

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: P973154

Luminaire Tested: FLR2-14-20HE-L935-CP080

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973154
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: FLR2-14-20HE-L935-CP080
Description: 1*4 FLR-2.0 2000 Lumen High Efficacy at 3500CCT & 90 CRI with Clear Polycarbonate (0.080" thickness)

Light Source:
Ballast/Driver: -

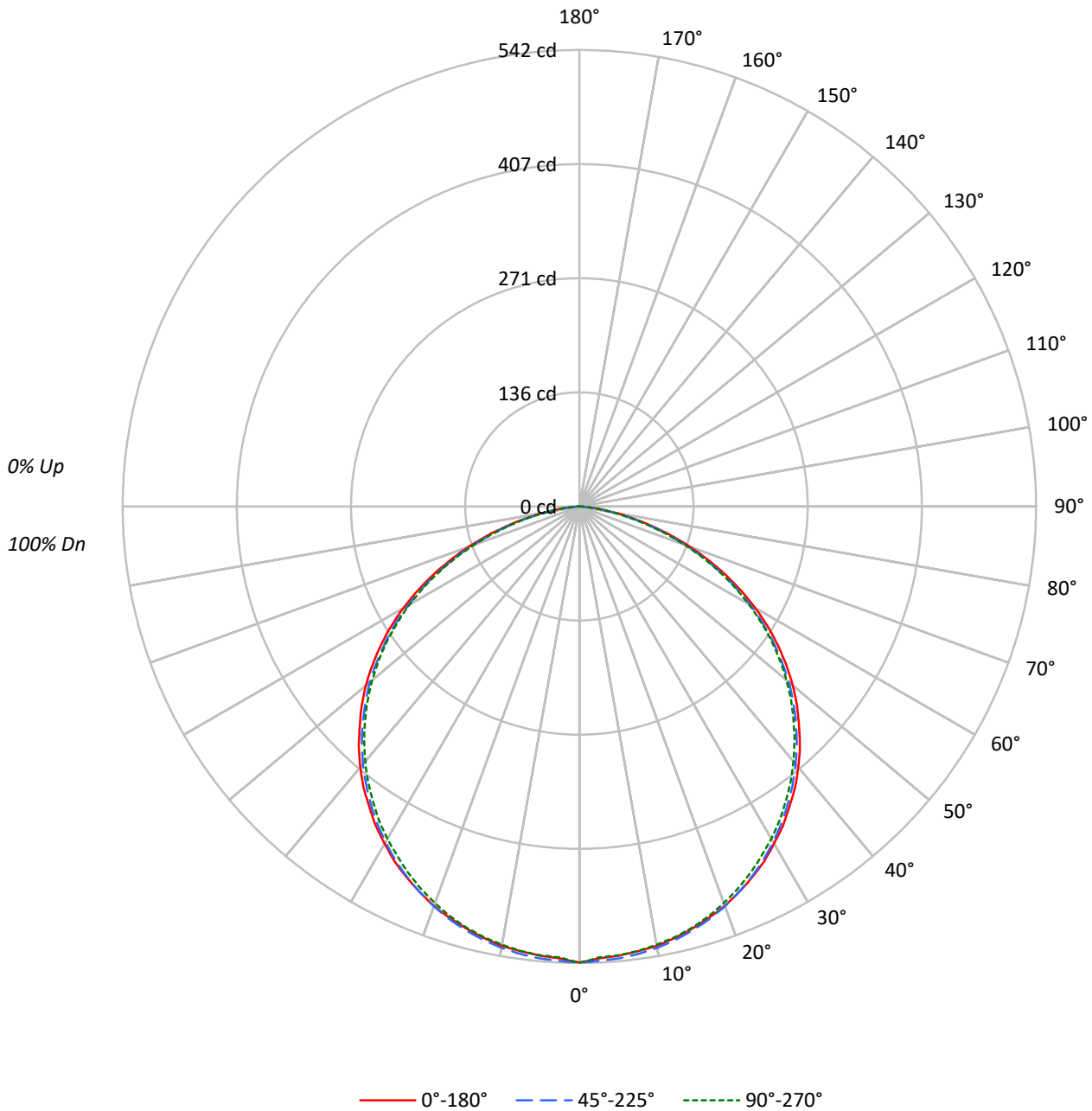
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1516.2 lumens
Efficiency: N/A
Efficacy: 102.4 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): 14.8
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°	1458	1458	1458
5°	1446	1455	1445
10°	1448	1454	1444
15°	1445	1451	1442
20°	1445	1447	1435
25°	1442	1439	1426
30°	1436	1430	1416
35°	1428	1417	1403
40°	1420	1403	1389
45°	1403	1383	1369
50°	1384	1359	1343
55°	1350	1318	1306
60°	1297	1261	1250
65°	1215	1179	1167
70°	1095	1051	1042
75°	918	872	863
80°	668	621	604
85°	352	312	284

