

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: P709050

Luminaire Tested: **4APN-X-X-NL940-UNV**

Issue Date: 09/12/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P709050  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 09/12/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 4APN-X-X-NL940-UNV  
Description: ArcMed Patient Recessed 4 FT x6 IN Fixture NIGHT Light  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

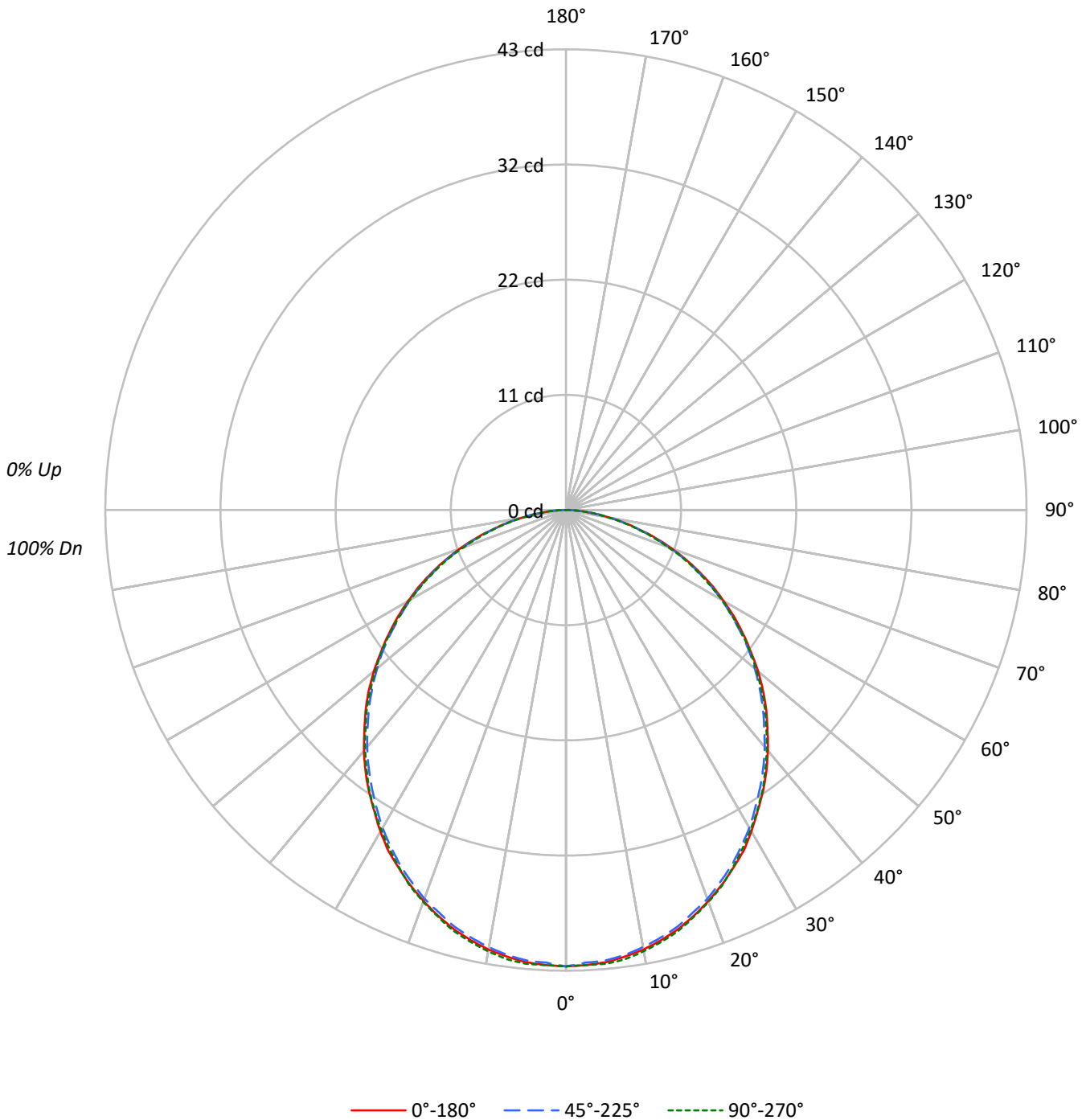
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 113.6 lumens  
Efficiency: N/A  
Efficacy: 32.5 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 (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	102	102	102	100
1	109	104	100	96	106	102	98	94	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°	229	229	229
5°	229	228	230
10°	228	226	229
15°	226	224	226
20°	223	221	223
25°	219	217	219
30°	215	213	214
35°	211	208	210
40°	206	203	205
45°	201	198	200
50°	196	193	194
55°	190	187	188
60°	183	181	181
65°	176	173	172
70°	166	163	160
75°	149	148	146
80°	128	130	126
85°	106	111	106



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	4.0	3.5
10°-20°	11.4	10.0
20°-30°	16.9	14.9
30°-40°	19.9	17.5
40°-50°	20.2	17.8
50°-60°	17.9	15.8
60°-70°	13.5	11.9
70°-80°	7.6	6.7
80°-90°	2.0	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°	32.4	28.5
0°-40°	52.3	46.1
0°-60°	90.5	79.6
0°-90°	113.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	113.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	43	43	43	43	43	
5°	42	43	42	42	43	4
15°	40	41	40	40	41	11
25°	37	37	37	37	37	17
35°	32	32	32	32	32	20
45°	26	26	26	26	26	20
55°	20	20	20	20	20	18
65°	14	14	14	14	14	14
75°	7	7	7	7	7	8
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°	42.6	42.6	42.6	42.6	42.6
2.5°	42.5	42.8	42.3	42.6	42.5
5°	42.4	42.8	42.2	42.3	42.5
7.5°	42.1	42.4	41.9	42.0	42.3
10°	41.7	42.0	41.4	41.7	41.8
12.5°	41.1	41.4	40.9	41.1	41.3
15°	40.5	40.7	40.3	40.4	40.7
17.5°	39.7	40.0	39.4	39.7	39.8
20°	38.9	39.1	38.6	38.8	38.9
22.5°	37.9	38.2	37.6	37.7	38.0
25°	36.9	37.1	36.6	36.6	36.8
27.5°	35.9	36.0	35.4	35.5	35.7
30°	34.6	34.8	34.3	34.3	34.5
32.5°	33.3	33.5	32.9	33.0	33.2
35°	32.1	32.1	31.6	31.8	32.0
37.5°	30.7	30.7	30.3	30.4	30.6
40°	29.3	29.3	28.9	29.0	29.2
42.5°	27.9	27.9	27.4	27.5	27.7
45°	26.5	26.4	26.0	26.1	26.3
47.5°	25.0	24.9	24.5	24.6	24.7
50°	23.4	23.3	23.0	23.0	23.2
52.5°	21.8	21.9	21.5	21.5	21.7
55°	20.2	20.3	19.9	20.0	20.1
57.5°	18.7	18.7	18.3	18.4	18.4
60°	17.0	17.1	16.8	16.9	16.9
62.5°	15.5	15.5	15.2	15.2	15.1
65°	13.8	13.7	13.6	13.7	13.5
67.5°	12.2	12.1	12.0	12.0	11.9
70°	10.5	10.5	10.4	10.3	10.1
72.5°	8.9	8.8	8.7	8.7	8.6
75°	7.2	7.2	7.1	7.2	7.0
77.5°	5.7	5.6	5.6	5.6	5.5
80°	4.1	4.1	4.2	4.2	4.1
82.5°	2.9	2.8	2.9	3.0	2.8
85°	1.7	1.7	1.8	1.8	1.7
87.5°	0.7	0.7	0.9	0.9	0.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)