

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: P973350

Luminaire Tested: FLR2-14-20-L930-CP080

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973350
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: FLR2-14-20-L930-CP080
Description: 1*4 FLR-2.0 2000 LUMEN at 3000CCT & 90 CRI with Clear Polycarbonate (0.080" thickness)

Light Source:
Ballast/Driver: -

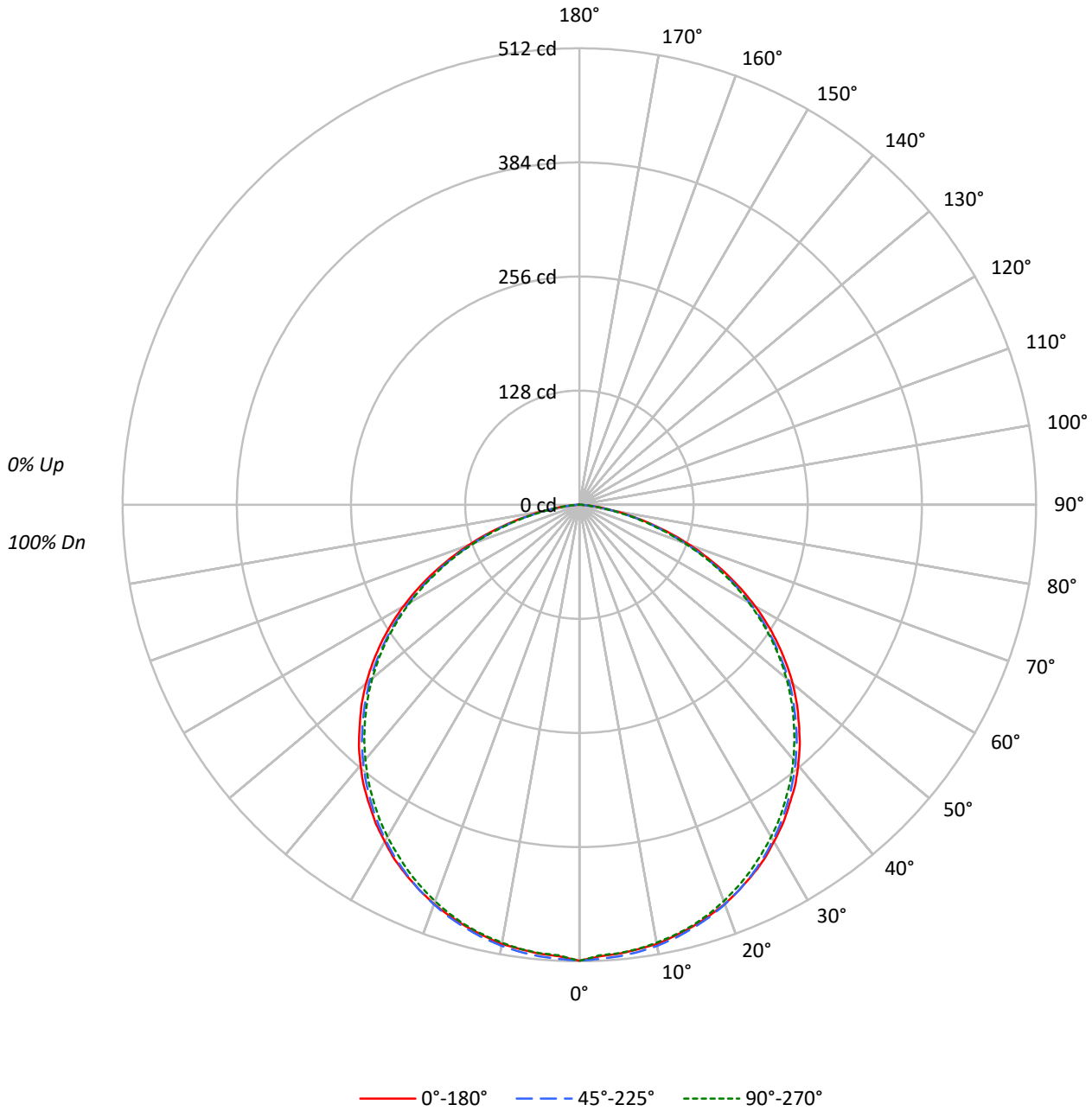
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1431.6 lumens
Efficiency: N/A
Efficacy: 87.3 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): 16.4
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°	1376	1376	1376
5°	1366	1374	1364
10°	1367	1373	1363
15°	1365	1370	1362
20°	1365	1366	1355
25°	1362	1359	1347
30°	1356	1350	1337
35°	1349	1338	1325
40°	1341	1325	1311
45°	1325	1306	1292
50°	1307	1284	1268
55°	1274	1245	1232
60°	1225	1190	1180
65°	1147	1114	1102
70°	1035	993	984
75°	867	823	814
80°	629	587	570
85°	333	293	269

