

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: P973449

Luminaire Tested: FLR2-14-20-L940-CA080

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973449
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-L940-CA080
Description: 1*4 FLR-2.0 2000 LUMEN at 3500 CCT & 90CRI with Clear Acrylic (0.080" thickness)

Light Source:
Ballast/Driver: -

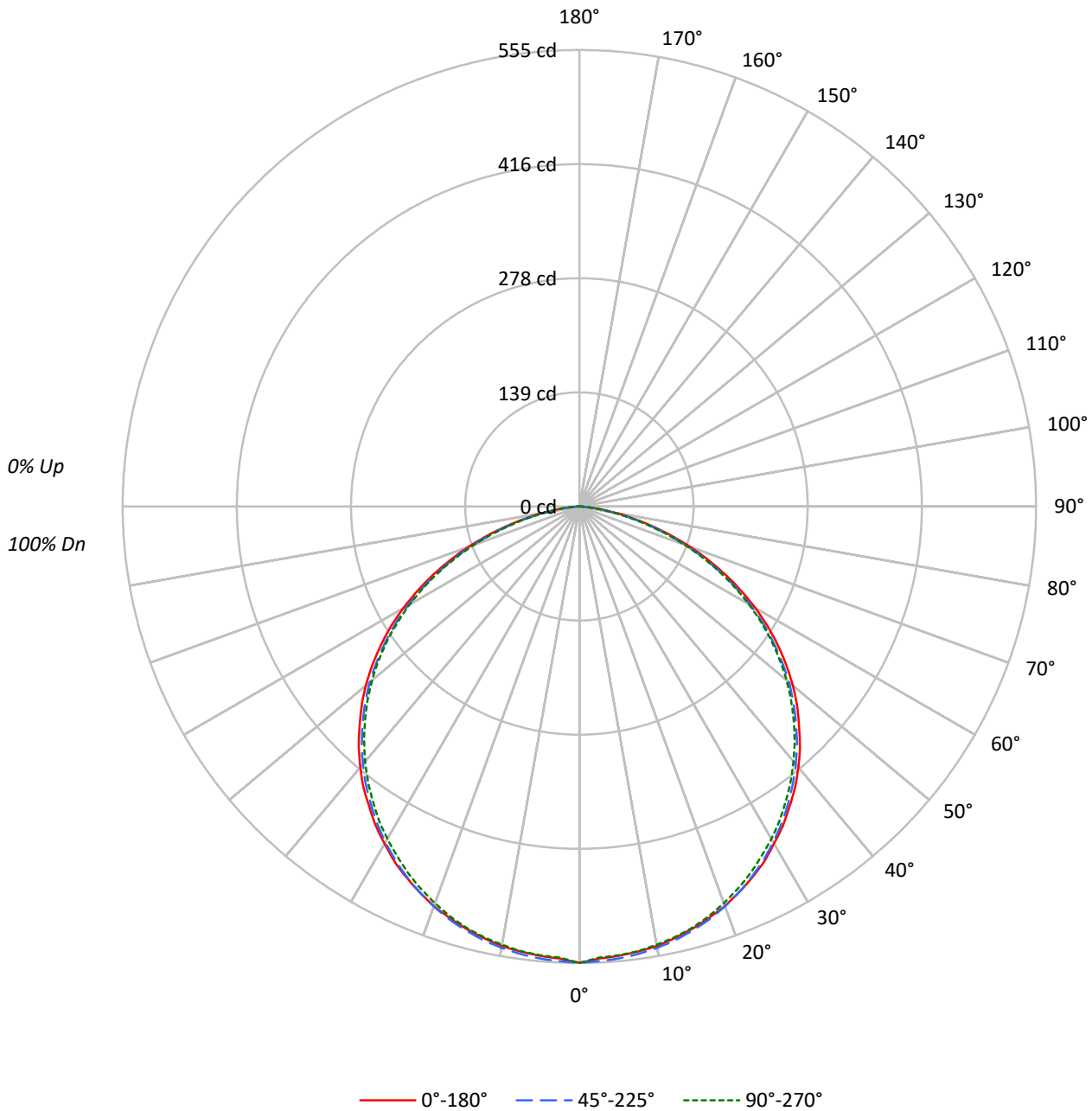
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1553.1 lumens
Efficiency: N/A
Efficacy: 94.7 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									
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	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°	1493	1493	1493
5°	1482	1490	1480
10°	1483	1489	1479
15°	1481	1486	1477
20°	1481	1482	1470
25°	1477	1474	1461
30°	1471	1464	1450
35°	1463	1452	1437
40°	1455	1437	1422
45°	1437	1417	1402
50°	1418	1392	1376
55°	1383	1350	1337
60°	1329	1292	1280
65°	1245	1208	1195
70°	1122	1077	1068
75°	941	893	884
80°	683	637	620
85°	361	318	290

