

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-NL950-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-NL950-UNV-ASY
Description: ArcMed Patient Recessed 4 FT x6 IN Fixture NIGHT Light w/
ASYMMETRIC Lens
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

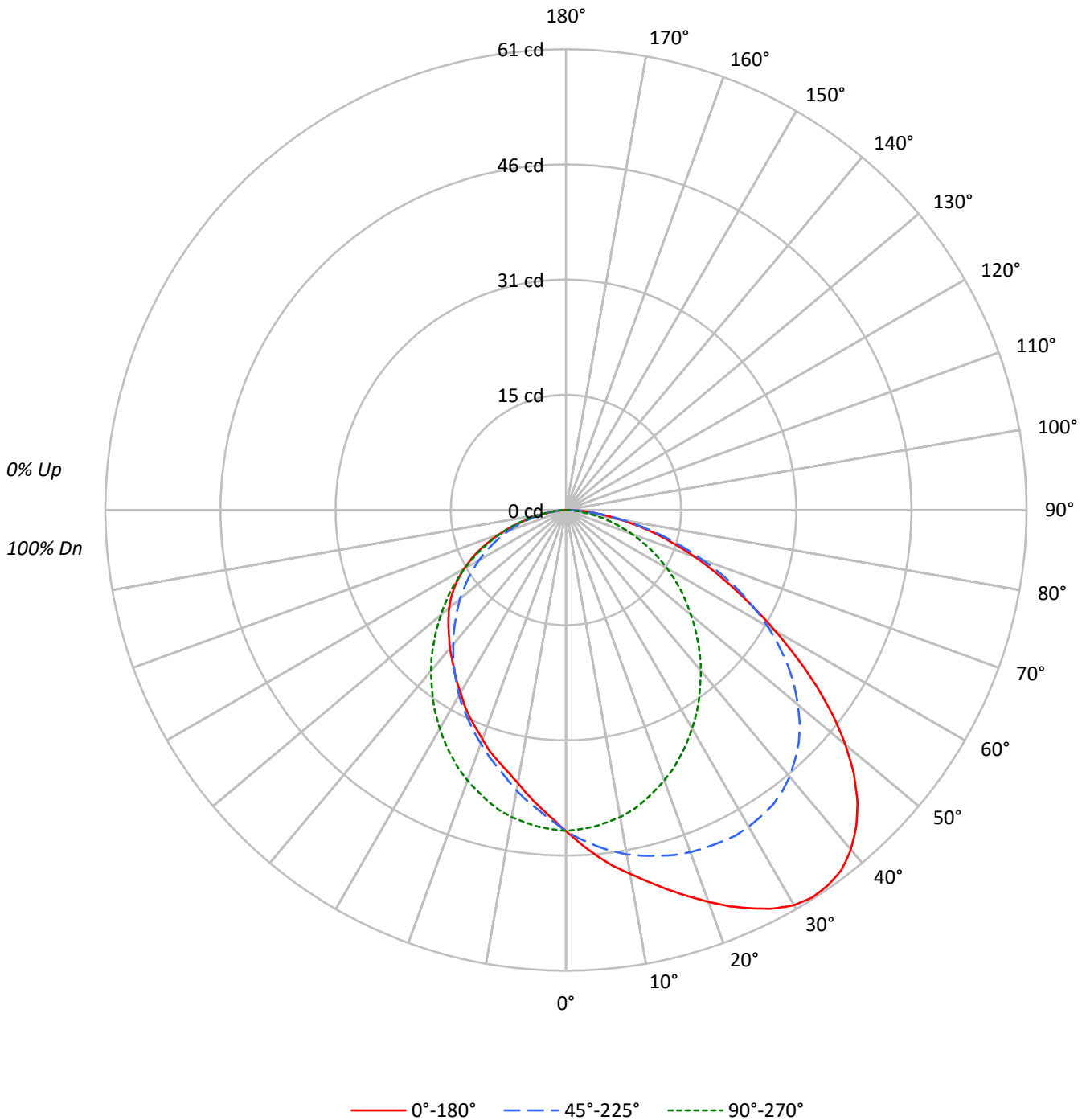
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 131.6 lumens
Efficiency: N/A
Efficacy: 37.6 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

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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	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°	409	409	409
5°	444	407	382
10°	478	404	359
15°	518	398	344
20°	566	390	331
25°	618	381	321
30°	671	371	310
35°	712	361	303
40°	738	349	300
45°	743	336	300
50°	723	324	303
55°	678	312	304
60°	616	298	300
65°	558	282	289
70°	512	262	265
75°	465	234	227
80°	405	194	177
85°	342	144	133



