

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: P709057

Luminaire Tested: **4APN-X-X-RL935-UNV**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P709057
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-RL935-UNV
Description: ArcMed Patient Recessed 4 FT x6 IN Fixture READING Light
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

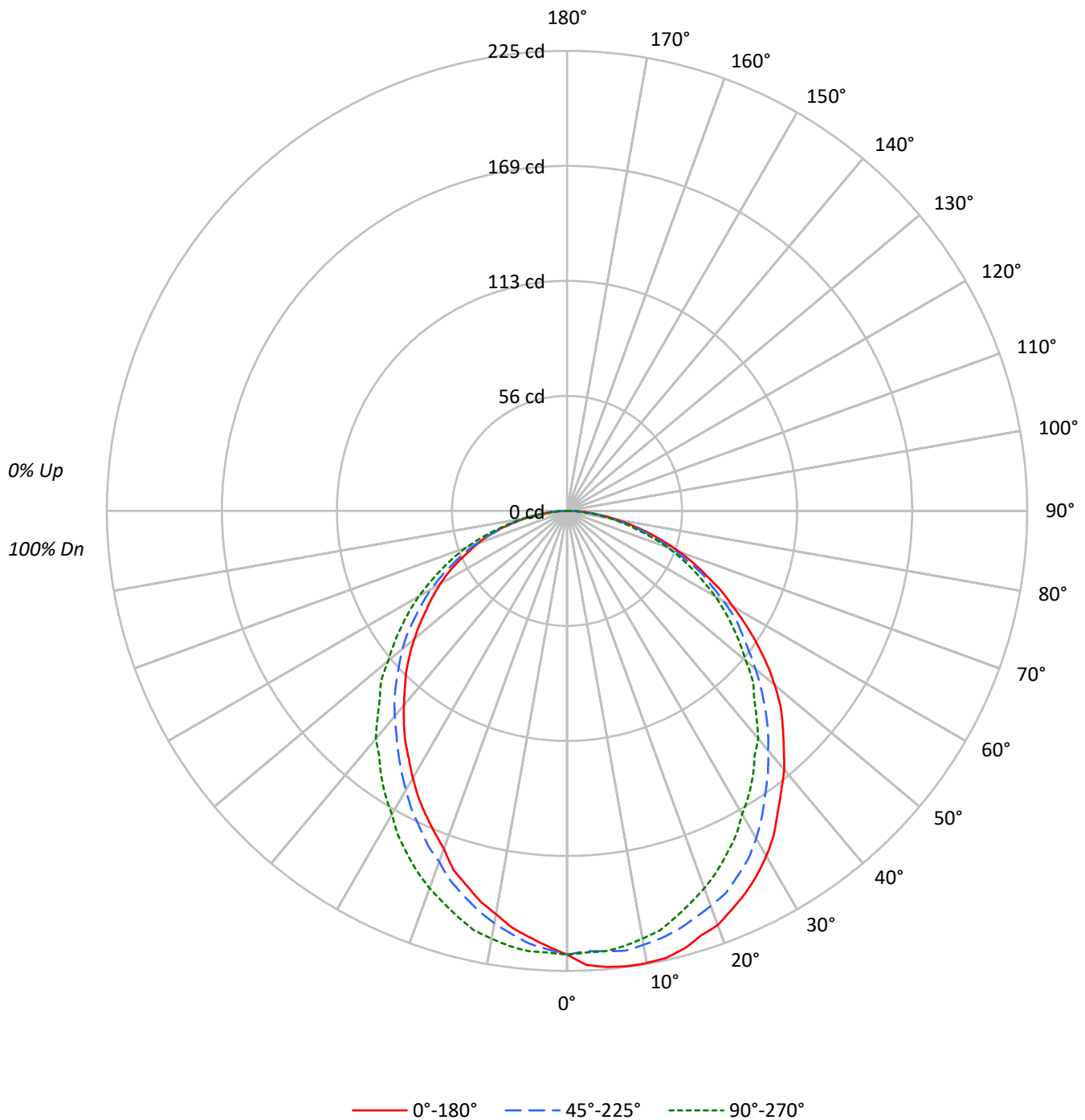
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 565.5 lumens
Efficiency: N/A
Efficacy: 37.4 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 (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
RC	80				70					50					30					10
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°	1168	1168	1168
5°	1210	1168	1131
10°	1227	1161	1094
15°	1235	1146	1056
20°	1234	1125	1007
25°	1225	1099	972
30°	1211	1065	937
35°	1181	1041	905
40°	1161	1022	872
45°	1136	985	846
50°	1109	956	816
55°	1064	929	786
60°	1009	902	771
65°	960	863	746
70°	922	826	730
75°	855	744	697
80°	778	685	638
85°	704	562	519



