

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: P974060

Luminaire Tested: FLR2-24-40-L830-CP080

Issue Date: 3/13/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P974060  
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-L830-CP080  
Description: SHAPER SENSE CIRCLE  
  
Light Source: FLR2-24-40-L830-CP080  
Ballast/Driver: -

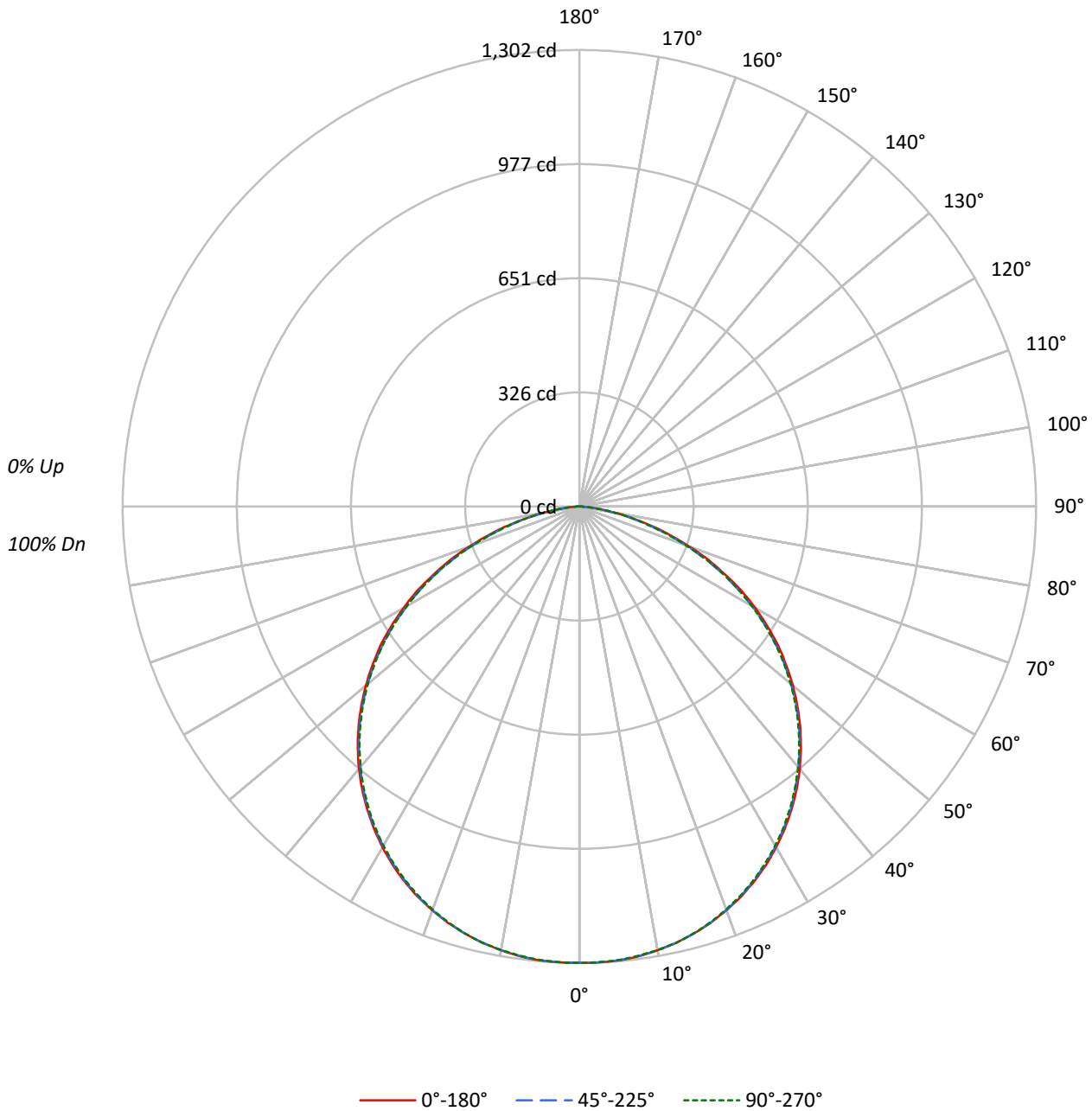
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3679.5 lumens  
Efficiency: N/A  
Efficacy: 121.4 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°	1752	1752	1752
5°	1755	1755	1754
10°	1756	1756	1755
15°	1757	1756	1756
20°	1755	1754	1752
25°	1752	1748	1746
30°	1744	1739	1735
35°	1733	1728	1722
40°	1717	1707	1704
45°	1695	1685	1680
50°	1663	1650	1646
55°	1624	1601	1599
60°	1556	1528	1528
65°	1456	1422	1426
70°	1310	1270	1266
75°	1100	1056	1052
80°	804	764	797
85°	454	418	426