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	4.0	3.1
10°-20°	11.7	8.9
20°-30°	18.4	14.0
30°-40°	23.0	17.5
40°-50°	24.5	18.6
50°-60°	22.2	16.8
60°-70°	16.4	12.5
70°-80°	9.0	6.8
80°-90°	2.3	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°	34.2	26.0
0°-40°	57.2	43.5
0°-60°	103.9	79.0
0°-90°	131.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	131.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	42	42	42	42	42	
5°	46	45	42	40	40	4
15°	52	47	40	35	34	15
25°	58	48	36	31	30	27
35°	61	48	31	26	26	38
45°	55	44	25	21	22	42
55°	40	36	19	16	18	36
65°	24	25	12	11	13	24
75°	12	13	6	6	6	13
85°	3	3	1	1	1	4
90°	0	0	0	0	0	



TEST NUMBER: P
 CATALOG NUMBER: 4APN-X-X-NL950-UNV-ASY

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	42.5	42.5	42.5	42.5	42.5	42.5	42.5	42.5	42.5	42.5	42.5
2.5°	44.2	44.1	44.0	44.0	43.8	43.6	43.4	43.4	43.2	42.6	42.3
5°	45.9	45.8	45.5	45.3	45.0	44.6	44.2	43.9	43.4	42.6	42.1
7.5°	47.5	47.3	47.0	46.6	46.1	45.5	44.8	44.3	43.5	42.4	41.7
10°	48.9	48.8	48.4	47.9	47.1	46.3	45.3	44.5	43.4	42.0	41.3
12.5°	50.4	50.3	49.7	49.1	48.0	46.9	45.6	44.5	43.1	41.5	40.7
15°	52.0	51.8	51.2	50.3	48.9	47.4	45.8	44.4	42.8	40.9	39.9
17.5°	53.6	53.4	52.6	51.5	49.7	47.9	45.9	44.2	42.3	40.1	39.0
20°	55.2	55.0	54.0	52.6	50.4	48.2	45.9	43.8	41.6	39.3	38.1
22.5°	56.8	56.5	55.3	53.6	51.0	48.4	45.7	43.3	40.8	38.3	37.1
25°	58.2	58.0	56.7	54.6	51.7	48.5	45.4	42.6	40.0	37.2	35.9
27.5°	59.5	59.2	57.8	55.5	52.2	48.6	44.9	41.8	39.0	36.1	34.7
30°	60.4	60.1	58.6	56.2	52.5	48.4	44.4	40.9	37.8	34.8	33.4
32.5°	60.8	60.5	59.1	56.5	52.6	48.1	43.7	39.9	36.6	33.5	32.1
35°	60.6	60.4	59.0	56.5	52.4	47.7	42.8	38.7	35.3	32.1	30.7
37.5°	60.0	59.7	58.5	56.0	52.0	47.0	41.9	37.4	33.8	30.7	29.2
40°	58.7	58.5	57.4	55.1	51.2	46.1	40.7	36.1	32.4	29.2	27.8
42.5°	56.9	56.6	55.8	53.7	50.1	44.9	39.5	34.6	30.9	27.8	26.3
45°	54.6	54.3	53.7	52.0	48.7	43.6	38.0	33.0	29.2	26.1	24.7
47.5°	51.7	51.4	51.2	49.8	46.9	42.0	36.4	31.4	27.6	24.6	23.2
50°	48.3	48.1	48.2	47.2	44.9	40.1	34.6	29.6	25.8	22.9	21.6
52.5°	44.5	44.3	44.7	44.3	42.5	38.1	32.7	27.8	24.1	21.3	20.1
55°	40.4	40.2	41.0	41.1	39.8	35.9	30.5	25.9	22.3	19.7	18.6
57.5°	36.1	36.0	37.0	37.6	36.9	33.4	28.4	24.0	20.5	18.1	17.0
60°	32.0	31.9	32.9	33.9	33.8	30.9	26.1	21.9	18.6	16.4	15.5
62.5°	28.1	27.9	29.0	30.1	30.5	28.1	23.8	19.8	16.8	14.8	13.9
65°	24.5	24.4	25.3	26.4	27.2	25.3	21.4	17.7	14.9	13.1	12.4
67.5°	21.2	21.2	21.8	22.9	23.8	22.3	18.9	15.6	13.0	11.6	10.8
70°	18.2	18.1	18.6	19.3	20.3	19.2	16.4	13.5	11.2	9.9	9.3
