

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: P

Luminaire Tested: **4APN-X-X-NL830-UNV-NP**

Issue Date: 06/06/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 06/06/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 4APN-X-X-NL830-UNV-NP  
Description: ArcMed Patient Recessed 4 FT x6 IN Fixture NIGHT Light w/ Nature Pattern Lens  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

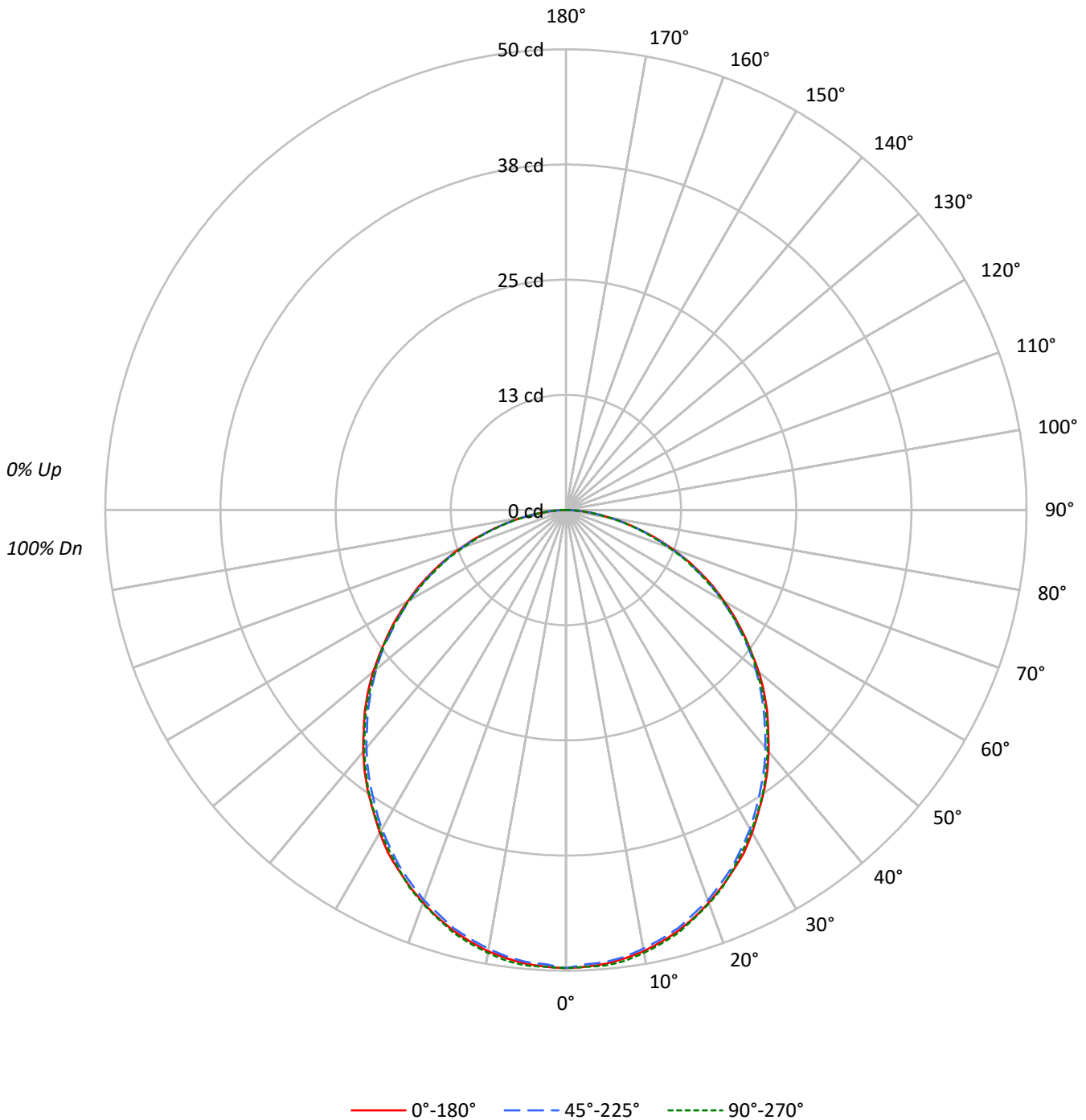
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 132.6 lumens  
Efficiency: N/A  
Efficacy: 37.9 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.32  
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 3.5  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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	95	98	94	92	94	91	89	90	88	86	86	86	86	84
2	99	91	84	78	96	89	83	77	85	80	76	82	78	74	79	76	72	72	72	72	70
3	90	80	72	65	88	78	71	65	75	69	64	73	67	62	70	65	61	61	61	61	59
4	83	71	62	55	81	70	61	55	67	60	54	65	59	54	63	57	53	53	53	53	51
5	76	63	54	48	74	62	54	48	60	53	47	58	52	47	56	51	46	46	46	46	44
6	70	57	48	42	69	56	48	42	54	47	41	53	46	41	51	45	41	41	41	41	39
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	36	36	36	34
8	61	47	39	33	59	47	39	33	45	38	33	44	37	33	43	37	32	32	32	32	30
9	57	44	35	30	55	43	35	30	42	35	30	41	34	29	40	34	29	29	29	29	27
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	27	27	27	25

