

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-NL940-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-NL940-UNV-ASY
Description: ArcMed Patient Recessed 4 FT x6 IN Fixture NIGHT Light w/
ASYMMETRIC Lens
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

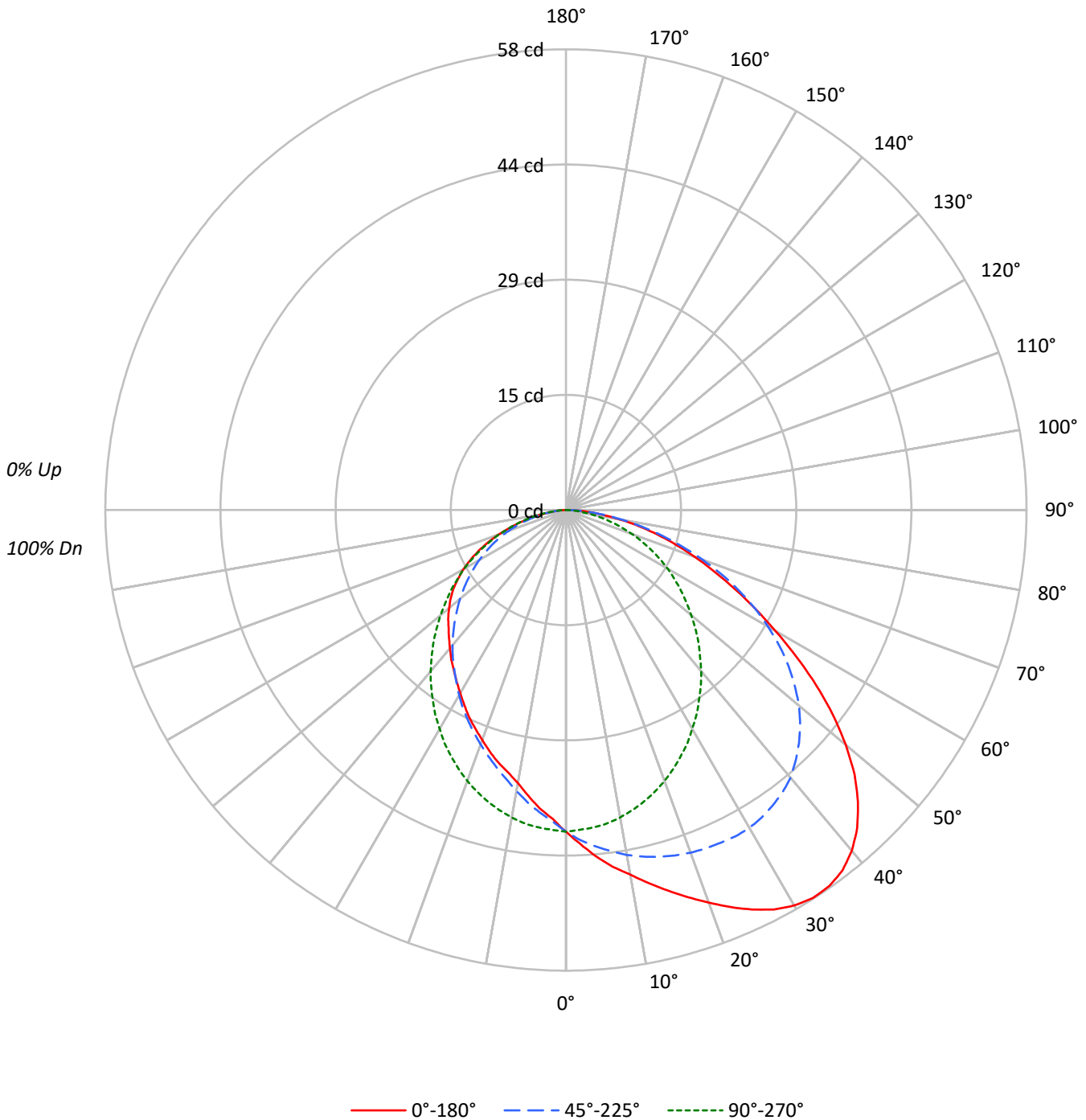
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 125.4 lumens
Efficiency: N/A
Efficacy: 35.8 lumens/watt
Spacing Criteria (0/90/45): 1.53 / 1.17 / 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

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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	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°	390	390	390
5°	423	388	364
10°	456	384	341
15°	494	379	328
20°	539	372	316
25°	590	363	306
30°	639	354	296
35°	679	343	289
40°	704	333	285
45°	708	321	285
50°	689	309	288
55°	646	297	290
60°	587	285	287
65°	533	269	276
70°	487	251	253
75°	443	223	219
80°	388	189	166
85°	320	133	122



