

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: P974493

Luminaire Tested: FLR2-24-45-L950-CA080

Issue Date: 3/13/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P974493  
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: FLR2-24-45-L950-CA080  
Description: SHAPER SENSE CIRCLE  
  
Light Source: FLR2-24-45-L950-CA080  
Ballast/Driver: -

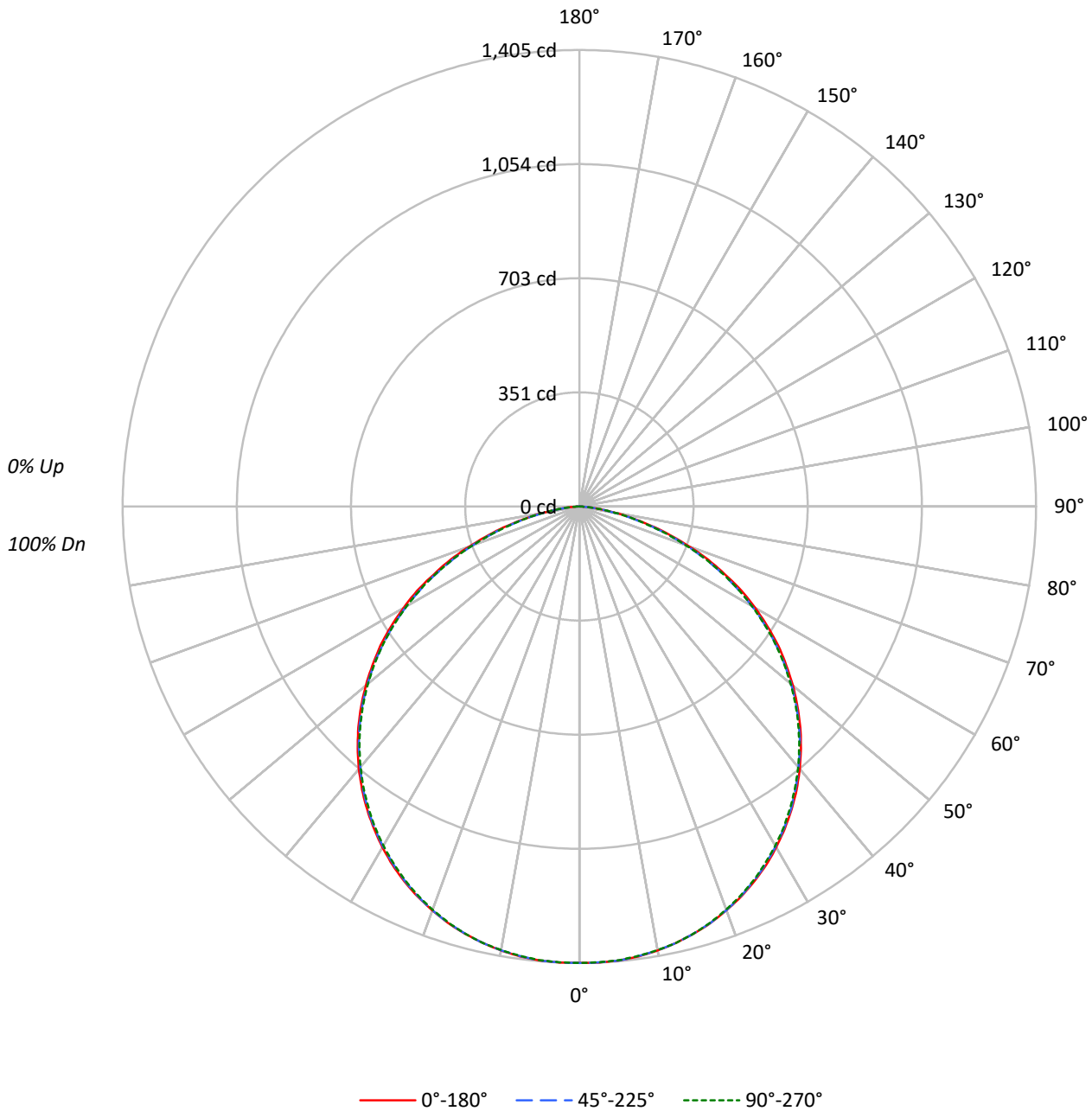
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3971.5 lumens  
Efficiency: N/A  
Efficacy: 111.6 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): 35.6  
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	100	100	100	100	100														
1	109	105	100	97	106	102	99	95	98	95	92	94	92	89	91	89	87	85	85	85	85	85	85	85														
2	99	91	85	79	97	89	83	78	86	81	76	83	78	75	80	76	73	71	71	71	71	71	71	71														
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	70	66	62	60	60	60	60	60	60	60														
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	57	53	51	51	51	51	51	51	51														
5	76	64	55	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44	44	44	44	44	44	44														
6	70	57	48	42	69	56	48	42	54	47	41	53	46	41	51	45	41	38	38	38	38	38	38	38														
7	65	52	43	37	64	51	43	37	49	42	37	48	41	36	47	41	36	34	34	34	34	34	34	34														
8	61	47	39	33	59	47	38	33	45	38	33	44	37	32	43	37	32	30	30	30	30	30	30	30														
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	39	33	29	27	27	27	27	27	27	27														
10	53	40	32	27	52	39	32	27	38	31	27	38	31	26	37	31	26	25	25	25	25	25	25	25														

