

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: P973076

Luminaire Tested: FLR2-14-42HE-L830-CA080

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973076
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: FLR2-14-42HE-L830-CA080
Description: 1*4 FLR-2.0 4200 Lumen High Efficacy at 3000CCT & 80CRI with Clear Aryalic (0.080" thickness)

Light Source:
Ballast/Driver: -

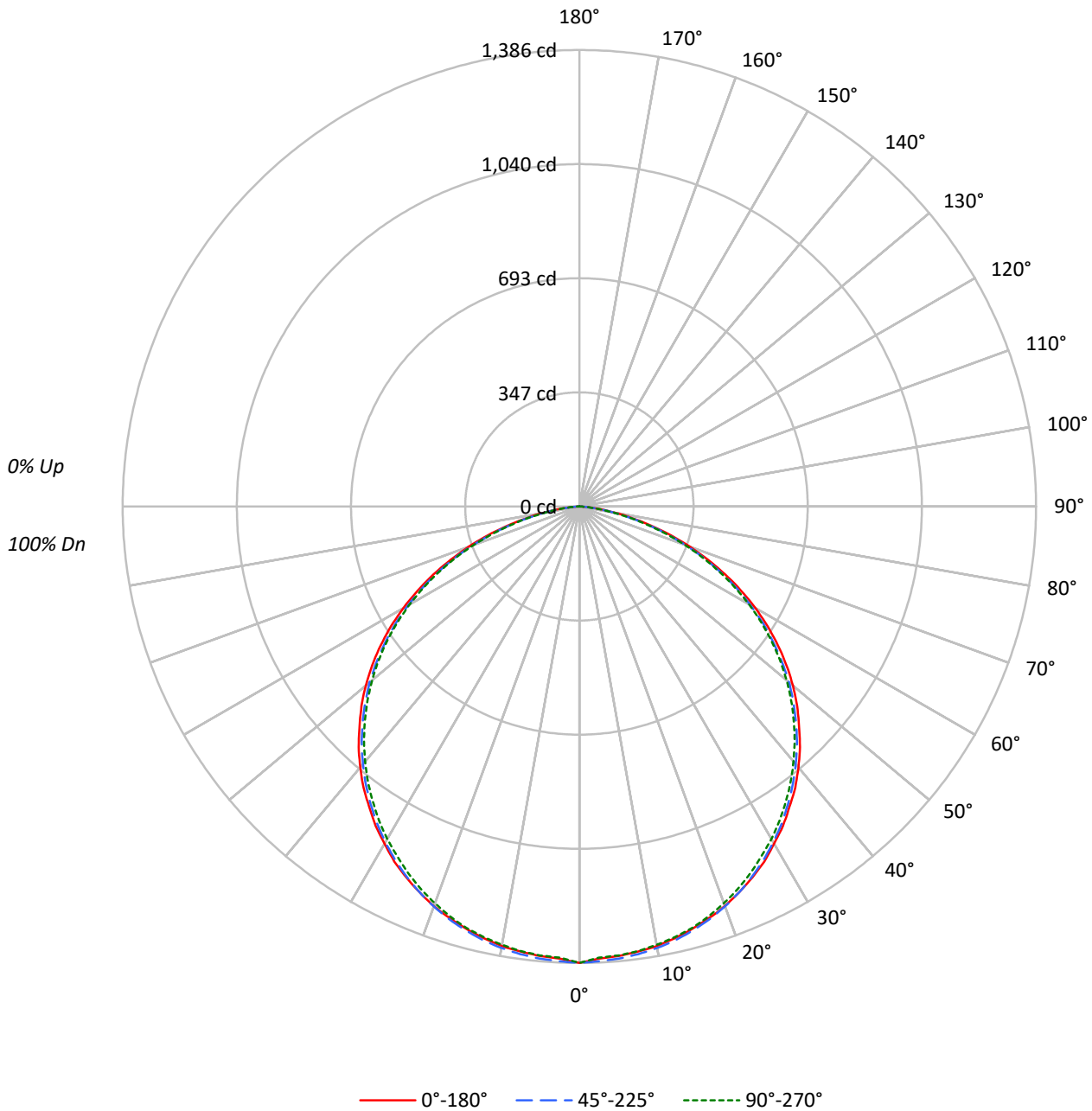
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3879.3 lumens
Efficiency: N/A
Efficacy: 121.6 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): 31.9
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°	3730	3730	3730
5°	3701	3722	3696
10°	3704	3720	3693
15°	3698	3713	3690
20°	3698	3701	3672
25°	3689	3683	3649
30°	3674	3658	3622
35°	3654	3626	3590
40°	3634	3589	3553
45°	3589	3539	3502
50°	3543	3478	3437
55°	3453	3372	3340
60°	3319	3226	3198
65°	3109	3018	2984
70°	2803	2690	2668
75°	2350	2231	2207
80°	1706	1592	1547
85°	905	797	726

