

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: P709055

Luminaire Tested: **4APN-X-X-RL850-UNV**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P709055
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-RL850-UNV
Description: ArcMed Patient Recessed 4 FT x6 IN Fixture READING Light
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

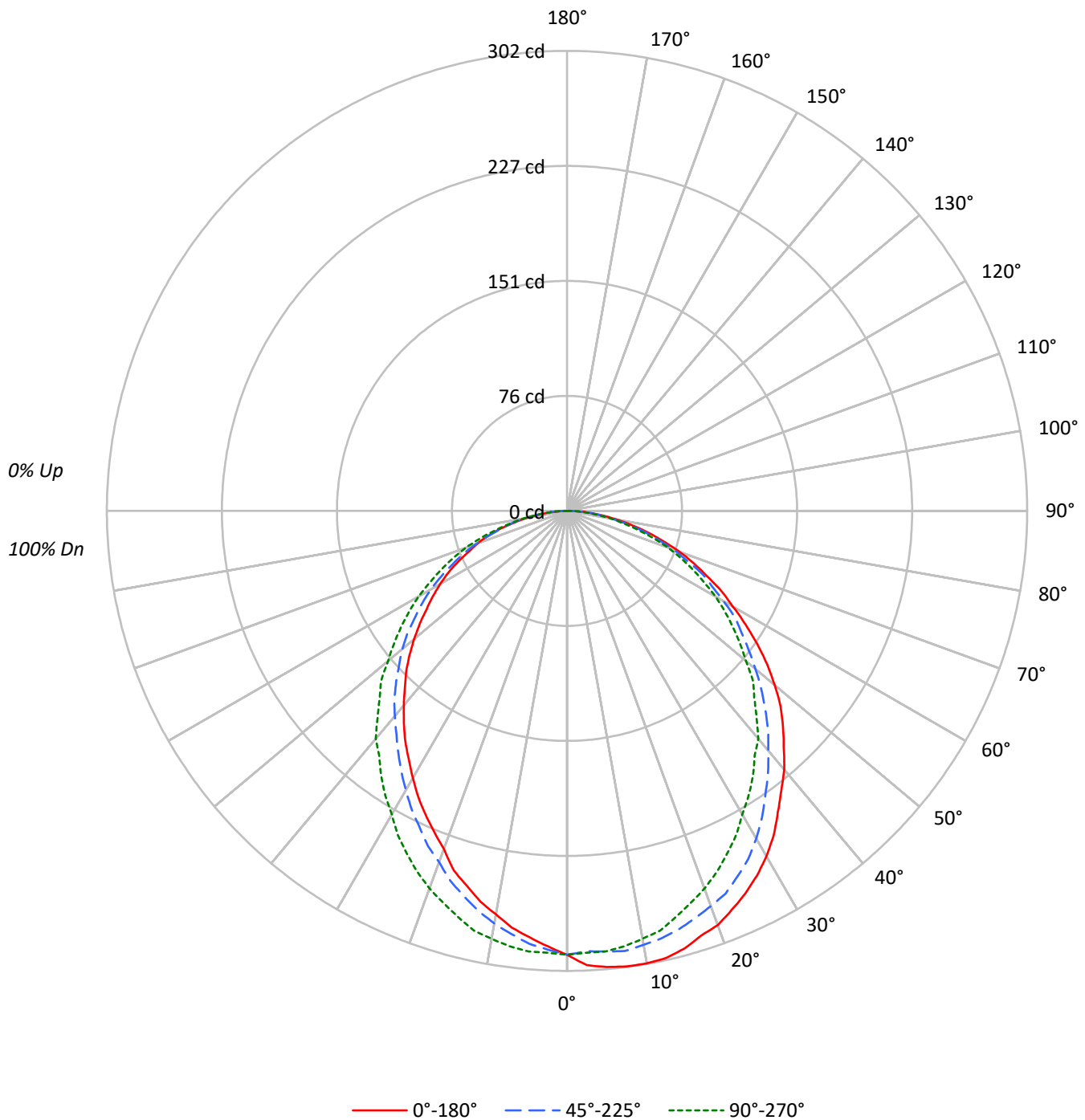
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 759.2 lumens
Efficiency: N/A
Efficacy: 50.3 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°	1568	1568	1568
5°	1624	1568	1519
10°	1648	1559	1470
15°	1658	1538	1419
20°	1657	1511	1353
25°	1645	1475	1305
30°	1626	1429	1258
35°	1585	1397	1215
40°	1558	1372	1170
45°	1525	1323	1136
50°	1490	1284	1096
55°	1429	1247	1056
60°	1353	1211	1034
65°	1289	1159	1002
70°	1238	1109	982
75°	1148	998	936
80°	1044	917	855
85°	945	760	692



