

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: P974397

Luminaire Tested: FLR2-24-45-L850-CP080

Issue Date: 3/13/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P974397  
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-L850-CP080  
Description: SHAPER SENSE CIRCLE  
  
Light Source: FLR2-24-45-L850-CP080  
Ballast/Driver: -

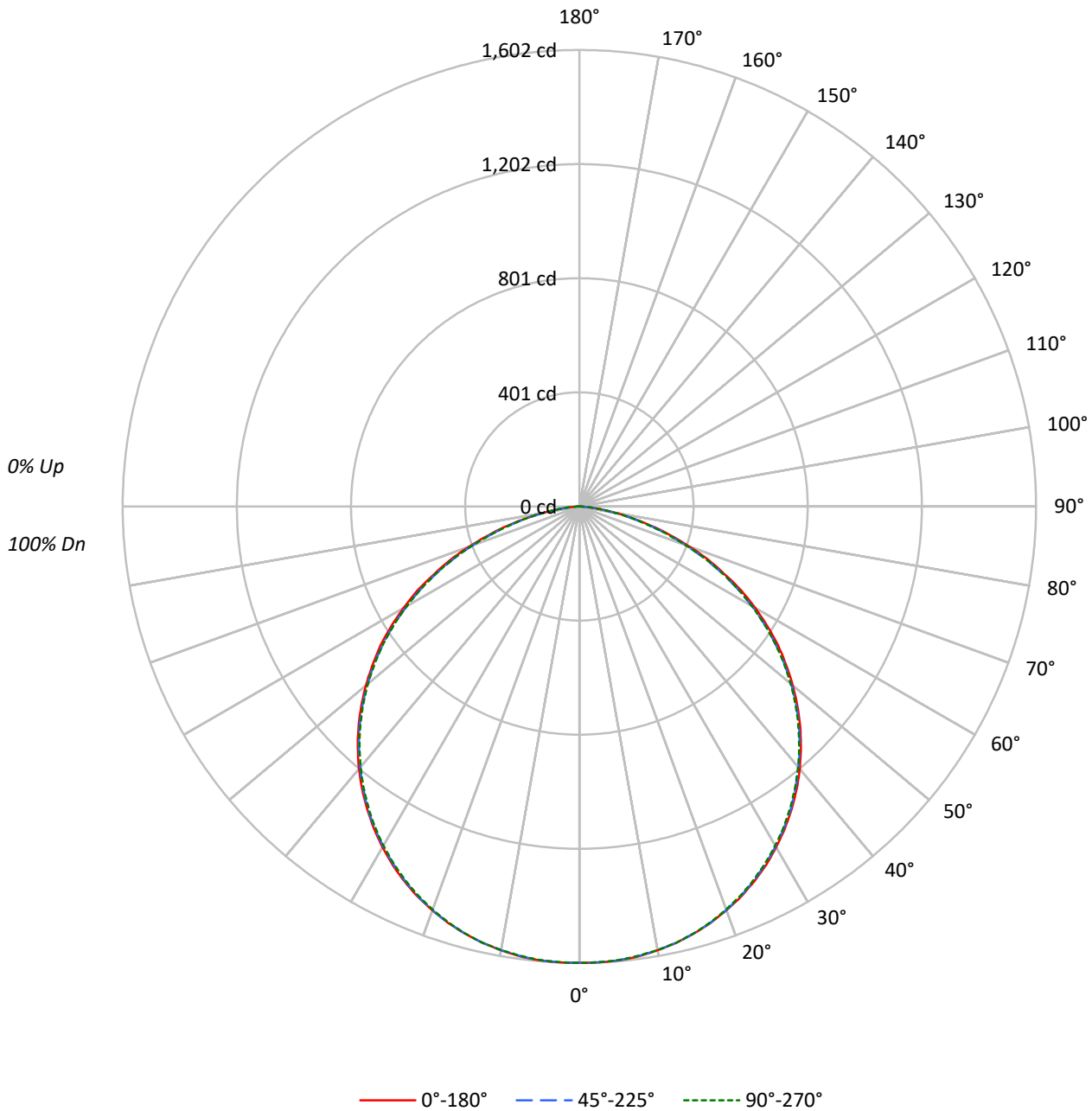
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4527.2 lumens  
Efficiency: N/A  
Efficacy: 127.2 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				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°	2155	2155	2155
5°	2160	2160	2158
10°	2161	2160	2159
15°	2162	2161	2161
20°	2159	2158	2155
25°	2155	2151	2148
30°	2146	2140	2135
35°	2132	2126	2118
40°	2113	2100	2097
45°	2085	2073	2067
50°	2046	2031	2025
55°	1998	1970	1967
60°	1915	1881	1881
65°	1791	1749	1755
70°	1612	1562	1558
75°	1354	1300	1294
80°	989	940	979
85°	559	514	523

