

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: P973398

Luminaire Tested: FLR2-14-20-L935-CP187

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973398
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-L935-CP187
Description: 1*4 FLR-2.0 2000 LUMEN at 3500 CCT & 90 CRI with Clear Polycarbonate (0.187" thickness)

Light Source:
Ballast/Driver: -

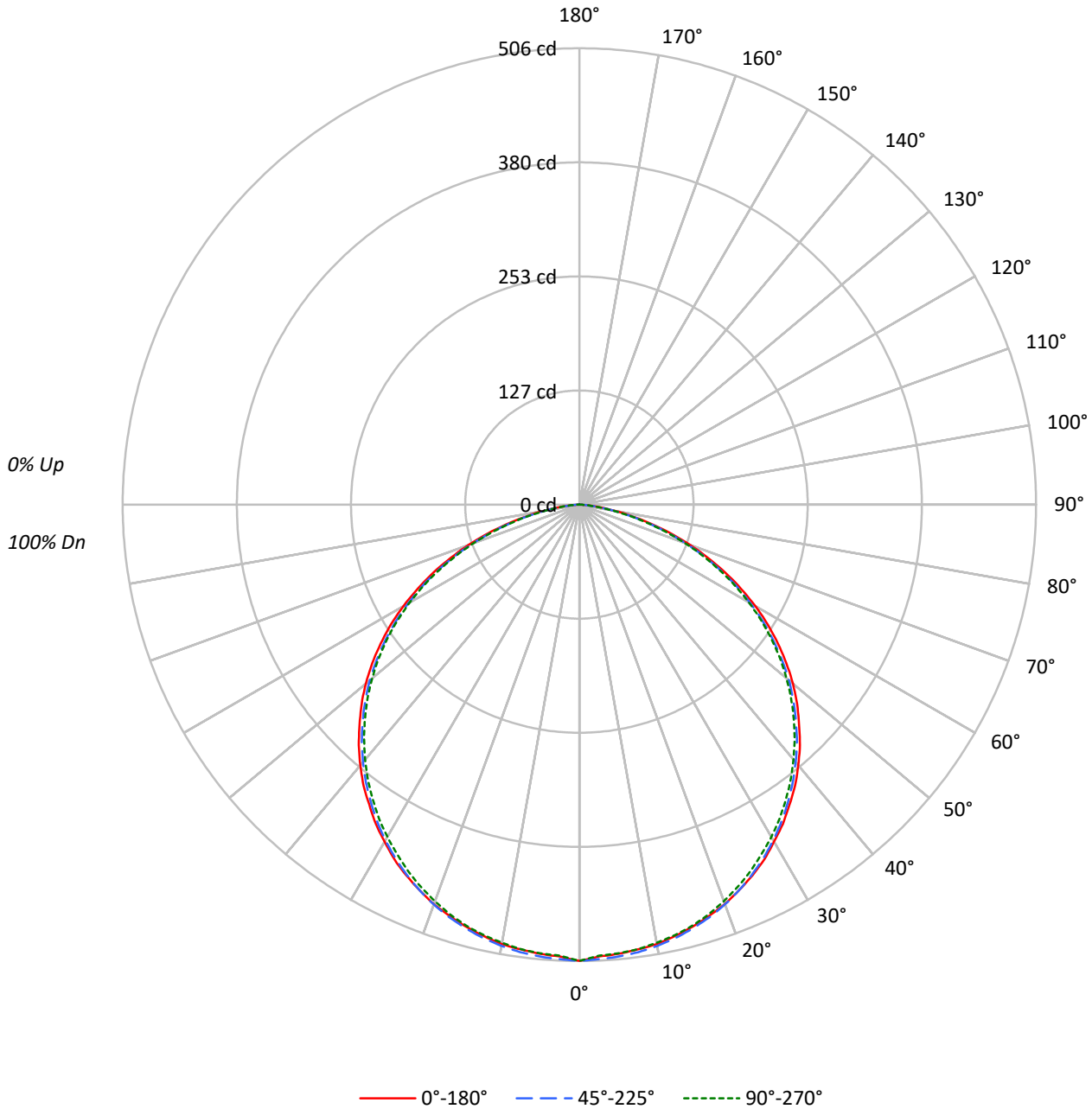
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1416.0 lumens
Efficiency: N/A
Efficacy: 86.3 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																		
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	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°	1361	1361	1361
5°	1351	1359	1349
10°	1352	1358	1348
15°	1350	1355	1347
20°	1350	1351	1340
25°	1347	1344	1332
30°	1341	1335	1322
35°	1334	1324	1310
40°	1326	1310	1297
45°	1310	1292	1278
50°	1293	1269	1254
55°	1261	1231	1219
60°	1211	1178	1167
65°	1135	1102	1089
70°	1023	982	974
75°	858	814	806
80°	623	581	564
85°	330	290	266

