

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: P974061

Luminaire Tested: FLR2-24-45-L830-CP080

Issue Date: 3/13/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P974061  
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-L830-CP080  
Description: SHAPER SENSE CIRCLE  
  
Light Source: FLR2-24-45-L830-CP080  
Ballast/Driver: -

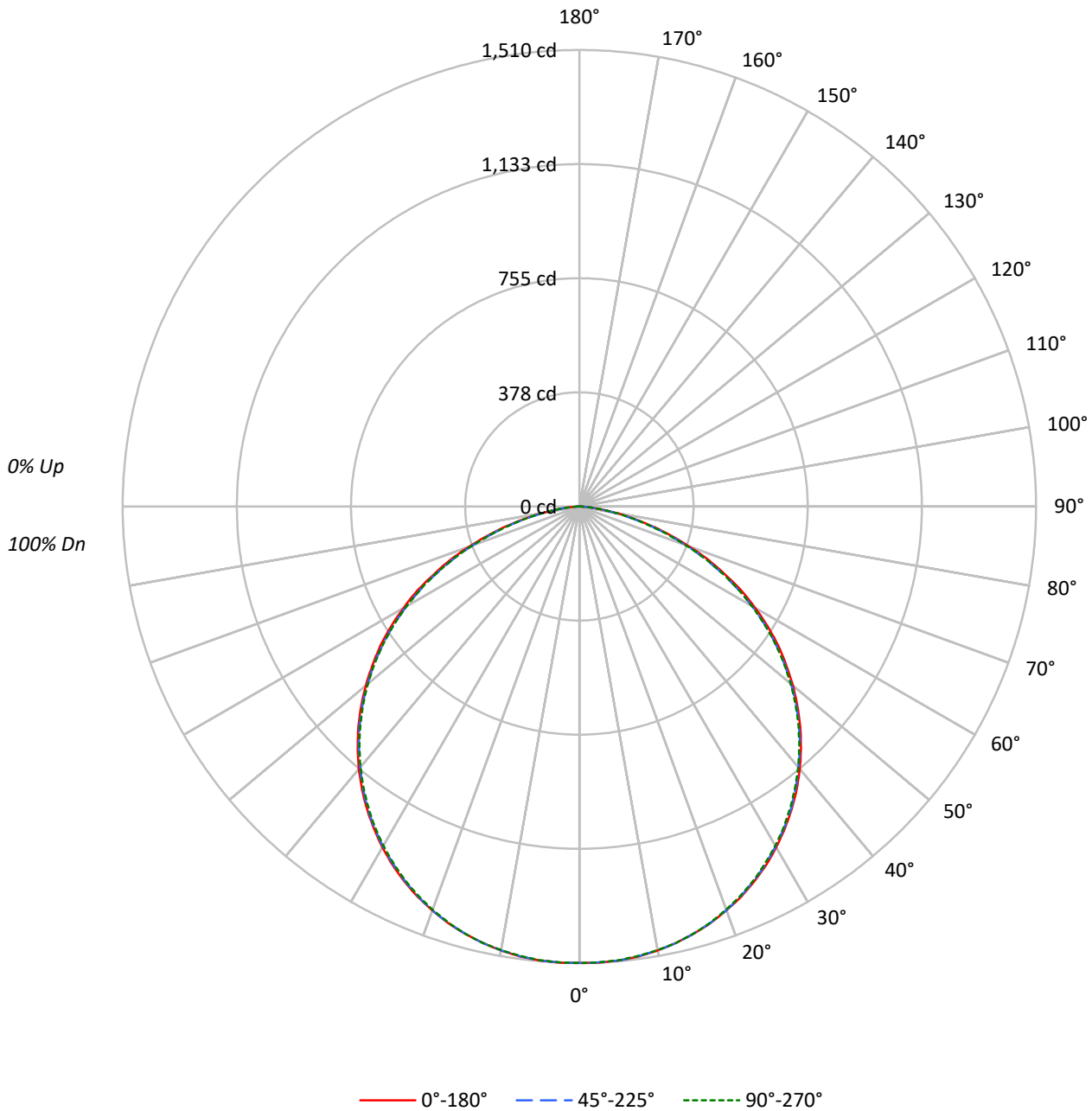
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4268.5 lumens  
Efficiency: N/A  
Efficacy: 119.9 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°	2032	2032	2032
5°	2036	2036	2035
10°	2037	2037	2036
15°	2038	2037	2037
20°	2036	2035	2032
25°	2032	2028	2025
30°	2023	2017	2013
35°	2010	2005	1997
40°	1992	1980	1977
45°	1966	1955	1949
50°	1930	1915	1909
55°	1884	1857	1855
60°	1805	1773	1773
65°	1689	1649	1655
70°	1520	1473	1469
75°	1276	1225	1220
80°	932	886	924
85°	526	485	494

