

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-NL930-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-NL930-UNV-ASY
Description: ArcMed Patient Recessed 4 FT x6 IN Fixture NIGHT Light w/
ASYMMETRIC Lens
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

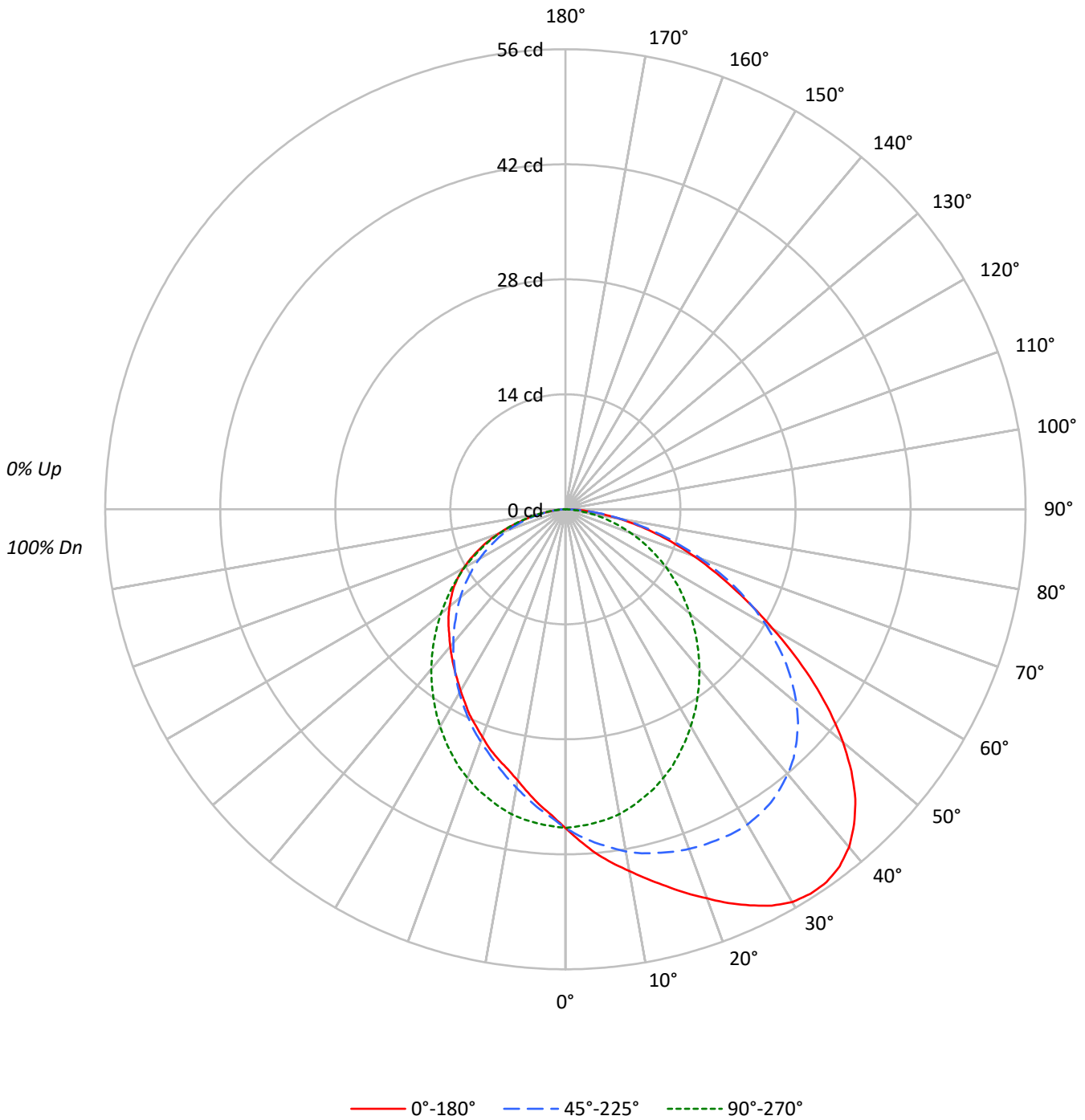
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 120.2 lumens
Efficiency: N/A
Efficacy: 34.3 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°	374	374	374
5°	406	371	349
10°	437	369	327
15°	473	363	314
20°	516	357	302
25°	565	348	293
30°	614	339	283
35°	651	329	277
40°	675	319	274
45°	679	308	274
50°	661	297	276
55°	619	285	279
60°	562	273	275
65°	510	257	264
70°	467	239	242
75°	424	216	208
80°	371	177	161
85°	309	133	122



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3.7	3.1
10°-20°	10.7	8.9
20°-30°	16.8	14.0
30°-40°	21.1	17.5
40°-50°	22.4	18.6
50°-60°	20.2	16.8
60°-70°	15.0	12.5
70°-80°	8.2	6.8
80°-90°	2.1	1.7
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°	31.2	26.0
0°-40°	52.3	43.5
0°-60°	94.9	79.0
0°-90°	120.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	120.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	39	39	39	39	39	
5°	42	41	38	37	36	4
15°	48	43	36	32	32	14
25°	53	44	33	28	28	25
35°	55	44	28	24	24	35
45°	50	40	23	19	20	38
55°	37	33	17	14	17	33
65°	22	23	11	10	12	22
75°	11	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-NL930-UNV-ASY

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8
2.5°	40.4	40.3	40.2	40.2	40.0	39.8	39.7	39.7	39.5	39.0	38.6
5°	42.0	41.8	41.6	41.4	41.1	40.7	40.4	40.1	39.6	38.9	38.4
7.5°	43.4	43.2	42.9	42.6	42.1	41.5	40.9	40.5	39.7	38.7	38.1
10°	44.7	44.5	44.2	43.7	43.0	42.3	41.4	40.6	39.6	38.4	37.7
12.5°	46.1	45.9	45.4	44.8	43.9	42.9	41.7	40.7	39.4	37.9	37.1
15°	47.5	47.3	46.8	46.0	44.7	43.3	41.9	40.6	39.1	37.4	36.4