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3.8	3.1
10°-20°	11.2	8.9
20°-30°	17.5	14.0
30°-40°	22.0	17.5
40°-50°	23.4	18.6
50°-60°	21.1	16.8
60°-70°	15.6	12.5
70°-80°	8.6	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°	32.6	26.0
0°-40°	54.5	43.5
0°-60°	99.0	78.9
0°-90°	125.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	125.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	40	40	40	40	40	
5°	44	42	40	38	38	4
15°	50	45	38	34	33	14
25°	56	46	34	29	29	26
35°	58	45	29	24	25	36
45°	52	42	24	20	21	40
55°	38	34	18	15	17	34
65°	23	24	12	10	12	23
75°	12	13	6	5	6	13
85°	3	3	1	1	1	3
90°	0	0	0	0	0	



TEST NUMBER: P
 CATALOG NUMBER: 4APN-X-X-NL940-UNV-ASY

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5
2.5°	42.1	42.0	41.9	41.9	41.8	41.6	41.4	41.4	41.2	40.6	40.3
5°	43.8	43.6	43.4	43.2	42.9	42.5	42.1	41.9	41.4	40.6	40.1
7.5°	45.3	45.1	44.8	44.4	43.9	43.3	42.7	42.2	41.4	40.4	39.8
10°	46.6	46.5	46.1	45.6	44.9	44.1	43.2	42.4	41.3	40.0	39.3
12.5°	48.1	47.9	47.4	46.8	45.8	44.7	43.5	42.4	41.1	39.6	38.7
15°	49.6	49.4	48.8	47.9	46.6	45.2	43.7	42.3	40.8	39.0	38.0
17.5°	51.1	50.9	50.1	49.1	47.4	45.6	43.8	42.1	40.3	38.3	37.2
20°	52.6	52.4	51.5	50.1	48.1	45.9	43.7	41.8	39.7	37.4	36.3
22.5°	54.1	53.9	52.7	51.1	48.6	46.1	43.6	41.3	38.9	36.5	35.3
25°	55.5	55.3	54.0	52.0	49.2	46.2	43.2	40.6	38.1	35.5	34.2
27.5°	56.7	56.4	55.1	52.9	49.8	46.3	42.8	39.9	37.1	34.4	33.1
30°	57.5	57.3	55.9	53.6	50.1	46.2	42.3	39.0	36.0	33.2	31.8
32.5°	57.9	57.7	56.3	53.9	50.1	45.9	41.6	38.0	34.8	31.9	30.6
35°	57.8	57.6	56.3	53.8	50.0	45.4	40.8	36.9	33.6	30.6	29.2
37.5°	57.2	56.9	55.7	53.4	49.5	44.8	39.9	35.7	32.3	29.2	27.9
40°	56.0	55.7	54.7	52.5	48.8	44.0	38.8	34.4	30.9	27.8	26.5
42.5°	54.3	54.0	53.2	51.2	47.7	42.8	37.6	33.0	29.4	26.5	25.0
45°	52.0	51.8	51.2	49.5	46.4	41.5	36.2	31.5	27.9	24.9	23.6
47.5°	49.3	49.0	48.8	47.5	44.7	40.0	34.7	29.9	26.3	23.5	22.1
50°	46.0	45.8	45.9	45.0	42.8	38.3	33.0	28.2	24.6	21.9	20.6
52.5°	42.4	42.2	42.6	42.2	40.5	36.3	31.2	26.5	22.9	20.3	19.1
55°	38.5	38.3	39.0	39.2	38.0	34.2	29.1	24.7	21.3	18.8	17.7
57.5°	34.4	34.3	35.2	35.8	35.2	31.9	27.0	22.8	19.5	17.3	16.2
60°	30.5	30.4	31.4	32.3	32.2	29.4	24.9	20.8	17.8	15.7	14.8
62.5°	26.8	26.6	27.7	28.7	29.1	26.8	22.7	18.9	16.0	14.1	13.3
65°	23.4	23.2	24.1	25.2	25.9	24.1	20.4	16.8	14.2	12.5	11.8
67.5°	20.2	20.2	20.8	21.8	22.6	21.3	18.0	14.9	12.4	11.0	10.3
70°	17.3	17.3	17.7	18.4	19.4	18.3	15.6	12.9	10.7	9.5	8.9
72.5°	14.5	14.6	14.8	15.3	16.4	15.4	13.3	10.9	9.0	7.9	7.4
75°	11.9	11.9	12.1	12.6	13.3	12.6	10.9	8.9	7.4	6.5	6.0
77.5°	9.4	9.3	9.5	9.8	10.4	9.9	8.6	7.1	5.7	5.0	4.7
80°	7.0	7.0	7.1	7.3	7.8	7.3	6.4	5.3	4.2	3.6	3.4
82.5°	4.8	4.9	4.9	5.1	5.3	5.0	4.4	3.7	2.8	2.4	2.2
85°	2.9	3.0	2.9	3.1	3.2	2.9	2.6	2.2	1.6	1.3	1.2
87.5°	1.5	1.5	1.5	1.6	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