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1437 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.6	3.4
10°-20°	150.9	9.7
20°-30°	229.3	14.8
30°-40°	277.4	17.9
40°-50°	288.3	18.6
50°-60°	258.1	16.6
60°-70°	188.3	12.1
70°-80°	92.7	6.0
80°-90°	15.5	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°	432.8	27.9
0°-40°	710.2	45.7
0°-60°	1256.6	80.9
0°-90°	1553.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1553.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	555	555	555	555	555	
5°	548	554	552	557	548	52
15°	532	536	534	538	530	150
25°	498	500	497	499	492	229
35°	445	446	442	444	438	279
45°	378	377	372	373	368	292
55°	295	292	288	287	285	263
65°	196	193	190	188	188	193
75°	90	89	86	85	85	96
85°	12	11	10	9	9	17
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	554.9	554.9	554.9	554.9	554.9
2.5°	550.1	556.3	553.3	558.8	548.9
5°	548.5	554.4	551.7	557.0	547.8
7.5°	545.7	551.9	548.9	554.0	545.3
10°	542.7	548.2	545.0	550.1	541.1
12.5°	537.4	543.0	540.0	544.6	536.3
15°	531.5	536.3	533.5	538.1	530.3
17.5°	524.6	529.2	526.2	530.3	522.5
20°	517.0	520.7	517.5	520.9	513.3
22.5°	507.6	511.0	507.6	509.9	503.2
25°	497.5	500.0	496.6	498.9	492.0
27.5°	486.7	488.1	484.6	486.5	479.3
30°	473.4	475.0	471.3	473.6	466.7
32.5°	460.5	461.4	457.3	459.1	452.9
35°	445.3	446.3	441.9	443.7	437.5
37.5°	430.9	430.6	426.1	427.2	421.9
40°	414.1	413.9	409.1	410.0	404.9
42.5°	396.9	396.0	391.4	391.8	387.2
45°	377.6	377.1	372.3	373.0	368.4
47.5°	359.0	357.6	352.8	353.0	349.1
50°	338.8	336.7	332.6	332.1	328.7
52.5°	317.2	314.9	310.3	309.8	307.3
55°	294.7	292.2	287.8	287.1	285.0
57.5°	271.5	268.3	264.8	263.4	261.8
60°	246.9	243.9	240.0	238.6	237.9
62.5°	221.4	218.4	215.4	214.1	213.1
65°	195.5	193.2	189.7	188.3	187.6
67.5°	169.0	167.0	163.8	162.2	161.9
70°	142.6	140.6	136.9	136.0	135.7
72.5°	116.2	114.4	110.9	110.0	110.0
75°	90.5	88.9	85.9	85.0	85.0
77.5°	66.1	64.8	62.5	61.3	61.3
80°	44.1	43.2	41.1	40.2	40.0
82.5°	25.5	25.0	23.2	22.3	22.7
85°	11.7	11.3	10.3	9.2	9.4
87.5°	3.0	2.8	2.1	1.6	2.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)