

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: P974412

Luminaire Tested: FLR2-24-40-L850-CP187

Issue Date: 3/13/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P974412  
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: FLR2-24-40-L850-CP187  
Description: SHAPER SENSE CIRCLE  
  
Light Source: FLR2-24-40-L850-CP187  
Ballast/Driver: -

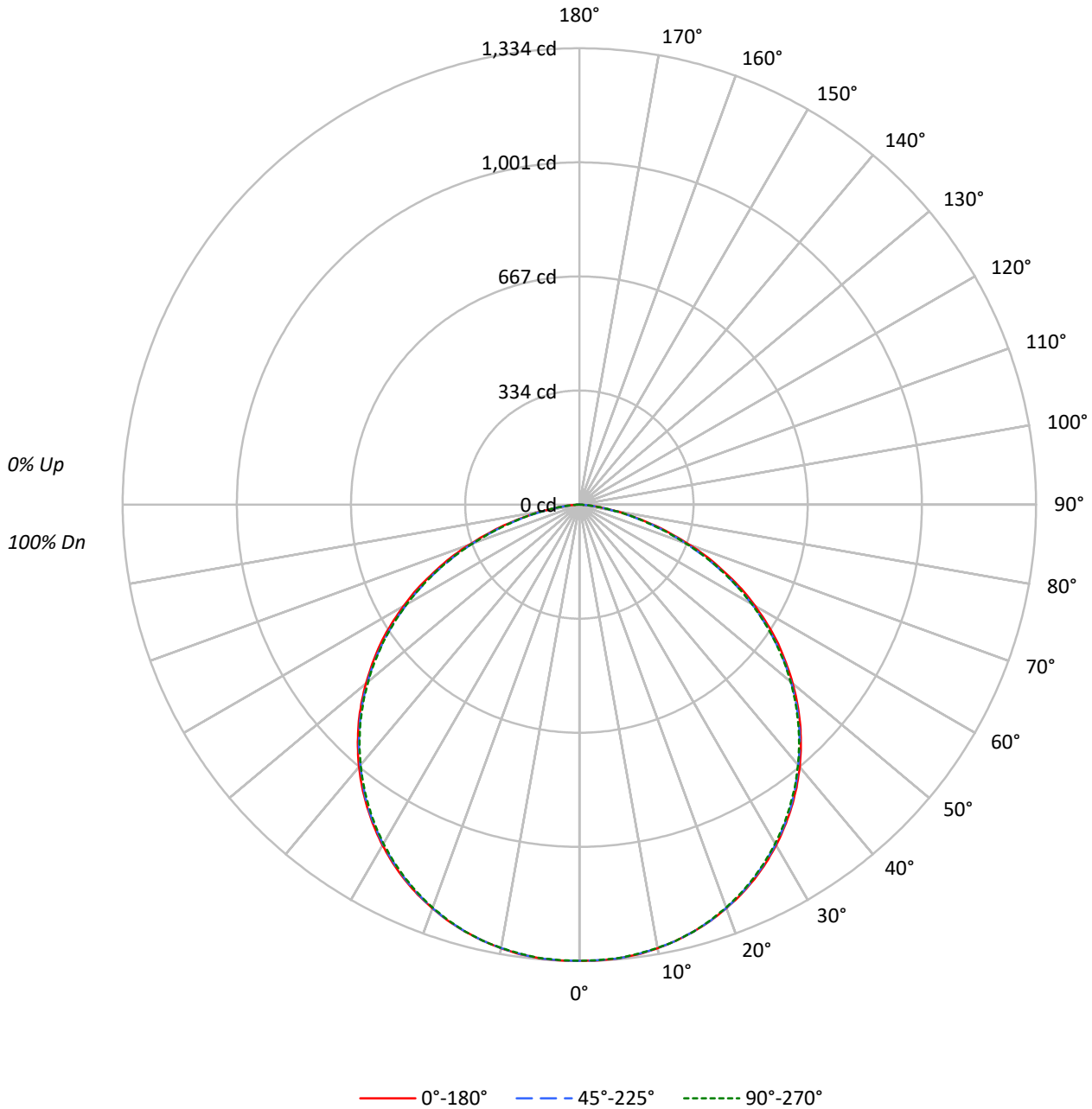
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3769.1 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): 30.3  
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°	1794	1794	1794
5°	1798	1798	1797
10°	1799	1798	1798
15°	1800	1799	1799
20°	1798	1797	1794
25°	1794	1791	1788
30°	1786	1781	1778
35°	1775	1770	1764
40°	1759	1748	1746
45°	1736	1726	1721
50°	1704	1691	1686
55°	1663	1640	1638
60°	1594	1566	1566
65°	1491	1456	1461
70°	1342	1301	1297
75°	1127	1082	1077
80°	823	783	816
85°	465	429	435

