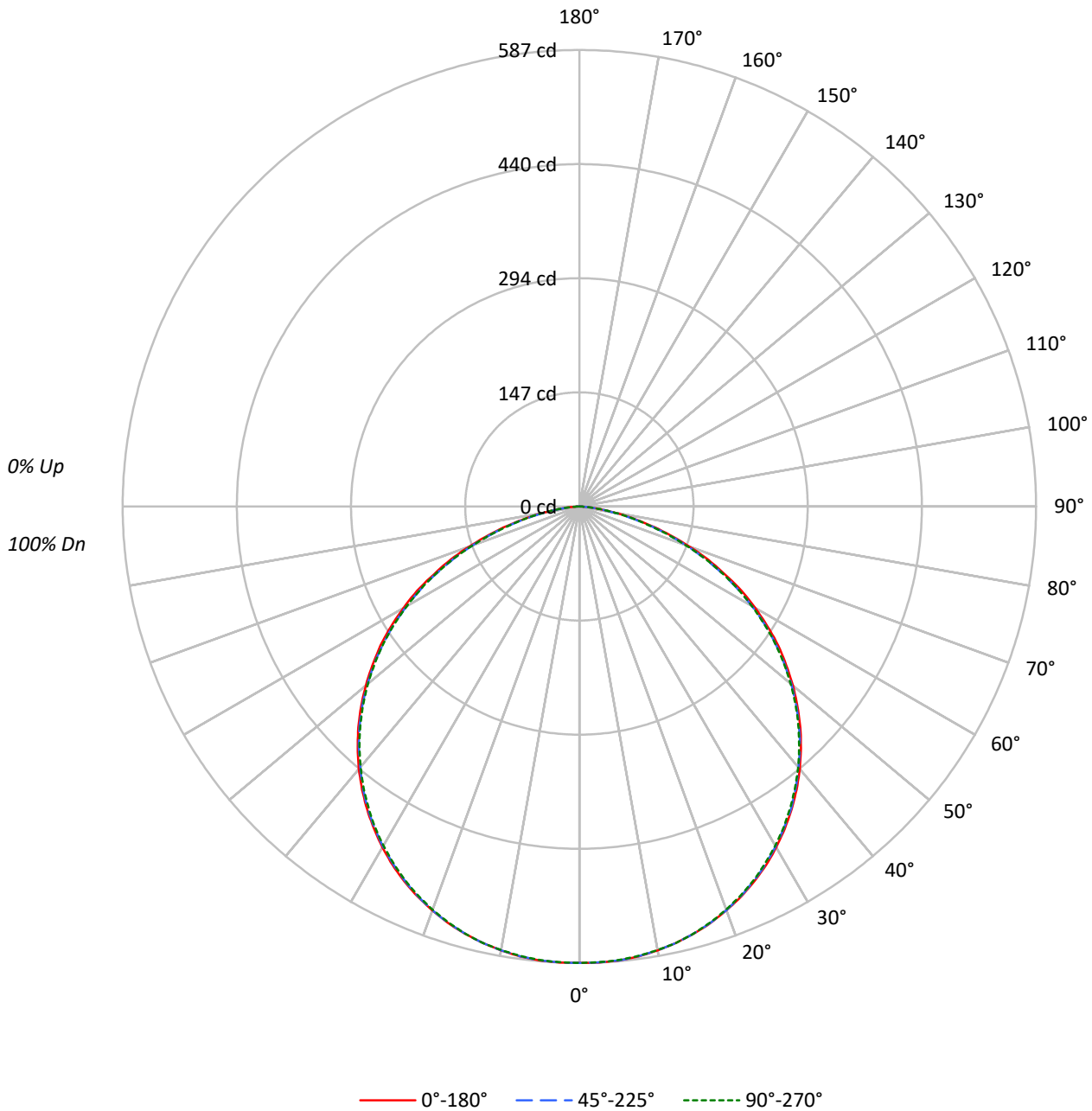
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1659.2 lumens  
Efficiency: N/A  
Efficacy: 99.4 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										
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	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						100														
1	109	105	100	97	106	102	99	95	98	95	92	94	92	89	91	89	87	85						85														
2	99	91	85	79	97	89	83	78	86	81	76	83	78	75	80	76	73	71						71														
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	70	66	62	60						60														
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	57	53	51						51														
5	76	64	55	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44						44														
6	70	57	48	42	69	56	48	42	54	47	41	53	46	41	51	45	41	38						38														
7	65	52	43	37	64	51	43	37	49	42	37	48	41	36	47	41	36	34						34														
8	61	47	39	33	59	47	38	33	45	38	33	44	37	32	43	37	32	30						30														
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	39	33	29	27						27														
10	53	40	32	27	52	39	32	27	38	31	27	38	31	26	37	31	26	25						25														

