

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: P973109

Luminaire Tested: FLR2-14-20HE-L930-CA080

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973109
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-L930-CA080
Description: 1*4 FLR-2.0 2000 Lumen High Efficacy at 3000CCT & 90 CRI with Clear Arylic (0.080" thickness)

Light Source:
Ballast/Driver: -

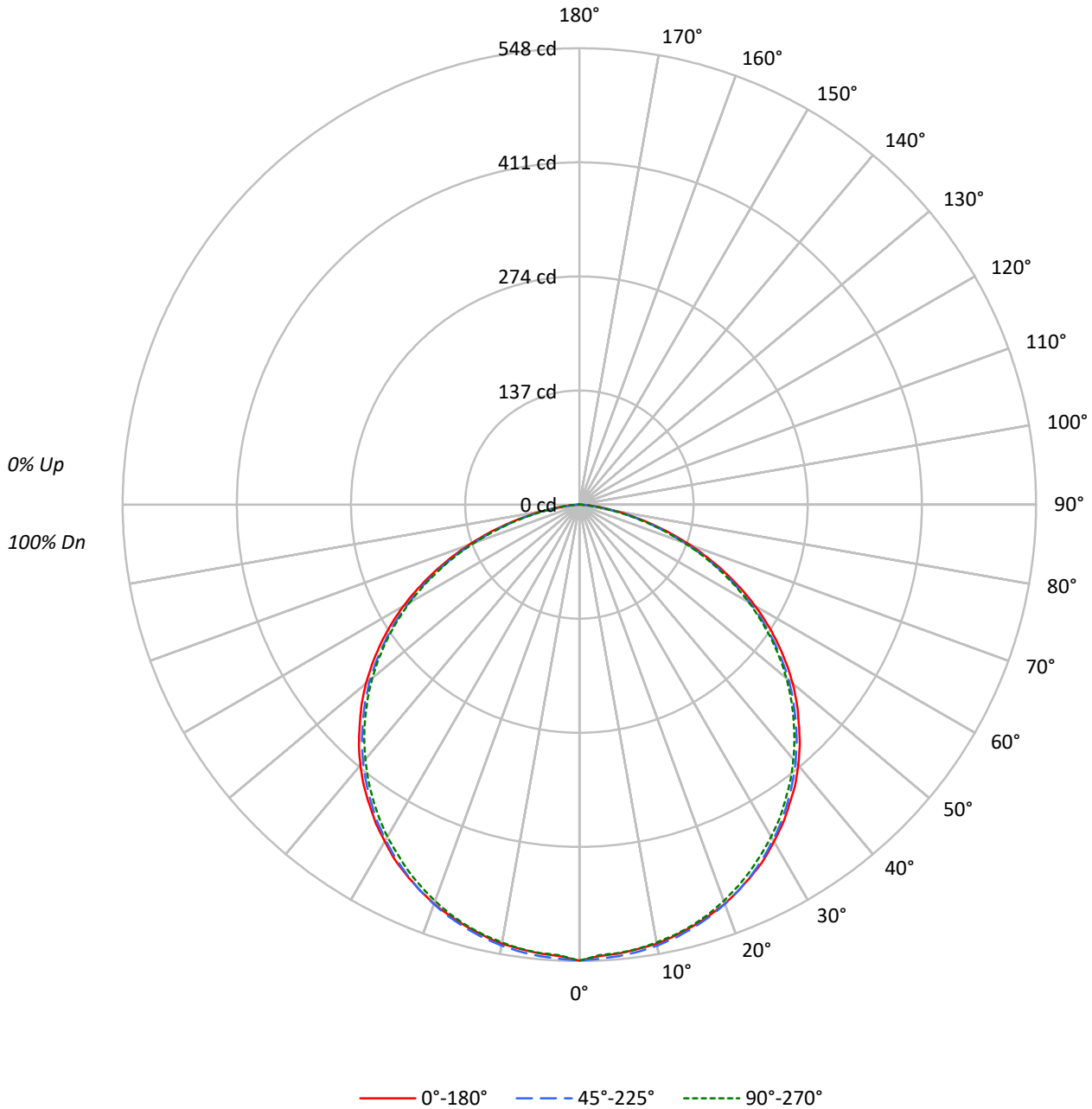
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1532.3 lumens
Efficiency: N/A
Efficacy: 103.5 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				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°	1473	1473	1473
5°	1462	1470	1460
10°	1463	1469	1459
15°	1461	1467	1458
20°	1461	1462	1450
25°	1457	1455	1441
30°	1451	1445	1431
35°	1443	1432	1418
40°	1435	1418	1403
45°	1418	1398	1383
50°	1399	1374	1358
55°	1364	1332	1319
60°	1311	1274	1264
65°	1228	1192	1179
70°	1107	1063	1054
75°	928	881	871
80°	674	629	611
85°	358	315	287