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1966 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	143.4	3.4
10°-20°	413.0	9.7
20°-30°	629.7	14.8
30°-40°	762.9	17.9
40°-50°	792.4	18.6
50°-60°	708.9	16.6
60°-70°	516.7	12.1
70°-80°	255.9	6.0
80°-90°	45.7	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°	1186.0	27.8
0°-40°	1948.9	45.7
0°-60°	3450.2	80.8
0°-90°	4268.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4268.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1510	1510	1510	1510	1510	
5°	1508	1508	1508	1508	1506	143
15°	1463	1463	1463	1464	1463	413
25°	1369	1367	1366	1366	1364	631
35°	1224	1222	1220	1218	1216	765
45°	1033	1031	1027	1025	1024	796
55°	803	797	792	792	791	716
65°	530	526	518	520	520	526
75°	246	242	236	240	235	262
85°	34	31	31	32	32	47
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1510.3	1510.3	1510.3	1510.3	1510.3
2.5°	1510.3	1509.7	1509.7	1510.3	1509.2
5°	1507.6	1508.1	1507.6	1507.6	1506.5
7.5°	1501.6	1501.1	1500.5	1501.1	1499.4
10°	1491.3	1491.3	1490.8	1491.3	1490.2
12.5°	1478.8	1478.8	1478.8	1479.4	1478.8
15°	1463.1	1462.6	1462.6	1463.7	1462.6
17.5°	1444.7	1444.2	1444.2	1443.6	1442.5
20°	1421.9	1421.9	1421.4	1420.9	1419.2
22.5°	1397.6	1397.0	1395.4	1395.4	1393.2
25°	1368.8	1367.2	1366.1	1365.6	1364.0
27.5°	1337.4	1335.2	1333.6	1332.5	1330.9
30°	1302.2	1300.0	1298.4	1296.8	1295.7
32.5°	1264.2	1263.2	1260.5	1259.9	1257.7
35°	1223.6	1222.0	1220.4	1218.2	1216.0
37.5°	1180.3	1178.6	1174.8	1173.8	1172.1
40°	1134.2	1132.0	1127.1	1127.1	1125.5
42.5°	1084.9	1082.7	1079.5	1077.3	1076.2
45°	1033.4	1031.2	1027.4	1025.3	1024.2
47.5°	978.7	977.0	972.7	971.1	969.5
50°	921.8	919.6	914.7	913.6	912.0
52.5°	862.2	861.1	854.6	854.0	852.4
55°	803.1	797.1	791.7	791.7	790.6
57.5°	738.1	733.7	726.7	726.7	725.6
60°	670.9	667.1	658.9	660.0	658.9
62.5°	605.3	597.2	589.6	592.8	590.1
65°	530.5	526.2	518.1	520.2	519.7
67.5°	462.2	454.1	446.5	450.9	448.7
70°	386.4	382.0	374.5	378.8	373.4
72.5°	314.8	311.0	303.5	308.3	302.9
75°	245.5	241.7	235.7	240.1	234.6
77.5°	179.9	177.2	171.8	176.1	177.2
80°	120.3	117.0	114.3	118.1	119.2
82.5°	70.4	68.3	67.2	67.7	70.4
85°	34.1	31.4	31.4	32.0	32.0
87.5°	9.2	8.1	9.2	9.8	10.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)