

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: P973491

Luminaire Tested: FLR2-14-20-L950-CA080

Issue Date: 3/13/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P973491  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-281-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/13/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: FAIL-SAFE  
Catalog Number: FLR2-14-20-L950-CA080  
Description: 1\*4 FLR-2.0 2000 LUMEN at 5000 CCT & 90CRI with Clear Acrylic (0.080" thickness)  
  
Light Source:  
Ballast/Driver: -

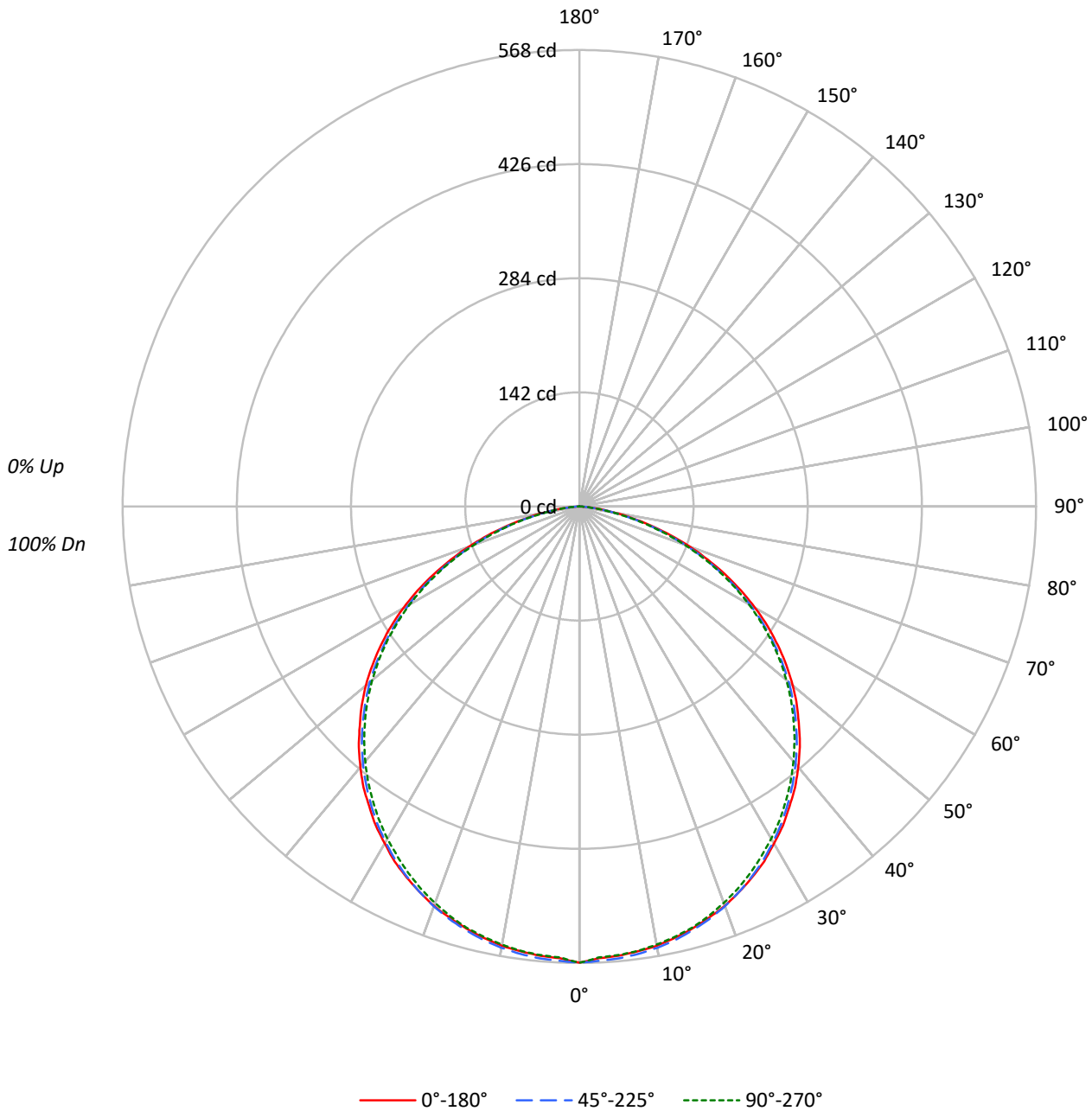
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1588.8 lumens  
Efficiency: N/A  
Efficacy: 96.9 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.25 / 1.38  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 16.4  
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	101	97	107	102	99	95	98	95	92	94	92	89	91	89	87	85
2	99	91	85	79	97	90	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	58	53	51
5	76	64	55	48	74	62	54	48	60	53	47	58	52	47	57	51	46	44
6	70	57	48	42	69	56	48	42	54	47	41	53	46	41	51	45	41	39
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	40	34	29	27
10	53	40	32	27	52	39	32	27	38	32	27	38	31	27	37	31	26	25