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	20.5	3.6
10°-20°	57.6	10.2
20°-30°	84.9	15.0
30°-40°	98.7	17.4
40°-50°	99.3	17.6
50°-60°	88.2	15.6
60°-70°	66.7	11.8
70°-80°	38.5	6.8
80°-90°	11.2	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°	163.0	28.8
0°-40°	261.6	46.3
0°-60°	449.1	79.4
0°-90°	565.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	565.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	217	217	217	217	217	
5°	224	216	216	212	209	21
15°	222	212	206	195	190	62
25°	206	197	185	171	164	95
35°	180	169	158	144	138	113
45°	149	137	129	118	111	115
55°	113	104	99	91	84	101
65°	75	73	68	62	59	75
75°	41	39	36	33	34	44
85°	11	11	9	9	8	13
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°	217.0	217.0	217.0	217.0	217.0	217.0	217.0	217.0	217.0
2.5°	222.3	220.0	215.5	214.7	216.2	218.5	214.7	215.5	213.2
5°	223.9	220.8	216.2	214.0	216.2	216.2	212.4	211.7	209.4
7.5°	224.6	221.6	217.0	213.2	214.7	214.0	208.6	207.9	205.6
10°	224.6	221.6	215.5	211.7	212.4	210.9	204.8	203.3	200.2
12.5°	223.9	220.0	214.0	209.4	210.1	207.1	200.2	198.0	195.7
15°	221.6	217.0	211.7	207.1	205.6	202.5	194.9	192.6	189.6
17.5°	217.8	214.7	208.6	203.3	201.0	197.2	189.6	186.5	184.3
20°	215.5	210.9	205.6	199.5	196.4	191.1	182.7	179.7	175.9
22.5°	210.9	207.1	202.5	193.4	191.1	185.0	177.4	172.8	169.8
25°	206.3	201.8	197.2	188.8	185.0	179.7	170.6	166.7	163.7
27.5°	201.0	196.4	191.9	182.7	178.9	172.8	164.5	159.9	157.6
30°	194.9	190.3	185.0	177.4	171.3	166.0	157.6	153.8	150.8
32.5°	188.1	182.7	177.4	169.8	165.2	159.1	150.8	146.9	143.9
35°	179.7	174.4	169.0	162.9	158.4	152.3	143.9	140.9	137.8
37.5°	172.1	166.7	161.4	156.1	150.8	146.9	137.1	134.0	131.0
40°	165.2	158.4	153.0	148.5	145.4	137.8	131.0	127.2	124.1
42.5°	156.8	150.8	145.4	141.6	137.1	132.5	124.9	121.1	117.3
45°	149.2	142.4	137.1	134.0	129.4	124.1	118.0	114.2	111.2
47.5°	141.6	134.0	128.7	125.6	123.3	116.5	111.2	108.1	104.3
50°	132.5	125.6	120.3	118.0	114.2	108.9	105.1	101.3	97.5
52.5°	123.3	118.0	111.9	110.4	106.6	102.8	98.2	95.2	90.6
55°	113.4	108.9	104.3	102.8	99.0	95.9	90.6	88.3	83.8
57.5°	103.5	100.5	97.5	95.2	91.4	87.6	83.8	81.5	77.7
60°	93.7	92.1	88.3	89.1	83.8	79.9	76.9	74.6	71.6
62.5°	85.3	83.8	79.9	77.7	75.4	71.6	69.3	67.8	65.5
65°	75.4	74.6	73.1	70.0	67.8	64.0	61.7	60.2	58.6
67.5°	67.0	66.2	63.2	61.7	60.2	56.3	54.8	53.3	51.8
70°	58.6	57.1	55.6	54.8	52.5	48.7	47.2	45.7	46.4
72.5°	49.5	48.7	46.4	47.2	44.2	41.1	39.6	41.1	40.4
75°	41.1	40.4	38.8	37.3	35.8	33.5	32.7	34.3	33.5
77.5°	32.7	32.0	30.5	29.7	28.2	25.9	27.4	26.6	25.9
80°	25.1	24.4	22.8	22.8	22.1	19.8	20.6	20.6	20.6
82.5°	17.5	17.5	16.8	16.0	14.5	13.7	14.5	14.5	13.7
85°	11.4	11.4	10.7	9.9	9.1	8.4	9.1	9.1	8.4
87.5°	6.9	6.1	5.3	5.3	4.6	4.6	4.6	4.6	3.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)