

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-RL930-UNV-NP**

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-RL930-UNV-NP
Description: ArcMed Patient Recessed 4 FT x6 IN Fixture READING Light w/ Nature Pattern Lens
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

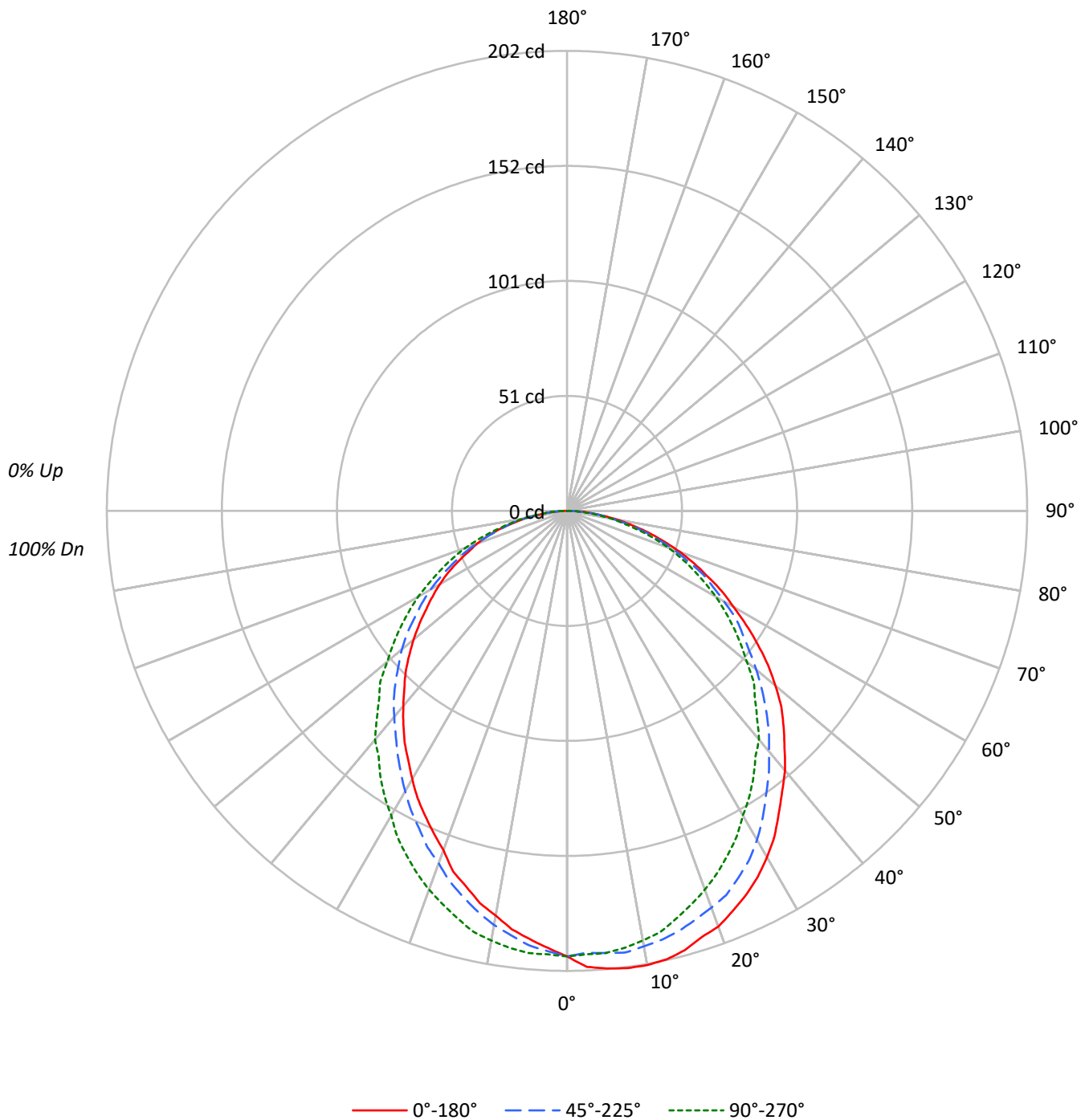
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 509.6 lumens
Efficiency: N/A
Efficacy: 33.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.18 / 1.3
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 15.1
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-RL930-UNV-NP

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					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	109	104	100	96	106	102	98	94	98	94	91	94	91	89	90	88	86	84		
2	99	91	84	78	96	89	83	77	85	80	76	82	78	74	79	75	72	70		
3	90	80	72	65	88	78	71	65	75	69	64	73	67	62	70	65	61	59		
4	83	71	62	56	81	70	61	55	67	60	54	65	59	54	63	57	53	51		
5	76	63	55	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44		
6	71	57	48	42	69	56	48	42	54	47	41	53	46	41	51	45	41	39		
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	34		
8	61	48	39	33	59	47	39	33	45	38	33	44	38	33	43	37	33	31		
9	57	44	35	30	56	43	35	30	42	35	30	41	34	30	40	34	29	28		
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	1053	1053	1053
5°	1090	1053	1019
10°	1107	1047	986
15°	1113	1032	952
20°	1112	1014	908
25°	1105	991	876
30°	1091	960	845
35°	1064	938	816
40°	1046	921	785
45°	1024	887	763
50°	1000	862	736
55°	959	837	708
60°	908	813	694
65°	866	777	672
70°	831	746	659
75°	771	672	626
80°	704	617	573
85°	636	506	469



