

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: P973431

Luminaire Tested: FLR2-14-20-L840-CA080

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973431
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-L840-CA080
Description: 1*4 FLR-2.0 2000 LUMEN at 3500 CCT & 80CRI with Clear Acrylic (0.080" thickness)

Light Source:
Ballast/Driver: -

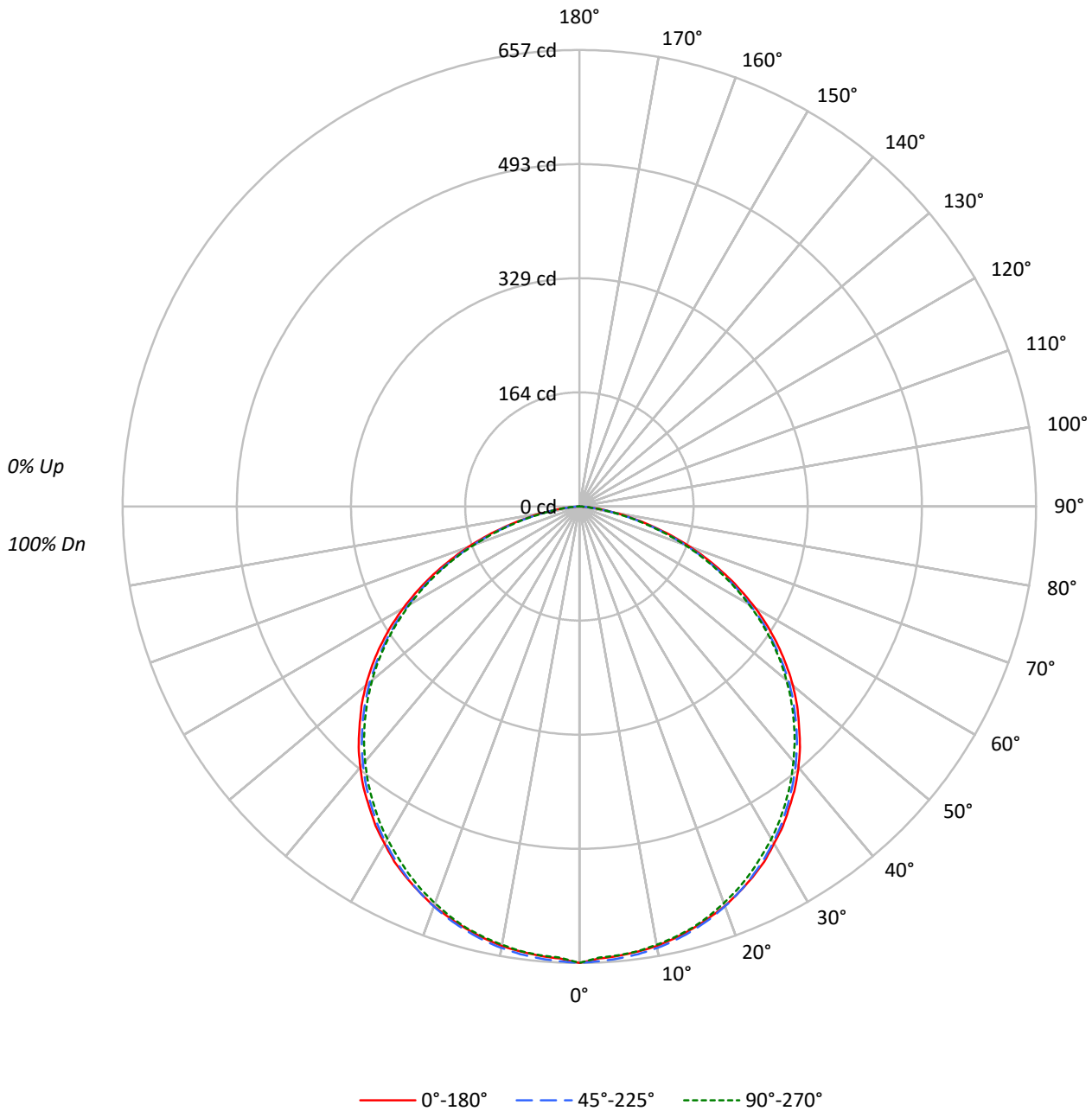
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1838.7 lumens
Efficiency: N/A
Efficacy: 112.1 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): 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

