

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: P709053

Luminaire Tested: **4APN-X-X-RL835-UNV**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P709053
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-RL835-UNV
Description: ArcMed Patient Recessed 4 FT x6 IN Fixture READING Light
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

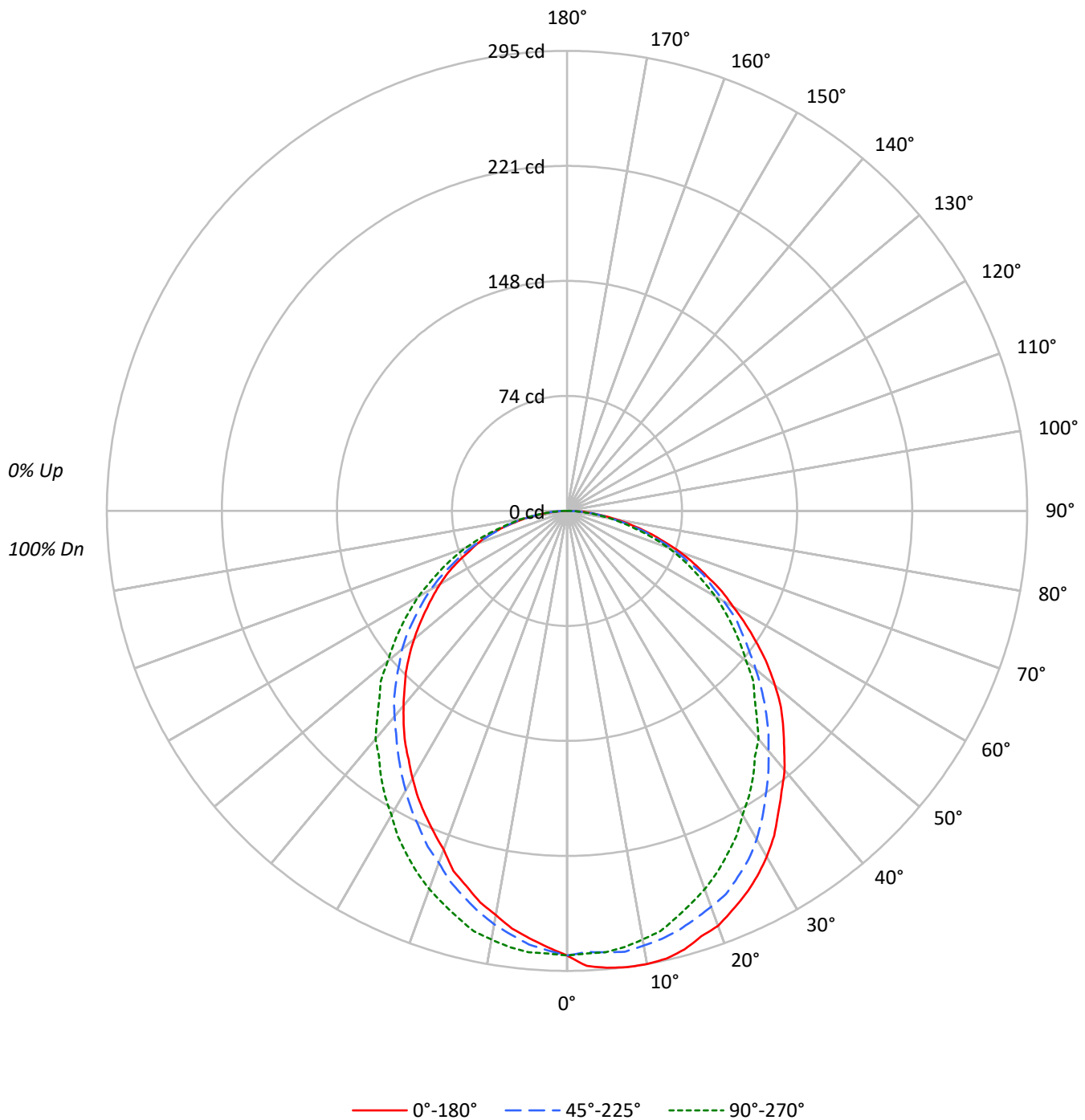
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 742.7 lumens
Efficiency: N/A
Efficacy: 49.2 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

TEST NUMBER: P709053
CATALOG NUMBER: 4APN-X-X-RL835-UNV

Luminous Intensity Polar Plot





TEST NUMBER: P709053

CATALOG NUMBER: 4APN-X-X-RL835-UNV

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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	1534	1534	1534
5°	1589	1535	1486
10°	1613	1525	1438
15°	1622	1505	1388
20°	1621	1478	1324
25°	1610	1444	1277
30°	1592	1399	1230
35°	1551	1367	1189
40°	1525	1342	1145
45°	1492	1294	1111
50°	1457	1256	1072
55°	1398	1220	1032
60°	1324	1184	1012
65°	1261	1133	981
70°	1212	1086	960
75°	1123	977	915
80°	1023	899	837
85°	926	741	679



