

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: P973441

Luminaire Tested: FLR2-14-30-L940-CP187

Issue Date: 3/13/2025

**Test Information**

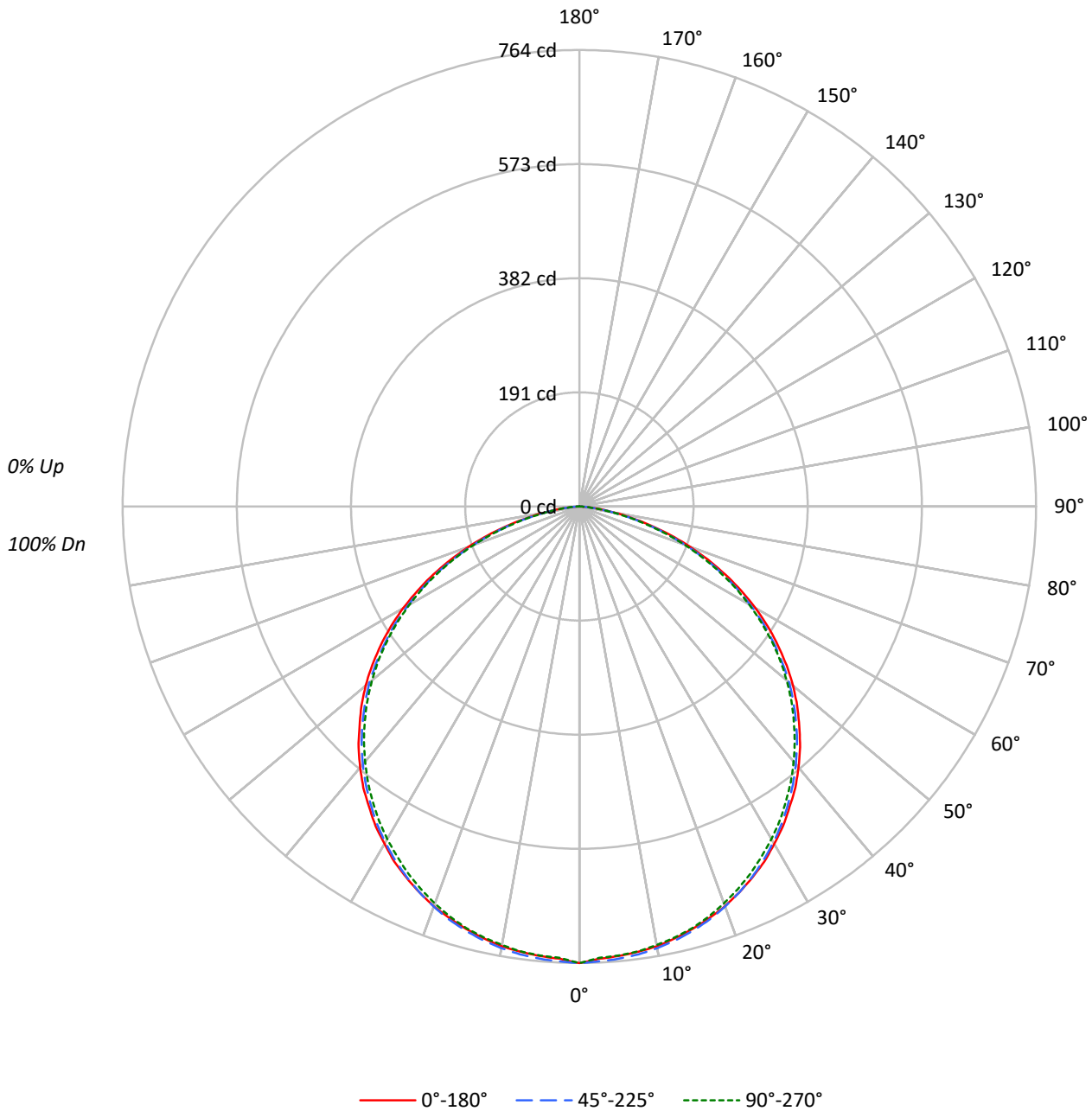
Test Method: LM-79-2019  
Report Number: P973441  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-281-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/13/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: FAIL-SAFE  
Catalog Number: FLR2-14-30-L940-CP187  
Description: 1\*4 FLR-2.0 3000 LUMEN at 4000 CCT & 90 CRI with Clear Polycarbonate (0.187" thickness)  
  
