

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: P973346

Luminaire Tested: FLR2-14-42-L830-CA080

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973346
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-L830-CA080
Description: 1*4 FLR-2.0 4200 LUMEN at 3000CCT & 80CRI with Clear Acrylic (0.080" thickness)

Light Source: 3000k CCT, 80 CRI LEDS
Ballast/Driver: -

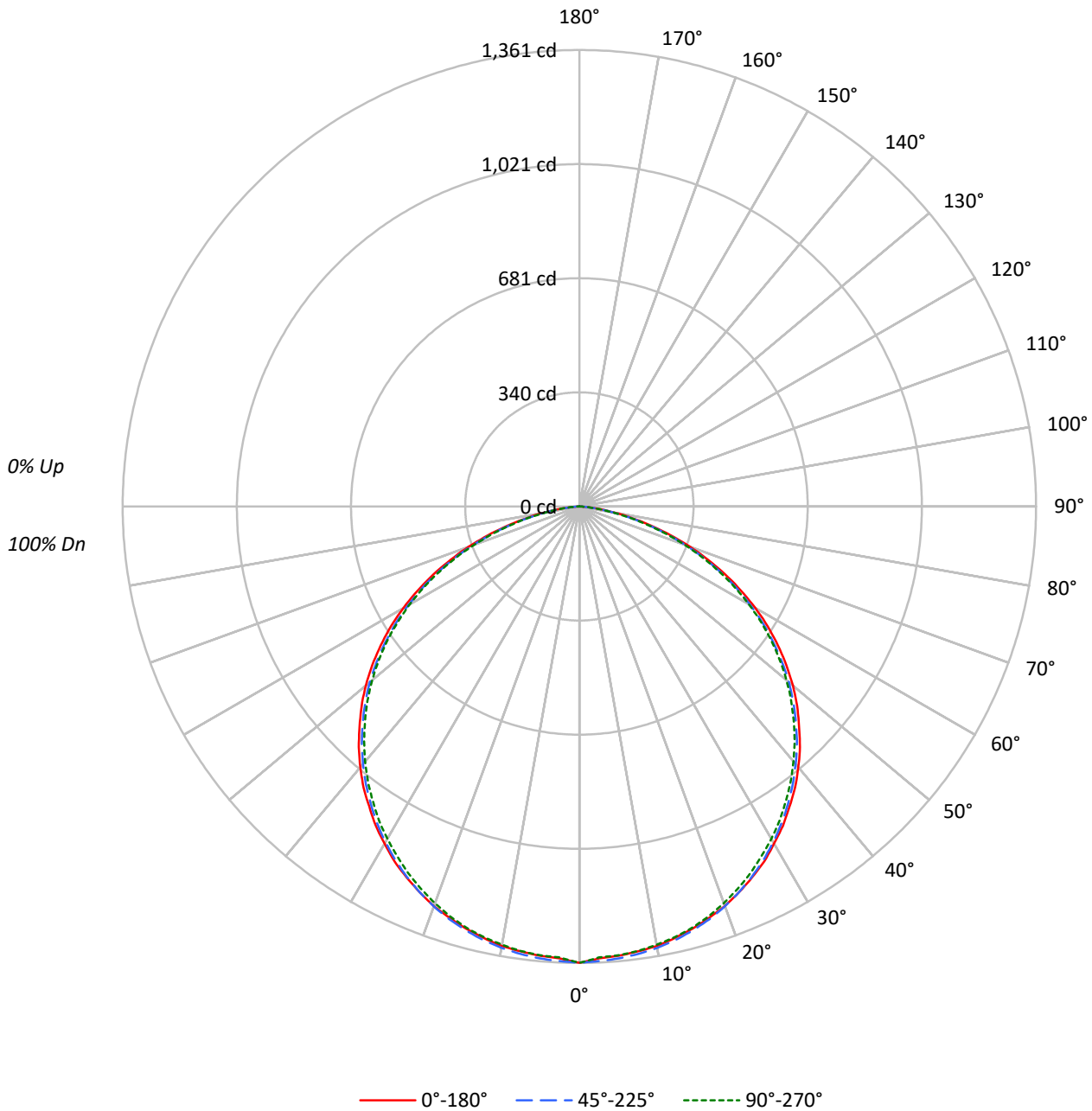
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3808.3 lumens
Efficiency: N/A
Efficacy: 120.1 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									
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°	3661	3661	3661
5°	3633	3654	3628
10°	3636	3652	3626
15°	3631	3645	3623
20°	3630	3633	3605
25°	3622	3615	3582
30°	3607	3591	3556
35°	3587	3560	3525
40°	3567	3523	3488
45°	3524	3474	3438
50°	3478	3414	3374
55°	3390	3311	3279
60°	3258	3167	3140
65°	3052	2962	2930
70°	2751	2641	2618
75°	2307	2190	2167
80°	1675	1562	1519
85°	886	781	713

