

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P708895

Luminaire Tested: **22APR-X-X-UNV-RL850**

Issue Date: 09/12/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P708895  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 09/12/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 22APR-X-X-UNV-RL850  
Description: ArcMed Patient Recessed 2x2 Fixture READING Light  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

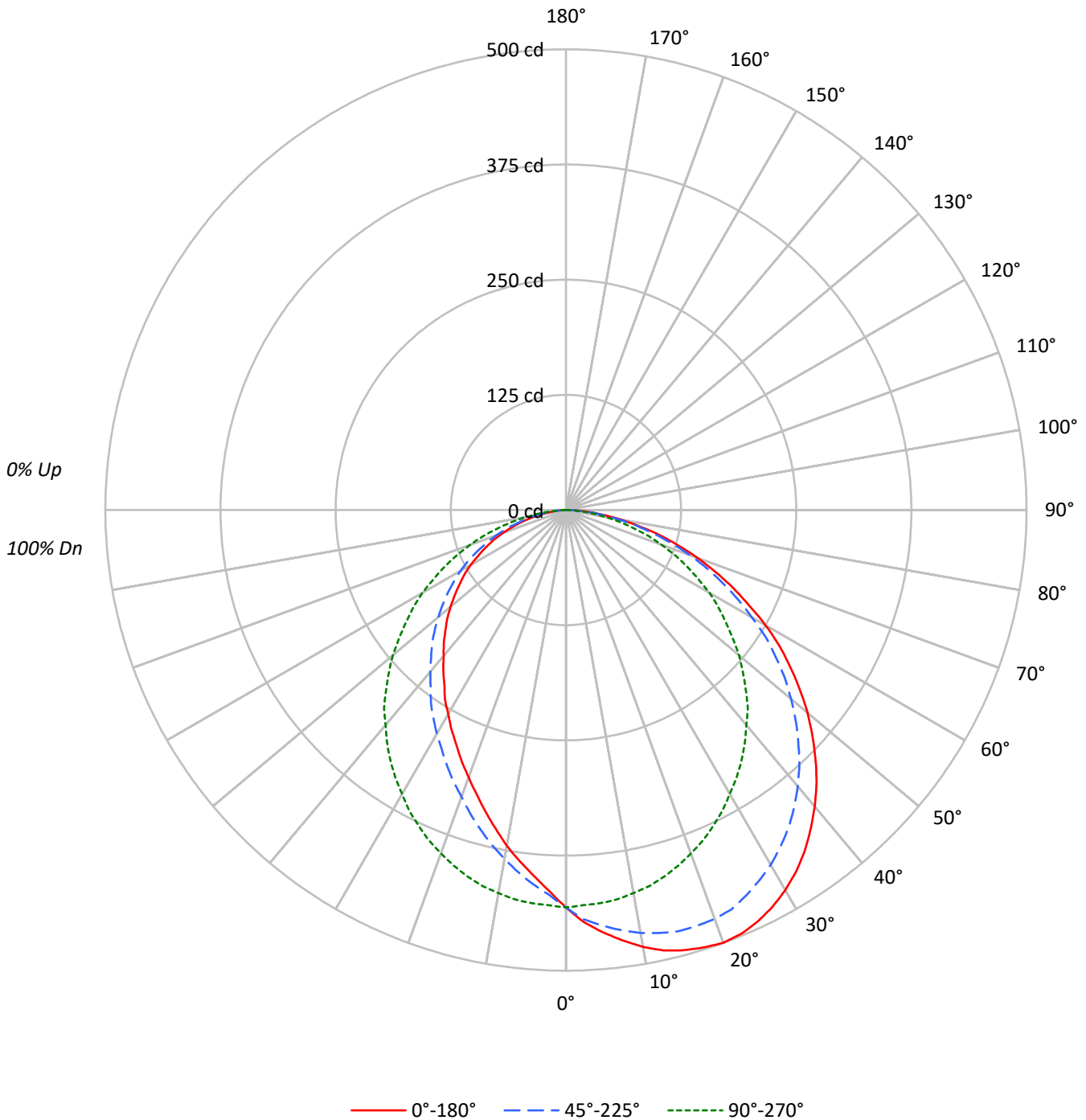
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1203.1 lumens  
Efficiency: N/A  
Efficacy: 85.9 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.23 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 14  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 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				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	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	102	102	100
1	109	104	100	96	106	102	98	94	98	94	91	94	91	89	90	88	86	86	86	86	84
2	99	91	84	78	96	89	83	77	85	80	75	82	78	74	79	75	72	72	72	72	70
3	90	80	72	65	88	78	71	64	75	69	63	72	67	62	70	65	61	61	61	61	59
4	83	71	62	55	80	69	61	55	67	60	54	64	58	53	62	57	53	53	53	53	50
5	76	63	54	47	74	62	54	47	60	52	47	58	51	46	56	50	46	46	46	46	44
6	70	57	48	41	68	56	47	41	54	47	41	52	46	41	51	45	40	40	40	40	38
7	65	52	43	37	63	51	42	36	49	42	36	48	41	36	46	40	36	36	36	36	34
8	61	47	39	33	59	46	38	33	45	38	32	44	37	32	43	37	32	32	32	32	30
9	57	43	35	29	55	43	35	29	41	34	29	40	34	29	39	33	29	29	29	29	27
10	53	40	32	27	52	39	32	27	38	31	26	37	31	26	36	31	26	26	26	26	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	1161	1161	1161
5°	1243	1157	1077
10°	1315	1153	1011
15°	1378	1148	942
20°	1431	1136	884
25°	1463	1123	835
30°	1480	1105	794
35°	1484	1091	756
40°	1476	1070	725
45°	1459	1050	704
50°	1433	1027	684
55°	1395	993	662
60°	1348	968	644
65°	1275	924	612
70°	1198	869	571
75°	1095	786	510
80°	950	682	412
85°	790	537	284



