

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: P973344

Luminaire Tested: FLR2-14-20-L830-CA080

Issue Date: 3/13/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P973344  
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-L830-CA080  
Description: 1\*4 FLR-2.0 2000 LUMEN at 3000CCT & 80CRI with Clear Acrylic (0.080" thickness)  
  
Light Source: 3000k CCT, 80 CRI LEDS  
Ballast/Driver: -

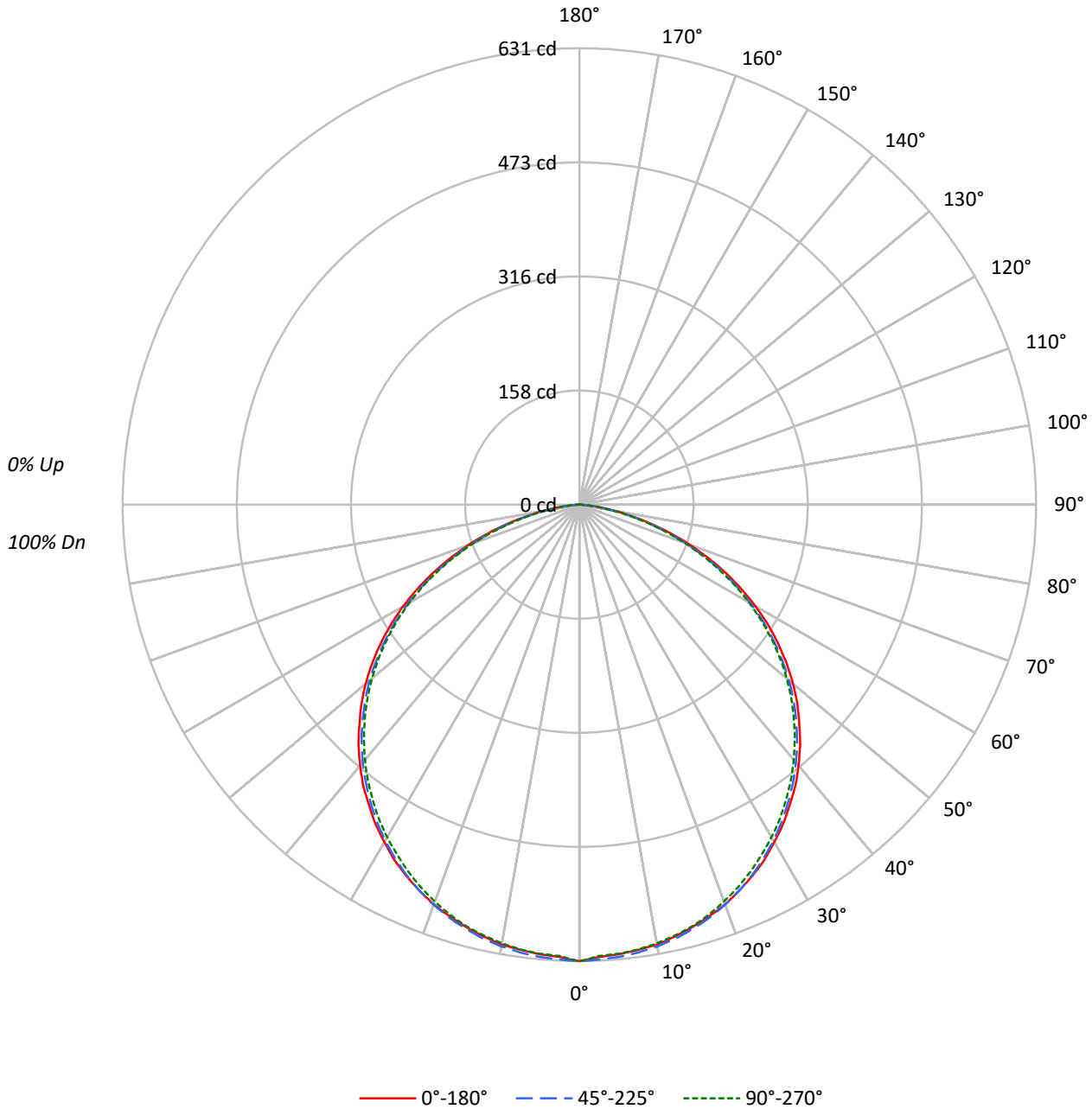
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1767.3 lumens  
Efficiency: N/A  
Efficacy: 107.8 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°	1699	1699	1699
5°	1686	1696	1684
10°	1688	1695	1683
15°	1685	1691	1681
20°	1685	1686	1673
25°	1681	1678	1662
30°	1674	1666	1650
35°	1665	1652	1636
40°	1655	1635	1619
45°	1635	1612	1595
50°	1614	1584	1566
55°	1573	1536	1521
60°	1512	1470	1457
65°	1416	1375	1359
70°	1277	1226	1216
75°	1071	1016	1005
80°	778	725	705
85°	411	364	330