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1310 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.9	3.4
10°-20°	137.6	9.7
20°-30°	209.1	14.8
30°-40°	252.9	17.9
40°-50°	262.8	18.6
50°-60°	235.3	16.6
60°-70°	171.6	12.1
70°-80°	84.5	6.0
80°-90°	14.1	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°	394.6	27.9
0°-40°	647.5	45.7
0°-60°	1145.7	80.9
0°-90°	1416.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1416.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	506	506	506	506	506	
5°	500	506	503	508	499	48
15°	484	489	486	491	484	137
25°	454	456	453	455	448	209
35°	406	407	403	405	399	254
45°	344	344	339	340	336	266
55°	269	266	262	262	260	240
65°	178	176	173	172	171	176
75°	82	81	78	78	78	88
85°	11	10	9	8	9	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	505.9	505.9	505.9	505.9	505.9
2.5°	501.5	507.2	504.4	509.5	500.5
5°	500.0	505.5	503.0	507.8	499.4
7.5°	497.5	503.2	500.5	505.1	497.1
10°	494.8	499.8	496.9	501.5	493.3
12.5°	490.0	495.0	492.3	496.5	488.9
15°	484.5	488.9	486.4	490.6	483.5
17.5°	478.3	482.5	479.7	483.5	476.4
20°	471.4	474.7	471.8	474.9	468.0
22.5°	462.8	465.9	462.8	464.9	458.8
25°	453.6	455.9	452.7	454.8	448.5
27.5°	443.7	445.0	441.8	443.5	437.0
30°	431.6	433.0	429.7	431.8	425.5
32.5°	419.8	420.7	416.9	418.6	412.9
35°	406.0	406.9	402.9	404.6	398.9
37.5°	392.8	392.6	388.4	389.5	384.7
40°	377.5	377.3	372.9	373.8	369.2
42.5°	361.8	361.0	356.8	357.2	353.0
45°	344.3	343.8	339.4	340.1	335.9
47.5°	327.3	326.0	321.6	321.8	318.3
50°	308.9	307.0	303.2	302.8	299.6
52.5°	289.2	287.1	282.9	282.5	280.2
55°	268.7	266.4	262.4	261.7	259.9
57.5°	247.5	244.6	241.4	240.2	238.7
60°	225.1	222.4	218.8	217.6	216.9
62.5°	201.9	199.1	196.4	195.2	194.3
65°	178.2	176.1	173.0	171.7	171.1
67.5°	154.1	152.2	149.3	147.8	147.6
70°	130.0	128.2	124.8	124.0	123.8
72.5°	106.0	104.3	101.1	100.3	100.3
75°	82.5	81.0	78.3	77.5	77.5
77.5°	60.3	59.1	57.0	55.9	55.9
80°	40.2	39.4	37.5	36.6	36.4
82.5°	23.2	22.8	21.1	20.3	20.7
85°	10.7	10.3	9.4	8.4	8.6
87.5°	2.7	2.5	1.9	1.5	1.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)