

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: P973236

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

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973236
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-L940-CP187
Description: 1*4 FLR-2.0 4200 Lumen High Efficacy at 4000CCT & 90 CRI with Clear Polycarbonate (0.187" thickness)

Light Source:
Ballast/Driver: -

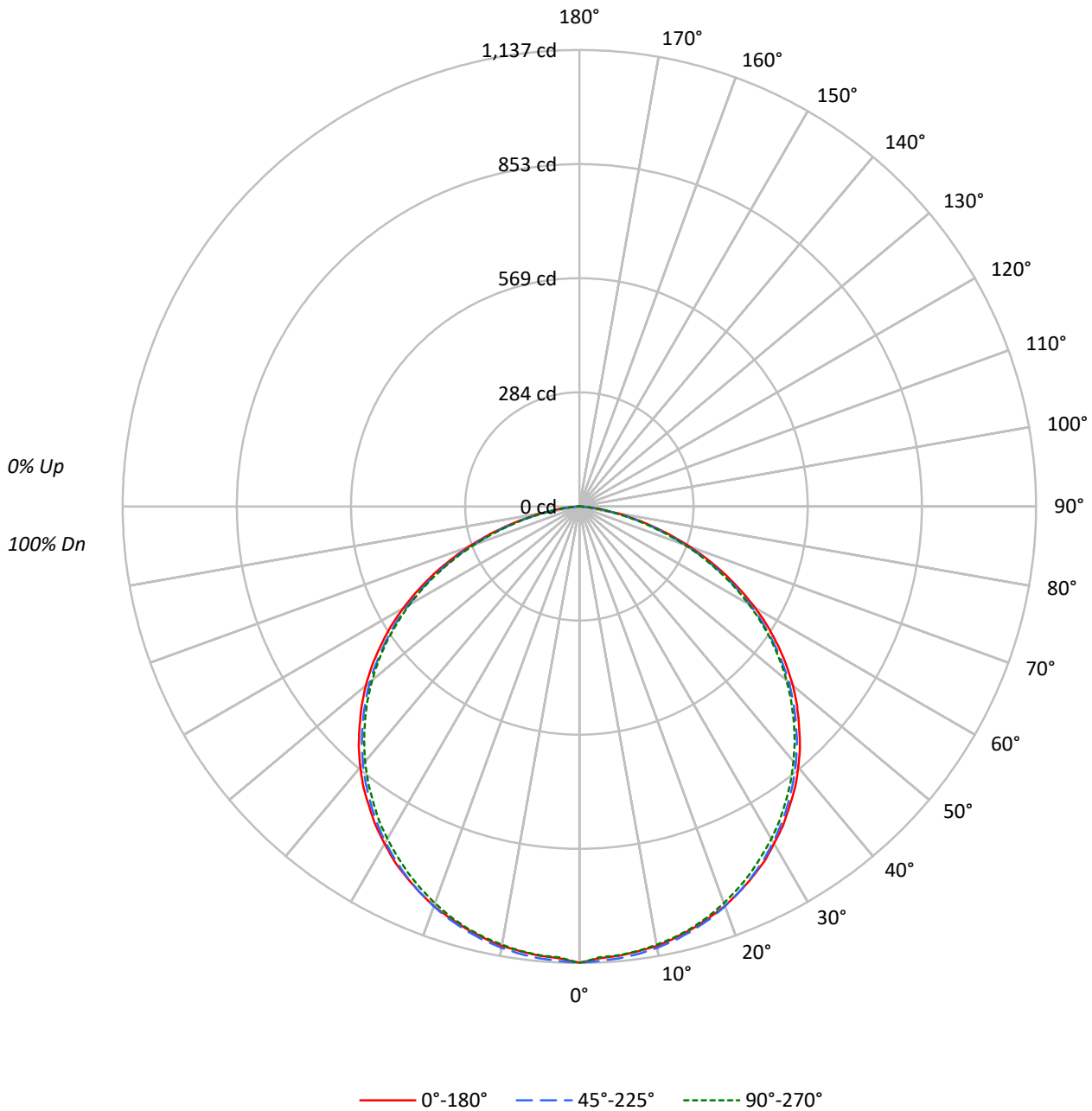
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3181.2 lumens
Efficiency: N/A
Efficacy: 99.7 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									
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°	3059	3059	3059
5°	3035	3052	3031
10°	3038	3051	3029
15°	3033	3045	3026
20°	3033	3035	3011
25°	3026	3020	2992
30°	3013	3000	2971
35°	2997	2974	2944
40°	2980	2943	2914
45°	2943	2902	2872
50°	2905	2852	2818
55°	2832	2766	2739
60°	2722	2646	2623
65°	2550	2474	2448
70°	2299	2206	2187
75°	1928	1829	1810
80°	1399	1305	1269
85°	741	655	596