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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5
2.5°	40.1	40.2	40.0	39.5	39.2	39.0	38.9	38.8	39.0	38.9
5°	39.7	39.6	39.2	38.5	38.2	37.8	37.6	37.5	37.7	37.7
7.5°	39.3	38.9	38.4	37.5	37.1	36.5	36.3	36.1	36.3	36.3
10°	38.7	38.2	37.5	36.4	35.9	35.3	35.0	34.8	35.0	34.9
12.5°	38.0	37.3	36.4	35.3	34.7	34.1	33.9	33.7	33.9	33.8
15°	37.2	36.3	35.3	34.2	33.6	33.0	32.9	32.7	32.9	32.9
17.5°	36.3	35.3	34.2	33.0	32.5	32.0	31.9	31.8	31.8	31.9
20°	35.3	34.2	33.0	31.9	31.4	31.0	30.8	30.7	30.9	30.8
22.5°	34.2	33.1	31.8	30.8	30.3	29.9	29.7	29.7	29.8	29.8
25°	33.1	31.8	30.6	29.6	29.2	28.8	28.7	28.6	28.7	28.8
27.5°	32.0	30.6	29.4	28.5	28.1	27.7	27.6	27.5	27.6	27.7
30°	30.7	29.3	28.1	27.3	26.9	26.6	26.5	26.4	26.5	26.6
32.5°	29.5	28.0	26.9	26.1	25.7	25.4	25.4	25.4	25.5	25.6
35°	28.1	26.7	25.6	24.9	24.5	24.3	24.3	24.4	24.5	24.6
37.5°	26.8	25.4	24.3	23.7	23.4	23.1	23.3	23.4	23.5	23.7
40°	25.4	24.1	23.1	22.5	22.2	22.1	22.3	22.4	22.6	22.7
42.5°	24.0	22.8	21.8	21.2	21.0	21.0	21.2	21.5	21.7	21.8
45°	22.6	21.4	20.5	19.9	19.8	19.9	20.2	20.5	20.8	20.9
47.5°	21.2	20.0	19.2	18.7	18.6	18.8	19.2	19.6	20.0	20.1
50°	19.8	18.7	17.9	17.4	17.4	17.7	18.2	18.7	19.1	19.2
52.5°	18.4	17.4	16.5	16.2	16.2	16.6	17.2	17.7	18.2	18.3
55°	17.0	15.9	15.2	14.9	15.0	15.5	16.1	16.7	17.1	17.3
57.5°	15.5	14.6	13.9	13.7	13.8	14.3	15.0	15.6	16.0	16.1
60°	14.1	13.1	12.6	12.4	12.6	13.1	13.9	14.4	14.8	14.9
62.5°	12.7	11.8	11.3	11.2	11.4	11.9	12.7	13.1	13.4	13.5
65°	11.3	10.5	10.0	9.9	10.2	10.7	11.4	11.7	12.0	12.1
67.5°	9.9	9.2	8.7	8.7	8.9	9.4	10.1	10.3	10.5	10.6
70°	8.5	7.8	7.5	7.4	7.7	8.1	8.7	8.8	8.9	9.0
72.5°	7.1	6.6	6.2	6.2	6.4	6.8	7.3	7.3	7.3	7.4
75°	5.7	5.3	5.0	5.1	5.2	5.5	5.9	5.8	5.8	5.9
77.5°	4.5	4.1	3.9	3.9	4.0	4.3	4.5	4.4	4.3	4.4
80°	3.2	2.9	2.8	2.8	2.9	3.1	3.2	3.1	3.0	3.0
82.5°	2.1	1.9	1.9	1.9	1.9	2.0	2.1	1.9	1.9	1.9
85°	1.2	1.1	1.1	1.1	1.1	1.2	1.2	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)