

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: P974305

Luminaire Tested: FLR2-24-20-L840-CP250

Issue Date: 3/13/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P974305  
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-CP250  
Description: SHAPER SENSE CIRCLE  
  
Light Source: FLR2-24-20-L840-CP250  
Ballast/Driver: -

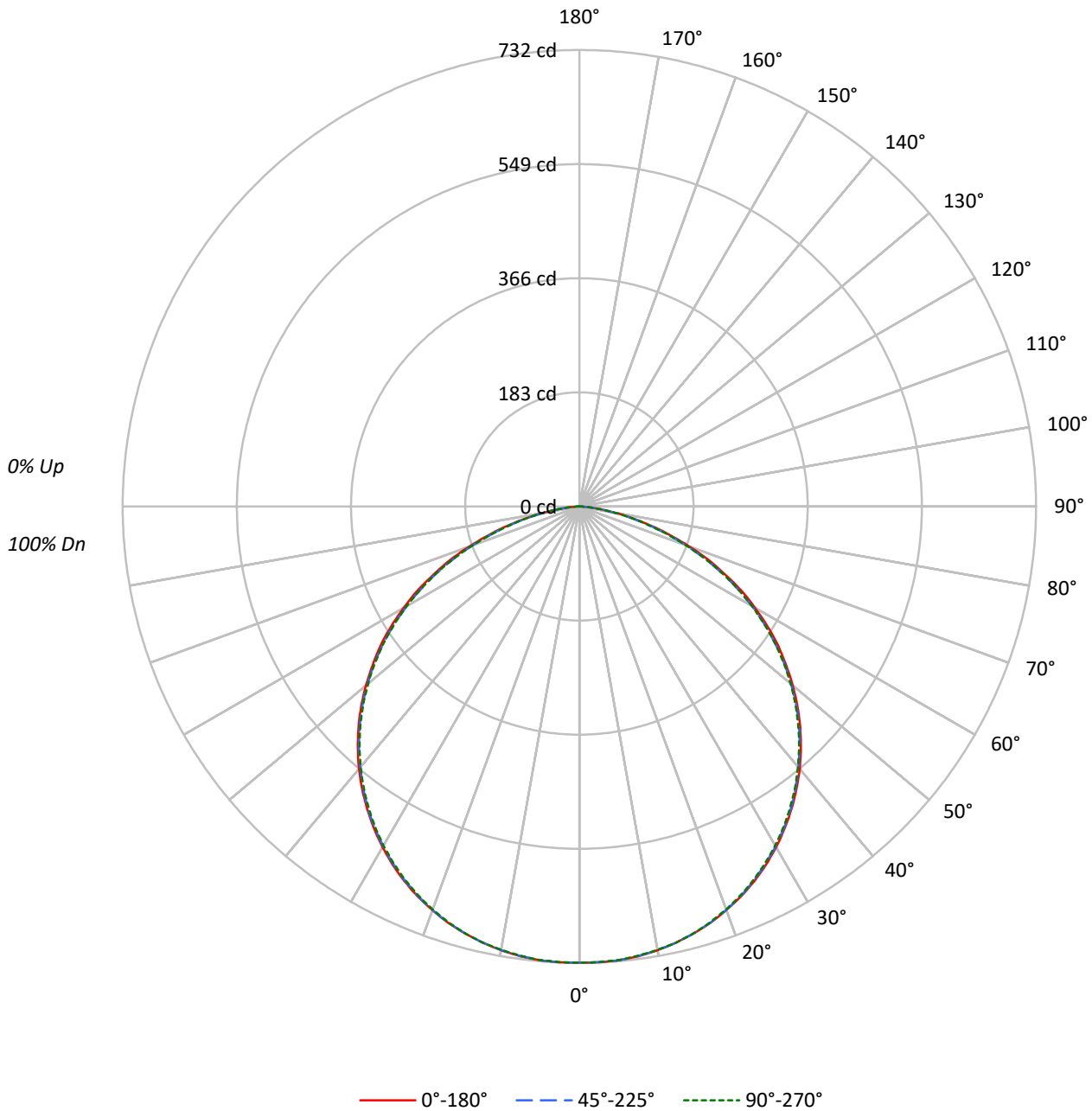
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2068.1 lumens  
Efficiency: N/A  
Efficacy: 123.8 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										
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°	984	984	984
5°	986	986	986
10°	987	987	986
15°	987	987	987
20°	986	986	985
25°	985	983	981
30°	980	977	975
35°	974	971	968
40°	965	959	958
45°	953	947	944
50°	935	928	925
55°	913	900	899
60°	875	859	859
65°	818	799	802
70°	736	714	712
75°	618	594	591
80°	452	429	448
85°	255	235	239

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 953 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	69.5	3.4
10°-20°	200.1	9.7
20°-30°	305.1	14.8
30°-40°	369.6	17.9
40°-50°	383.9	18.6
50°-60°	343.5	16.6
60°-70°	250.3	12.1
70°-80°	124.0	6.0
80°-90°	22.2	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°	574.6	27.8
0°-40°	944.2	45.7
0°-60°	1671.7	80.8
0°-90°	2068.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2068.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	732	732	732	732	732	
5°	730	731	730	730	730	69
15°	709	709	709	709	709	200
25°	663	662	662	662	661	306
35°	593	592	591	590	589	371
45°	501	500	498	497	496	386
55°	389	386	384	384	383	347
65°	257	255	251	252	252	255
75°	119	117	114	116	114	127
85°	16	15	15	16	16	23
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	731.7	731.7	731.7	731.7	731.7
2.5°	731.7	731.5	731.5	731.7	731.2
5°	730.4	730.7	730.4	730.4	729.9
7.5°	727.5	727.3	727.0	727.3	726.5
10°	722.5	722.5	722.3	722.5	722.0
12.5°	716.5	716.5	716.5	716.8	716.5
15°	708.9	708.6	708.6	709.2	708.6
17.5°	700.0	699.7	699.7	699.4	698.9
20°	688.9	688.9	688.7	688.4	687.6
22.5°	677.1	676.9	676.1	676.1	675.0
25°	663.2	662.4	661.9	661.6	660.8
27.5°	648.0	646.9	646.1	645.6	644.8
30°	630.9	629.9	629.1	628.3	627.8
32.5°	612.5	612.0	610.7	610.4	609.4
35°	592.8	592.1	591.3	590.2	589.2
37.5°	571.8	571.0	569.2	568.7	567.9
40°	549.5	548.5	546.1	546.1	545.3
42.5°	525.6	524.6	523.0	522.0	521.4
45°	500.7	499.6	497.8	496.7	496.2
47.5°	474.2	473.4	471.3	470.5	469.7
50°	446.6	445.5	443.2	442.7	441.9
52.5°	417.7	417.2	414.0	413.8	413.0
55°	389.1	386.2	383.6	383.6	383.1
57.5°	357.6	355.5	352.1	352.1	351.6
60°	325.0	323.2	319.3	319.8	319.3
62.5°	293.3	289.3	285.7	287.2	285.9
65°	257.0	254.9	251.0	252.0	251.8
67.5°	224.0	220.0	216.3	218.4	217.4
70°	187.2	185.1	181.4	183.5	180.9
72.5°	152.5	150.7	147.0	149.4	146.8
75°	118.9	117.1	114.2	116.3	113.7
77.5°	87.2	85.9	83.2	85.3	85.9
80°	58.3	56.7	55.4	57.2	57.8
82.5°	34.1	33.1	32.6	32.8	34.1
85°	16.5	15.2	15.2	15.5	15.5
87.5°	4.5	3.9	4.5	4.7	5.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)