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2943 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.7	3.4
10°-20°	309.2	9.7
20°-30°	469.7	14.8
30°-40°	568.2	17.9
40°-50°	590.5	18.6
50°-60°	528.7	16.6
60°-70°	385.6	12.1
70°-80°	189.9	6.0
80°-90°	31.7	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°	886.5	27.9
0°-40°	1454.7	45.7
0°-60°	2574.0	80.9
0°-90°	3181.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3181.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1137	1137	1137	1137	1137	
5°	1123	1136	1130	1141	1122	107
15°	1089	1098	1093	1102	1086	307
25°	1019	1024	1017	1022	1008	470
35°	912	914	905	909	896	571
45°	773	772	763	764	755	597
55°	604	598	590	588	584	539
65°	400	396	389	386	384	395
75°	185	182	176	174	174	198
85°	24	23	21	19	19	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1136.6	1136.6	1136.6	1136.6	1136.6
2.5°	1126.7	1139.4	1133.3	1144.6	1124.4
5°	1123.4	1135.7	1130.0	1140.8	1122.0
7.5°	1117.8	1130.5	1124.4	1134.7	1116.9
10°	1111.7	1123.0	1116.4	1126.7	1108.4
12.5°	1100.9	1112.2	1106.0	1115.4	1098.5
15°	1088.6	1098.5	1092.9	1102.3	1086.3
17.5°	1074.5	1083.9	1077.8	1086.3	1070.3
20°	1059.0	1066.5	1059.9	1067.0	1051.5
22.5°	1039.7	1046.8	1039.7	1044.4	1030.8
25°	1019.0	1024.2	1017.1	1021.8	1007.7
27.5°	996.9	999.7	992.7	996.4	981.8
30°	969.6	972.9	965.4	970.1	956.0
32.5°	943.3	945.1	936.7	940.4	927.7
35°	912.2	914.1	905.2	908.9	896.2
37.5°	882.6	882.1	872.7	875.0	864.2
40°	848.2	847.8	837.9	839.8	829.4
42.5°	812.9	811.1	801.7	802.6	793.2
45°	773.4	772.5	762.6	764.0	754.6
47.5°	735.3	732.5	722.6	723.1	715.1
50°	693.9	689.7	681.2	680.3	673.2
52.5°	649.7	645.0	635.6	634.6	629.5
55°	603.6	598.4	589.5	588.1	583.8
57.5°	556.1	549.5	542.4	539.6	536.3
60°	505.7	499.6	491.6	488.8	487.4
62.5°	453.5	447.4	441.3	438.5	436.6
65°	400.4	395.7	388.6	385.8	384.4
67.5°	346.3	342.0	335.4	332.1	331.7
70°	292.2	287.9	280.4	278.5	278.0
72.5°	238.0	234.3	227.2	225.3	225.3
75°	185.4	182.1	175.9	174.1	174.1
77.5°	135.5	132.7	128.0	125.6	125.6
80°	90.3	88.4	84.2	82.3	81.9
82.5°	52.2	51.3	47.5	45.6	46.6
85°	24.0	23.1	21.2	18.8	19.3
87.5°	6.1	5.6	4.2	3.3	4.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)