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1418 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.9	3.4
10°-20°	148.9	9.7
20°-30°	226.2	14.8
30°-40°	273.7	17.9
40°-50°	284.4	18.6
50°-60°	254.7	16.6
60°-70°	185.7	12.1
70°-80°	91.5	6.0
80°-90°	15.3	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°	427.0	27.9
0°-40°	700.7	45.7
0°-60°	1239.8	80.9
0°-90°	1532.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1532.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	548	548	548	548	548	
5°	541	547	544	550	540	51
15°	524	529	526	531	523	148
25°	491	493	490	492	485	226
35°	439	440	436	438	432	275
45°	372	372	367	368	364	288
55°	291	288	284	283	281	259
65°	193	191	187	186	185	190
75°	89	88	85	84	84	95
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°	547.5	547.5	547.5	547.5	547.5
2.5°	542.7	548.8	545.9	551.3	541.6
5°	541.1	547.0	544.3	549.5	540.4
7.5°	538.4	544.5	541.6	546.6	538.0
10°	535.5	540.9	537.7	542.7	533.9
12.5°	530.3	535.7	532.7	537.3	529.1
15°	524.4	529.1	526.4	530.9	523.2
17.5°	517.6	522.1	519.1	523.2	515.5
20°	510.1	513.7	510.5	513.9	506.5
22.5°	500.8	504.2	500.8	503.1	496.5
25°	490.8	493.3	489.9	492.2	485.4
27.5°	480.2	481.5	478.1	479.9	472.9
30°	467.0	468.6	465.0	467.3	460.5
32.5°	454.3	455.2	451.2	453.0	446.9
35°	439.4	440.3	436.0	437.8	431.7
37.5°	425.1	424.9	420.3	421.5	416.3
40°	408.6	408.3	403.6	404.5	399.5
42.5°	391.6	390.7	386.1	386.6	382.1
45°	372.5	372.1	367.3	368.0	363.5
47.5°	354.2	352.8	348.1	348.3	344.4
50°	334.2	332.2	328.1	327.7	324.3
52.5°	312.9	310.7	306.1	305.7	303.2
55°	290.7	288.2	283.9	283.3	281.2
57.5°	267.8	264.7	261.3	259.9	258.3
60°	243.6	240.7	236.8	235.4	234.8
62.5°	218.4	215.5	212.6	211.2	210.3
65°	192.8	190.6	187.2	185.8	185.1
67.5°	166.8	164.7	161.6	160.0	159.8
70°	140.7	138.7	135.1	134.1	133.9
72.5°	114.7	112.8	109.4	108.5	108.5
75°	89.3	87.7	84.7	83.8	83.8
77.5°	65.3	63.9	61.6	60.5	60.5
80°	43.5	42.6	40.6	39.7	39.4
82.5°	25.2	24.7	22.9	22.0	22.4
85°	11.6	11.1	10.2	9.1	9.3
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)