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

	0°	45°	90°
0°	1528	1528	1528
5°	1516	1525	1514
10°	1517	1524	1513
15°	1515	1521	1511
20°	1515	1516	1504
25°	1511	1508	1494
30°	1505	1498	1483
35°	1497	1485	1470
40°	1488	1470	1455
45°	1470	1450	1434
50°	1451	1424	1407
55°	1415	1381	1368
60°	1359	1321	1310
65°	1273	1236	1223
70°	1148	1102	1093
75°	963	914	904
80°	699	652	634
85°	371	327	296

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1470 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	53.8	3.4
10°-20°	154.4	9.7
20°-30°	234.6	14.8
30°-40°	283.8	17.9
40°-50°	294.9	18.6
50°-60°	264.0	16.6
60°-70°	192.6	12.1
70°-80°	94.8	6.0
80°-90°	15.9	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°	442.8	27.9
0°-40°	726.5	45.7
0°-60°	1285.5	80.9
0°-90°	1588.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1588.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	568	568	568	568	568	
5°	561	567	564	570	560	53
15°	544	549	546	550	542	154
25°	509	512	508	510	503	235
35°	456	456	452	454	448	285
45°	386	386	381	382	377	298
55°	302	299	294	294	292	269
65°	200	198	194	193	192	197
75°	93	91	88	87	87	99
85°	12	12	11	9	10	17
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	567.7	567.7	567.7	567.7	567.7
2.5°	562.7	569.1	566.0	571.7	561.6
5°	561.1	567.2	564.4	569.8	560.4
7.5°	558.3	564.6	561.6	566.7	557.8
10°	555.2	560.8	557.6	562.7	553.6
12.5°	549.8	555.4	552.4	557.1	548.6
15°	543.7	548.6	545.8	550.5	542.5
17.5°	536.6	541.3	538.3	542.5	534.5
20°	528.9	532.7	529.4	532.9	525.1
22.5°	519.3	522.8	519.3	521.6	514.8
25°	508.9	511.5	508.0	510.3	503.3
27.5°	497.9	499.3	495.8	497.6	490.4
30°	484.2	485.9	482.1	484.5	477.4
32.5°	471.1	472.0	467.8	469.7	463.3
35°	455.6	456.5	452.1	453.9	447.6
37.5°	440.8	440.5	435.8	437.0	431.6
40°	423.6	423.4	418.5	419.4	414.2
42.5°	406.0	405.1	400.4	400.8	396.1
45°	386.3	385.8	380.9	381.6	376.9
47.5°	367.2	365.8	360.9	361.1	357.1
50°	346.6	344.4	340.2	339.7	336.2
52.5°	324.5	322.1	317.4	317.0	314.4
55°	301.5	298.9	294.4	293.7	291.6
57.5°	277.7	274.4	270.9	269.5	267.9
60°	252.6	249.5	245.5	244.1	243.4
62.5°	226.5	223.4	220.4	219.0	218.0
65°	199.9	197.6	194.1	192.7	192.0
67.5°	172.9	170.8	167.5	165.9	165.6
70°	145.9	143.8	140.0	139.1	138.9
72.5°	118.9	117.0	113.5	112.5	112.5
75°	92.6	90.9	87.9	86.9	86.9
77.5°	67.7	66.3	63.9	62.7	62.7
80°	45.1	44.2	42.1	41.1	40.9
82.5°	26.1	25.6	23.7	22.8	23.3
85°	12.0	11.5	10.6	9.4	9.6
87.5°	3.1	2.8	2.1	1.6	2.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)