

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-NL935-UNV-ASY**

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-NL935-UNV-ASY
Description: ArcMed Patient Recessed 4 FT x6 IN Fixture NIGHT Light w/
ASYMMETRIC Lens
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

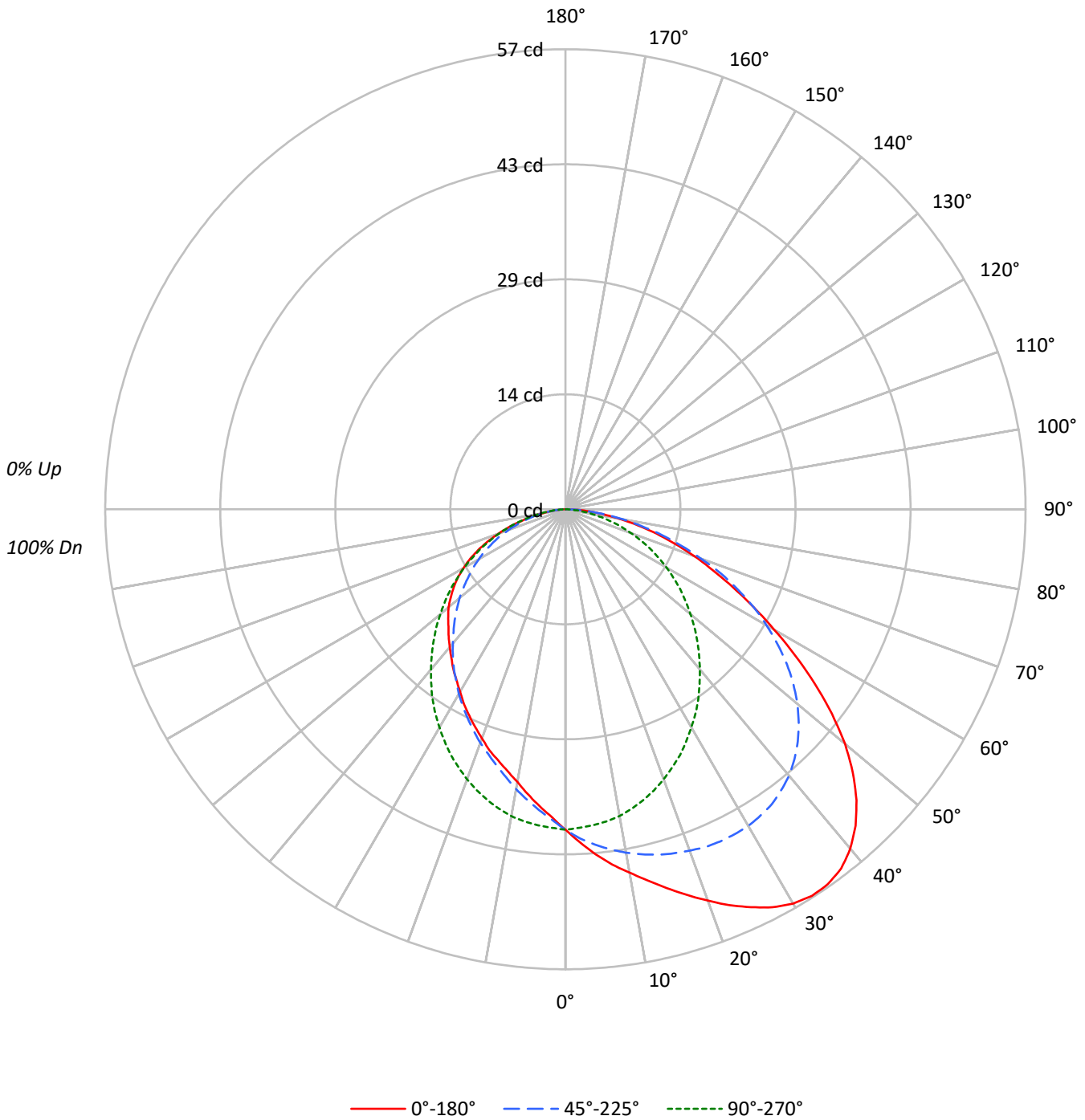
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 123.0 lumens
Efficiency: N/A
Efficacy: 35.1 lumens/watt
Spacing Criteria (0/90/45): 1.53 / 1.18 / 1.46
Luminous Opening: Rectangular (W 0.29' x L: 3.83' x H: 0')
CIE Type: Direct

Input Watts (W): 3.5
Input Voltage (V): 120
Input Current (A_{in}): 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