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

	0°	45°	90°
0°	790	790	790
5°	791	791	791
10°	792	792	791
15°	792	792	792
20°	791	791	790
25°	790	788	787
30°	786	784	782
35°	781	779	776
40°	774	769	768
45°	764	760	758
50°	750	744	742
55°	732	722	721
60°	702	689	689
65°	656	641	643
70°	591	573	571
75°	496	476	474
80°	363	344	359
85°	205	188	191

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 764 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	55.7	3.4
10°-20°	160.5	9.7
20°-30°	244.8	14.8
30°-40°	296.5	17.9
40°-50°	308.0	18.6
50°-60°	275.5	16.6
60°-70°	200.8	12.1
70°-80°	99.5	6.0
80°-90°	17.8	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°	461.0	27.8
0°-40°	757.5	45.7
0°-60°	1341.1	80.8
0°-90°	1659.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1659.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	587	587	587	587	587	
5°	586	586	586	586	586	56
15°	569	568	568	569	568	161
25°	532	531	531	531	530	245
35°	476	475	474	474	473	297
45°	402	401	399	398	398	310
55°	312	310	308	308	307	278
65°	206	204	201	202	202	204
75°	95	94	92	93	91	102
85°	13	12	12	12	12	18
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	587.0	587.0	587.0	587.0	587.0
2.5°	587.0	586.8	586.8	587.0	586.6
5°	586.0	586.2	586.0	586.0	585.6
7.5°	583.7	583.5	583.3	583.5	582.8
10°	579.7	579.7	579.5	579.7	579.3
12.5°	574.8	574.8	574.8	575.0	574.8
15°	568.7	568.5	568.5	568.9	568.5
17.5°	561.6	561.3	561.3	561.1	560.7
20°	552.7	552.7	552.5	552.3	551.7
22.5°	543.2	543.0	542.4	542.4	541.5
25°	532.1	531.4	531.0	530.8	530.2
27.5°	519.9	519.0	518.4	518.0	517.3
30°	506.2	505.3	504.7	504.1	503.6
32.5°	491.4	491.0	489.9	489.7	488.9
35°	475.6	475.0	474.4	473.5	472.7
37.5°	458.8	458.1	456.7	456.2	455.6
40°	440.9	440.0	438.1	438.1	437.5
42.5°	421.7	420.9	419.6	418.7	418.3
45°	401.7	400.8	399.4	398.5	398.1
47.5°	380.4	379.8	378.1	377.5	376.8
50°	358.3	357.5	355.6	355.1	354.5
52.5°	335.1	334.7	332.2	332.0	331.3
55°	312.2	309.8	307.7	307.7	307.3
57.5°	286.9	285.2	282.5	282.5	282.0
60°	260.8	259.3	256.1	256.6	256.1
62.5°	235.3	232.1	229.2	230.4	229.4
65°	206.2	204.5	201.4	202.2	202.0
67.5°	179.7	176.5	173.6	175.3	174.4
70°	150.2	148.5	145.6	147.2	145.1
72.5°	122.4	120.9	118.0	119.9	117.7
75°	95.4	93.9	91.6	93.3	91.2
77.5°	69.9	68.9	66.8	68.5	68.9
80°	46.8	45.5	44.4	45.9	46.3
82.5°	27.4	26.5	26.1	26.3	27.4
85°	13.3	12.2	12.2	12.4	12.4
87.5°	3.6	3.2	3.6	3.8	4.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)