

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: P973442

Luminaire Tested: FLR2-14-42-L940-CP187

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973442
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-CP187
Description: 1*4 FLR-2.0 4200 LUMEN at 4000 CCT & 90 CRI with Clear Polycarbonate (0.187" thickness)

Light Source:
Ballast/Driver: -

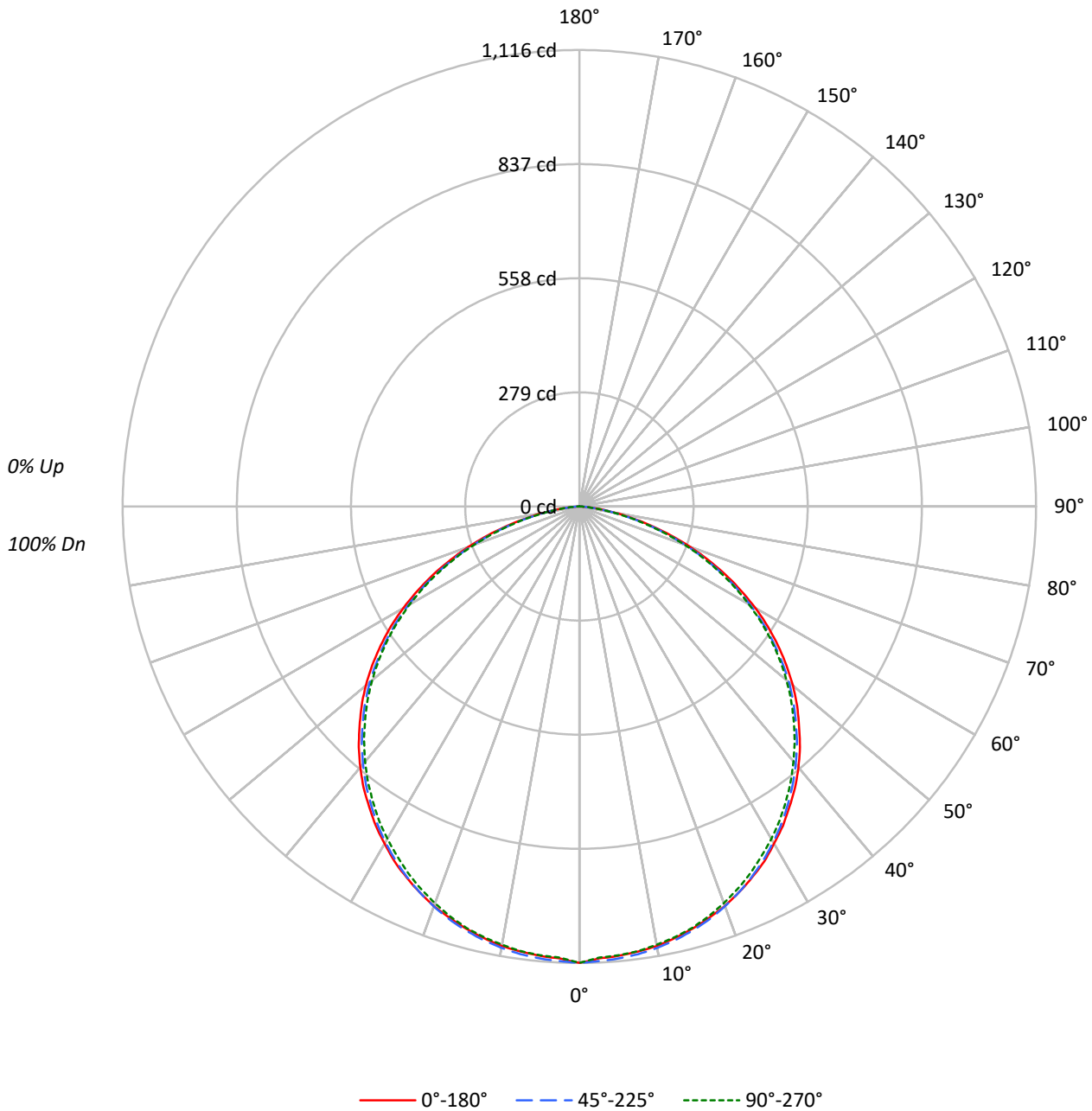
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3122.9 lumens
Efficiency: N/A
Efficacy: 98.5 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): 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