TEST NUMBER: P
CATALOG NUMBER: 4APN-X-X-NL935-UNV-ASY

Luminous Intensity Polar Plot





TEST NUMBER: P
 CATALOG NUMBER: 4APN-X-X-NL935-UNV-ASY

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	97	94	91	93	91	88	90	88	86	86	86	86	84
2	99	90	83	78	96	88	82	77	85	80	75	82	77	73	79	75	72	72	72	72	69
3	90	79	71	64	87	78	70	64	75	68	63	72	66	61	69	64	60	60	60	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	62	56	52	52	52	52	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	45	45	45	43
6	69	56	47	40	68	55	46	40	53	46	40	51	45	39	50	44	39	39	39	39	37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	45	39	35	35	35	35	33
8	60	46	37	32	58	45	37	31	44	37	31	43	36	31	42	35	31	31	31	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	28	28	28	26
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25	36	30	25	25	25	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	382	382	382
5°	415	380	357
10°	447	377	335
15°	484	372	321
20°	529	365	309
25°	578	357	300
30°	627	347	290
35°	666	337	284
40°	690	326	280
45°	694	315	279
50°	677	303	283
55°	633	292	284
60°	576	279	281
65°	522	264	271
70°	479	245	248
75°	435	219	212
80°	377	183	166
85°	320	133	122



TEST NUMBER: P
 CATALOG NUMBER: 4APN-X-X-NL935-UNV-ASY

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3.8	3.1
10°-20°	11.0	8.9
20°-30°	17.2	14.0
30°-40°	21.5	17.5
40°-50°	22.9	18.6
50°-60°	20.7	16.8
60°-70°	15.3	12.5
70°-80°	8.4	6.8
80°-90°	2.2	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°	31.9	26.0
0°-40°	53.5	43.5
0°-60°	97.1	78.9
0°-90°	123.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	123.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	40	40	40	40	40	
5°	43	42	39	37	37	4
15°	49	44	37	33	32	14
25°	54	45	34	29	28	25
35°	57	45	29	24	24	35
45°	51	41	23	19	20	39
55°	38	34	17	15	17	34
65°	23	24	12	10	12	23
75°	12	12	6	5	6	12
85°	3	3	1	1	1	3
90°	0	0	0	0	0	



TEST NUMBER: P
 CATALOG NUMBER: 4APN-X-X-NL935-UNV-ASY

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	39.7	39.7	39.7	39.7	39.7	39.7	39.7	39.7	39.7	39.7	39.7
2.5°	41.3	41.2	41.1	41.1	40.9	40.8	40.6	40.6	40.4	39.9	39.5
5°	42.9	42.8	42.5	42.3	42.0	41.7	41.3	41.1	40.6	39.8	39.3
7.5°	44.4	44.2	43.9	43.6	43.1	42.5	41.9	41.4	40.6	39.6	39.0
10°	45.7	45.6	45.2	44.7	44.0	43.2	42.3	41.6	40.5	39.3	38.6
12.5°	47.1	47.0	46.5	45.9	44.9	43.8	42.6	41.6	40.3	38.8	38.0
15°	48.6	48.4	47.8	47.0	45.7	44.3	42.8	41.5	40.0	38.2	37.3
17.5°	50.1	49.9	49.2	48.1	46.5	44.7	42.9	41.3	39.5	37.5	36.5
20°	51.6	51.4	50.5	49.1	47.1	45.0	42.9	40.9	38.9	36.7	35.6
22.5°	53.1	52.8	51.7	50.1	47.7	45.3	42.7	40.5	38.2	35.8	34.6
25°	54.4	54.2	53.0	51.0	48.3	45.4	42.4	39.8	37.4	34.8	33.6
27.5°	55.6	55.3	54.0	51.9	48.8	45.4	42.0	39.1	36.4	33.7	32.4
30°	56.4	56.2	54.8	52.5	49.1	45.3	41.5	38.2	35.3	32.5	31.2
32.5°	56.8	56.6	55.2	52.8	49.1	45.0	40.8	37.3	34.2	31.3	30.0
35°	56.7	56.5	55.2	52.8	49.0	44.6	40.0	36.2	32.9	30.0	28.7
37.5°	56.1	55.8	54.6	52.3	48.6	43.9	39.1	35.0	31.6	28.7	27.3
40°	54.9	54.6	53.6	51.5	47.8	43.1	38.1	33.7	30.3	27.3	25.9
42.5°	53.2	52.9	52.1	50.2	46.8	42.0	36.9	32.3	28.8	25.9	24.5
45°	51.0	50.8	50.2	48.6	45.5	40.7	35.5	30.9	27.3	24.4	23.1
47.5°	48.3	48.1	47.8	46.5	43.8	39.2	34.0	29.3	25.8	23.0	21.7
50°	45.2	44.9	45.0	44.1	41.9	37.5	32.3	27.7	24.2	21.4	20.2
52.5°	41.6	41.4	41.8	41.4	39.7	35.6	30.6	26.0	22.5	19.9	18.8
55°	37.7	37.5	38.3	38.4	37.2	33.5	28.5	24.2	20.8	18.5	17.4
57.5°	33.8	33.6	34.6	35.1	34.5	31.2	26.5	22.4	19.1	16.9	15.9
60°	29.9	29.8	30.8	31.7	31.6	28.8	24.4	20.4	17.4	15.4	14.5
62.5°	26.3	26.1	27.1	28.2	28.5	26.3	22.3	18.5	15.7	13.8	13.0
65°	22.9	22.8	23.6	24.7	25.4	23.6	20.0	16.5	14.0	12.3	11.6
67.5°	19.8	19.8	20.4	21.4	22.2	20.9	17.7	14.6	12.2	10.8	10.1
70°	17.0	17.0	17.3	18.0	19.0	17.9	15.3	12.6	10.5	9.3	8.7
72.5°	14.2	14.4	14.5	15.0	16.1	15.1	13.0	10.7	8.9	7.8	7.3
75°	11.7	11.6	11.8	12.3	13.1	12.4	10.7	8.8	7.2	6.3	5.9
77.5°	9.2	9.2	9.3	9.6	10.2	9.7	8.4	7.0	5.6	4.9	4.6
80°	6.8	6.8	7.0	7.1	7.6	7.2	6.3	5.2	4.1	3.6	3.3
82.5°	4.7	4.8	4.8	5.0	5.2	4.9	4.3	3.6	2.7	2.4	2.2
85°	2.9	3.0	2.9	3.1	3.2	2.8	2.6	2.1	1.6	1.3	1.2
87.5°	1.5	1.5	1.5	1.5	1.6	1.4	1.2	1.0	0.7	0.5	0.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P
 CATALOG NUMBER: 4APN-X-X-NL935-UNV-ASY