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

	0°	45°	90°
0°	268	268	268
5°	267	266	268
10°	266	264	267
15°	263	262	264
20°	260	258	260
25°	256	254	255
30°	251	248	250
35°	246	242	245
40°	240	237	239
45°	235	231	234
50°	229	225	226
55°	221	218	220
60°	214	211	212
65°	205	202	201
70°	193	191	186
75°	174	172	171
80°	149	152	147
85°	124	129	124



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	4.7	3.5
10°-20°	13.3	10.0
20°-30°	19.8	14.9
30°-40°	23.3	17.5
40°-50°	23.6	17.8
50°-60°	20.9	15.8
60°-70°	15.8	11.9
70°-80°	8.9	6.7
80°-90°	2.4	1.8
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°	37.8	28.5
0°-40°	61.1	46.1
0°-60°	105.6	79.6
0°-90°	132.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	132.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	50	50	50	50	50	
5°	49	50	49	49	50	5
15°	47	48	47	47	47	13
25°	43	43	43	43	43	20
35°	37	38	37	37	37	23
45°	31	31	30	30	31	24
55°	24	24	23	23	23	21
65°	16	16	16	16	16	16
75°	8	8	8	8	8	9
85°	2	2	2	2	2	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	49.7	49.7	49.7	49.7	49.7
2.5°	49.6	50.0	49.4	49.7	49.6
5°	49.4	49.9	49.3	49.4	49.6
7.5°	49.1	49.5	48.9	49.0	49.4
10°	48.6	49.0	48.4	48.6	48.8
12.5°	48.0	48.4	47.7	48.0	48.2
15°	47.3	47.5	47.0	47.2	47.4
17.5°	46.4	46.6	46.0	46.4	46.4
20°	45.3	45.6	45.1	45.3	45.4
22.5°	44.3	44.5	43.9	44.0	44.3
25°	43.1	43.3	42.7	42.7	43.0
27.5°	41.9	42.0	41.3	41.4	41.6
30°	40.4	40.6	40.0	40.1	40.3
32.5°	38.9	39.1	38.4	38.5	38.8
35°	37.4	37.5	36.9	37.1	37.3
37.5°	35.9	35.9	35.3	35.4	35.7
40°	34.2	34.2	33.7	33.8	34.1
42.5°	32.5	32.5	32.0	32.1	32.3
45°	30.9	30.8	30.3	30.4	30.7
47.5°	29.1	29.0	28.6	28.7	28.9
50°	27.3	27.2	26.9	26.9	27.0
52.5°	25.4	25.5	25.1	25.1	25.3
55°	23.6	23.7	23.2	23.3	23.4
57.5°	21.8	21.8	21.4	21.5	21.5
60°	19.9	19.9	19.6	19.7	19.7
62.5°	18.0	18.0	17.8	17.8	17.7
65°	16.1	16.0	15.8	15.9	15.8
67.5°	14.2	14.1	14.0	14.0	13.9
70°	12.3	12.2	12.1	12.0	11.8
72.5°	10.4	10.3	10.1	10.2	10.0
75°	8.4	8.4	8.3	8.4	8.2
77.5°	6.7	6.6	6.6	6.6	6.5
80°	4.8	4.8	4.9	4.9	4.7
82.5°	3.4	3.3	3.4	3.5	3.3
85°	2.0	2.0	2.1	2.1	2.0
87.5°	0.8	0.8	1.0	1.0	0.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)