TEST NUMBER: P973442
CATALOG NUMBER: FLR2-14-42-L940-CP187

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°	3003	3003	3003
5°	2979	2997	2975
10°	2982	2995	2973
15°	2977	2989	2971
20°	2977	2980	2956
25°	2970	2965	2937
30°	2958	2945	2916
35°	2942	2919	2890
40°	2925	2889	2860
45°	2890	2849	2819
50°	2852	2799	2767
55°	2780	2715	2689
60°	2672	2597	2575
65°	2502	2429	2402
70°	2257	2166	2147
75°	1892	1796	1777
80°	1375	1282	1246
85°	729	642	584

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2890 cd/sqm



TEST NUMBER: P973442
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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.7	3.4
10°-20°	303.5	9.7
20°-30°	461.1	14.8
30°-40°	557.8	17.9
40°-50°	579.7	18.6
50°-60°	519.0	16.6
60°-70°	378.6	12.1
70°-80°	186.4	6.0
80°-90°	31.2	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°	870.3	27.9
0°-40°	1428.1	45.7
0°-60°	2526.8	80.9
0°-90°	3122.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3122.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1116	1116	1116	1116	1116	
5°	1103	1115	1109	1120	1102	105
15°	1069	1078	1073	1082	1066	302
25°	1000	1005	998	1003	989	461
35°	896	897	889	892	880	561
45°	759	758	749	750	741	586
55°	592	588	579	577	573	529
65°	393	388	382	379	377	388
75°	182	179	173	171	171	194
85°	24	23	21	18	19	34
90°	0	0	0	0	0	



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 CATALOG NUMBER: FLR2-14-42-L940-CP187

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1115.8	1115.8	1115.8	<i>1115.8</i>	1115.8
2.5°	<i>1106.1</i>	<i>1118.6</i>	<i>1112.6</i>	<i>1123.6</i>	<i>1103.8</i>
5°	1102.9	1114.9	1109.3	<i>1119.9</i>	1101.5
7.5°	1097.3	1109.8	1103.8	<i>1113.9</i>	1096.4
10°	1091.3	1102.4	1095.9	<i>1106.1</i>	1088.1
12.5°	1080.7	1091.8	1085.8	<i>1095.0</i>	1078.4
15°	1068.7	1078.4	1072.8	<i>1082.1</i>	1066.4
17.5°	1054.8	1064.1	1058.1	<i>1066.4</i>	1050.7
20°	1039.6	1047.0	1040.5	<i>1047.4</i>	1032.2
22.5°	1020.7	1027.6	1020.7	<i>1025.3</i>	1011.9
25°	1000.3	1005.4	998.5	<i>1003.1</i>	989.2
27.5°	978.6	981.4	974.5	<i>978.2</i>	963.8
30°	951.8	955.1	947.7	<i>952.3</i>	938.4
32.5°	926.0	927.8	919.5	<i>923.2</i>	910.7
35°	895.5	897.3	888.6	<i>892.3</i>	879.8
37.5°	866.4	865.9	856.7	<i>859.0</i>	848.4
40°	832.7	832.2	822.5	<i>824.4</i>	814.2
42.5°	798.0	796.2	787.0	<i>787.9</i>	778.6
45°	759.3	758.3	748.6	<i>750.0</i>	740.8
47.5°	721.8	719.1	709.4	<i>709.8</i>	702.0
50°	681.2	677.0	668.7	<i>667.8</i>	660.9
52.5°	637.8	633.2	623.9	<i>623.0</i>	617.9
55°	592.5	587.5	578.7	<i>577.3</i>	573.1
57.5°	545.9	539.4	532.5	<i>529.7</i>	526.5
60°	496.5	490.5	482.6	<i>479.8</i>	478.5
62.5°	445.2	439.2	433.2	<i>430.4</i>	428.6
65°	393.0	388.4	381.5	<i>378.7</i>	377.3
67.5°	339.9	335.8	329.3	<i>326.1</i>	325.6
70°	286.8	282.6	275.3	<i>273.4</i>	272.9
72.5°	233.7	230.0	223.1	<i>221.2</i>	221.2
75°	182.0	178.7	172.7	<i>170.9</i>	170.9
77.5°	133.0	130.2	125.6	<i>123.3</i>	123.3
80°	88.7	86.8	82.7	<i>80.8</i>	80.4
82.5°	51.3	50.3	46.6	<i>44.8</i>	45.7
85°	23.6	22.6	20.8	<i>18.5</i>	18.9
87.5°	6.0	5.5	4.2	<i>3.2</i>	4.2
90°	0.0	0.0	0.0	<i>0.0</i>	0.0

(END OF REPORT)