

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: P974410

Luminaire Tested: FLR2-24-30-L850-CP187

Issue Date: 3/13/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P974410  
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: FLR2-24-30-L850-CP187  
Description: SHAPER SENSE CIRCLE  
  
Light Source: FLR2-24-30-L850-CP187  
Ballast/Driver: -

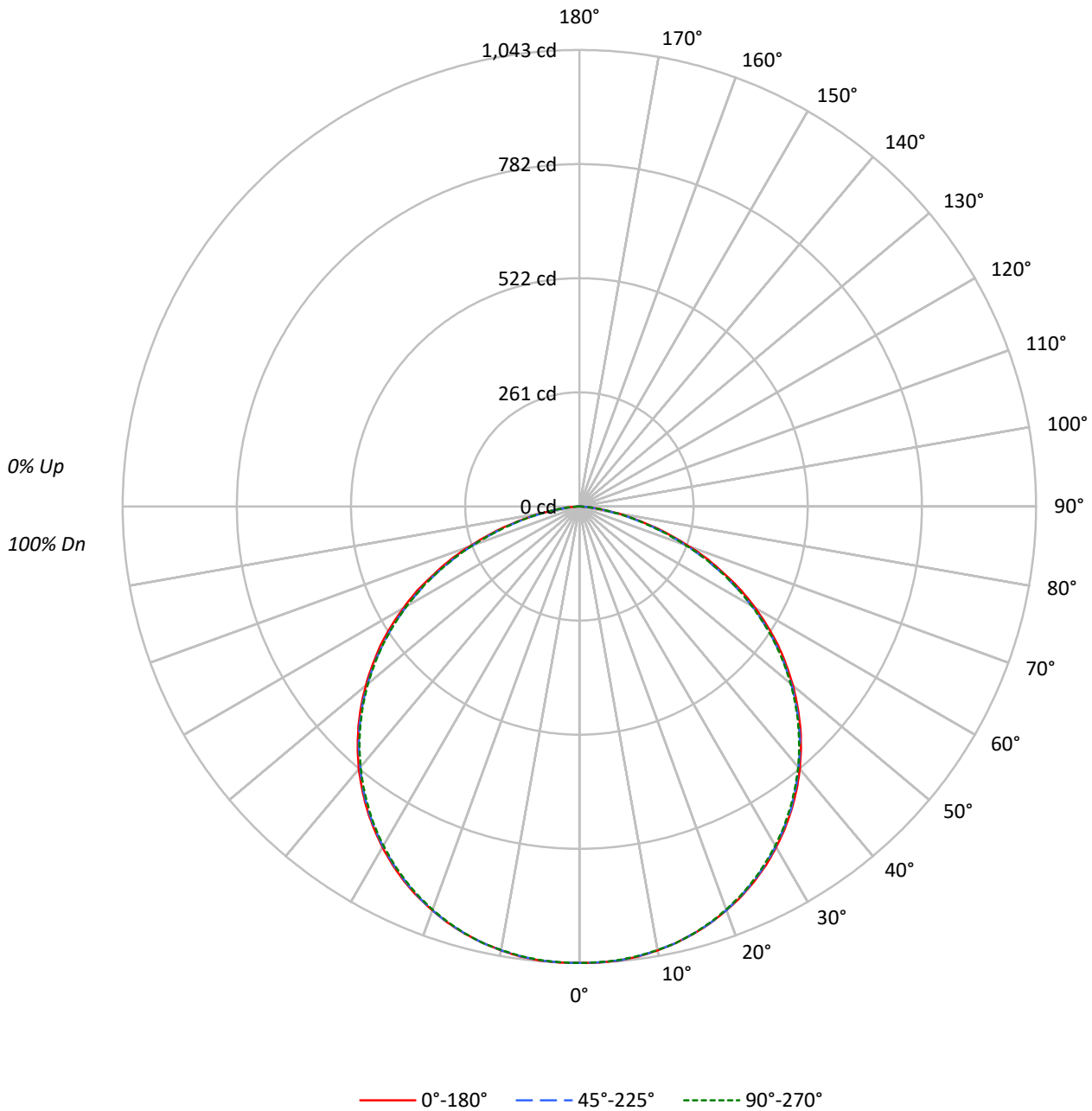
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2948.0 lumens  
Efficiency: N/A  
Efficacy: 124.4 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): 23.7  
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°	1403	1403	1403
5°	1406	1406	1405
10°	1407	1407	1406
15°	1408	1407	1407
20°	1406	1406	1403
25°	1404	1401	1398
30°	1397	1393	1390
35°	1388	1384	1379
40°	1376	1367	1365
45°	1358	1350	1346
50°	1333	1322	1319
55°	1301	1283	1281
60°	1247	1225	1225
65°	1167	1139	1143
70°	1050	1017	1015
75°	881	846	843
80°	644	612	638
85°	364	335	341

