

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: P973415

Luminaire Tested: FLR2-14-42-L840-CP080

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973415
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-L840-CP080
Description: 1*4 FLR-2.0 4200 LUMEN at 4000 CCT & 80CRI with Clear Polycarbonate (0.080" thickness)

Light Source:
Ballast/Driver: -

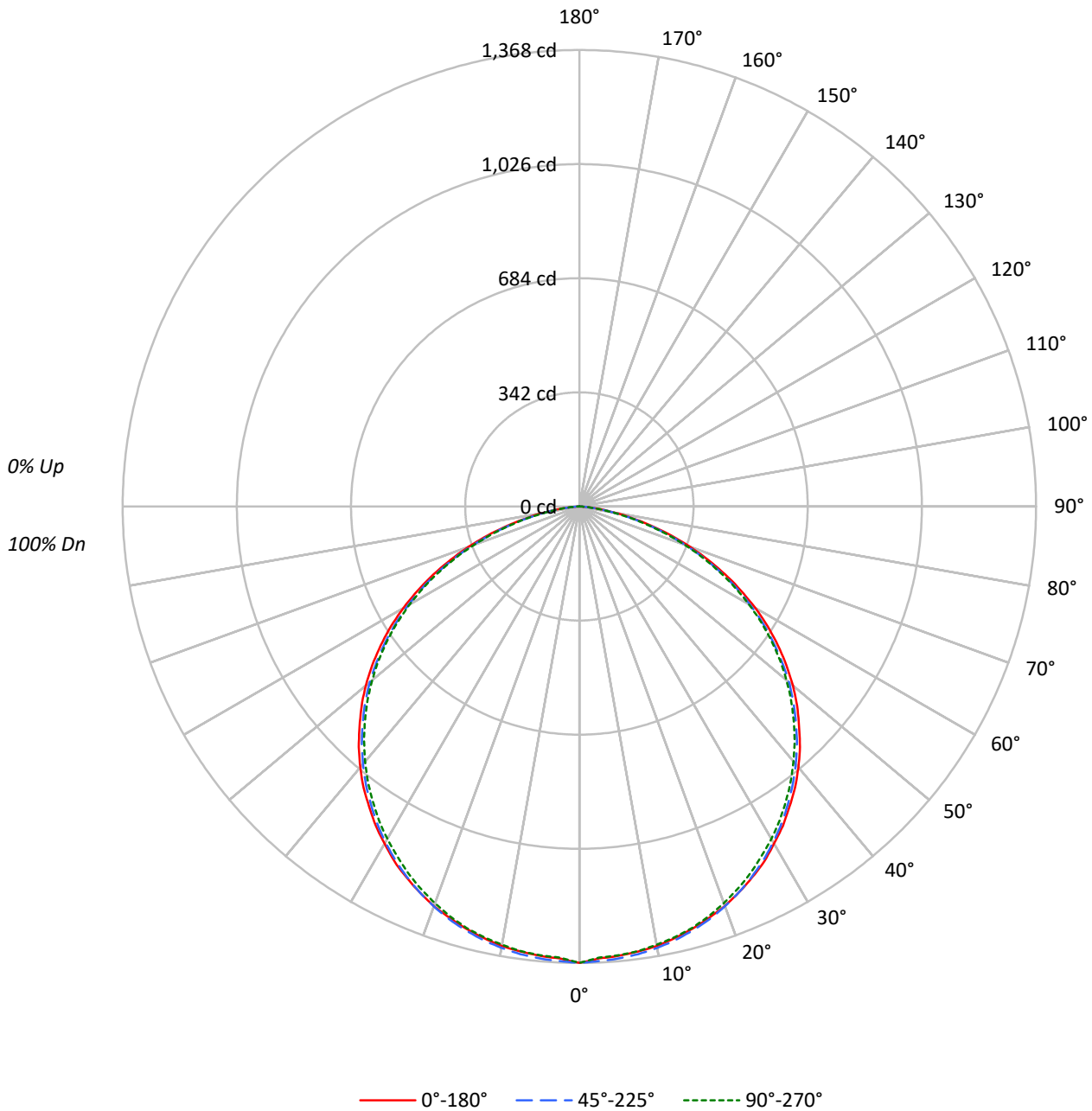
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3828.2 lumens
Efficiency: N/A
Efficacy: 120.8 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									70									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	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°	3681	3681	3681
5°	3652	3673	3647
10°	3656	3671	3645
15°	3650	3664	3642
20°	3649	3653	3623
25°	3641	3634	3601
30°	3626	3610	3575
35°	3606	3578	3543
40°	3586	3542	3506
45°	3542	3492	3456
50°	3496	3432	3391
55°	3407	3328	3296
60°	3275	3184	3157
65°	3068	2977	2945
70°	2766	2655	2633
75°	2320	2201	2178
80°	1684	1570	1526
85°	892	787	716

