

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-RL850-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-RL850-UNV-NP
Description: ArcMed Patient Recessed 4 FT x6 IN Fixture READING Light w/ Nature Pattern Lens
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

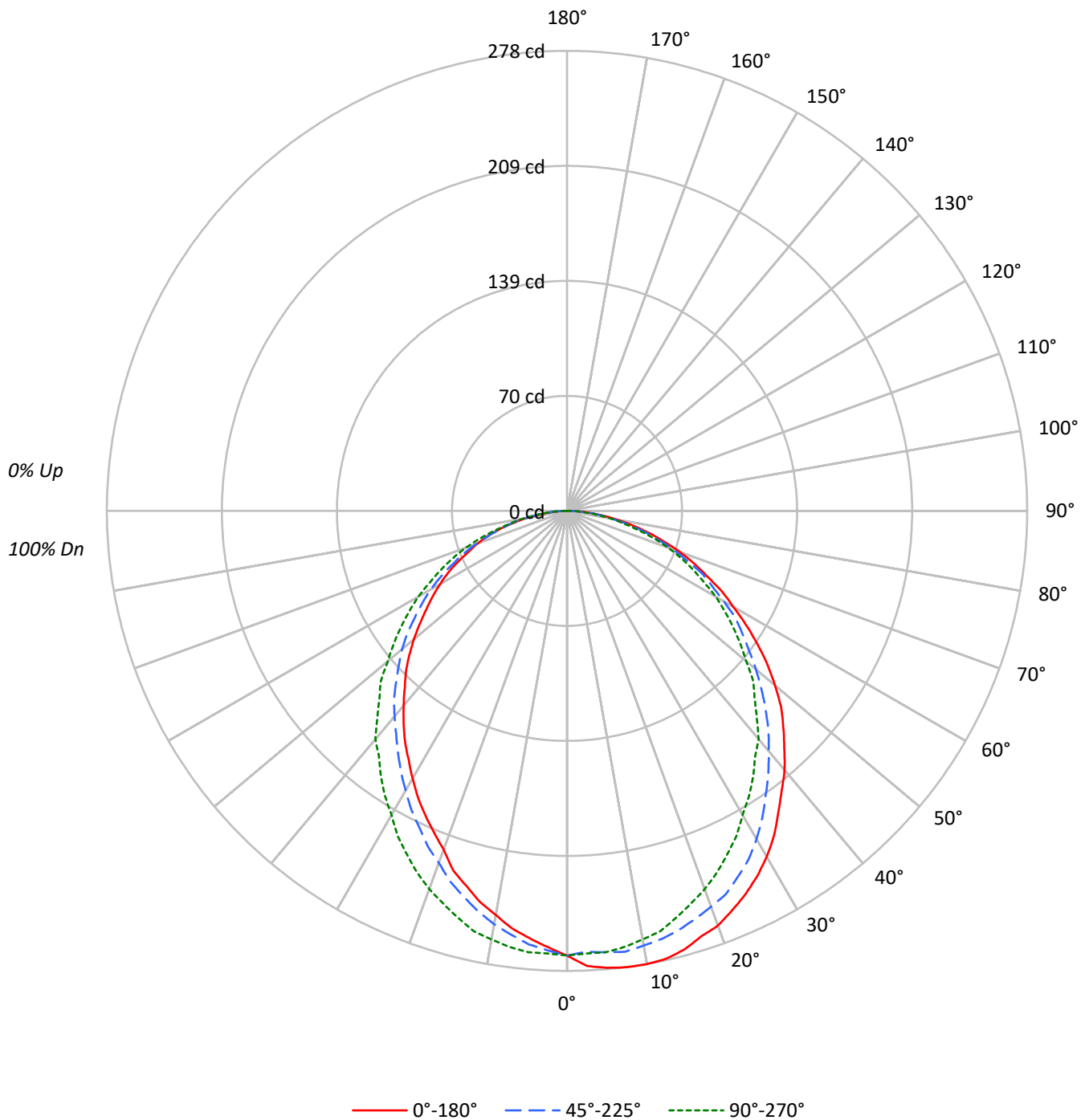
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 700.0 lumens
Efficiency: N/A
Efficacy: 46.4 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
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	109	104	100	96	106	102	98	94	98	94	91		94	91	89		90
2	99	91	84	78	96	89	83	77	85	80	76		82	78	74		79
3	90	80	72	65	88	78	71	65	75	69	64		73	67	62		70
4	83	71	62	56	81	70	61	55	67	60	54		65	59	54		63
5	76	63	55	48	74	62	54	48	60	53	47		58	52	47		56
6	71	57	48	42	69	56	48	42	54	47	41		53	46	41		51
7	65	52	43	37	64	51	43	37	50	42	37		48	41	36		47
8	61	48	39	33	59	47	39	33	45	38	33		44	38	33		43
9	57	44	35	30	56	43	35	30	42	35	30		41	34	30		40
10	53	40	32	27	52	40	32	27	39	32	27		38	31	27		37