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	39.7	39.7	39.7	39.7	39.7	39.7	39.7	39.7	39.7	39.7
2.5°	39.3	39.4	39.2	38.7	38.5	38.3	38.2	38.1	38.2	38.2
5°	39.0	38.8	38.5	37.8	37.4	37.0	36.9	36.8	37.0	36.9
7.5°	38.5	38.2	37.6	36.8	36.3	35.8	35.6	35.4	35.6	35.6
10°	38.0	37.4	36.7	35.7	35.2	34.6	34.4	34.2	34.3	34.3
12.5°	37.3	36.6	35.7	34.6	34.0	33.5	33.2	33.1	33.2	33.2
15°	36.5	35.6	34.7	33.5	32.9	32.4	32.2	32.1	32.2	32.2
17.5°	35.6	34.6	33.6	32.4	31.8	31.4	31.2	31.2	31.2	31.3
20°	34.6	33.5	32.4	31.3	30.8	30.4	30.2	30.1	30.3	30.2
22.5°	33.6	32.4	31.2	30.2	29.7	29.3	29.1	29.1	29.2	29.2
25°	32.5	31.2	30.0	29.0	28.6	28.2	28.1	28.1	28.1	28.2
27.5°	31.4	30.0	28.8	27.9	27.5	27.2	27.1	27.0	27.1	27.2
30°	30.1	28.7	27.6	26.8	26.4	26.1	26.0	25.9	26.0	26.1
32.5°	28.9	27.5	26.4	25.6	25.2	24.9	24.9	24.9	25.0	25.1
35°	27.6	26.2	25.1	24.4	24.1	23.8	23.9	23.9	24.0	24.2
37.5°	26.3	24.9	23.9	23.2	22.9	22.7	22.8	22.9	23.1	23.2
40°	24.9	23.6	22.6	22.0	21.7	21.6	21.8	22.0	22.2	22.3
42.5°	23.6	22.3	21.3	20.8	20.5	20.5	20.8	21.1	21.3	21.4
45°	22.2	21.0	20.1	19.6	19.4	19.5	19.8	20.1	20.4	20.5
47.5°	20.8	19.6	18.8	18.3	18.2	18.4	18.8	19.2	19.6	19.7
50°	19.4	18.4	17.5	17.1	17.1	17.3	17.9	18.3	18.7	18.9
52.5°	18.0	17.0	16.2	15.8	15.9	16.3	16.9	17.4	17.8	17.9
55°	16.6	15.6	14.9	14.6	14.7	15.2	15.8	16.4	16.8	16.9
57.5°	15.2	14.3	13.6	13.4	13.6	14.0	14.8	15.3	15.7	15.8
60°	13.8	12.9	12.3	12.2	12.4	12.9	13.6	14.1	14.5	14.6
62.5°	12.5	11.6	11.1	10.9	11.2	11.7	12.4	12.8	13.2	13.3
65°	11.0	10.2	9.8	9.7	10.0	10.5	11.2	11.5	11.8	11.9
67.5°	9.7	9.0	8.6	8.5	8.8	9.2	9.9	10.1	10.3	10.4
70°	8.3	7.7	7.3	7.3	7.5	8.0	8.5	8.6	8.7	8.8
72.5°	6.9	6.4	6.1	6.1	6.3	6.7	7.1	7.1	7.2	7.3
75°	5.6	5.2	4.9	5.0	5.1	5.4	5.7	5.6	5.7	5.7
77.5°	4.4	4.0	3.8	3.9	4.0	4.2	4.4	4.3	4.2	4.3
80°	3.1	2.8	2.8	2.8	2.9	3.0	3.1	3.0	2.9	3.0
82.5°	2.1	1.9	1.8	1.9	1.9	2.0	2.0	1.9	1.8	1.9
85°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
87.5°	0.5	0.5	0.5	0.6	0.5	0.5	0.4	0.3	0.3	0.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)