

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: P709044

Luminaire Tested: **4APN-X-X-NL830-UNV**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P709044
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-NL830-UNV
Description: ArcMed Patient Recessed 4 FT x6 IN Fixture NIGHT Light
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

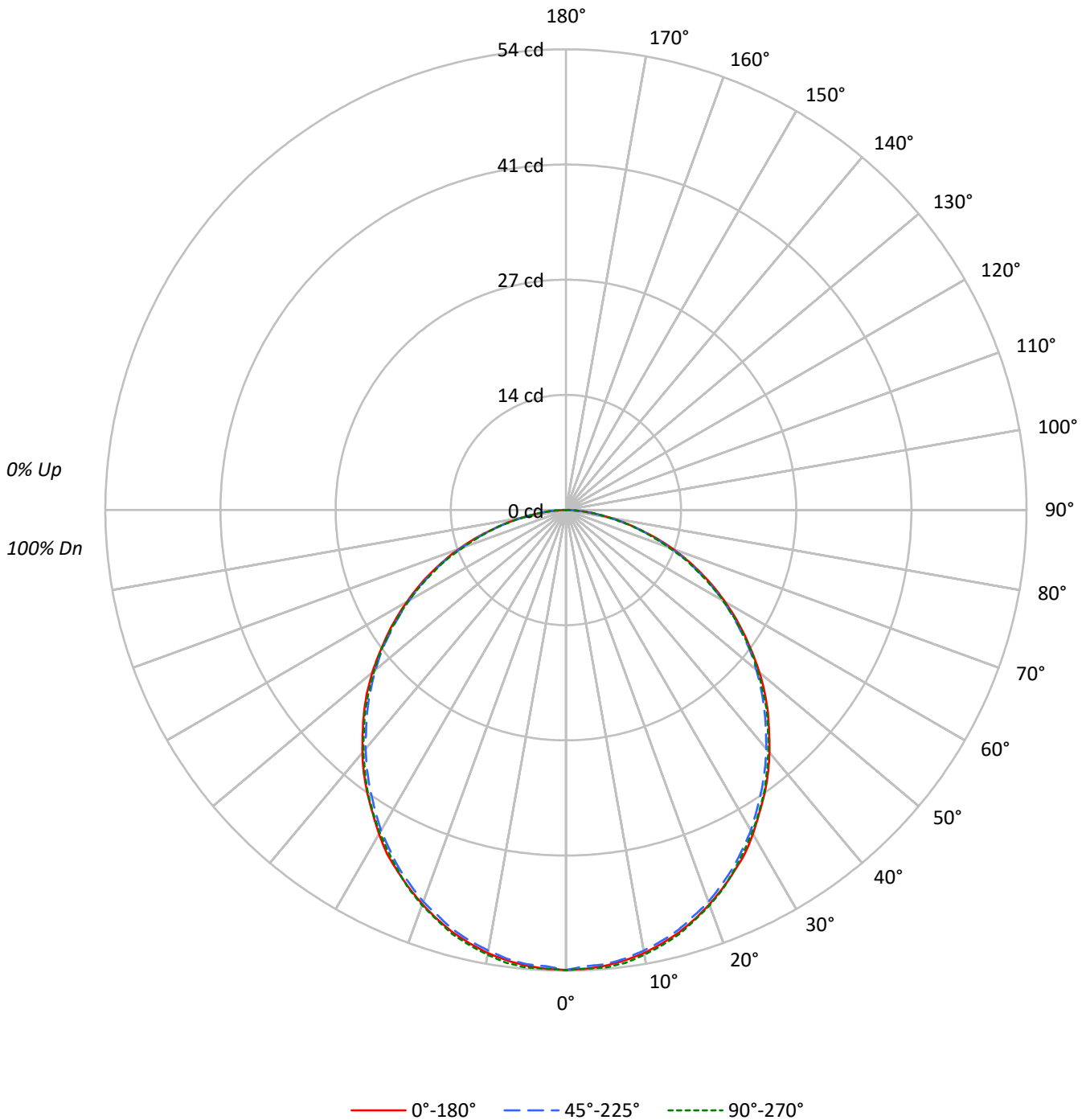
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 143.8 lumens
Efficiency: N/A
Efficacy: 41.1 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				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°	290	290	290
5°	290	289	291
10°	288	287	289
15°	286	284	287
20°	282	280	282
25°	277	275	277
30°	273	269	271
35°	267	263	266
40°	261	257	259
45°	255	250	253
50°	248	244	246
55°	240	236	238
60°	232	229	230
65°	223	219	218
70°	210	207	202
75°	189	187	185
80°	162	165	159
85°	134	140	134



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	5.1	3.5
10°-20°	14.4	10.0
20°-30°	21.5	14.9
30°-40°	25.2	17.5
40°-50°	25.6	17.8
50°-60°	22.7	15.8
60°-70°	17.1	11.9
70°-80°	9.6	6.7
80°-90°	2.6	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°	41.0	28.5
0°-40°	66.2	46.1
0°-60°	114.5	79.6
0°-90°	143.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	143.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	54	54	54	54	54	
5°	54	54	53	54	54	5
15°	51	52	51	51	51	14
25°	47	47	46	46	47	22
35°	41	41	40	40	40	25
45°	33	33	33	33	33	26
55°	26	26	25	25	25	23
65°	17	17	17	17	17	17
75°	9	9	9	9	9	10
85°	2	2	2	2	2	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	53.9	53.9	53.9	53.9	53.9
2.5°	53.8	54.2	53.5	53.9	53.8
5°	53.6	54.1	53.4	53.5	53.8
7.5°	53.2	53.7	53.0	53.1	53.5
10°	52.7	53.1	52.4	52.7	52.9
12.5°	52.0	52.4	51.8	52.0	52.2
15°	51.3	51.6	51.0	51.2	51.5
17.5°	50.3	50.6	49.9	50.3	50.4
20°	49.2	49.5	48.9	49.1	49.3
22.5°	48.0	48.3	47.6	47.7	48.1
25°	46.7	47.0	46.3	46.3	46.6
27.5°	45.4	45.5	44.8	44.9	45.1
30°	43.9	44.0	43.4	43.5	43.7
32.5°	42.2	42.4	41.7	41.8	42.1
35°	40.6	40.7	40.0	40.2	40.5
37.5°	38.9	38.9	38.3	38.4	38.7
40°	37.1	37.1	36.5	36.6	36.9
42.5°	35.3	35.3	34.7	34.9	35.1
45°	33.5	33.4	32.9	33.0	33.3
47.5°	31.6	31.5	31.0	31.1	31.3
50°	29.6	29.5	29.1	29.1	29.3
52.5°	27.6	27.7	27.3	27.3	27.5
55°	25.6	25.7	25.2	25.3	25.4
57.5°	23.6	23.6	23.2	23.3	23.3
60°	21.5	21.6	21.2	21.3	21.3
62.5°	19.6	19.6	19.3	19.3	19.2
65°	17.5	17.4	17.2	17.3	17.1
67.5°	15.4	15.3	15.2	15.2	15.1
70°	13.3	13.2	13.1	13.0	12.8
72.5°	11.3	11.2	11.0	11.1	10.9
75°	9.1	9.1	9.0	9.1	8.9
77.5°	7.2	7.1	7.1	7.1	7.0
80°	5.2	5.2	5.3	5.3	5.1
82.5°	3.7	3.6	3.7	3.8	3.6
85°	2.2	2.2	2.3	2.3	2.2
87.5°	0.9	0.9	1.1	1.1	1.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)