

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: P973436

Luminaire Tested: FLR2-14-42-L940-CP080

Issue Date: 3/13/2025

**Test Information**

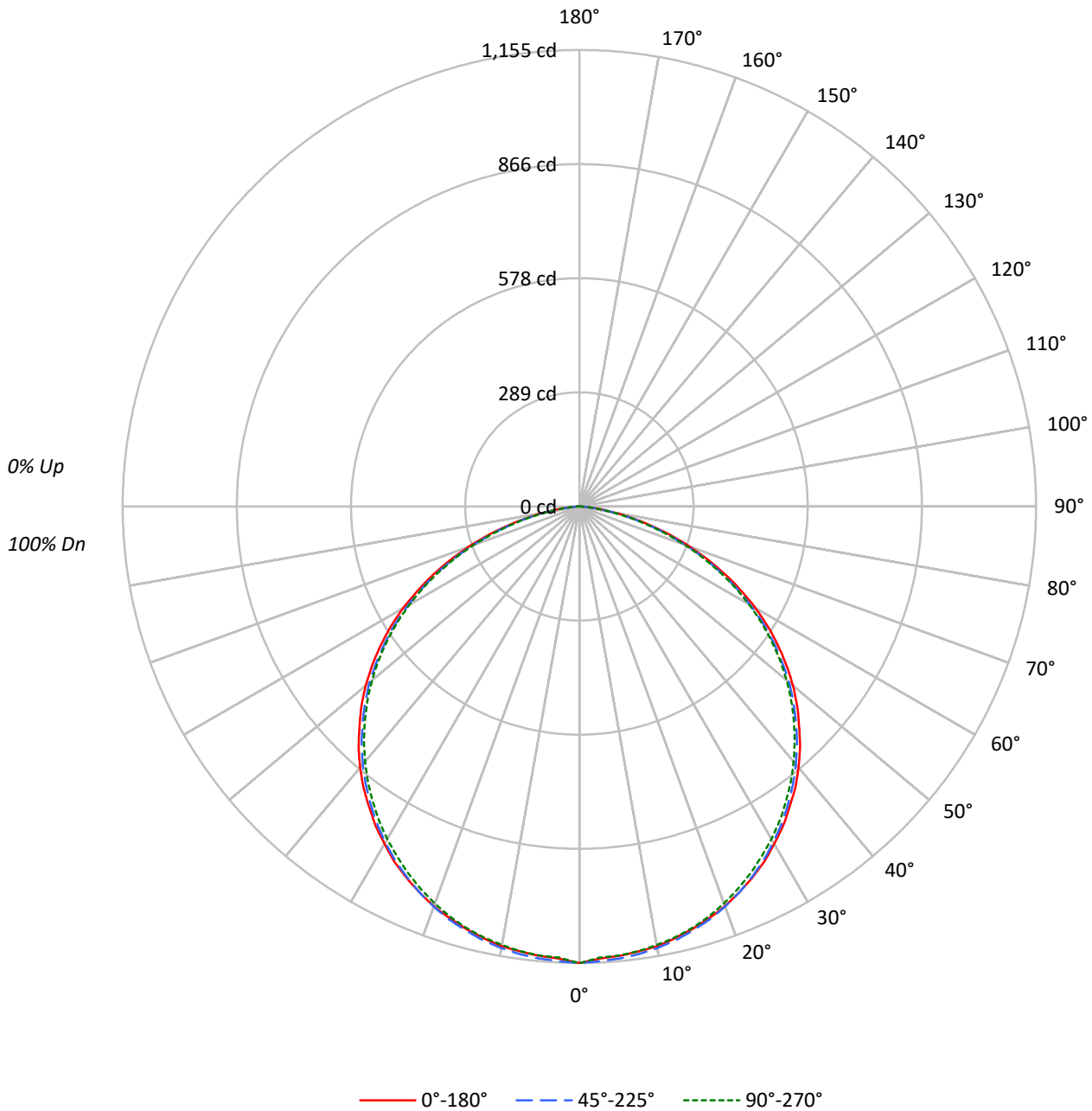
Test Method: LM-79-2019  
Report Number: P973436  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-281-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/13/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: FAIL-SAFE  
Catalog Number: FLR2-14-42-L940-CP080  
Description: 1\*4 FLR-2.0 4200 LUMEN at 4000 CCT & 90 CRI with Clear Polycarbonate (0.080" thickness)  
  