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1736 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	126.6	3.4
10°-20°	364.7	9.7
20°-30°	556.0	14.8
30°-40°	673.6	17.9
40°-50°	699.7	18.6
50°-60°	626.0	16.6
60°-70°	456.2	12.1
70°-80°	225.9	6.0
80°-90°	40.4	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°	1047.2	27.8
0°-40°	1720.9	45.7
0°-60°	3046.5	80.8
0°-90°	3769.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3769.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1334	1334	1334	1334	1334	
5°	1331	1332	1331	1331	1330	127
15°	1292	1292	1292	1292	1292	365
25°	1209	1207	1206	1206	1204	557
35°	1080	1079	1078	1076	1074	676
45°	912	911	907	905	904	703
55°	709	704	699	699	698	632
65°	468	465	457	459	459	464
75°	217	213	208	212	207	231
85°	30	28	28	28	28	42
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1333.6	1333.6	1333.6	1333.6	1333.6
2.5°	1333.6	1333.1	1333.1	1333.6	1332.6
5°	1331.2	1331.6	1331.2	1331.2	1330.2
7.5°	1325.9	1325.4	1325.0	1325.4	1324.0
10°	1316.8	1316.8	1316.3	1316.8	1315.9
12.5°	1305.8	1305.8	1305.8	1306.3	1305.8
15°	1291.9	1291.5	1291.5	1292.4	1291.5
17.5°	1275.7	1275.2	1275.2	1274.7	1273.8
20°	1255.6	1255.6	1255.1	1254.6	1253.2
22.5°	1234.0	1233.6	1232.1	1232.1	1230.2
25°	1208.7	1207.2	1206.3	1205.8	1204.4
27.5°	1180.9	1179.0	1177.6	1176.6	1175.2
30°	1149.8	1147.9	1146.5	1145.0	1144.1
32.5°	1116.3	1115.4	1113.0	1112.5	1110.6
35°	1080.4	1079.0	1077.6	1075.7	1073.7
37.5°	1042.2	1040.7	1037.4	1036.4	1035.0
40°	1001.5	999.6	995.3	995.3	993.8
42.5°	957.9	956.0	953.2	951.2	950.3
45°	912.5	910.6	907.2	905.3	904.4
47.5°	864.2	862.7	858.9	857.5	856.0
50°	813.9	812.0	807.7	806.7	805.3
52.5°	761.3	760.3	754.6	754.1	752.7
55°	709.1	703.9	699.1	699.1	698.1
57.5°	651.7	647.9	641.7	641.7	640.7
60°	592.4	589.0	581.8	582.8	581.8
62.5°	534.5	527.3	520.6	523.5	521.1
65°	468.4	464.6	457.4	459.4	458.9
67.5°	408.2	401.0	394.3	398.1	396.2
70°	341.2	337.3	330.6	334.5	329.7
72.5°	278.0	274.7	268.0	272.3	267.5
75°	216.8	213.4	208.1	212.0	207.2
77.5°	158.9	156.5	151.7	155.5	156.5
80°	106.2	103.4	101.0	104.3	105.3
82.5°	62.2	60.3	59.3	59.8	62.2
85°	30.1	27.8	27.8	28.2	28.2
87.5°	8.1	7.2	8.1	8.6	9.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)