17.5°	49.0	48.8	48.1	47.0	45.4	43.7	41.9	40.4	38.6	36.7	35.7
20°	50.4	50.2	49.3	48.0	46.1	44.0	41.9	40.0	38.0	35.9	34.8
22.5°	51.9	51.7	50.6	49.0	46.6	44.2	41.8	39.6	37.3	35.0	33.9
25°	53.2	53.0	51.8	49.9	47.2	44.3	41.4	38.9	36.5	34.0	32.8
27.5°	54.4	54.1	52.8	50.7	47.7	44.4	41.0	38.2	35.6	32.9	31.7
30°	55.2	54.9	53.6	51.4	48.0	44.3	40.5	37.4	34.5	31.8	30.5
32.5°	55.5	55.3	54.0	51.6	48.0	44.0	39.9	36.4	33.4	30.6	29.3
35°	55.4	55.2	53.9	51.6	47.9	43.6	39.1	35.4	32.2	29.3	28.0
37.5°	54.8	54.6	53.4	51.2	47.5	42.9	38.2	34.2	30.9	28.0	26.7
40°	53.7	53.4	52.4	50.3	46.8	42.1	37.2	32.9	29.6	26.7	25.4
42.5°	52.0	51.8	51.0	49.1	45.8	41.1	36.1	31.6	28.2	25.4	24.0
45°	49.9	49.6	49.1	47.5	44.5	39.8	34.7	30.2	26.7	23.9	22.6
47.5°	47.2	47.0	46.7	45.5	42.9	38.4	33.2	28.7	25.2	22.5	21.2
50°	44.1	43.9	44.0	43.2	41.0	36.7	31.6	27.0	23.6	20.9	19.8
52.5°	40.6	40.5	40.9	40.5	38.8	34.8	29.9	25.4	22.0	19.5	18.3
55°	36.9	36.7	37.4	37.5	36.4	32.8	27.9	23.7	20.4	18.0	17.0
57.5°	33.0	32.8	33.8	34.3	33.7	30.5	25.9	21.9	18.7	16.5	15.5
60°	29.2	29.1	30.1	30.9	30.9	28.2	23.8	20.0	17.0	15.0	14.2
62.5°	25.7	25.5	26.5	27.5	27.9	25.7	21.8	18.1	15.3	13.5	12.7
65°	22.4	22.3	23.1	24.2	24.8	23.1	19.6	16.1	13.7	12.0	11.3
67.5°	19.4	19.4	19.9	20.9	21.7	20.4	17.3	14.3	11.9	10.6	9.9
70°	16.6	16.6	17.0	17.6	18.6	17.5	15.0	12.3	10.3	9.1	8.5
72.5°	13.9	14.0	14.2	14.7	15.7	14.8	12.7	10.4	8.7	7.6	7.1
75°	11.4	11.4	11.6	12.0	12.8	12.1	10.4	8.6	7.1	6.2	5.8
77.5°	9.0	8.9	9.1	9.4	10.0	9.5	8.2	6.8	5.5	4.8	4.5
80°	6.7	6.7	6.8	7.0	7.4	7.0	6.1	5.1	4.0	3.5	3.2
82.5°	4.6	4.7	4.7	4.9	5.1	4.8	4.2	3.5	2.7	2.3	2.1
85°	2.8	2.9	2.8	3.0	3.1	2.8	2.5	2.1	1.5	1.3	1.2
87.5°	1.5	1.4	1.4	1.5	1.5	1.3	1.2	1.0	0.7	0.5	0.4
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°	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8
2.5°	38.4	38.5	38.4	37.8	37.6	37.4	37.3	37.2	37.4	37.3