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1695 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	123.6	3.4
10°-20°	356.0	9.7
20°-30°	542.8	14.8
30°-40°	657.6	17.9
40°-50°	683.1	18.6
50°-60°	611.1	16.6
60°-70°	445.4	12.1
70°-80°	220.6	6.0
80°-90°	39.4	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°	1022.4	27.8
0°-40°	1680.0	45.7
0°-60°	2974.2	80.8
0°-90°	3679.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3679.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1302	1302	1302	1302	1302	
5°	1300	1300	1300	1300	1299	124
15°	1261	1261	1261	1262	1261	356
25°	1180	1179	1178	1177	1176	544
35°	1055	1053	1052	1050	1048	660
45°	891	889	886	884	883	686
55°	692	687	682	682	682	617
65°	457	454	447	448	448	453
75°	212	208	203	207	202	226
85°	29	27	27	28	28	41
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1301.9	1301.9	1301.9	1301.9	1301.9
2.5°	1301.9	1301.4	1301.4	1301.9	1301.0
5°	1299.6	1300.0	1299.6	1299.6	1298.6
7.5°	1294.4	1293.9	1293.5	1293.9	1292.5
10°	1285.5	1285.5	1285.1	1285.5	1284.6
12.5°	1274.8	1274.8	1274.8	1275.3	1274.8
15°	1261.2	1260.8	1260.8	1261.7	1260.8
17.5°	1245.4	1244.9	1244.9	1244.4	1243.5
20°	1225.7	1225.7	1225.3	1224.8	1223.4
22.5°	1204.7	1204.3	1202.9	1202.9	1201.0
25°	1180.0	1178.6	1177.6	1177.2	1175.8
27.5°	1152.9	1151.0	1149.6	1148.7	1147.3
30°	1122.5	1120.6	1119.2	1117.8	1116.9
32.5°	1089.8	1088.9	1086.5	1086.1	1084.2
35°	1054.8	1053.4	1052.0	1050.1	1048.2
37.5°	1017.4	1016.0	1012.7	1011.8	1010.4
40°	977.7	975.8	971.6	971.6	970.2
42.5°	935.2	933.3	930.5	928.7	927.7
45°	890.8	888.9	885.7	883.8	882.9
47.5°	843.6	842.2	838.5	837.1	835.7
50°	794.6	792.7	788.5	787.6	786.2
52.5°	743.2	742.3	736.7	736.2	734.8
55°	692.3	687.1	682.5	682.5	681.5
57.5°	636.2	632.5	626.4	626.4	625.5
60°	578.3	575.0	568.0	569.0	568.0
62.5°	521.8	514.8	508.2	511.0	508.7
65°	457.3	453.6	446.6	448.4	448.0
67.5°	398.5	391.5	384.9	388.7	386.8
70°	333.1	329.3	322.8	326.5	321.9
72.5°	271.4	268.1	261.6	265.8	261.1
75°	211.6	208.3	203.2	206.9	202.3
77.5°	155.1	152.8	148.1	151.8	152.8
80°	103.7	100.9	98.6	101.8	102.8
82.5°	60.7	58.9	57.9	58.4	60.7
85°	29.4	27.1	27.1	27.6	27.6
87.5°	7.9	7.0	7.9	8.4	8.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)