Light Source:  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3233.5 lumens  
Efficiency: N/A  
Efficacy: 102.0 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): 31.7  
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°	3109	3109	3109
5°	3085	3103	3081
10°	3088	3101	3078
15°	3083	3095	3076
20°	3082	3085	3060
25°	3075	3070	3041
30°	3062	3049	3019
35°	3046	3022	2992
40°	3029	2992	2961
45°	2992	2950	2919
50°	2953	2899	2865
55°	2878	2811	2784
60°	2767	2689	2666
65°	2591	2515	2488
70°	2337	2242	2223
75°	1959	1859	1839
80°	1423	1327	1289
85°	753	664	605

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2992 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	109.4	3.4
10°-20°	314.3	9.7
20°-30°	477.4	14.8
30°-40°	577.5	17.9
40°-50°	600.2	18.6
50°-60°	537.4	16.6
60°-70°	392.0	12.1
70°-80°	193.0	6.0
80°-90°	32.3	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°	901.1	27.9
0°-40°	1478.6	45.7
0°-60°	2616.3	80.9
0°-90°	3233.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3233.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1155	1155	1155	1155	1155	
5°	1142	1154	1149	1160	1140	109
15°	1106	1117	1111	1120	1104	313
25°	1036	1041	1034	1039	1024	477
35°	927	929	920	924	911	581
45°	786	785	775	777	767	607
55°	614	608	599	598	593	548
65°	407	402	395	392	391	402
75°	188	185	179	177	177	201
85°	24	23	22	19	20	35
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1155.3	1155.3	1155.3	<i>1155.3</i>	1155.3
2.5°	<i>1145.3</i>	<i>1158.2</i>	<i>1152.0</i>	<i>1163.4</i>	<i>1142.9</i>
5°	1141.9	1154.3	1148.6	<i>1159.6</i>	1140.5
7.5°	1136.2	1149.1	1142.9	<i>1153.4</i>	1135.2
10°	1130.0	1141.4	1134.7	<i>1145.3</i>	1126.6
12.5°	1119.0	1130.4	1124.2	<i>1133.8</i>	1116.6
15°	1106.5	1116.6	1110.8	<i>1120.4</i>	1104.1
17.5°	1092.2	1101.7	1095.5	<i>1104.1</i>	1087.9
20°	1076.4	1084.1	1077.4	<i>1084.5</i>	1068.7
22.5°	1056.8	1064.0	1056.8	<i>1061.6</i>	1047.7
25°	1035.8	1041.0	1033.8	<i>1038.6</i>	1024.3
27.5°	1013.3	1016.1	1009.0	<i>1012.8</i>	998.0
30°	985.5	988.9	981.2	<i>986.0</i>	971.7
32.5°	958.8	960.7	952.1	<i>955.9</i>	943.0
35°	927.2	929.1	920.0	<i>923.9</i>	910.9
37.5°	897.1	896.6	887.0	<i>889.4</i>	878.4
40°	862.2	861.7	851.7	<i>853.6</i>	843.0
42.5°	826.3	824.4	814.8	<i>815.8</i>	806.2
45°	786.1	785.2	775.1	<i>776.6</i>	767.0
47.5°	747.4	744.5	734.5	<i>735.0</i>	726.8
50°	705.3	701.0	692.4	<i>691.5</i>	684.3
52.5°	660.4	655.6	646.0	<i>645.1</i>	639.8
55°	613.5	608.3	599.2	<i>597.7</i>	593.4
57.5°	565.2	558.5	551.4	<i>548.5</i>	545.1
60°	514.1	507.8	499.7	<i>496.8</i>	495.4
62.5°	461.0	454.8	448.5	<i>445.7</i>	443.8
65°	406.9	402.2	395.0	<i>392.1</i>	390.7
67.5°	351.9	347.6	340.9	<i>337.6</i>	337.1
70°	297.0	292.7	285.0	<i>283.1</i>	282.6
72.5°	242.0	238.1	231.0	<i>229.1</i>	229.1
75°	188.4	185.1	178.8	<i>176.9</i>	176.9
77.5°	137.7	134.8	130.1	<i>127.7</i>	127.7
80°	91.8	89.9	85.6	<i>83.7</i>	83.2
82.5°	53.1	52.1	48.3	<i>46.4</i>	47.3
85°	24.4	23.4	21.5	<i>19.1</i>	19.6
87.5°	6.2	5.7	4.3	<i>3.3</i>	4.3
90°	0.0	0.0	0.0	<i>0.0</i>	0.0

(END OF REPORT)