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	27.5	3.6
10°-20°	77.4	10.2
20°-30°	113.9	15.0
30°-40°	132.5	17.4
40°-50°	133.4	17.6
50°-60°	118.4	15.6
60°-70°	89.5	11.8
70°-80°	51.7	6.8
80°-90°	15.0	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°	218.8	28.8
0°-40°	351.3	46.3
0°-60°	603.0	79.4
0°-90°	759.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	759.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	291	291	291	291	291	
5°	301	290	290	285	281	29
15°	298	284	276	262	255	84
25°	277	265	248	229	220	128
35°	241	227	213	193	185	151
45°	200	184	174	158	149	155
55°	152	140	133	122	112	136
65°	101	98	91	83	79	101
75°	55	52	48	44	45	59
85°	15	14	12	12	11	18
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°	291.4	291.4	291.4	291.4	291.4	291.4	291.4	291.4	291.4
2.5°	298.5	295.5	289.3	288.3	290.3	293.4	288.3	289.3	286.2
5°	300.6	296.5	290.3	287.3	290.3	290.3	285.2	284.2	281.1
7.5°	301.6	297.5	291.4	286.2	288.3	287.3	280.1	279.1	276.0
10°	301.6	297.5	289.3	284.2	285.2	283.2	275.0	273.0	268.9
12.5°	300.6	295.5	287.3	281.1	282.2	278.1	268.9	265.8	262.7
15°	297.5	291.4	284.2	278.1	276.0	271.9	261.7	258.6	254.6
17.5°	292.4	288.3	280.1	273.0	269.9	264.8	254.6	250.5	247.4
20°	289.3	283.2	276.0	267.8	263.8	256.6	245.4	241.3	236.2
22.5°	283.2	278.1	271.9	259.7	256.6	248.4	238.2	232.1	228.0
25°	277.0	270.9	264.8	253.5	248.4	241.3	229.0	223.9	219.8
27.5°	269.9	263.8	257.6	245.4	240.2	232.1	220.8	214.7	211.6
30°	261.7	255.6	248.4	238.2	230.0	222.9	211.6	206.5	202.4
32.5°	252.5	245.4	238.2	228.0	221.8	213.7	202.4	197.3	193.2
35°	241.3	234.1	227.0	218.8	212.6	204.5	193.2	189.1	185.0
37.5°	231.0	223.9	216.7	209.6	202.4	197.3	184.0	179.9	175.8
40°	221.8	212.6	205.5	199.4	195.3	185.0	175.8	170.7	166.6
42.5°	210.6	202.4	195.3	190.2	184.0	177.9	167.7	162.5	157.4
45°	200.4	191.2	184.0	179.9	173.8	166.6	158.5	153.3	149.3
47.5°	190.2	179.9	172.8	168.7	165.6	156.4	149.3	145.2	140.1
50°	177.9	168.7	161.5	158.5	153.3	146.2	141.1	136.0	130.9
52.5°	165.6	158.5	150.3	148.2	143.1	138.0	131.9	127.8	121.7
55°	152.3	146.2	140.1	138.0	132.9	128.8	121.7	118.6	112.5
57.5°	139.0	134.9	130.9	127.8	122.7	117.6	112.5	109.4	104.3
60°	125.7	123.7	118.6	119.6	112.5	107.3	103.3	100.2	96.1
62.5°	114.5	112.5	107.3	104.3	101.2	96.1	93.0	91.0	87.9
65°	101.2	100.2	98.1	94.1	91.0	85.9	82.8	80.8	78.7
67.5°	90.0	88.9	84.9	82.8	80.8	75.7	73.6	71.6	69.5
70°	78.7	76.7	74.6	73.6	70.5	65.4	63.4	61.3	62.4
72.5°	66.5	65.4	62.4	63.4	59.3	55.2	53.2	55.2	54.2
75°	55.2	54.2	52.1	50.1	48.0	45.0	44.0	46.0	45.0
77.5°	44.0	42.9	40.9	39.9	37.8	34.8	36.8	35.8	34.8
80°	33.7	32.7	30.7	30.7	29.6	26.6	27.6	27.6	27.6
82.5°	23.5	23.5	22.5	21.5	19.4	18.4	19.4	19.4	18.4
85°	15.3	15.3	14.3	13.3	12.3	11.2	12.3	12.3	11.2
87.5°	9.2	8.2	7.2	7.2	6.1	6.1	6.1	6.1	4.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)