

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: P973249

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

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973249
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-L940-CA080
Description: 1*4 FLR-2.0 2000 Lumen High Efficacy at 4000CCT & 90cri with Clear Aryalic (0.080" thickness)

Light Source:
Ballast/Driver: -

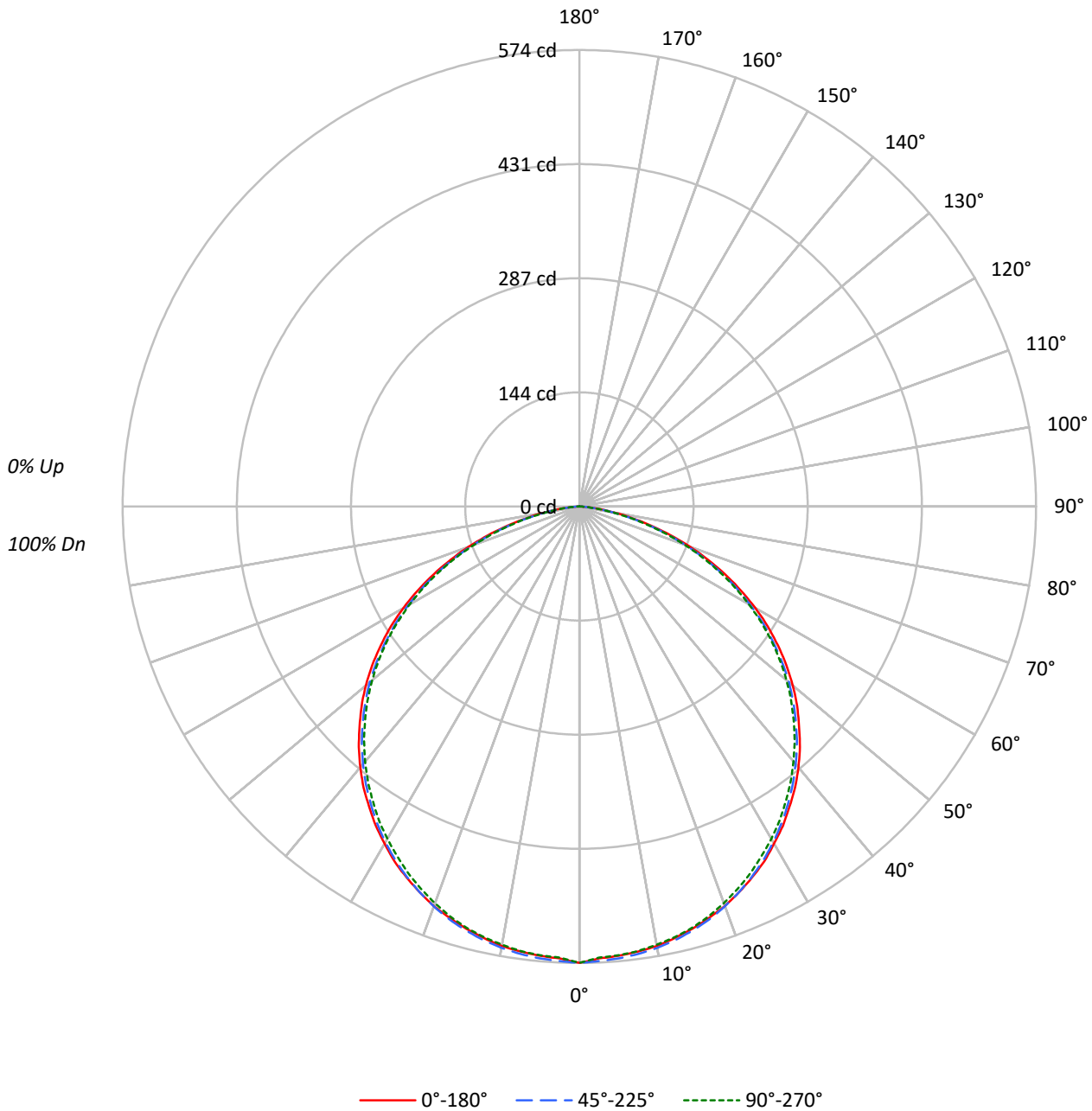
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1606.2 lumens
Efficiency: N/A
Efficacy: 108.5 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										
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°	1544	1544	1544
5°	1532	1541	1530
10°	1534	1540	1529
15°	1531	1537	1528
20°	1531	1532	1520
25°	1528	1525	1511
30°	1521	1514	1500
35°	1513	1501	1486
40°	1505	1486	1471
45°	1486	1465	1450
50°	1467	1440	1423
55°	1430	1396	1383
60°	1374	1336	1324
65°	1287	1249	1236
70°	1161	1114	1105
75°	973	923	914
80°	707	659	640
85°	374	330	299