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3589 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.3	3.4
10°-20°	377.0	9.7
20°-30°	572.8	14.8
30°-40°	692.9	17.9
40°-50°	720.1	18.6
50°-60°	644.7	16.6
60°-70°	470.2	12.1
70°-80°	231.6	6.0
80°-90°	38.7	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°	1081.1	27.9
0°-40°	1774.0	45.7
0°-60°	3138.8	80.9
0°-90°	3879.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3879.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1386	1386	1386	1386	1386	
5°	1370	1385	1378	1391	1368	130
15°	1328	1340	1333	1344	1325	375
25°	1243	1249	1240	1246	1229	573
35°	1112	1115	1104	1108	1093	697
45°	943	942	930	932	920	728
55°	736	730	719	717	712	657
65°	488	482	474	470	469	482
75°	226	222	215	212	212	241
85°	29	28	26	23	24	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1386.0	1386.0	1386.0	<i>1386.0</i>	1386.0
2.5°	<i>1374.0</i>	<i>1389.5</i>	<i>1382.0</i>	<i>1395.8</i>	<i>1371.1</i>
5°	1370.0	1384.9	1378.0	<i>1391.2</i>	1368.3
7.5°	1363.1	1378.6	1371.1	<i>1383.7</i>	1361.9
10°	1355.6	1369.4	1361.4	<i>1374.0</i>	1351.6
12.5°	1342.4	1356.2	1348.8	<i>1360.2</i>	1339.6
15°	1327.5	1339.6	1332.7	<i>1344.2</i>	1324.7
17.5°	1310.3	1321.8	1314.3	<i>1324.7</i>	1305.1
20°	1291.4	1300.6	1292.5	<i>1301.1</i>	1282.2
22.5°	1267.9	1276.5	1267.9	<i>1273.6</i>	1257.0
25°	1242.6	1248.9	1240.3	<i>1246.1</i>	1228.8
27.5°	1215.7	1219.1	1210.5	<i>1215.1</i>	1197.3
30°	1182.4	1186.4	1177.2	<i>1183.0</i>	1165.7
32.5°	1150.3	1152.5	1142.2	<i>1146.8</i>	1131.3
35°	1112.4	1114.7	1103.8	<i>1108.4</i>	1092.9
37.5°	1076.2	1075.7	1064.2	<i>1067.1</i>	1053.9
40°	1034.4	1033.8	1021.7	<i>1024.0</i>	1011.4
42.5°	991.3	989.0	977.6	<i>978.7</i>	967.2
45°	943.1	942.0	930.0	<i>931.7</i>	920.2
47.5°	896.7	893.2	881.2	<i>881.8</i>	872.0
50°	846.2	841.0	830.7	<i>829.6</i>	821.0
52.5°	792.3	786.5	775.1	<i>773.9</i>	767.6
55°	736.0	729.7	718.8	<i>717.1</i>	712.0
57.5°	678.1	670.1	661.5	<i>658.0</i>	654.0
60°	616.7	609.3	599.5	<i>596.1</i>	594.3
62.5°	553.0	545.6	538.1	<i>534.7</i>	532.4
65°	488.2	482.5	473.9	<i>470.4</i>	468.7
67.5°	422.2	417.1	409.0	<i>405.0</i>	404.5
70°	356.3	351.1	341.9	<i>339.6</i>	339.1
72.5°	290.3	285.7	277.1	<i>274.8</i>	274.8
75°	226.0	222.0	214.6	<i>212.3</i>	212.3
77.5°	165.2	161.8	156.0	<i>153.2</i>	153.2
80°	110.1	107.9	102.7	<i>100.4</i>	99.8
82.5°	63.7	62.5	57.9	<i>55.6</i>	56.8
85°	29.3	28.1	25.8	<i>22.9</i>	23.5
87.5°	7.5	6.9	5.2	<i>4.0</i>	5.2
90°	0.0	0.0	0.0	<i>0.0</i>	0.0

(END OF REPORT)