

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: P709054

Luminaire Tested: **4APN-X-X-RL840-UNV**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P709054
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-RL840-UNV
Description: ArcMed Patient Recessed 4 FT x6 IN Fixture READING Light
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

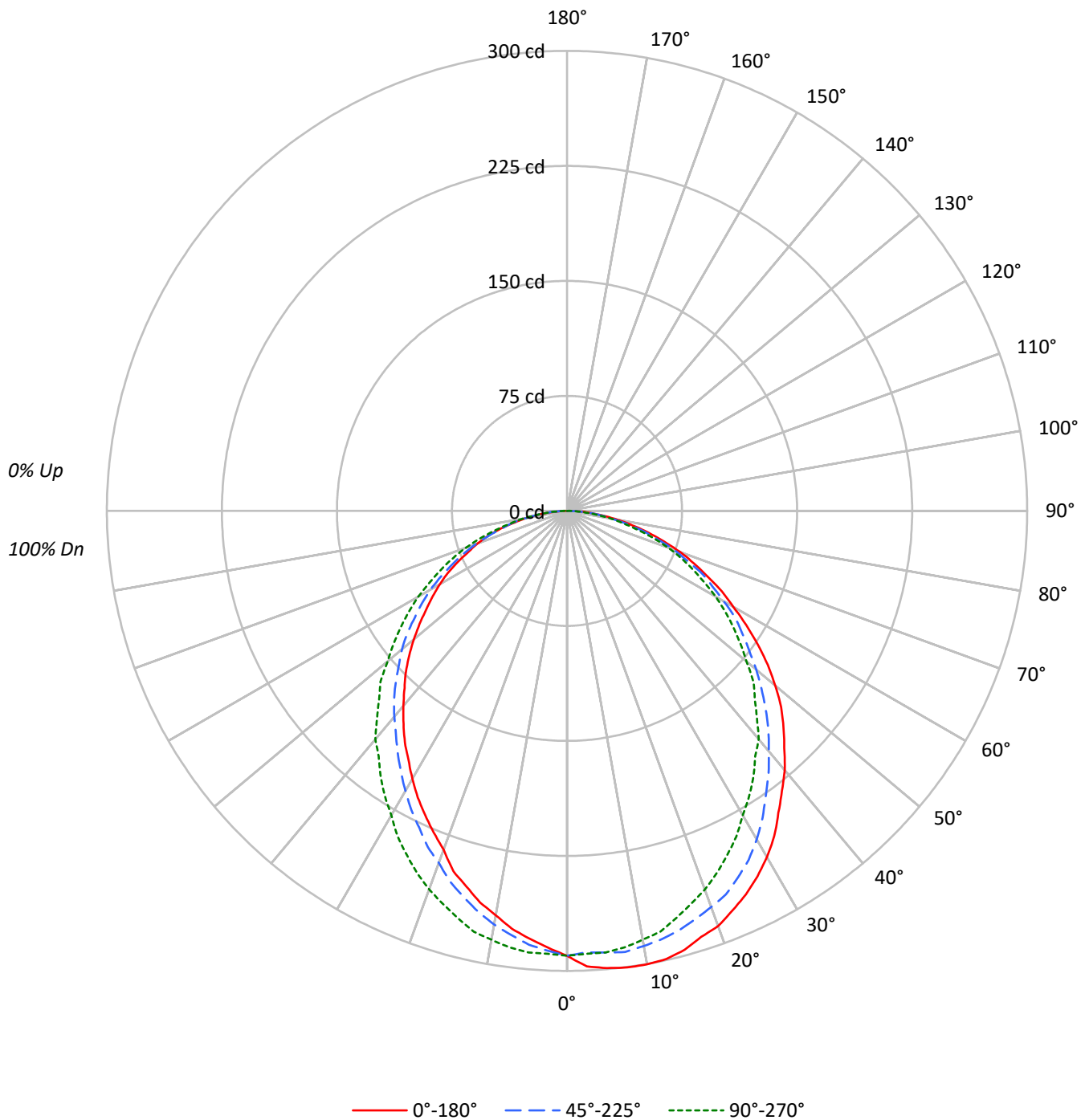
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 756.0 lumens
Efficiency: N/A
Efficacy: 50.1 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°	1561	1561	1561
5°	1617	1562	1513
10°	1641	1552	1463
15°	1651	1532	1412
20°	1650	1505	1347
25°	1638	1469	1300
30°	1620	1424	1253
35°	1579	1392	1211
40°	1552	1366	1166
45°	1518	1318	1131
50°	1483	1279	1091
55°	1423	1241	1051
60°	1348	1206	1030
65°	1284	1154	998
70°	1234	1105	977
75°	1144	994	932
80°	1041	914	852
85°	945	753	692