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

	0°	45°	90°
0°	1891	1891	1891
5°	1895	1895	1893
10°	1896	1895	1894
15°	1896	1896	1896
20°	1894	1894	1891
25°	1891	1887	1884
30°	1882	1877	1873
35°	1870	1865	1858
40°	1854	1842	1839
45°	1830	1819	1813
50°	1795	1782	1776
55°	1753	1728	1726
60°	1680	1650	1650
65°	1571	1535	1539
70°	1414	1371	1367
75°	1187	1140	1135
80°	867	824	859
85°	491	451	459

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1830 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	133.4	3.4
10°-20°	384.3	9.7
20°-30°	585.9	14.8
30°-40°	709.8	17.9
40°-50°	737.3	18.6
50°-60°	659.6	16.6
60°-70°	480.7	12.1
70°-80°	238.1	6.0
80°-90°	42.5	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°	1103.5	27.8
0°-40°	1813.3	45.7
0°-60°	3210.2	80.8
0°-90°	3971.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3971.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1405	1405	1405	1405	1405	
5°	1403	1403	1403	1403	1402	133
15°	1361	1361	1361	1362	1361	384
25°	1274	1272	1271	1271	1269	587
35°	1138	1137	1136	1133	1131	712
45°	962	960	956	954	953	741
55°	747	742	737	737	736	666
65°	494	490	482	484	484	489
75°	228	225	219	223	218	244
85°	32	29	29	30	30	44
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1405.2	1405.2	1405.2	1405.2	1405.2
2.5°	1405.2	1404.7	1404.7	1405.2	1404.2
5°	1402.7	1403.2	1402.7	1402.7	1401.7
7.5°	1397.1	1396.6	1396.1	1396.6	1395.1
10°	1387.6	1387.6	1387.1	1387.6	1386.6
12.5°	1376.0	1376.0	1376.0	1376.5	1376.0
15°	1361.3	1360.8	1360.8	1361.9	1360.8
17.5°	1344.2	1343.7	1343.7	1343.2	1342.2
20°	1323.0	1323.0	1322.5	1322.0	1320.5
22.5°	1300.3	1299.8	1298.3	1298.3	1296.3
25°	1273.6	1272.1	1271.1	1270.6	1269.1
27.5°	1244.4	1242.4	1240.8	1239.8	1238.3
30°	1211.6	1209.6	1208.1	1206.6	1205.5
32.5°	1176.3	1175.3	1172.8	1172.3	1170.3
35°	1138.5	1137.0	1135.5	1133.4	1131.4
37.5°	1098.2	1096.6	1093.1	1092.1	1090.6
40°	1055.3	1053.3	1048.7	1048.7	1047.2
42.5°	1009.4	1007.4	1004.4	1002.4	1001.3
45°	961.5	959.5	956.0	954.0	952.9
47.5°	910.6	909.1	905.0	903.5	902.0
50°	857.6	855.6	851.1	850.1	848.6
52.5°	802.2	801.2	795.1	794.6	793.1
55°	747.2	741.7	736.6	736.6	735.6
57.5°	686.7	682.7	676.1	676.1	675.1
60°	624.2	620.7	613.1	614.1	613.1
62.5°	563.2	555.6	548.6	551.6	549.1
65°	493.6	489.6	482.0	484.0	483.5
67.5°	430.1	422.5	415.5	419.5	417.5
70°	359.5	355.5	348.4	352.4	347.4
72.5°	292.9	289.4	282.4	286.9	281.8
75°	228.4	224.9	219.3	223.4	218.3
77.5°	167.4	164.9	159.8	163.9	164.9
80°	111.9	108.9	106.4	109.9	110.9
82.5°	65.5	63.5	62.5	63.0	65.5
85°	31.8	29.2	29.2	29.7	29.7
87.5°	8.6	7.6	8.6	9.1	9.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)