

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: P973166

Luminaire Tested: FLR2-14-42HE-L935-CP187

Issue Date: 3/13/2025

**Test Information**

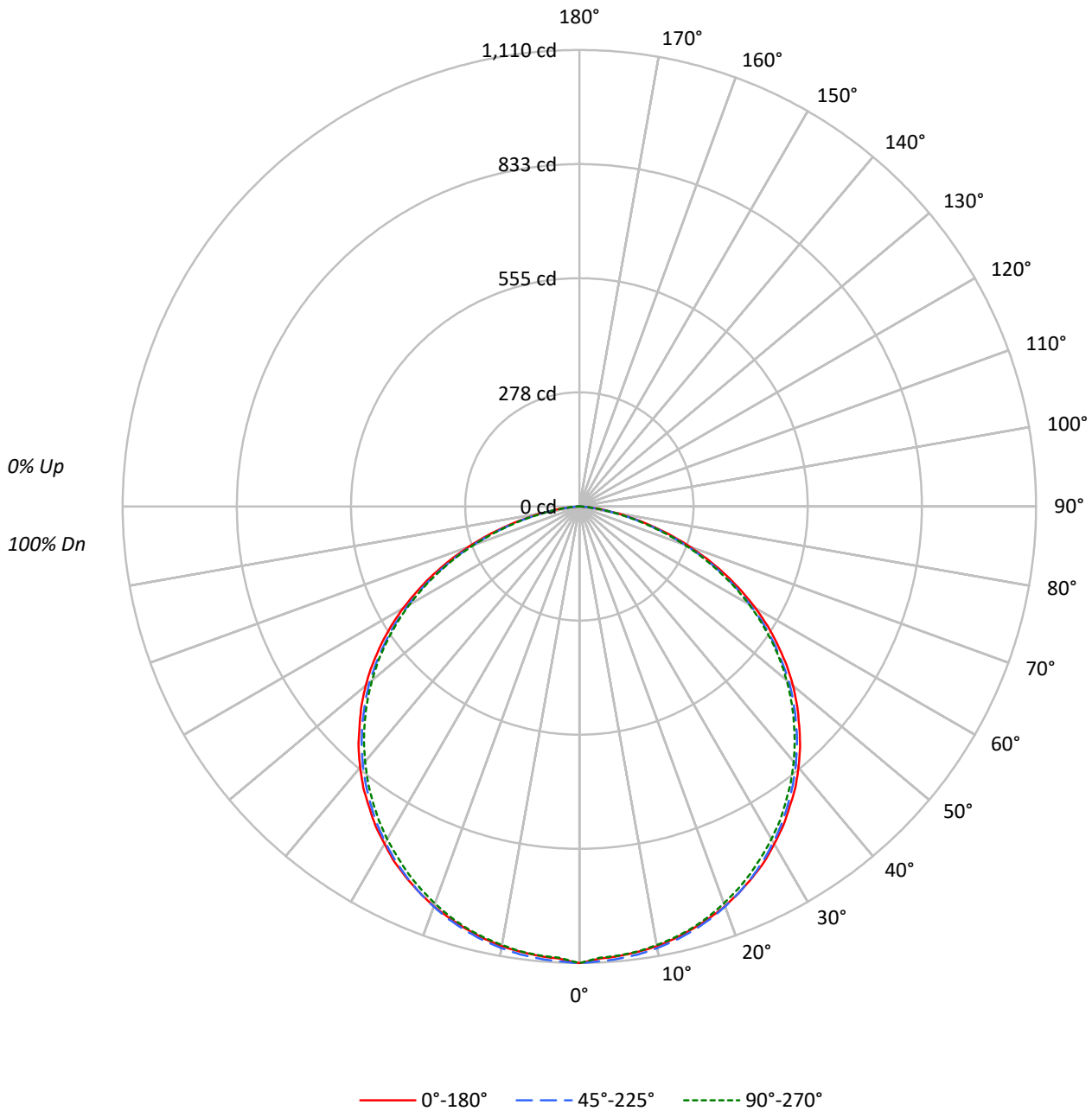
Test Method: LM-79-2019  
Report Number: P973166  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-281-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/13/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: FAIL-SAFE  
Catalog Number: FLR2-14-42HE-L935-CP187  
Description: 1\*4 FLR-2.0 4200 Lumen High Efficacy at 3500CCT & 90 CRI with Clear Polycarbonate (0.187" thickness)  
  