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	18.4	3.6
10°-20°	52.0	10.2
20°-30°	76.5	15.0
30°-40°	88.9	17.4
40°-50°	89.5	17.6
50°-60°	79.5	15.6
60°-70°	60.1	11.8
70°-80°	34.7	6.8
80°-90°	10.1	2.0
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°	146.9	28.8
0°-40°	235.8	46.3
0°-60°	404.8	79.4
0°-90°	509.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	509.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	196	196	196	196	196	
5°	202	195	195	192	189	19
15°	200	191	185	176	171	56
25°	186	178	167	154	148	86
35°	162	152	143	130	124	102
45°	134	124	117	106	100	104
55°	102	94	89	82	76	91
65°	68	66	61	56	53	68
75°	37	35	32	30	30	39
85°	10	10	8	8	8	12
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	195.6	195.6	195.6	195.6	195.6	195.6	195.6	195.6	195.6
2.5°	200.4	198.3	194.2	193.5	194.9	196.9	193.5	194.2	192.1
5°	201.7	199.0	194.9	192.8	194.9	194.9	191.5	190.8	188.7
7.5°	202.5	199.7	195.6	192.1	193.5	192.8	188.0	187.4	185.3
10°	202.5	199.7	194.2	190.8	191.5	190.1	184.6	183.2	180.4
12.5°	201.7	198.3	192.8	188.7	189.4	186.6	180.4	178.4	176.4
15°	199.7	195.6	190.8	186.6	185.3	182.6	175.6	173.6	170.8
17.5°	196.3	193.5	188.0	183.2	181.2	177.8	170.8	168.2	166.1
20°	194.2	190.1	185.3	179.8	177.0	172.2	164.7	162.0	158.5
22.5°	190.1	186.6	182.6	174.4	172.2	166.8	159.9	155.8	153.1
25°	186.0	181.8	177.8	170.2	166.8	162.0	153.7	150.3	147.5
27.5°	181.2	177.0	173.0	164.7	161.3	155.8	148.3	144.1	142.1
30°	175.6	171.6	166.8	159.9	154.4	149.6	142.1	138.6	135.9
32.5°	169.5	164.7	159.9	153.1	148.9	143.5	135.9	132.4	129.7
35°	162.0	157.1	152.3	146.9	142.7	137.3	129.7	127.0	124.2
37.5°	155.1	150.3	145.5	140.7	135.9	132.4	123.5	120.8	118.0
40°	148.9	142.7	137.9	133.8	131.1	124.2	118.0	114.6	111.8
42.5°	141.3	135.9	131.1	127.6	123.5	119.4	112.6	109.1	105.7
45°	134.5	128.3	123.5	120.8	116.6	111.8	106.4	102.9	100.2
47.5°	127.6	120.8	116.0	113.2	111.2	105.0	100.2	97.5	94.0
50°	119.4	113.2	108.4	106.4	102.9	98.1	94.7	91.3	87.9
52.5°	111.2	106.4	100.9	99.5	96.1	92.7	88.5	85.7	81.7
55°	102.2	98.1	94.0	92.7	89.2	86.5	81.7	79.6	75.5
57.5°	93.3	90.5	87.9	85.7	82.3	78.9	75.5	73.4	70.0
60°	84.4	83.1	79.6	80.3	75.5	72.1	69.3	67.2	64.5
62.5°	76.9	75.5	72.1	70.0	68.0	64.5	62.4	61.0	59.0
65°	68.0	67.2	65.9	63.2	61.0	57.6	55.6	54.2	52.8
67.5°	60.4	59.7	57.0	55.6	54.2	50.8	49.4	48.0	46.7
70°	52.8	51.4	50.1	49.4	47.4	43.9	42.5	41.2	41.9
72.5°	44.6	43.9	41.9	42.5	39.8	37.1	35.7	37.1	36.3
75°	37.1	36.3	35.0	33.7	32.3	30.1	29.5	30.9	30.1
77.5°	29.5	28.9	27.5	26.7	25.4	23.3	24.7	24.1	23.3
80°	22.7	21.9	20.6	20.6	19.9	17.9	18.5	18.5	18.5
82.5°	15.8	15.8	15.1	14.4	13.0	12.4	13.0	13.0	12.4
85°	10.3	10.3	9.6	8.9	8.2	7.6	8.2	8.2	7.6
87.5°	6.2	5.5	4.8	4.8	4.1	4.1	4.1	4.1	2.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)