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1325 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.5	3.4
10°-20°	139.1	9.7
20°-30°	211.4	14.8
30°-40°	255.7	17.9
40°-50°	265.7	18.6
50°-60°	237.9	16.6
60°-70°	173.5	12.1
70°-80°	85.4	6.0
80°-90°	14.3	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°	399.0	27.9
0°-40°	654.7	45.7
0°-60°	1158.3	80.9
0°-90°	1431.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1431.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	512	512	512	512	512	
5°	506	511	508	513	505	48
15°	490	494	492	496	489	138
25°	459	461	458	460	454	211
35°	410	411	407	409	403	257
45°	348	348	343	344	340	269
55°	272	269	265	265	263	242
65°	180	178	175	174	173	178
75°	83	82	79	78	78	89
85°	11	10	10	8	9	16
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	511.5	511.5	511.5	511.5	511.5
2.5°	507.1	512.8	510.0	515.1	506.0
5°	505.6	511.1	508.5	513.4	504.9
7.5°	503.0	508.7	506.0	510.7	502.6
10°	500.3	505.4	502.4	507.1	498.8
12.5°	495.4	500.5	497.7	502.0	494.3
15°	489.9	494.3	491.8	496.0	488.8
17.5°	483.6	487.8	485.0	488.8	481.6
20°	476.6	480.0	477.0	480.2	473.2
22.5°	467.9	471.1	467.9	470.0	463.9
25°	458.6	460.9	457.7	459.8	453.5
27.5°	448.6	449.9	446.7	448.4	441.8
30°	436.3	437.8	434.4	436.6	430.2
32.5°	424.5	425.3	421.5	423.2	417.5
35°	410.5	411.4	407.3	409.0	403.3
37.5°	397.2	397.0	392.7	393.8	388.9
40°	381.7	381.5	377.1	377.9	373.2
42.5°	365.8	365.0	360.8	361.2	356.9
45°	348.1	347.6	343.2	343.8	339.6
47.5°	330.9	329.6	325.2	325.4	321.8
50°	312.3	310.4	306.6	306.1	303.0
52.5°	292.4	290.3	286.0	285.6	283.3
55°	271.6	269.3	265.3	264.6	262.7
57.5°	250.2	247.3	244.1	242.8	241.4
60°	227.6	224.8	221.2	220.0	219.3
62.5°	204.1	201.3	198.6	197.3	196.5
65°	180.2	178.1	174.9	173.6	173.0
67.5°	155.8	153.9	151.0	149.5	149.3
70°	131.5	129.6	126.2	125.3	125.1
72.5°	107.1	105.4	102.3	101.4	101.4
75°	83.4	81.9	79.2	78.3	78.3
77.5°	61.0	59.7	57.6	56.5	56.5
80°	40.6	39.8	37.9	37.0	36.8
82.5°	23.5	23.1	21.4	20.5	21.0
85°	10.8	10.4	9.5	8.5	8.7
87.5°	2.8	2.5	1.9	1.5	1.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)