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1635 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	59.8	3.4
10°-20°	171.8	9.7
20°-30°	260.9	14.8
30°-40°	315.7	17.9
40°-50°	328.1	18.6
50°-60°	293.7	16.6
60°-70°	214.2	12.1
70°-80°	105.5	6.0
80°-90°	17.6	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°	492.5	27.9
0°-40°	808.2	45.7
0°-60°	1430.0	80.9
0°-90°	1767.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1767.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	631	631	631	631	631	
5°	624	631	628	634	623	59
15°	605	610	607	612	604	171
25°	566	569	565	568	560	261
35°	507	508	503	505	498	317
45°	430	429	424	424	419	332
55°	335	332	328	327	324	299
65°	222	220	216	214	214	220
75°	103	101	98	97	97	110
85°	13	13	12	10	11	19
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	631.4	631.4	631.4	631.4	631.4
2.5°	626.0	633.0	629.6	635.9	624.6
5°	624.1	630.9	627.8	633.8	623.3
7.5°	621.0	628.0	624.6	630.4	620.5
10°	617.6	623.9	620.2	626.0	615.8
12.5°	611.6	617.9	614.5	619.7	610.3
15°	604.8	610.3	607.1	612.4	603.5
17.5°	596.9	602.2	598.8	603.5	594.6
20°	588.3	592.5	588.8	592.8	584.1
22.5°	577.6	581.5	577.6	580.2	572.6
25°	566.1	569.0	565.1	567.7	559.8
27.5°	553.8	555.4	551.5	553.6	545.5
30°	538.7	540.5	536.3	538.9	531.1
32.5°	524.0	525.1	520.4	522.5	515.4
35°	506.8	507.8	502.9	504.9	497.9
37.5°	490.3	490.0	484.8	486.1	480.1
40°	471.2	471.0	465.5	466.5	460.8
42.5°	451.6	450.6	445.4	445.9	440.6
45°	429.7	429.2	423.7	424.4	419.2
47.5°	408.5	406.9	401.4	401.7	397.3
50°	385.5	383.2	378.4	377.9	374.0
52.5°	360.9	358.3	353.1	352.6	349.7
55°	335.3	332.4	327.5	326.7	324.3
57.5°	308.9	305.3	301.3	299.8	297.9
60°	281.0	277.6	273.1	271.6	270.8
62.5°	251.9	248.6	245.2	243.6	242.5
65°	222.4	219.8	215.9	214.3	213.5
67.5°	192.4	190.0	186.3	184.5	184.3
70°	162.3	160.0	155.8	154.7	154.5
72.5°	132.2	130.2	126.2	125.2	125.2
75°	103.0	101.1	97.7	96.7	96.7
77.5°	75.3	73.7	71.1	69.8	69.8
80°	50.2	49.1	46.8	45.7	45.5
82.5°	29.0	28.5	26.4	25.4	25.9
85°	13.3	12.8	11.8	10.5	10.7
87.5°	3.4	3.1	2.4	1.8	2.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)