

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: P973476

Luminaire Tested: FLR2-14-20-L950-CP080

Issue Date: 3/13/2025

**Test Information**

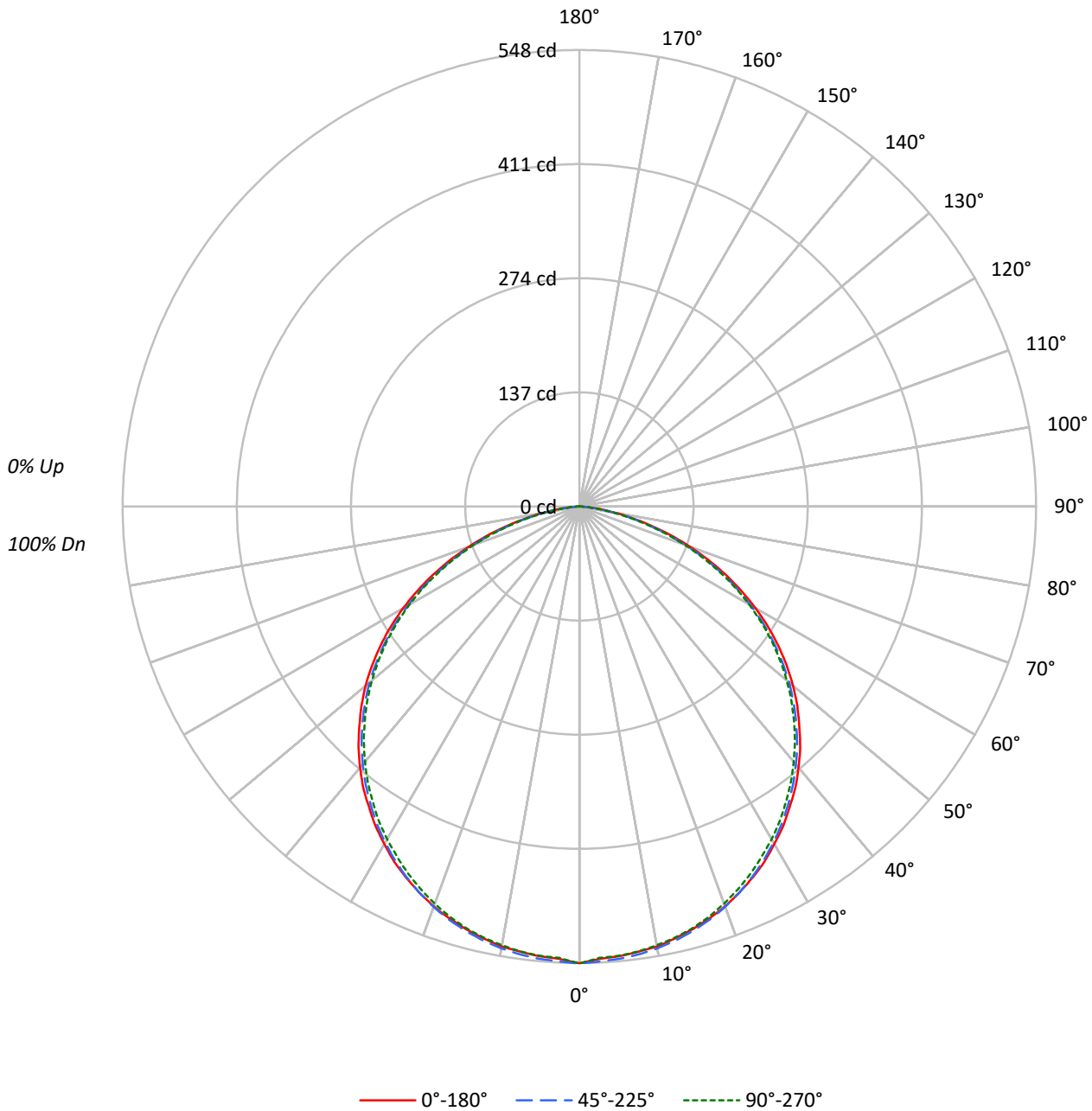
Test Method: LM-79-2019  
Report Number: P973476  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-281-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/13/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: FAIL-SAFE  
Catalog Number: FLR2-14-20-L950-CP080  
Description: 1\*4 FLR-2.0 2000 LUMEN at 5000 CCT & 90 CRI with Clear Polycarbonate (0.080" thickness)  
  