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	40.9	3.4
10°-20°	117.2	9.7
20°-30°	176.7	14.7
30°-40°	210.9	17.5
40°-50°	216.4	18.0
50°-60°	193.6	16.1
60°-70°	145.4	12.1
70°-80°	81.3	6.8
80°-90°	20.7	1.7
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°	334.7	27.8
0°-40°	545.7	45.4
0°-60°	955.7	79.4
0°-90°	1203.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1203.1	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	431	431	431	431	431	
5°	460	453	428	408	399	45
15°	495	473	412	359	338	140
25°	493	462	378	306	281	227
35°	452	421	332	256	230	282
45°	383	357	276	205	185	295
55°	297	278	212	156	141	266
65°	200	188	145	106	96	198
75°	105	98	76	54	49	111
85°	26	24	17	11	9	30
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	431.3	431.3	431.3	431.3	431.3	431.3	431.3	431.3	431.3
2.5°	447.7	445.6	444.6	437.5	429.3	426.2	418.0	418.0	414.0
5°	460.0	457.9	452.8	441.6	428.3	419.1	407.8	403.7	398.6
7.5°	471.2	467.1	460.0	443.6	426.2	411.9	396.6	389.4	384.3
10°	481.4	477.3	466.1	445.6	422.1	403.7	384.3	375.1	370.0
12.5°	489.6	484.5	470.2	445.6	418.0	393.5	372.1	359.8	353.7
15°	494.7	489.6	473.2	444.6	411.9	384.3	358.8	345.5	338.3
17.5°	497.8	491.6	473.2	441.6	404.8	373.1	345.5	330.1	323.0
20°	499.8	492.7	472.2	436.4	396.6	361.8	331.2	316.9	308.7
22.5°	497.8	489.6	469.2	431.3	388.4	349.6	318.9	302.5	295.4
25°	492.7	485.5	462.0	423.2	378.2	338.3	305.6	288.2	281.1
27.5°	485.5	478.4	453.8	414.0	368.0	326.1	292.3	274.9	268.8
30°	476.3	468.1	444.6	403.7	355.7	312.8	280.1	262.7	255.5
32.5°	465.1	456.9	433.4	393.5	344.5	300.5	267.8	250.4	244.3
35°	451.8	444.6	421.1	379.2	332.2	288.2	255.5	236.1	230.0
37.5°	436.4	429.3	406.8	366.9	318.9	276.0	241.2	224.9	218.7
40°	420.1	412.9	391.5	351.6	304.6	262.7	229.0	212.6	206.5
42.5°	402.7	395.6	375.1	337.3	292.3	249.4	216.7	201.4	196.2
45°	383.3	377.2	356.7	320.9	276.0	234.1	205.4	190.1	185.0
47.5°	362.9	356.7	338.3	304.6	260.6	220.8	193.2	178.9	174.8
50°	342.4	336.3	318.9	286.2	245.3	206.5	180.9	167.6	163.5
52.5°	319.9	314.8	299.5	268.8	227.9	193.2	168.6	157.4	152.3
55°	297.4	292.3	278.0	250.4	211.6	179.9	156.4	145.1	141.1
57.5°	274.9	270.9	257.6	229.0	196.2	165.6	144.1	133.9	130.8
60°	250.4	246.3	233.0	209.5	179.9	151.3	131.9	122.7	119.6
62.5°	223.8	220.8	210.6	189.1	161.5	137.0	119.6	110.4	107.3
65°	200.3	197.3	188.1	169.7	145.1	122.7	106.3	99.1	96.1
67.5°	175.8	173.8	165.6	149.2	127.8	108.3	93.0	86.9	84.8
70°	152.3	150.3	143.1	128.8	110.4	93.0	80.7	74.6	72.6
72.5°	127.8	127.8	120.6	108.3	94.0	77.7	67.5	63.4	60.3
75°	105.3	103.2	98.1	88.9	75.6	63.4	54.2	50.1	49.1
77.5°	81.8	81.8	77.7	69.5	60.3	49.1	42.9	38.8	37.8
80°	61.3	61.3	57.2	51.1	44.0	35.8	30.7	28.6	26.6
82.5°	41.9	41.9	38.8	33.7	29.6	23.5	20.4	18.4	17.4
85°	25.6	24.5	23.5	20.4	17.4	13.3	11.2	10.2	9.2
87.5°	12.3	12.3	11.2	8.2	7.2	5.1	4.1	3.1	3.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)