Light Source:  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2139.2 lumens  
Efficiency: N/A  
Efficacy: 89.5 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): 23.9  
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	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°	2057	2057	2057
5°	2041	2053	2038
10°	2043	2051	2037
15°	2039	2047	2035
20°	2039	2041	2025
25°	2034	2031	2012
30°	2026	2017	1997
35°	2015	2000	1980
40°	2004	1979	1959
45°	1979	1952	1931
50°	1953	1918	1895
55°	1904	1860	1842
60°	1830	1779	1764
65°	1714	1664	1646
70°	1546	1483	1471
75°	1295	1230	1216
80°	941	877	852
85°	497	438	401

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1979 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	72.4	3.4
10°-20°	207.9	9.7
20°-30°	315.8	14.8
30°-40°	382.1	17.9
40°-50°	397.1	18.6
50°-60°	355.5	16.6
60°-70°	259.3	12.1
70°-80°	127.7	6.0
80°-90°	21.4	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°	596.1	27.9
0°-40°	978.2	45.7
0°-60°	1730.8	80.9
0°-90°	2139.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2139.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	764	764	764	764	764	
5°	755	764	760	767	754	72
15°	732	739	735	741	730	207
25°	685	689	684	687	678	316
35°	613	615	609	611	603	384
45°	520	519	513	514	507	402
55°	406	402	396	395	393	362
65°	269	266	261	259	258	266
75°	125	122	118	117	117	133
85°	16	16	14	13	13	23
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	764.3	764.3	764.3	764.3	764.3
2.5°	757.7	766.2	762.1	769.7	756.1
5°	755.4	763.7	759.9	767.2	754.5
7.5°	751.7	760.2	756.1	763.0	751.0
10°	747.5	755.1	750.7	757.7	745.3
12.5°	740.3	747.9	743.7	750.1	738.7
15°	732.0	738.7	734.9	741.2	730.5
17.5°	722.5	728.9	724.8	730.5	719.7
20°	712.1	717.2	712.7	717.5	707.0
22.5°	699.1	703.9	699.1	702.3	693.1
25°	685.2	688.7	684.0	687.1	677.6
27.5°	670.3	672.2	667.5	670.0	660.2
30°	652.0	654.2	649.2	652.3	642.8
32.5°	634.3	635.5	629.9	632.4	623.8
35°	613.4	614.7	608.7	611.2	602.6
37.5°	593.5	593.2	586.8	588.4	581.1
40°	570.4	570.1	563.4	564.7	557.7
42.5°	546.7	545.4	539.1	539.7	533.4
45°	520.1	519.4	512.8	513.8	507.4
47.5°	494.5	492.6	485.9	486.2	480.9
50°	466.6	463.8	458.1	457.4	452.7
52.5°	436.9	433.7	427.4	426.8	423.3
55°	405.9	402.4	396.4	395.4	392.6
57.5°	373.9	369.5	364.8	362.9	360.6
60°	340.1	336.0	330.6	328.7	327.7
62.5°	305.0	300.8	296.7	294.8	293.6
65°	269.2	266.1	261.3	259.4	258.5
67.5°	232.8	230.0	225.6	223.3	223.0
70°	196.5	193.6	188.5	187.3	187.0
72.5°	160.1	157.5	152.8	151.5	151.5
75°	124.6	122.4	118.3	117.0	117.0
77.5°	91.1	89.2	86.0	84.5	84.5
80°	60.7	59.5	56.6	55.4	55.0
82.5°	35.1	34.5	32.0	30.7	31.3
85°	16.1	15.5	14.2	12.7	13.0
87.5°	4.1	3.8	2.8	2.2	2.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)