

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: P708900

Luminaire Tested: **22APR-X-X-UNV-NL830**

Issue Date: 09/12/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P708900  
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-NL830  
Description: ArcMed Patient Recessed 2x2 Fixture NIGHT Light  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

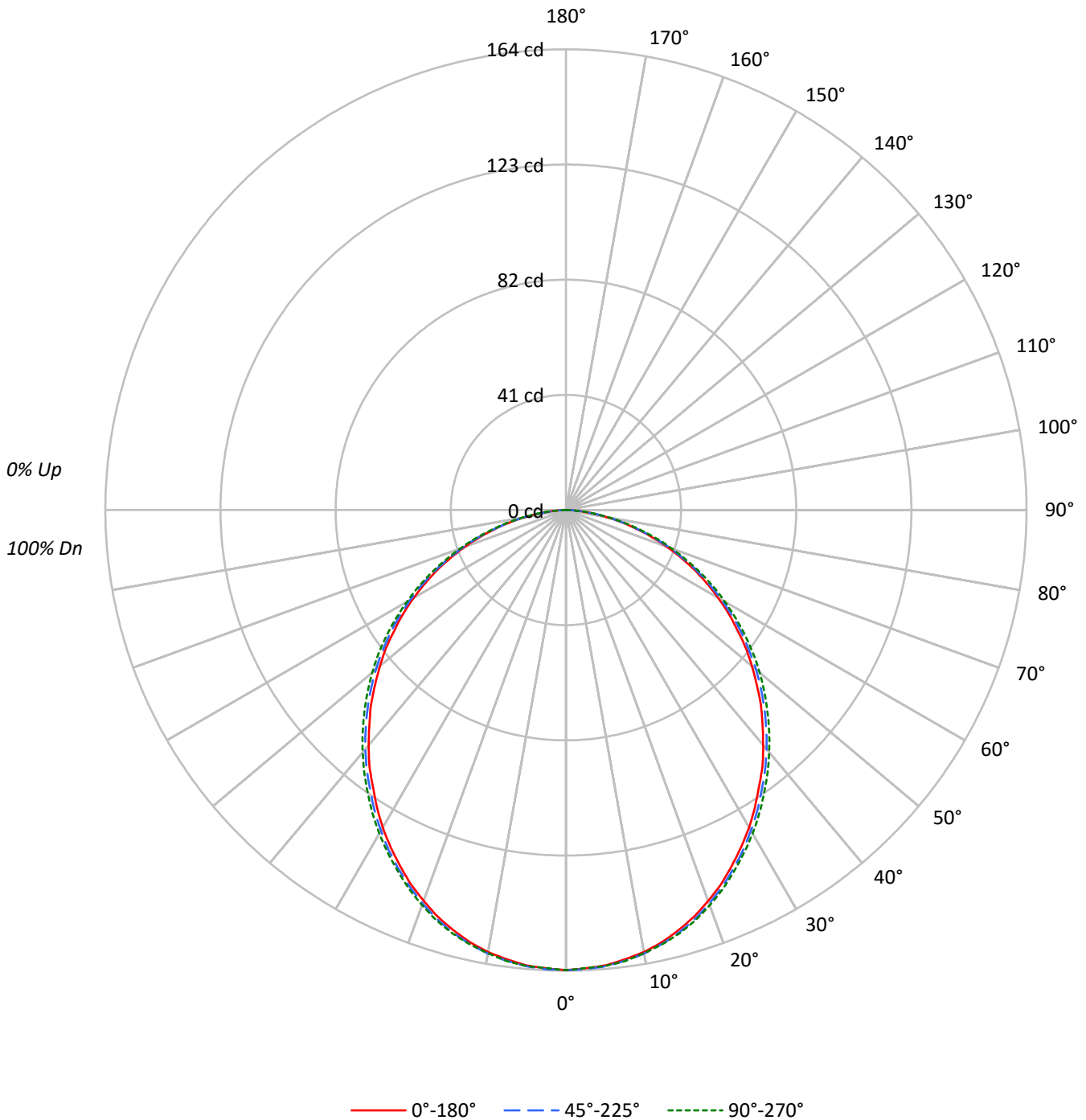
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 432.3 lumens  
Efficiency: N/A  
Efficacy: 72.1 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.32  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 6  
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				
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	100	100	100	100
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84	84	84	84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	70	70	70	70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	59	59	59	59
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	57	53	51	51	51	51
5	76	64	55	48	74	62	54	48	60	53	47	58	52	47	57	51	46	44	44	44	44
6	71	57	48	42	69	56	48	42	55	47	42	53	46	41	51	45	41	39	39	39	39
7	65	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34	34	34	34
8	61	48	39	33	59	47	39	33	46	38	33	44	38	33	43	37	33	31	31	31	31
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	29	28	28	28	28
10	54	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25	25	25	25