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3524 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.9	3.4
10°-20°	370.1	9.7
20°-30°	562.3	14.8
30°-40°	680.2	17.9
40°-50°	706.9	18.6
50°-60°	632.9	16.6
60°-70°	461.6	12.1
70°-80°	227.3	6.0
80°-90°	38.0	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°	1061.3	27.9
0°-40°	1741.5	45.7
0°-60°	3081.3	80.9
0°-90°	3808.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3808.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1361	1361	1361	1361	1361	
5°	1345	1360	1353	1366	1343	128
15°	1303	1315	1308	1320	1300	368
25°	1220	1226	1218	1223	1206	562
35°	1092	1094	1084	1088	1073	684
45°	926	925	913	915	903	715
55°	723	716	706	704	699	645
65°	479	474	465	462	460	473
75°	222	218	211	208	208	237
85°	29	28	25	22	23	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1360.6	1360.6	1360.6	1360.6	1360.6
2.5°	1348.8	1364.0	1356.7	1370.2	1346.0
5°	1344.9	1359.5	1352.8	1365.7	1343.2
7.5°	1338.1	1353.3	1346.0	1358.4	1337.0
10°	1330.8	1344.3	1336.4	1348.8	1326.9
12.5°	1317.8	1331.4	1324.0	1335.3	1315.0
15°	1303.2	1315.0	1308.3	1319.5	1300.4
17.5°	1286.3	1297.6	1290.2	1300.4	1281.2
20°	1267.7	1276.7	1268.8	1277.3	1258.7
22.5°	1244.6	1253.1	1244.6	1250.3	1233.9
25°	1219.8	1226.0	1217.6	1223.2	1206.3
27.5°	1193.4	1196.8	1188.3	1192.8	1175.4
30°	1160.7	1164.7	1155.6	1161.3	1144.4
32.5°	1129.2	1131.4	1121.3	1125.8	1110.6
35°	1092.0	1094.3	1083.6	1088.1	1072.9
37.5°	1056.5	1056.0	1044.7	1047.5	1034.6
40°	1015.4	1014.9	1003.0	1005.3	992.9
42.5°	973.2	970.9	959.7	960.8	949.5
45°	925.9	924.7	912.9	914.6	903.3
47.5°	880.3	876.9	865.0	865.6	856.0
50°	830.7	825.6	815.5	814.4	805.9
52.5°	777.8	772.1	760.9	759.7	753.5
55°	722.6	716.4	705.7	704.0	698.9
57.5°	665.7	657.8	649.3	646.0	642.0
60°	605.4	598.1	588.5	585.1	583.5
62.5°	542.9	535.6	528.3	524.9	522.6
65°	479.3	473.6	465.2	461.8	460.1
67.5°	414.5	409.4	401.5	397.6	397.0
70°	349.7	344.7	335.7	333.4	332.8
72.5°	285.0	280.5	272.0	269.8	269.8
75°	221.9	218.0	210.6	208.4	208.4
77.5°	162.2	158.8	153.2	150.4	150.4
80°	108.1	105.9	100.8	98.6	98.0
82.5°	62.5	61.4	56.9	54.6	55.8
85°	28.7	27.6	25.3	22.5	23.1
87.5°	7.3	6.8	5.1	3.9	5.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)