5°	38.1	38.0	37.6	36.9	36.6	36.2	36.0	35.9	36.2	36.1
7.5°	37.7	37.3	36.8	36.0	35.5	35.0	34.8	34.7	34.8	34.8
10°	37.1	36.6	35.9	34.9	34.4	33.9	33.6	33.4	33.5	33.5
12.5°	36.4	35.7	34.9	33.8	33.3	32.7	32.5	32.3	32.5	32.4
15°	35.7	34.8	33.9	32.8	32.2	31.7	31.5	31.4	31.5	31.5
17.5°	34.8	33.8	32.8	31.7	31.1	30.7	30.5	30.5	30.5	30.6
20°	33.9	32.8	31.7	30.6	30.1	29.7	29.5	29.4	29.6	29.5
22.5°	32.8	31.7	30.5	29.5	29.1	28.6	28.5	28.4	28.6	28.5
25°	31.7	30.5	29.3	28.4	28.0	27.6	27.5	27.4	27.5	27.6
27.5°	30.7	29.3	28.2	27.3	26.9	26.6	26.5	26.4	26.5	26.5
30°	29.4	28.1	27.0	26.2	25.8	25.5	25.4	25.3	25.4	25.5
32.5°	28.3	26.9	25.8	25.0	24.7	24.4	24.4	24.3	24.4	24.5
35°	27.0	25.6	24.6	23.8	23.5	23.3	23.3	23.4	23.5	23.6
37.5°	25.7	24.4	23.3	22.7	22.4	22.2	22.3	22.4	22.6	22.7
40°	24.4	23.1	22.1	21.5	21.2	21.1	21.3	21.5	21.7	21.8
42.5°	23.0	21.8	20.9	20.3	20.1	20.1	20.4	20.6	20.8	20.9
45°	21.7	20.5	19.6	19.1	18.9	19.1	19.4	19.7	20.0	20.1
47.5°	20.3	19.2	18.4	17.9	17.8	18.0	18.4	18.8	19.1	19.3
50°	19.0	17.9	17.1	16.7	16.7	16.9	17.5	17.9	18.3	18.4
52.5°	17.6	16.6	15.8	15.5	15.6	15.9	16.5	17.0	17.4	17.5
55°	16.3	15.3	14.5	14.3	14.4	14.8	15.4	16.0	16.4	16.6
57.5°	14.9	14.0	13.3	13.1	13.3	13.7	14.4	14.9	15.3	15.5
60°	13.5	12.6	12.1	11.9	12.1	12.6	13.3	13.8	14.2	14.3
62.5°	12.2	11.3	10.8	10.7	10.9	11.4	12.1	12.6	12.9	13.0
65°	10.8	10.0	9.6	9.5	9.7	10.2	10.9	11.3	11.5	11.6
67.5°	9.4	8.8	8.4	8.3	8.6	9.0	9.6	9.8	10.0	10.2
70°	8.1	7.5	7.2	7.1	7.4	7.8	8.3	8.4	8.5	8.6
72.5°	6.8	6.3	6.0	6.0	6.2	6.5	7.0	7.0	7.0	7.1
75°	5.5	5.1	4.8	4.9	5.0	5.3	5.6	5.5	5.5	5.6
77.5°	4.3	3.9	3.7	3.8	3.9	4.1	4.3	4.2	4.1	4.2
80°	3.1	2.8	2.7	2.7	2.8	2.9	3.1	3.0	2.8	2.9
82.5°	2.0	1.8	1.8	1.8	1.9	1.9	2.0	1.8	1.8	1.9
85°	1.1	1.0	1.0	1.1	1.1	1.1	1.1	1.0	1.1	1.1
87.5°	0.4	0.4	0.5	0.5	0.5	0.4	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)