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	1446	1446	1446
5°	1498	1446	1400
10°	1520	1437	1355
15°	1528	1418	1308
20°	1527	1393	1247
25°	1517	1360	1204
30°	1500	1318	1160
35°	1462	1288	1121
40°	1437	1265	1079
45°	1407	1219	1048
50°	1373	1183	1011
55°	1317	1149	973
60°	1248	1116	954
65°	1188	1068	925
70°	1142	1023	905
75°	1058	921	863
80°	964	846	787
85°	871	698	636



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	25.3	3.6
10°-20°	71.4	10.2
20°-30°	105.1	15.0
30°-40°	122.1	17.4
40°-50°	123.0	17.6
50°-60°	109.2	15.6
60°-70°	82.5	11.8
70°-80°	47.7	6.8
80°-90°	13.8	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°	201.8	28.8
0°-40°	323.9	46.3
0°-60°	556.0	79.4
0°-90°	700.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	700.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	269	269	269	269	269	
5°	277	268	268	263	259	26
15°	274	262	254	241	235	77
25°	255	244	229	211	203	118
35°	222	209	196	178	171	139
45°	185	170	160	146	138	143
55°	140	129	122	112	104	125
65°	93	90	84	76	73	93
75°	51	48	44	41	42	54
85°	14	13	11	11	10	16
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°	268.7	268.7	268.7	268.7	268.7	268.7	268.7	268.7	268.7
2.5°	275.2	272.5	266.7	265.8	267.7	270.5	265.8	266.7	263.9
5°	277.2	273.4	267.7	264.9	267.7	267.7	263.0	262.0	259.2
7.5°	278.1	274.3	268.7	263.9	265.8	264.9	258.3	257.3	254.5
10°	278.1	274.3	266.7	262.0	263.0	261.1	253.6	251.7	247.9
12.5°	277.2	272.5	264.9	259.2	260.2	256.4	247.9	245.1	242.2
15°	274.3	268.7	262.0	256.4	254.5	250.7	241.3	238.4	234.7
17.5°	269.6	265.8	258.3	251.7	248.8	244.1	234.7	231.0	228.1
20°	266.7	261.1	254.5	246.9	243.2	236.6	226.3	222.5	217.8
22.5°	261.1	256.4	250.7	239.4	236.6	229.0	219.6	214.0	210.2
25°	255.4	249.8	244.1	233.7	229.0	222.5	211.1	206.4	202.7
27.5°	248.8	243.2	237.5	226.3	221.5	214.0	203.6	198.0	195.1
30°	241.3	235.7	229.0	219.6	212.1	205.5	195.1	190.4	186.6
32.5°	232.8	226.3	219.6	210.2	204.5	197.0	186.6	181.9	178.1
35°	222.5	215.8	209.3	201.7	196.0	188.5	178.1	174.4	170.6
37.5°	213.0	206.4	199.8	193.3	186.6	181.9	169.6	165.9	162.1
40°	204.5	196.0	189.5	183.8	180.1	170.6	162.1	157.4	153.6
42.5°	194.2	186.6	180.1	175.4	169.6	164.0	154.6	149.8	145.1
45°	184.8	176.3	169.6	165.9	160.2	153.6	146.1	141.3	137.7
47.5°	175.4	165.9	159.3	155.5	152.7	144.2	137.7	133.9	129.2
50°	164.0	155.5	148.9	146.1	141.3	134.8	130.1	125.4	120.7
52.5°	152.7	146.1	138.6	136.6	131.9	127.2	121.6	117.8	112.2
55°	140.4	134.8	129.2	127.2	122.5	118.8	112.2	109.3	103.7
57.5°	128.2	124.4	120.7	117.8	113.1	108.4	103.7	100.9	96.2
60°	115.9	114.1	109.3	110.3	103.7	98.9	95.2	92.4	88.6
62.5°	105.6	103.7	98.9	96.2	93.3	88.6	85.7	83.9	81.0
65°	93.3	92.4	90.4	86.8	83.9	79.2	76.3	74.5	72.6
67.5°	83.0	82.0	78.3	76.3	74.5	69.8	67.9	66.0	64.1
70°	72.6	70.7	68.8	67.9	65.0	60.3	58.5	56.5	57.5
72.5°	61.3	60.3	57.5	58.5	54.7	50.9	49.1	50.9	50.0
75°	50.9	50.0	48.0	46.2	44.3	41.5	40.6	42.4	41.5
77.5°	40.6	39.6	37.7	36.8	34.9	32.1	33.9	33.0	32.1
80°	31.1	30.1	28.3	28.3	27.3	24.5	25.4	25.4	25.4
82.5°	21.7	21.7	20.7	19.8	17.9	17.0	17.9	17.9	17.0
85°	14.1	14.1	13.2	12.3	11.3	10.3	11.3	11.3	10.3
87.5°	8.5	7.6	6.6	6.6	5.6	5.6	5.6	5.6	3.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)