

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: P973620

Luminaire Tested: FLR2-22-45-L840-CP187

Issue Date: 3/13/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P973620  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-281-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/13/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: FAIL-SAFE  
Catalog Number: FLR2-22-45-L840-CP187  
Description: SHAPER SENSE CIRCLE  
  
Light Source:  
Ballast/Driver: -

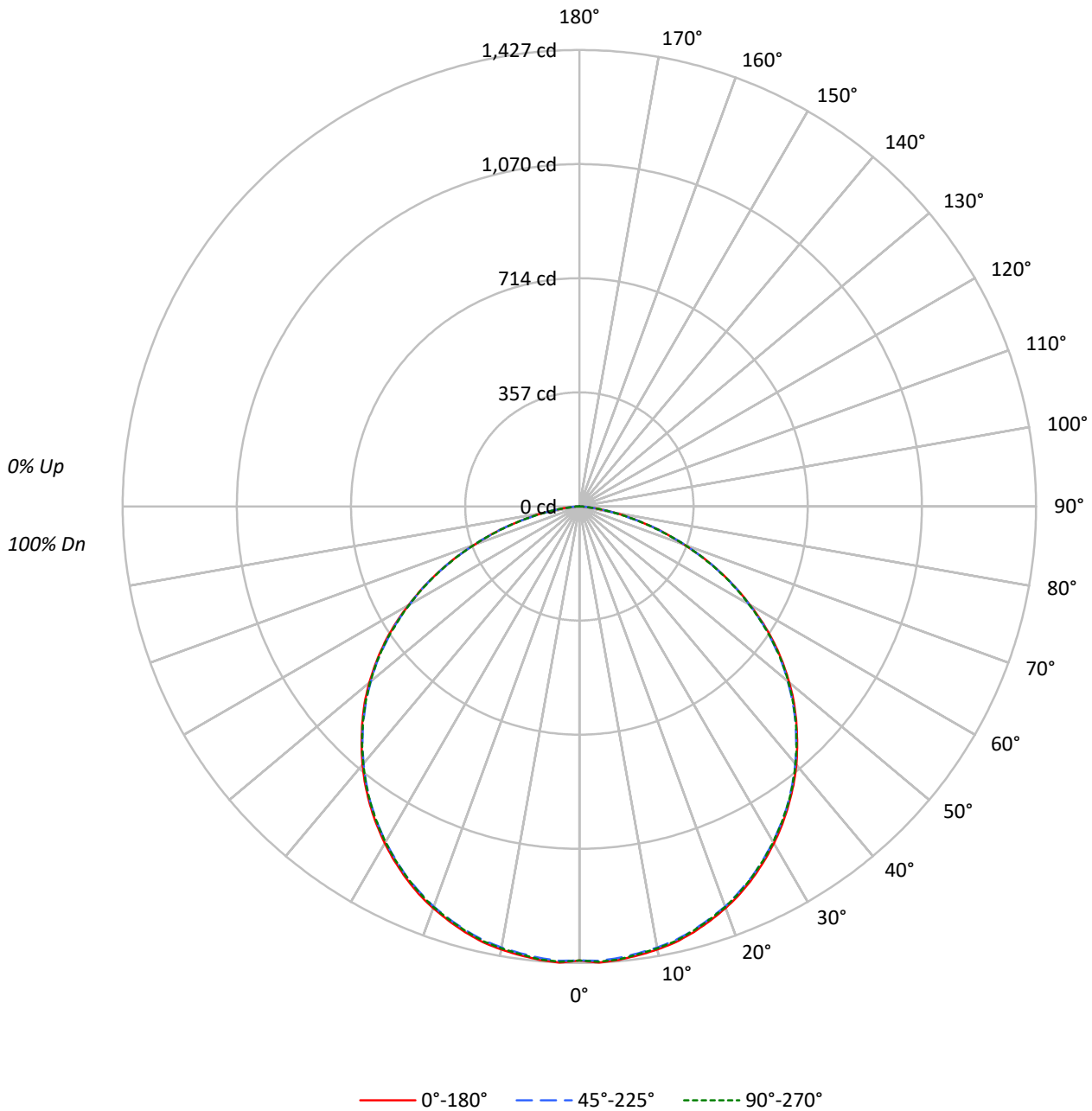
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3969.5 lumens  
Efficiency: N/A  
Efficacy: 110.0 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 36.1  
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									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													
1	109	105	101	97	107	102	99	95	98	95	92	94	92	89	91	89	87	85						85													
2	99	91	85	79	97	90	83	78	86	81	76	83	78	75	80	76	73	71						71													
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	70	66	62	60						60													
4	83	71	63	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51						51													
5	76	64	55	48	74	62	54	48	60	53	47	58	52	47	57	51	46	44						44													
6	71	57	48	42	69	56	48	42	54	47	41	53	46	41	51	45	41	39						39													
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	34						34													
8	61	47	39	33	59	47	39	33	45	38	33	44	37	32	43	37	32	30						30													
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	40	34	29	27						27													
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	26	25						25													