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3542 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.6	3.4
10°-20°	372.1	9.7
20°-30°	565.2	14.8
30°-40°	683.7	17.9
40°-50°	710.6	18.6
50°-60°	636.2	16.6
60°-70°	464.0	12.1
70°-80°	228.5	6.0
80°-90°	38.2	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°	1066.8	27.9
0°-40°	1750.6	45.7
0°-60°	3097.4	80.9
0°-90°	3828.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3828.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1368	1368	1368	1368	1368	
5°	1352	1367	1360	1373	1350	129
15°	1310	1322	1315	1326	1307	370
25°	1226	1232	1224	1230	1213	565
35°	1098	1100	1089	1094	1078	687
45°	931	930	918	919	908	719
55°	726	720	709	708	703	648
65°	482	476	468	464	462	476
75°	223	219	212	210	210	238
85°	29	28	26	23	23	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1367.8	1367.8	1367.8	1367.8	1367.8
2.5°	1355.9	1371.2	1363.8	1377.4	1353.1
5°	1351.9	1366.6	1359.8	1372.9	1350.2
7.5°	1345.1	1360.4	1353.1	1365.5	1344.0
10°	1337.8	1351.4	1343.4	1355.9	1333.8
12.5°	1324.7	1338.3	1331.0	1342.3	1321.9
15°	1310.0	1321.9	1315.1	1326.4	1307.2
17.5°	1293.0	1304.4	1297.0	1307.2	1287.9
20°	1274.4	1283.4	1275.5	1284.0	1265.3
22.5°	1251.1	1259.6	1251.1	1256.8	1240.4
25°	1226.2	1232.5	1224.0	1229.6	1212.7
27.5°	1199.6	1203.0	1194.5	1199.1	1181.5
30°	1166.8	1170.8	1161.7	1167.4	1150.4
32.5°	1135.1	1137.4	1127.2	1131.7	1116.4
35°	1097.7	1100.0	1089.2	1093.8	1078.5
37.5°	1062.1	1061.5	1050.2	1053.0	1040.0
40°	1020.7	1020.2	1008.3	1010.5	998.1
42.5°	978.3	976.0	964.7	965.8	954.5
45°	930.7	929.6	917.7	919.4	908.1
47.5°	884.9	881.5	869.6	870.1	860.5
50°	835.0	829.9	819.8	818.6	810.1
52.5°	781.8	776.2	764.8	763.7	757.5
55°	726.3	720.1	709.4	707.7	702.6
57.5°	669.2	661.2	652.7	649.4	645.4
60°	608.6	601.2	591.6	588.2	586.5
62.5°	545.7	538.4	531.0	527.6	525.4
65°	481.8	476.1	467.6	464.2	462.5
67.5°	416.7	411.6	403.7	399.7	399.1
70°	351.6	346.5	337.4	335.1	334.6
72.5°	286.5	281.9	273.4	271.2	271.2
75°	223.1	219.1	211.7	209.5	209.5
77.5°	163.0	159.6	154.0	151.2	151.2
80°	108.7	106.4	101.3	99.1	98.5
82.5°	62.8	61.7	57.2	54.9	56.0
85°	28.9	27.7	25.5	22.6	23.2
87.5°	7.4	6.8	5.1	4.0	5.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)