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

	0°	45°	90°
0°	441	441	441
5°	440	440	440
10°	437	438	438
15°	431	434	435
20°	424	427	429
25°	415	419	421
30°	405	409	413
35°	394	399	404
40°	384	390	396
45°	374	380	386
50°	362	370	377
55°	349	358	366
60°	337	344	352
65°	322	329	337
70°	301	308	315
75°	271	278	287
80°	231	241	245
85°	170	173	185



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	15.5	3.6
10°-20°	43.9	10.1
20°-30°	64.9	15.0
30°-40°	76.1	17.6
40°-50°	77.1	17.8
50°-60°	68.2	15.8
60°-70°	51.1	11.8
70°-80°	28.5	6.6
80°-90°	7.0	1.6
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°	124.2	28.7
0°-40°	200.4	46.3
0°-60°	345.7	80.0
0°-90°	432.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	432.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	164	164	164	164	164	
5°	163	163	163	163	163	15
15°	155	155	156	156	156	44
25°	140	140	141	141	142	64
35°	120	121	122	123	123	75
45°	98	99	100	101	102	76
55°	74	75	76	78	78	67
65°	50	51	52	53	53	50
75°	26	26	27	28	28	28
85°	6	6	6	6	6	7
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	163.8	163.8	163.8	163.8	163.8
2.5°	163.3	163.7	163.6	163.4	163.2
5°	162.7	162.9	163.0	162.9	162.9
7.5°	161.3	161.7	161.8	161.8	161.9
10°	159.8	160.3	160.4	160.4	160.2
12.5°	157.6	158.1	158.2	158.3	158.4
15°	154.9	155.4	155.7	156.0	156.0
17.5°	151.8	152.3	152.7	153.2	153.2
20°	148.1	148.7	149.2	149.7	149.7
22.5°	144.2	144.7	145.2	145.8	146.0
25°	139.7	140.3	141.0	141.5	141.8
27.5°	135.2	135.7	136.6	137.4	137.5
30°	130.5	131.0	131.8	132.7	132.9
32.5°	125.3	125.8	126.9	127.6	128.1
35°	119.9	120.6	121.5	122.7	123.0
37.5°	115.0	115.4	116.5	117.7	117.9
40°	109.3	110.1	111.1	112.4	112.6
42.5°	103.6	104.4	105.5	106.8	107.1
45°	98.2	98.8	99.9	101.3	101.5
47.5°	92.2	93.0	94.1	95.5	95.8
50°	86.5	87.2	88.3	89.8	90.0
52.5°	80.8	81.2	82.2	83.6	84.1
55°	74.5	75.2	76.3	77.5	77.9
57.5°	68.8	69.2	70.3	71.6	71.7
60°	62.6	63.0	64.0	65.2	65.3
62.5°	56.6	56.9	57.9	59.0	59.3
65°	50.5	50.9	51.7	52.8	53.0
67.5°	44.3	44.5	45.3	46.3	46.3
70°	38.2	38.4	39.1	40.1	40.1
72.5°	32.1	32.3	32.9	33.8	34.0
75°	26.0	26.2	26.7	27.5	27.6
77.5°	20.5	20.3	20.8	21.5	21.6
80°	14.9	14.9	15.5	15.7	15.8
82.5°	9.9	9.9	10.2	10.6	10.6
85°	5.5	5.5	5.6	5.9	6.0
87.5°	2.3	2.2	2.3	2.4	2.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)