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1403 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.3	3.4
10°-20°	147.4	9.7
20°-30°	223.9	14.8
30°-40°	270.8	17.9
40°-50°	281.4	18.6
50°-60°	252.0	16.6
60°-70°	183.8	12.1
70°-80°	90.5	6.0
80°-90°	15.1	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°	422.5	27.9
0°-40°	693.3	45.7
0°-60°	1226.7	80.9
0°-90°	1516.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1516.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	542	542	542	542	542	
5°	535	541	539	544	535	51
15°	519	524	521	525	518	147
25°	486	488	485	487	480	224
35°	435	436	431	433	427	272
45°	369	368	364	364	360	285
55°	288	285	281	280	278	257
65°	191	189	185	184	183	188
75°	88	87	84	83	83	94
85°	11	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°	541.7	541.7	541.7	541.7	541.7
2.5°	537.0	543.1	540.1	545.5	535.9
5°	535.4	541.3	538.6	543.7	534.8
7.5°	532.7	538.8	535.9	540.8	532.3
10°	529.8	535.2	532.1	537.0	528.3
12.5°	524.7	530.1	527.1	531.6	523.6
15°	518.8	523.6	520.9	525.3	517.7
17.5°	512.1	516.6	513.7	517.7	510.1
20°	504.7	508.3	505.2	508.5	501.1
22.5°	495.5	498.9	495.5	497.8	491.3
25°	485.7	488.1	484.8	487.0	480.3
27.5°	475.1	476.5	473.1	474.9	467.9
30°	462.1	463.7	460.1	462.3	455.6
32.5°	449.6	450.5	446.4	448.2	442.2
35°	434.8	435.7	431.4	433.2	427.1
37.5°	420.6	420.4	415.9	417.0	411.9
40°	404.3	404.0	399.3	400.2	395.3
42.5°	387.5	386.6	382.1	382.5	378.0
45°	368.6	368.2	363.5	364.1	359.6
47.5°	350.5	349.1	344.4	344.6	340.8
50°	330.7	328.7	324.7	324.2	320.9
52.5°	309.6	307.4	302.9	302.5	300.0
55°	287.7	285.2	280.9	280.3	278.3
57.5°	265.0	261.9	258.5	257.2	255.6
60°	241.0	238.1	234.3	233.0	232.3
62.5°	216.1	213.2	210.3	209.0	208.1
65°	190.8	188.6	185.2	183.9	183.2
67.5°	165.0	163.0	159.9	158.3	158.1
70°	139.2	137.2	133.6	132.7	132.5
72.5°	113.5	111.7	108.3	107.4	107.4
75°	88.3	86.8	83.9	83.0	83.0
77.5°	64.6	63.2	61.0	59.9	59.9
80°	43.1	42.2	40.1	39.2	39.0
82.5°	24.9	24.4	22.6	21.7	22.2
85°	11.4	11.0	10.1	9.0	9.2
87.5°	2.9	2.7	2.0	1.6	2.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)