Light Source:  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1535.1 lumens  
Efficiency: N/A  
Efficacy: 93.6 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										
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														
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	62	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	70	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	49	42	37	48	41	36	47	41	36	34						34														
8	61	47	39	33	59	47	38	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	39	32	27	38	32	27	38	31	27	37	31	26	25						25														

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

	0°	45°	90°
0°	1476	1476	1476
5°	1464	1473	1462
10°	1466	1472	1462
15°	1463	1469	1460
20°	1463	1465	1453
25°	1460	1457	1444
30°	1454	1447	1433
35°	1446	1435	1421
40°	1438	1420	1406
45°	1420	1400	1386
50°	1402	1376	1360
55°	1367	1335	1322
60°	1313	1277	1266
65°	1230	1194	1181
70°	1109	1065	1056
75°	930	883	873
80°	676	629	612
85°	358	315	287

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1420 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	52.0	3.4
10°-20°	149.2	9.7
20°-30°	226.7	14.8
30°-40°	274.2	17.9
40°-50°	285.0	18.6
50°-60°	255.1	16.6
60°-70°	186.1	12.1
70°-80°	91.6	6.0
80°-90°	15.3	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°	427.8	27.9
0°-40°	702.0	45.7
0°-60°	1242.1	80.9
0°-90°	1535.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1535.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	548	548	548	548	548	
5°	542	548	545	550	541	52
15°	525	530	527	532	524	148
25°	492	494	491	493	486	227
35°	440	441	437	439	432	276
45°	373	373	368	369	364	288
55°	291	289	284	284	282	260
65°	193	191	188	186	186	191
75°	89	88	85	84	84	95
85°	12	11	10	9	9	17
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	548.5	548.5	548.5	548.5	548.5
2.5°	543.7	549.8	546.9	552.3	542.6
5°	542.1	548.0	545.3	550.5	541.4
7.5°	539.4	545.5	542.6	547.6	538.9
10°	536.4	541.9	538.7	543.7	534.9
12.5°	531.2	536.7	533.7	538.3	530.1
15°	525.3	530.1	527.4	531.9	524.2
17.5°	518.5	523.0	520.1	524.2	516.5
20°	511.0	514.6	511.5	514.9	507.4
22.5°	501.7	505.1	501.7	504.0	497.4
25°	491.7	494.2	490.8	493.1	486.3
27.5°	481.0	482.4	479.0	480.8	473.8
30°	467.9	469.5	465.8	468.1	461.3
32.5°	455.2	456.1	452.0	453.8	447.7
35°	440.2	441.1	436.8	438.6	432.5
37.5°	425.9	425.7	421.1	422.3	417.0
40°	409.3	409.1	404.3	405.2	400.2
42.5°	392.3	391.4	386.8	387.3	382.8
45°	373.2	372.8	368.0	368.7	364.1
47.5°	354.8	353.5	348.7	348.9	345.1
50°	334.8	332.8	328.7	328.3	324.9
52.5°	313.5	311.2	306.7	306.2	303.7
55°	291.3	288.8	284.5	283.8	281.7
57.5°	268.3	265.2	261.8	260.4	258.8
60°	244.0	241.1	237.2	235.9	235.2
62.5°	218.8	215.9	212.9	211.6	210.7
65°	193.2	190.9	187.5	186.2	185.5
67.5°	167.1	165.0	161.9	160.3	160.0
70°	141.0	138.9	135.3	134.4	134.2
72.5°	114.9	113.1	109.6	108.7	108.7
75°	89.4	87.9	84.9	84.0	84.0
77.5°	65.4	64.0	61.7	60.6	60.6
80°	43.6	42.7	40.6	39.7	39.5
82.5°	25.2	24.7	22.9	22.0	22.5
85°	11.6	11.1	10.2	9.1	9.3
87.5°	3.0	2.7	2.0	1.6	2.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)