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

	0°	45°	90°
0°	3820	3820	3820
5°	3844	3827	3839
10°	3843	3826	3833
15°	3840	3823	3828
20°	3826	3811	3816
25°	3806	3790	3793
30°	3778	3762	3765
35°	3744	3730	3733
40°	3705	3687	3690
45°	3650	3634	3640
50°	3586	3560	3568
55°	3484	3455	3468
60°	3313	3298	3298
65°	3093	3087	3076
70°	2739	2752	2745
75°	2306	2288	2270
80°	1658	1630	1616
85°	868	868	840

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3650 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	134.4	3.4
10°-20°	386.5	9.7
20°-30°	587.4	14.8
30°-40°	710.0	17.9
40°-50°	736.9	18.6
50°-60°	658.8	16.6
60°-70°	479.0	12.1
70°-80°	235.6	5.9
80°-90°	40.8	1.0
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°	1108.3	27.9
0°-40°	1818.3	45.8
0°-60°	3214.1	81.0
0°-90°	3969.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3969.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1419	1419	1419	1419	1419	
5°	1423	1406	1417	1412	1421	135
15°	1378	1362	1372	1369	1374	389
25°	1282	1268	1276	1274	1277	591
35°	1140	1132	1135	1136	1136	713
45°	959	955	955	956	956	740
55°	743	738	736	738	739	662
65°	486	488	485	485	483	479
75°	222	224	220	221	218	235
85°	28	29	28	28	27	41
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1419.4	1419.4	1419.4	1419.4	1419.4
2.5°	1427.3	1410.7	1421.2	1415.1	1424.7
5°	1423.0	1406.3	1416.8	1411.6	1421.2
7.5°	1415.1	1398.4	1408.9	1403.7	1411.6
10°	1406.3	1388.8	1400.2	1394.9	1402.8
12.5°	1394.9	1378.2	1388.8	1384.4	1391.4
15°	1378.2	1362.5	1372.1	1368.6	1373.9
17.5°	1358.1	1342.3	1351.9	1349.3	1353.7
20°	1336.2	1321.3	1330.9	1328.3	1332.6
22.5°	1311.6	1295.8	1304.6	1302.8	1306.3
25°	1281.8	1267.8	1276.5	1273.9	1277.4
27.5°	1250.2	1237.1	1244.1	1244.1	1245.9
30°	1216.0	1203.8	1210.8	1210.8	1211.7
32.5°	1179.2	1169.6	1174.0	1174.8	1174.8
35°	1139.8	1131.9	1135.4	1136.3	1136.3
37.5°	1098.6	1090.7	1093.3	1095.1	1095.1
40°	1054.7	1047.7	1049.5	1051.2	1050.3
42.5°	1007.4	1002.1	1003.0	1004.7	1004.7
45°	959.2	954.8	954.8	956.5	956.5
47.5°	910.1	905.7	903.9	905.7	905.7
50°	856.6	852.2	850.4	852.2	852.2
52.5°	800.5	796.1	796.1	796.1	797.0
55°	742.6	738.2	736.5	738.2	739.1
57.5°	681.2	679.5	676.8	677.7	675.1
60°	615.5	615.5	612.8	614.6	612.8
62.5°	551.5	553.2	550.6	550.6	548.8
65°	485.7	487.5	484.8	484.8	483.1
67.5°	418.2	420.8	417.3	417.3	415.6
70°	348.1	353.3	349.8	350.7	348.9
72.5°	284.9	287.6	284.1	284.1	282.3
75°	221.8	223.6	220.1	220.9	218.3
77.5°	159.6	162.2	158.7	159.6	158.7
80°	107.0	107.8	105.2	106.1	104.3
82.5°	62.2	63.1	62.2	61.4	60.5
85°	28.1	28.9	28.1	28.1	27.2
87.5°	7.0	7.0	7.0	7.0	7.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)