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2085 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	152.0	3.4
10°-20°	438.0	9.7
20°-30°	667.8	14.8
30°-40°	809.1	17.9
40°-50°	840.5	18.6
50°-60°	751.9	16.6
60°-70°	548.0	12.1
70°-80°	271.4	6.0
80°-90°	48.5	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°	1257.9	27.8
0°-40°	2067.0	45.7
0°-60°	3659.3	80.8
0°-90°	4527.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4527.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1602	1602	1602	1602	1602	
5°	1599	1600	1599	1599	1598	152
15°	1552	1551	1551	1552	1551	438
25°	1452	1450	1449	1448	1447	669
35°	1298	1296	1294	1292	1290	812
45°	1096	1094	1090	1087	1086	845
55°	852	845	840	840	838	759
65°	563	558	550	552	551	558
75°	260	256	250	255	249	278
85°	36	33	33	34	34	50
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1601.8	1601.8	1601.8	1601.8	1601.8
2.5°	1601.8	1601.2	1601.2	1601.8	1600.7
5°	1598.9	1599.5	1598.9	1598.9	1597.8
7.5°	1592.6	1592.0	1591.5	1592.0	1590.3
10°	1581.7	1581.7	1581.1	1581.7	1580.5
12.5°	1568.5	1568.5	1568.5	1569.0	1568.5
15°	1551.8	1551.2	1551.2	1552.4	1551.2
17.5°	1532.3	1531.7	1531.7	1531.1	1530.0
20°	1508.1	1508.1	1507.5	1507.0	1505.2
22.5°	1482.3	1481.7	1480.0	1480.0	1477.7
25°	1451.8	1450.1	1448.9	1448.3	1446.6
27.5°	1418.5	1416.2	1414.4	1413.3	1411.6
30°	1381.1	1378.8	1377.1	1375.4	1374.2
32.5°	1340.9	1339.7	1336.8	1336.3	1334.0
35°	1297.8	1296.0	1294.3	1292.0	1289.7
37.5°	1251.8	1250.1	1246.0	1244.9	1243.2
40°	1202.9	1200.6	1195.5	1195.5	1193.7
42.5°	1150.6	1148.3	1144.9	1142.6	1141.4
45°	1096.0	1093.7	1089.7	1087.4	1086.3
47.5°	1038.0	1036.3	1031.7	1029.9	1028.2
50°	977.6	975.3	970.2	969.0	967.3
52.5°	914.4	913.3	906.4	905.8	904.1
55°	851.8	845.4	839.7	839.7	838.5
57.5°	782.8	778.2	770.7	770.7	769.6
60°	711.5	707.5	698.9	700.0	698.9
62.5°	642.0	633.4	625.3	628.8	625.9
65°	562.7	558.1	549.5	551.8	551.2
67.5°	490.3	481.6	473.6	478.2	475.9
70°	409.8	405.2	397.1	401.7	396.0
72.5°	333.9	329.9	321.9	327.0	321.3
75°	260.4	256.3	250.0	254.6	248.9
77.5°	190.8	187.9	182.2	186.8	187.9
80°	127.6	124.1	121.3	125.3	126.4
82.5°	74.7	72.4	71.3	71.8	74.7
85°	36.2	33.3	33.3	33.9	33.9
87.5°	9.8	8.6	9.8	10.3	10.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)