

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: P973457

Luminaire Tested: FLR2-14-42-L850-CP080

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973457
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-L850-CP080
Description: 1*4 FLR-2.0 4200 LUMEN at 5000 CCT & 80CRI with Clear Polycarbonate (0.080" thickness)

Light Source:
Ballast/Driver: -

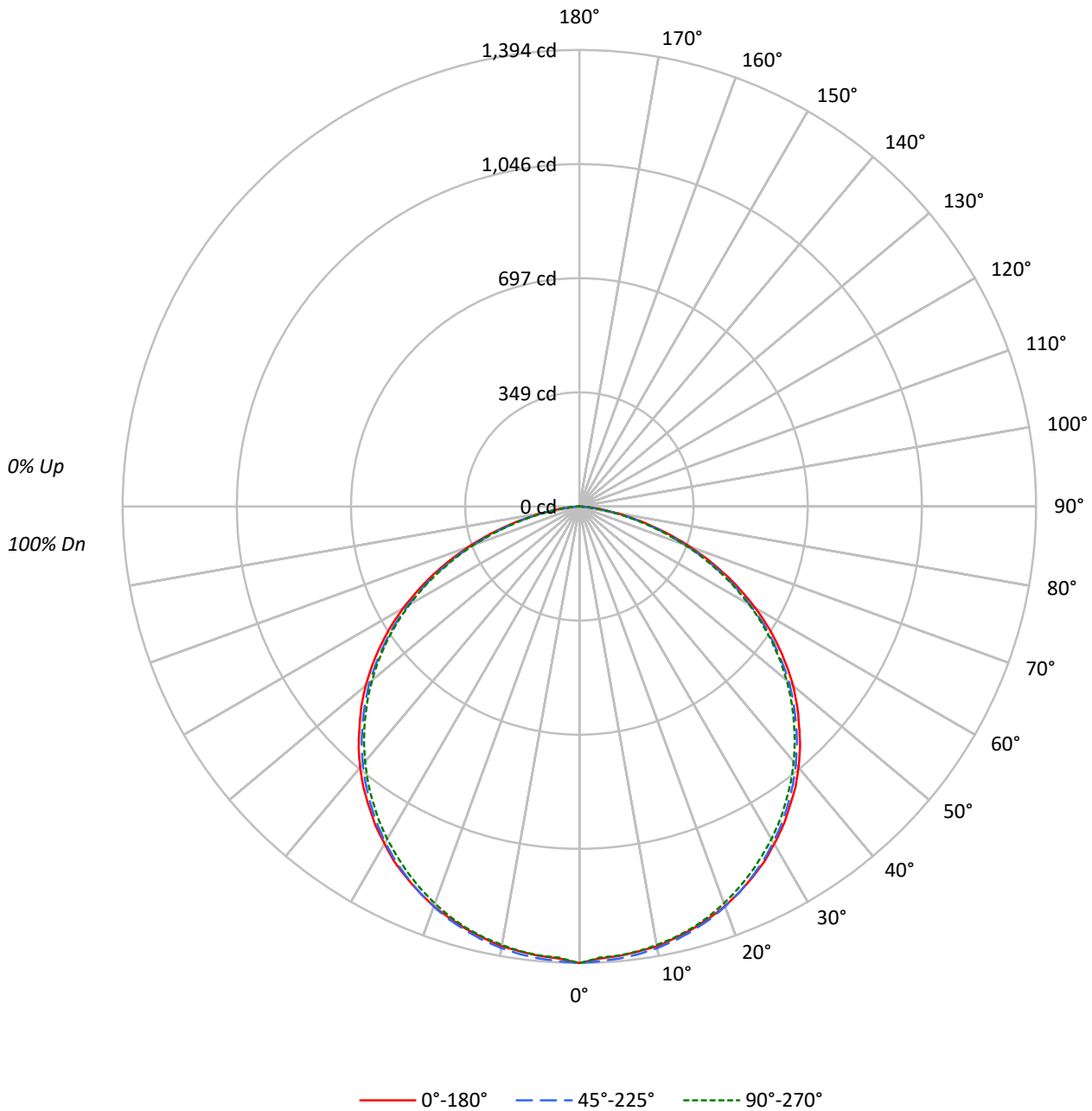
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3902.5 lumens
Efficiency: N/A
Efficacy: 123.1 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°	3752	3752	3752
5°	3723	3744	3718
10°	3726	3742	3715
15°	3721	3735	3712
20°	3720	3724	3694
25°	3711	3705	3670
30°	3696	3680	3644
35°	3676	3648	3612
40°	3655	3611	3574
45°	3611	3560	3523
50°	3564	3499	3458
55°	3474	3392	3360
60°	3339	3246	3218
65°	3127	3035	3002
70°	2820	2707	2684
75°	2364	2244	2220
80°	1717	1601	1556
85°	908	803	732