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	27.3	3.6
10°-20°	77.1	10.2
20°-30°	113.5	15.0
30°-40°	131.9	17.4
40°-50°	132.8	17.6
50°-60°	117.9	15.6
60°-70°	89.1	11.8
70°-80°	51.5	6.8
80°-90°	14.9	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°	217.9	28.8
0°-40°	349.8	46.3
0°-60°	600.5	79.4
0°-90°	756.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	756.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	290	290	290	290	290	
5°	299	289	289	284	280	29
15°	296	283	275	261	254	83
25°	276	264	247	228	219	127
35°	240	226	212	192	184	151
45°	200	183	173	158	149	154
55°	152	140	132	121	112	136
65°	101	98	91	82	78	100
75°	55	52	48	44	45	58
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°	290.1	290.1	290.1	290.1	290.1	290.1	290.1	290.1	290.1
2.5°	297.3	294.2	288.1	287.1	289.1	292.2	287.1	288.1	285.1
5°	299.3	295.2	289.1	286.1	289.1	289.1	284.0	283.0	280.0
7.5°	300.3	296.3	290.1	285.1	287.1	286.1	278.9	277.9	274.9
10°	300.3	296.3	288.1	283.0	284.0	282.0	273.9	271.8	267.7
12.5°	299.3	294.2	286.1	280.0	281.0	276.9	267.7	264.7	261.6
15°	296.3	290.1	283.0	276.9	274.9	270.8	260.6	257.6	253.5
17.5°	291.2	287.1	278.9	271.8	268.8	263.7	253.5	249.4	246.4
20°	288.1	282.0	274.9	266.7	262.7	255.5	244.3	240.3	235.2
22.5°	282.0	276.9	270.8	258.6	255.5	247.4	237.2	231.1	227.0
25°	275.9	269.8	263.7	252.5	247.4	240.3	228.0	223.0	218.9
27.5°	268.8	262.7	256.5	244.3	239.2	231.1	219.9	213.8	210.7
30°	260.6	254.5	247.4	237.2	229.1	221.9	210.7	205.6	201.6
32.5°	251.5	244.3	237.2	227.0	220.9	212.8	201.6	196.5	192.4
35°	240.3	233.1	226.0	217.9	211.8	203.6	192.4	188.3	184.3
37.5°	230.1	223.0	215.8	208.7	201.6	196.5	183.2	179.2	175.1
40°	220.9	211.8	204.6	198.5	194.4	184.3	175.1	170.0	165.9
42.5°	209.7	201.6	194.4	189.4	183.2	177.1	167.0	161.9	156.8
45°	199.5	190.4	183.2	179.2	173.1	165.9	157.8	152.7	148.6
47.5°	189.4	179.2	172.0	168.0	164.9	155.8	148.6	144.6	139.5
50°	177.1	168.0	160.9	157.8	152.7	145.6	140.5	135.4	130.3
52.5°	164.9	157.8	149.7	147.6	142.5	137.4	131.3	127.3	121.1
55°	151.7	145.6	139.5	137.4	132.3	128.3	121.1	118.1	112.0
57.5°	138.5	134.4	130.3	127.3	122.2	117.1	112.0	108.9	103.8
60°	125.2	123.2	118.1	119.1	112.0	106.9	102.8	99.8	95.7
62.5°	114.0	112.0	106.9	103.8	100.8	95.7	92.6	90.6	87.6
65°	100.8	99.8	97.7	93.7	90.6	85.5	82.5	80.4	78.4
67.5°	89.6	88.6	84.5	82.5	80.4	75.3	73.3	71.3	69.2
70°	78.4	76.4	74.3	73.3	70.2	65.2	63.1	61.1	62.1
72.5°	66.2	65.2	62.1	63.1	59.0	55.0	52.9	55.0	54.0
75°	55.0	54.0	51.9	49.9	47.8	44.8	43.8	45.8	44.8
77.5°	43.8	42.8	40.7	39.7	37.7	34.6	36.6	35.6	34.6
80°	33.6	32.6	30.5	30.5	29.5	26.5	27.5	27.5	27.5
82.5°	23.4	23.4	22.4	21.4	19.3	18.3	19.3	19.3	18.3
85°	15.3	15.3	14.3	13.2	12.2	11.2	12.2	12.2	11.2
87.5°	9.2	8.1	7.1	7.1	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)