

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: P973335

Luminaire Tested: FLR2-14-20-L830-CP187

Issue Date: 3/13/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P973335  
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-CP187  
Description: 1\*4 FLR-2.0 2000 LUMEN at 3000CCT & 80CRI with Clear Polycarbonate (0.187" thickness)  
  
Light Source: 3000k CCT, 80 CRI LEDS  
Ballast/Driver: -

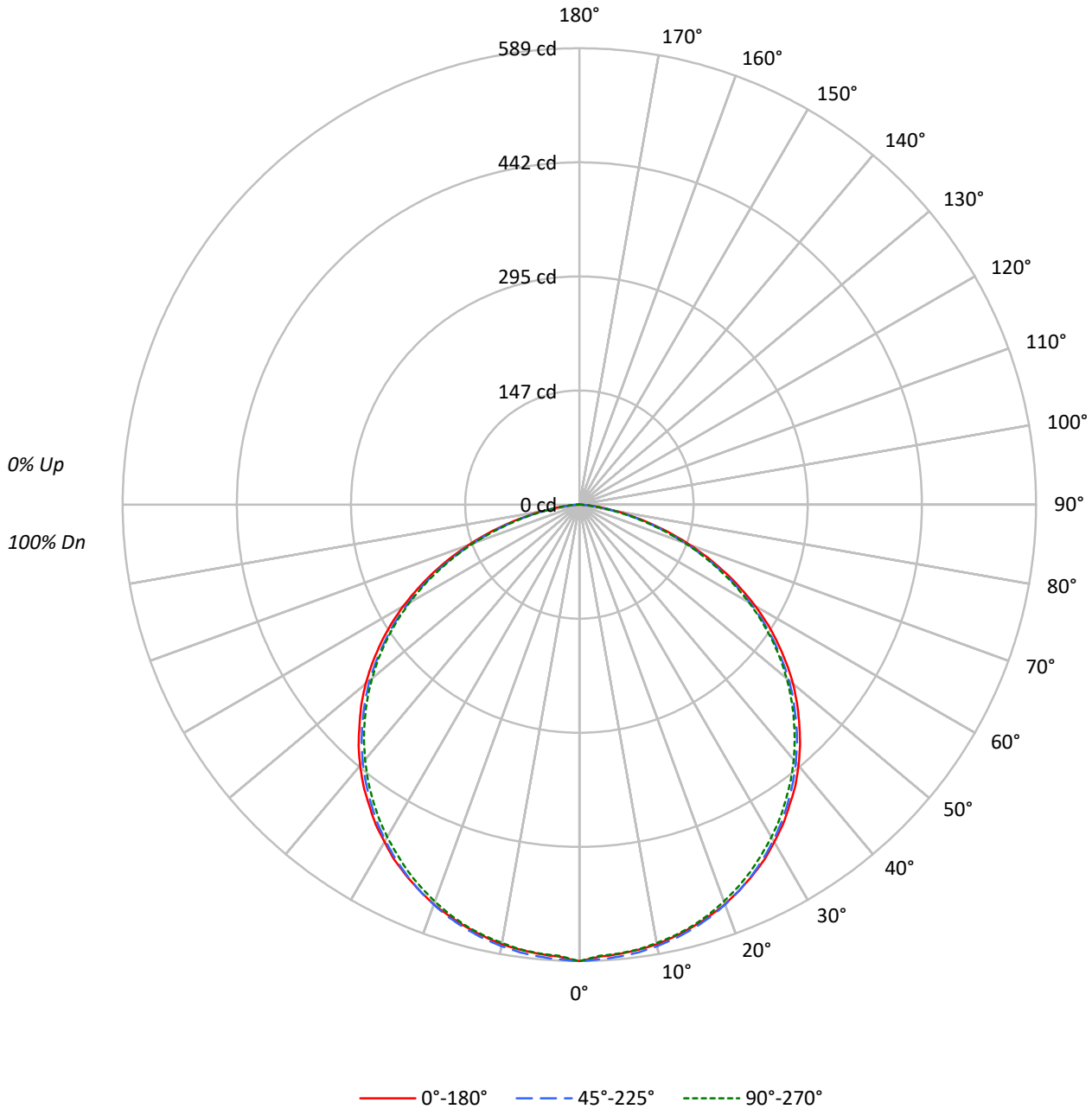
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1649.2 lumens  
Efficiency: N/A  
Efficacy: 100.6 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					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	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	
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°	1586	1586	1586
5°	1573	1582	1571
10°	1575	1581	1570
15°	1572	1578	1569
20°	1572	1574	1561
25°	1569	1566	1551
30°	1562	1555	1540
35°	1554	1541	1526
40°	1545	1526	1511
45°	1526	1504	1489
50°	1506	1478	1461
55°	1468	1434	1420
60°	1411	1372	1360
65°	1321	1283	1269
70°	1192	1144	1134
75°	999	948	938
80°	725	677	657
85°	383	340	309