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3611 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	132.1	3.4
10°-20°	379.3	9.7
20°-30°	576.2	14.8
30°-40°	697.0	17.9
40°-50°	724.4	18.6
50°-60°	648.6	16.6
60°-70°	473.1	12.1
70°-80°	232.9	6.0
80°-90°	39.0	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°	1087.6	27.9
0°-40°	1784.6	45.7
0°-60°	3157.6	80.9
0°-90°	3902.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3902.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1394	1394	1394	1394	1394	
5°	1378	1393	1386	1400	1376	131
15°	1336	1348	1341	1352	1333	377
25°	1250	1256	1248	1254	1236	576
35°	1119	1121	1110	1115	1099	701
45°	949	948	936	937	926	733
55°	740	734	723	721	716	661
65°	491	485	477	473	472	485
75°	227	223	216	214	214	242
85°	29	28	26	23	24	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1394.3	1394.3	1394.3	<i>1394.3</i>	1394.3
2.5°	<i>1382.2</i>	<i>1397.8</i>	<i>1390.3</i>	<i>1404.1</i>	<i>1379.3</i>
5°	1378.2	1393.2	1386.2	<i>1399.5</i>	1376.4
7.5°	1371.2	1386.8	1379.3	<i>1392.0</i>	1370.1
10°	1363.7	1377.6	1369.5	<i>1382.2</i>	1359.7
12.5°	1350.5	1364.3	1356.8	<i>1368.4</i>	1347.6
15°	1335.5	1347.6	1340.7	<i>1352.2</i>	1332.6
17.5°	1318.1	1329.7	1322.2	<i>1332.6</i>	1313.0
20°	1299.1	1308.3	1300.3	<i>1308.9</i>	1289.9
22.5°	1275.4	1284.1	1275.4	<i>1281.2</i>	1264.5
25°	1250.0	1256.4	1247.7	<i>1253.5</i>	1236.2
27.5°	1222.9	1226.4	1217.7	<i>1222.3</i>	1204.5
30°	1189.5	1193.5	1184.3	<i>1190.0</i>	1172.7
32.5°	1157.1	1159.4	1149.1	<i>1153.7</i>	1138.1
35°	1119.0	1121.4	1110.4	<i>1115.0</i>	1099.4
37.5°	1082.7	1082.1	1070.6	<i>1073.4</i>	1060.2
40°	1040.6	1040.0	1027.9	<i>1030.2</i>	1017.5
42.5°	997.3	995.0	983.4	<i>984.6</i>	973.0
45°	948.8	947.6	935.5	<i>937.2</i>	925.7
47.5°	902.0	898.6	886.5	<i>887.0</i>	877.2
50°	851.3	846.1	835.7	<i>834.5</i>	825.9
52.5°	797.0	791.2	779.7	<i>778.5</i>	772.2
55°	740.4	734.1	723.1	<i>721.4</i>	716.2
57.5°	682.2	674.1	665.4	<i>662.0</i>	657.9
60°	620.4	612.9	603.1	<i>599.6</i>	597.9
62.5°	556.3	548.8	541.3	<i>537.9</i>	535.6
65°	491.1	485.4	476.7	<i>473.2</i>	471.5
67.5°	424.8	419.6	411.5	<i>407.4</i>	406.9
70°	358.4	353.2	344.0	<i>341.7</i>	341.1
72.5°	292.0	287.4	278.8	<i>276.4</i>	276.4
75°	227.4	223.3	215.8	<i>213.5</i>	213.5
77.5°	166.2	162.7	157.0	<i>154.1</i>	154.1
80°	110.8	108.5	103.3	<i>101.0</i>	100.4
82.5°	64.1	62.9	58.3	<i>56.0</i>	57.1
85°	29.4	28.3	26.0	<i>23.1</i>	23.7
87.5°	7.5	6.9	5.2	<i>4.0</i>	5.2
90°	0.0	0.0	0.0	<i>0.0</i>	0.0

(END OF REPORT)