Light Source:  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3108.1 lumens  
Efficiency: N/A  
Efficacy: 97.4 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): 31.9  
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				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°	2988	2988	2988
5°	2965	2982	2961
10°	2968	2980	2959
15°	2963	2975	2957
20°	2963	2966	2942
25°	2956	2950	2923
30°	2944	2931	2902
35°	2928	2905	2876
40°	2911	2876	2846
45°	2876	2836	2806
50°	2838	2786	2753
55°	2767	2702	2676
60°	2659	2585	2563
65°	2491	2418	2391
70°	2245	2155	2137
75°	1883	1787	1769
80°	1368	1275	1240
85°	722	639	580

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2876 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	105.2	3.4
10°-20°	302.1	9.7
20°-30°	458.9	14.8
30°-40°	555.1	17.9
40°-50°	576.9	18.6
50°-60°	516.6	16.6
60°-70°	376.8	12.1
70°-80°	185.5	6.0
80°-90°	31.0	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°	866.2	27.9
0°-40°	1421.3	45.7
0°-60°	2514.8	80.9
0°-90°	3108.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3108.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1110	1110	1110	1110	1110	
5°	1098	1110	1104	1115	1096	104
15°	1064	1073	1068	1077	1061	300
25°	996	1001	994	998	984	459
35°	891	893	884	888	876	558
45°	756	755	745	746	737	583
55°	590	585	576	574	570	526
65°	391	387	380	377	376	386
75°	181	178	172	170	170	193
85°	23	22	21	18	19	34
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1110.5	1110.5	1110.5	1110.5	1110.5
2.5°	1100.8	1113.2	1107.3	1118.3	1098.5
5°	1097.6	1109.6	1104.1	1114.6	1096.2
7.5°	1092.1	1104.5	1098.5	1108.6	1091.2
10°	1086.1	1097.2	1090.7	1100.8	1082.9
12.5°	1075.6	1086.6	1080.6	1089.8	1073.3
15°	1063.6	1073.3	1067.7	1076.9	1061.3
17.5°	1049.8	1059.0	1053.0	1061.3	1045.7
20°	1034.6	1042.0	1035.6	1042.5	1027.3
22.5°	1015.8	1022.7	1015.8	1020.4	1007.1
25°	995.6	1000.6	993.7	998.3	984.5
27.5°	974.0	976.7	969.8	973.5	959.3
30°	947.3	950.5	943.2	947.8	934.0
32.5°	921.6	923.4	915.1	918.8	906.4
35°	891.2	893.1	884.3	888.0	875.6
37.5°	862.3	861.8	852.6	854.9	844.4
40°	828.7	828.3	818.6	820.5	810.3
42.5°	794.3	792.4	783.2	784.1	774.9
45°	755.6	754.7	745.1	746.5	737.3
47.5°	718.4	715.7	706.0	706.5	698.6
50°	678.0	673.8	665.6	664.6	657.7
52.5°	634.8	630.2	621.0	620.1	615.0
55°	589.7	584.7	575.9	574.5	570.4
57.5°	543.3	536.9	530.0	527.2	524.0
60°	494.1	488.1	480.3	477.6	476.2
62.5°	443.1	437.1	431.1	428.4	426.5
65°	391.2	386.6	379.7	376.9	375.5
67.5°	338.3	334.2	327.7	324.5	324.0
70°	285.4	281.3	273.9	272.1	271.6
72.5°	232.6	228.9	222.0	220.2	220.2
75°	181.1	177.9	171.9	170.1	170.1
77.5°	132.4	129.6	125.0	122.7	122.7
80°	88.3	86.4	82.3	80.4	80.0
82.5°	51.0	50.1	46.4	44.6	45.5
85°	23.4	22.5	20.7	18.4	18.8
87.5°	6.0	5.5	4.1	3.2	4.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)