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1358 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	99.0	3.4
10°-20°	285.2	9.7
20°-30°	434.9	14.8
30°-40°	526.9	17.9
40°-50°	547.3	18.6
50°-60°	489.6	16.6
60°-70°	356.8	12.1
70°-80°	176.7	6.0
80°-90°	31.6	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°	819.1	27.8
0°-40°	1346.0	45.7
0°-60°	2382.8	80.8
0°-90°	2948.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2948.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1043	1043	1043	1043	1043	
5°	1041	1042	1041	1041	1040	99
15°	1010	1010	1010	1011	1010	285
25°	945	944	944	943	942	436
35°	845	844	843	841	840	529
45°	714	712	710	708	707	550
55°	555	550	547	547	546	494
65°	366	363	358	359	359	363
75°	170	167	163	166	162	181
85°	24	22	22	22	22	33
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1043.1	1043.1	1043.1	1043.1	1043.1
2.5°	1043.1	1042.7	1042.7	1043.1	1042.3
5°	1041.2	1041.6	1041.2	1041.2	1040.4
7.5°	1037.1	1036.7	1036.3	1036.7	1035.6
10°	1030.0	1030.0	1029.6	1030.0	1029.2
12.5°	1021.3	1021.3	1021.3	1021.7	1021.3
15°	1010.5	1010.1	1010.1	1010.9	1010.1
17.5°	997.8	997.4	997.4	997.0	996.3
20°	982.0	982.0	981.7	981.3	980.2
22.5°	965.2	964.8	963.7	963.7	962.2
25°	945.4	944.2	943.5	943.1	942.0
27.5°	923.7	922.2	921.0	920.3	919.2
30°	899.3	897.8	896.7	895.6	894.8
32.5°	873.1	872.4	870.5	870.1	868.6
35°	845.1	843.9	842.8	841.3	839.8
37.5°	815.1	814.0	811.4	810.6	809.5
40°	783.3	781.8	778.5	778.5	777.3
42.5°	749.3	747.8	745.5	744.0	743.3
45°	713.7	712.2	709.6	708.1	707.3
47.5°	675.9	674.8	671.8	670.7	669.5
50°	636.6	635.1	631.7	631.0	629.9
52.5°	595.4	594.7	590.2	589.8	588.7
55°	554.6	550.5	546.8	546.8	546.0
57.5°	509.7	506.7	501.9	501.9	501.1
60°	463.3	460.7	455.1	455.8	455.1
62.5°	418.0	412.4	407.2	409.4	407.6
65°	366.4	363.4	357.8	359.3	358.9
67.5°	319.2	313.6	308.4	311.4	309.9
70°	266.8	263.9	258.6	261.6	257.9
72.5°	217.4	214.8	209.6	213.0	209.2
75°	169.5	166.9	162.8	165.8	162.1
77.5°	124.3	122.4	118.6	121.6	122.4
80°	83.1	80.8	79.0	81.6	82.3
82.5°	48.7	47.2	46.4	46.8	48.7
85°	23.6	21.7	21.7	22.1	22.1
87.5°	6.4	5.6	6.4	6.7	7.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)