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1526 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	55.8	3.4
10°-20°	160.3	9.7
20°-30°	243.5	14.8
30°-40°	294.6	17.9
40°-50°	306.1	18.6
50°-60°	274.1	16.6
60°-70°	199.9	12.1
70°-80°	98.4	6.0
80°-90°	16.5	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°	459.6	27.9
0°-40°	754.1	45.7
0°-60°	1334.4	80.9
0°-90°	1649.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1649.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	589	589	589	589	589	
5°	582	589	586	591	582	55
15°	564	570	567	571	563	159
25°	528	531	527	530	522	244
35°	473	474	469	471	465	296
45°	401	400	395	396	391	310
55°	313	310	306	305	303	279
65°	208	205	202	200	199	205
75°	96	94	91	90	90	102
85°	12	12	11	10	10	18
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	589.2	589.2	589.2	589.2	589.2
2.5°	584.1	590.7	587.5	593.4	582.9
5°	582.4	588.7	585.8	591.4	581.7
7.5°	579.5	586.1	582.9	588.3	579.0
10°	576.3	582.2	578.7	584.1	574.6
12.5°	570.7	576.5	573.4	578.3	569.5
15°	564.4	569.5	566.6	571.4	563.1
17.5°	557.0	561.9	558.7	563.1	554.8
20°	549.0	552.9	549.5	553.1	545.1
22.5°	539.0	542.6	539.0	541.4	534.4
25°	528.3	530.9	527.3	529.7	522.4
27.5°	516.8	518.3	514.6	516.6	509.0
30°	502.7	504.4	500.5	502.9	495.6
32.5°	489.0	490.0	485.6	487.5	480.9
35°	472.9	473.9	469.2	471.2	464.6
37.5°	457.5	457.3	452.4	453.6	448.0
40°	439.7	439.5	434.4	435.3	430.0
42.5°	421.4	420.5	415.6	416.1	411.2
45°	401.0	400.5	395.3	396.1	391.2
47.5°	381.2	379.7	374.6	374.9	370.7
50°	359.7	357.5	353.1	352.7	349.0
52.5°	336.8	334.4	329.5	329.0	326.3
55°	312.9	310.2	305.6	304.9	302.7
57.5°	288.3	284.9	281.2	279.7	278.0
60°	262.2	259.0	254.9	253.4	252.7
62.5°	235.1	231.9	228.8	227.3	226.3
65°	207.5	205.1	201.5	200.0	199.3
67.5°	179.5	177.3	173.9	172.2	171.9
70°	151.5	149.3	145.4	144.4	144.1
72.5°	123.4	121.5	117.8	116.8	116.8
75°	96.1	94.4	91.2	90.2	90.2
77.5°	70.2	68.8	66.3	65.1	65.1
80°	46.8	45.9	43.7	42.7	42.4
82.5°	27.1	26.6	24.6	23.7	24.1
85°	12.4	12.0	11.0	9.8	10.0
87.5°	3.2	2.9	2.2	1.7	2.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)