TEST NUMBER: P973431
CATALOG NUMBER: FLR2-14-20-L840-CA080

Luminous Intensity Polar Plot





TEST NUMBER: P973431
 CATALOG NUMBER: FLR2-14-20-L840-CA080

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°	1768	1768	1768
5°	1754	1764	1752
10°	1756	1763	1750
15°	1753	1760	1749
20°	1753	1754	1740
25°	1749	1746	1729
30°	1741	1734	1717
35°	1732	1719	1702
40°	1722	1701	1684
45°	1701	1678	1660
50°	1679	1648	1629
55°	1637	1598	1583
60°	1573	1530	1516
65°	1473	1430	1415
70°	1329	1275	1264
75°	1114	1057	1046
80°	809	755	733
85°	429	377	343

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1701 cd/sqm



TEST NUMBER: P973431
 CATALOG NUMBER: FLR2-14-20-L840-CA080

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.2	3.4
10°-20°	178.7	9.7
20°-30°	271.5	14.8
30°-40°	328.4	17.9
40°-50°	341.3	18.6
50°-60°	305.6	16.6
60°-70°	222.9	12.1
70°-80°	109.8	6.0
80°-90°	18.3	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°	512.4	27.9
0°-40°	840.8	45.7
0°-60°	1487.7	80.9
0°-90°	1838.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1838.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	657	657	657	657	657	
5°	649	656	653	659	648	62
15°	629	635	632	637	628	178
25°	589	592	588	591	582	272
35°	527	528	523	525	518	330
45°	447	446	441	442	436	345
55°	349	346	341	340	338	311
65°	231	229	225	223	222	229
75°	107	105	102	101	101	114
85°	14	13	12	11	11	20
90°	0	0	0	0	0	



TEST NUMBER: P973431
 CATALOG NUMBER: FLR2-14-20-L840-CA080

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	657.0	657.0	657.0	657.0	657.0
2.5°	651.2	658.6	655.1	661.6	649.9
5°	649.3	656.4	653.1	659.4	648.5
7.5°	646.1	653.4	649.9	655.9	645.5
10°	642.5	649.1	645.3	651.2	640.6
12.5°	636.3	642.8	639.3	644.7	634.9
15°	629.2	634.9	631.7	637.1	627.9
17.5°	621.1	626.5	623.0	627.9	618.6
20°	612.1	616.4	612.6	616.7	607.7
22.5°	600.9	605.0	600.9	603.7	595.8
25°	589.0	592.0	587.9	590.6	582.4
27.5°	576.2	577.8	573.7	575.9	567.5
30°	560.4	562.3	558.0	560.7	552.5
32.5°	545.2	546.3	541.4	543.6	536.2
35°	527.2	528.3	523.2	525.3	518.0
37.5°	510.1	509.8	504.4	505.8	499.5
40°	490.3	490.0	484.3	485.4	479.4
42.5°	469.9	468.8	463.3	463.9	458.5
45°	447.0	446.5	440.8	441.6	436.2
47.5°	425.0	423.4	417.7	417.9	413.3
50°	401.1	398.6	393.7	393.2	389.1
52.5°	375.5	372.8	367.4	366.8	363.8
55°	348.9	345.9	340.7	339.9	337.5
57.5°	321.4	317.6	313.5	311.9	310.0
60°	292.3	288.8	284.2	282.5	281.7
62.5°	262.1	258.6	255.1	253.4	252.3
65°	231.4	228.7	224.6	223.0	222.2
67.5°	200.1	197.7	193.9	192.0	191.7
70°	168.9	166.4	162.1	161.0	160.7
72.5°	137.6	135.4	131.3	130.2	130.2
75°	107.1	105.2	101.7	100.6	100.6
77.5°	78.3	76.7	74.0	72.6	72.6
80°	52.2	51.1	48.7	47.6	47.3
82.5°	30.2	29.6	27.5	26.4	26.9
85°	13.9	13.3	12.2	10.9	11.1
87.5°	3.5	3.3	2.4	1.9	2.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)