TEST NUMBER: P709053
 CATALOG NUMBER: 4APN-X-X-RL835-UNV

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.9	3.6
10°-20°	75.7	10.2
20°-30°	111.5	15.0
30°-40°	129.6	17.4
40°-50°	130.5	17.6
50°-60°	115.8	15.6
60°-70°	87.5	11.8
70°-80°	50.6	6.8
80°-90°	14.7	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°	214.1	28.8
0°-40°	343.7	46.3
0°-60°	590.0	79.4
0°-90°	742.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	742.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	285	285	285	285	285	
5°	294	284	284	279	275	28
15°	291	278	270	256	249	82
25°	271	259	243	224	215	125
35°	236	222	208	189	181	148
45°	196	180	170	155	146	151
55°	149	137	130	119	110	133
65°	99	96	89	81	77	99
75°	54	51	47	43	44	57
85°	15	14	12	12	11	17
90°	0	0	0	0	0	

TEST NUMBER: P709053

CATALOG NUMBER: 4APN-X-X-RL835-UNV

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	285.1	285.1	285.1	285.1	285.1	285.1	285.1	285.1	285.1
2.5°	292.1	289.1	283.1	282.1	284.1	287.1	282.1	283.1	280.1
5°	294.1	290.1	284.1	281.1	284.1	284.1	279.1	278.1	275.1
7.5°	295.1	291.1	285.1	280.1	282.1	281.1	274.1	273.1	270.1
10°	295.1	291.1	283.1	278.1	279.1	277.1	269.1	267.1	263.1
12.5°	294.1	289.1	281.1	275.1	276.1	272.1	263.1	260.1	257.1
15°	291.1	285.1	278.1	272.1	270.1	266.1	256.1	253.1	249.1
17.5°	286.1	282.1	274.1	267.1	264.1	259.1	249.1	245.1	242.1
20°	283.1	277.1	270.1	262.1	258.1	251.1	240.1	236.1	231.1
22.5°	277.1	272.1	266.1	254.1	251.1	243.1	233.1	227.1	223.1
25°	271.1	265.1	259.1	248.1	243.1	236.1	224.1	219.1	215.0
27.5°	264.1	258.1	252.1	240.1	235.1	227.1	216.0	210.0	207.0
30°	256.1	250.1	243.1	233.1	225.1	218.0	207.0	202.0	198.0
32.5°	247.1	240.1	233.1	223.1	217.0	209.0	198.0	193.0	189.0
35°	236.1	229.1	222.1	214.0	208.0	200.0	189.0	185.0	181.0
37.5°	226.1	219.1	212.0	205.0	198.0	193.0	180.0	176.0	172.0
40°	217.0	208.0	201.0	195.0	191.0	181.0	172.0	167.0	163.0
42.5°	206.0	198.0	191.0	186.0	180.0	174.0	164.0	159.0	154.0
45°	196.0	187.0	180.0	176.0	170.0	163.0	155.0	150.0	146.0
47.5°	186.0	176.0	169.0	165.0	162.0	153.0	146.0	142.0	137.0
50°	174.0	165.0	158.0	155.0	150.0	143.0	138.0	133.0	128.0
52.5°	162.0	155.0	147.0	145.0	140.0	135.0	129.0	125.0	119.0
55°	149.0	143.0	137.0	135.0	130.0	126.0	119.0	116.0	110.0
57.5°	136.0	132.0	128.0	125.0	120.0	115.0	110.0	107.0	102.0
60°	123.0	121.0	116.0	117.0	110.0	105.0	101.0	98.0	94.0
62.5°	112.0	110.0	105.0	102.0	99.0	94.0	91.0	89.0	86.0
65°	99.0	98.0	96.0	92.0	89.0	84.0	81.0	79.0	77.0
67.5°	88.0	87.0	83.0	81.0	79.0	74.0	72.0	70.0	68.0
70°	77.0	75.0	73.0	72.0	69.0	64.0	62.0	60.0	61.0
72.5°	65.0	64.0	61.0	62.0	58.0	54.0	52.0	54.0	53.0
75°	54.0	53.0	51.0	49.0	47.0	44.0	43.0	45.0	44.0
77.5°	43.0	42.0	40.0	39.0	37.0	34.0	36.0	35.0	34.0
80°	33.0	32.0	30.0	30.0	29.0	26.0	27.0	27.0	27.0
82.5°	23.0	23.0	22.0	21.0	19.0	18.0	19.0	19.0	18.0
85°	15.0	15.0	14.0	13.0	12.0	11.0	12.0	12.0	11.0
87.5°	9.0	8.0	7.0	7.0	6.0	6.0	6.0	6.0	4.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)