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1486 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.4	3.4
10°-20°	156.1	9.7
20°-30°	237.1	14.8
30°-40°	286.9	17.9
40°-50°	298.1	18.6
50°-60°	266.9	16.6
60°-70°	194.7	12.1
70°-80°	95.9	6.0
80°-90°	16.0	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°	447.6	27.9
0°-40°	734.5	45.7
0°-60°	1299.5	80.9
0°-90°	1606.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1606.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	574	574	574	574	574	
5°	567	573	570	576	566	54
15°	550	555	552	556	548	155
25°	514	517	514	516	509	237
35°	461	462	457	459	452	288
45°	390	390	385	386	381	301
55°	305	302	298	297	295	272
65°	202	200	196	195	194	200
75°	94	92	89	88	88	100
85°	12	12	11	10	10	18
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	573.9	573.9	573.9	573.9	573.9
2.5°	568.9	575.3	572.2	577.9	567.7
5°	567.2	573.4	570.5	576.0	566.5
7.5°	564.4	570.8	567.7	572.9	563.9
10°	561.3	567.0	563.6	568.9	559.6
12.5°	555.8	561.5	558.4	563.2	554.6
15°	549.6	554.6	551.8	556.5	548.4
17.5°	542.5	547.3	544.2	548.4	540.4
20°	534.7	538.5	535.1	538.7	530.9
22.5°	524.9	528.5	524.9	527.3	520.4
25°	514.5	517.1	513.5	515.9	508.8
27.5°	503.3	504.7	501.2	503.1	495.7
30°	489.5	491.2	487.4	489.8	482.6
32.5°	476.2	477.2	472.9	474.8	468.4
35°	460.6	461.5	457.0	458.9	452.5
37.5°	445.6	445.4	440.6	441.8	436.3
40°	428.3	428.0	423.0	424.0	418.8
42.5°	410.4	409.5	404.7	405.2	400.5
45°	390.5	390.0	385.0	385.7	381.0
47.5°	371.3	369.8	364.8	365.1	361.0
50°	350.3	348.2	343.9	343.5	339.9
52.5°	328.0	325.6	320.9	320.4	317.8
55°	304.7	302.1	297.6	296.9	294.8
57.5°	280.8	277.4	273.9	272.4	270.8
60°	255.3	252.3	248.2	246.8	246.1
62.5°	229.0	225.9	222.8	221.4	220.4
65°	202.1	199.8	196.2	194.8	194.1
67.5°	174.8	172.7	169.4	167.7	167.5
70°	147.5	145.4	141.6	140.6	140.4
72.5°	120.2	118.3	114.7	113.8	113.8
75°	93.6	91.9	88.8	87.9	87.9
77.5°	68.4	67.0	64.6	63.4	63.4
80°	45.6	44.7	42.5	41.6	41.3
82.5°	26.4	25.9	24.0	23.0	23.5
85°	12.1	11.6	10.7	9.5	9.7
87.5°	3.1	2.9	2.1	1.7	2.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)