72.5°	15.2	15.4	15.5	16.1	17.2	16.2	13.9	11.4	9.5	8.3	7.8
75°	12.5	12.5	12.7	13.2	14.0	13.2	11.4	9.4	7.7	6.8	6.3
77.5°	9.8	9.8	10.0	10.3	10.9	10.4	9.0	7.5	6.0	5.2	4.9
80°	7.3	7.3	7.5	7.6	8.1	7.7	6.7	5.6	4.4	3.8	3.5
82.5°	5.1	5.2	5.1	5.3	5.6	5.2	4.6	3.8	2.9	2.5	2.3
85°	3.1	3.2	3.1	3.3	3.4	3.0	2.7	2.3	1.7	1.4	1.3
87.5°	1.6	1.6	1.6	1.6	1.7	1.5	1.3	1.1	0.8	0.6	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
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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	42.5	42.5	42.5	42.5	42.5	42.5	42.5	42.5	42.5	42.5
2.5°	42.0	42.1	42.0	41.4	41.2	40.9	40.8	40.7	40.9	40.9
5°	41.7	41.6	41.2	40.4	40.0	39.6	39.4	39.3	39.6	39.5
7.5°	41.2	40.9	40.3	39.4	38.9	38.3	38.1	37.9	38.1	38.1
10°	40.6	40.0	39.3	38.2	37.7	37.1	36.8	36.5	36.7	36.7
12.5°	39.9	39.1	38.2	37.0	36.4	35.8	35.6	35.4	35.6	35.5
15°	39.0	38.1	37.1	35.9	35.2	34.7	34.5	34.3	34.5	34.5
17.5°	38.1	37.0	35.9	34.7	34.1	33.6	33.4	33.3	33.4	33.5
20°	37.1	35.9	34.7	33.5	32.9	32.5	32.3	32.2	32.4	32.3
22.5°	35.9	34.7	33.4	32.3	31.8	31.3	31.2	31.1	31.3	31.2
25°	34.7	33.4	32.1	31.1	30.6	30.2	30.1	30.0	30.1	30.2
27.5°	33.6	32.1	30.8	29.9	29.5	29.1	29.0	28.9	29.0	29.1
30°	32.2	30.7	29.5	28.7	28.3	27.9	27.8	27.7	27.8	27.9
32.5°	30.9	29.4	28.2	27.4	27.0	26.7	26.7	26.6	26.8	26.9
35°	29.5	28.1	26.9	26.1	25.8	25.5	25.5	25.6	25.7	25.8
37.5°	28.1	26.7	25.5	24.8	24.5	24.3	24.4	24.5	24.7	24.8
40°	26.7	25.3	24.2	23.6	23.2	23.1	23.4	23.5	23.7	23.9
42.5°	25.2	23.9	22.8	22.2	22.0	22.0	22.3	22.5	22.8	22.9
45°	23.7	22.5	21.5	20.9	20.7	20.9	21.2	21.5	21.9	22.0
47.5°	22.3	21.0	20.1	19.6	19.5	19.7	20.2	20.6	21.0	21.1
50°	20.8	19.6	18.7	18.3	18.3	18.5	19.1	19.6	20.0	20.2
52.5°	19.3	18.2	17.3	17.0	17.0	17.4	18.0	18.6	19.1	19.2
55°	17.8	16.7	15.9	15.6	15.8	16.2	16.9	17.5	18.0	18.1
57.5°	16.3	15.3	14.6	14.3	14.5	15.0	15.8	16.3	16.8	16.9
60°	14.8	13.8	13.2	13.0	13.3	13.8	14.6	15.1	15.5	15.6
62.5°	13.3	12.4	11.9	11.7	12.0	12.5	13.3	13.7	14.1	14.2
65°	11.8	11.0	10.5	10.4	10.7	11.2	11.9	12.3	12.6	12.7
67.5°	10.3	9.6	9.2	9.1	9.4	9.9	10.5	10.8	11.0	11.1
70°	8.9	8.2	7.8	7.8	8.1	8.5	9.1	9.2	9.3	9.4
72.5°	7.4	6.9	6.5	6.5	6.8	7.1	7.6	7.6	7.7	7.8
75°	6.0	5.6	5.3	5.3	5.5	5.8	6.1	6.0	6.1	6.1
77.5°	4.7	4.3	4.1	4.1	4.2	4.5	4.7	4.6	4.5	4.6
80°	3.4	3.0	3.0	3.0	3.1	3.2	3.4	3.2	3.1	3.2
82.5°	2.2	2.0	2.0	2.0	2.0	2.1	2.2	2.0	2.0	2.0
85°	1.2	1.1	1.1	1.2	1.2	1.2	1.2	1.1	1.2	1.2
87.5°	0.5	0.5	0.5	0.6	0.6	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)