

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-RL835-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-RL835-UNV-NP
Description: ArcMed Patient Recessed 4 FT x6 IN Fixture READING Light w/ Nature Pattern Lens
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

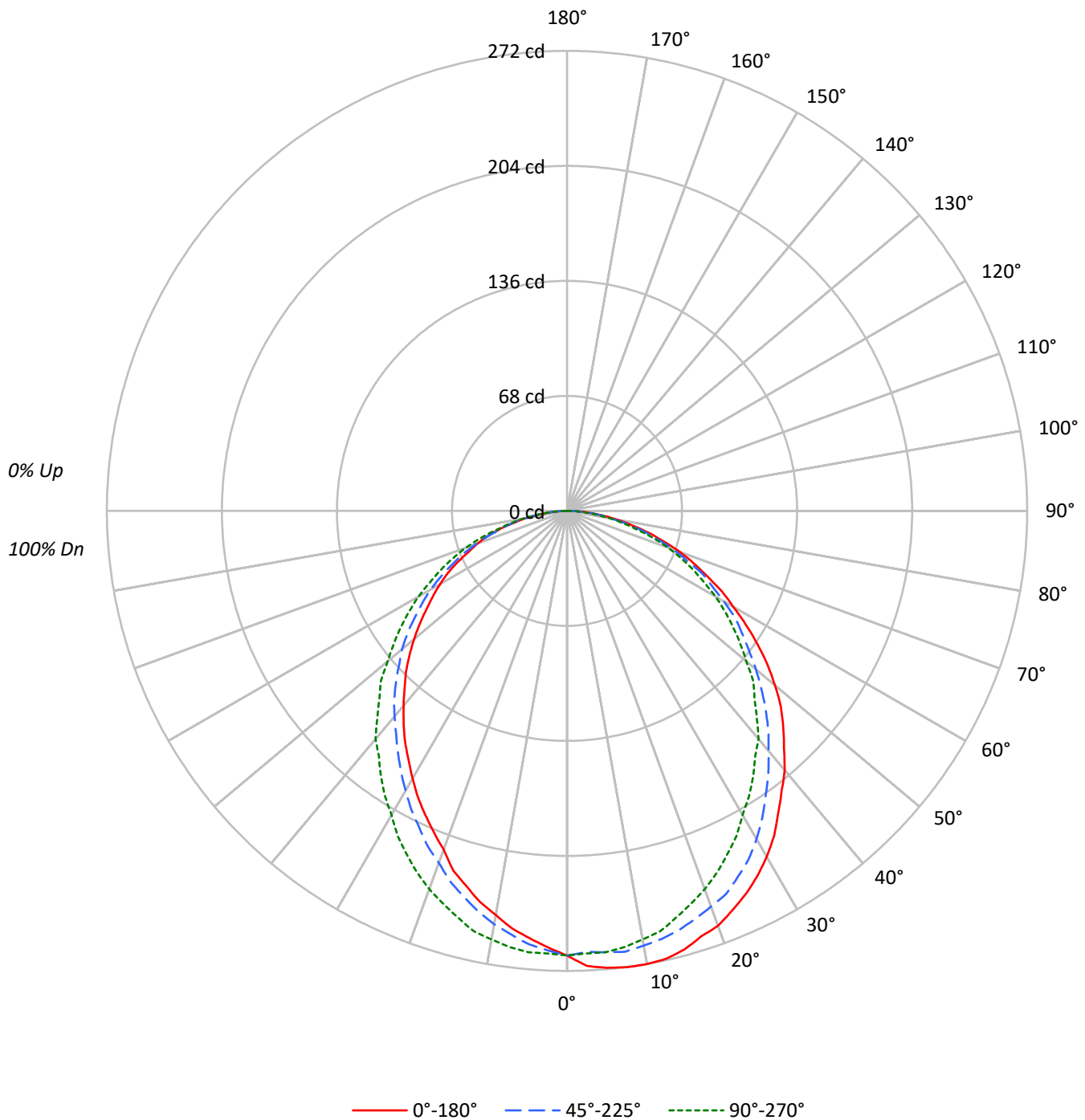
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 684.8 lumens
Efficiency: N/A
Efficacy: 45.4 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°	1415	1415	1415
5°	1465	1415	1370
10°	1487	1406	1326
15°	1495	1387	1280
20°	1495	1363	1221
25°	1485	1331	1177
30°	1467	1290	1135
35°	1430	1260	1097
40°	1406	1237	1056
45°	1375	1193	1024
50°	1343	1158	988
55°	1289	1125	951
60°	1221	1091	933
65°	1163	1046	904
70°	1117	1001	884
75°	1036	900	844
80°	942	828	772
85°	852	685	624



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.8	3.6
10°-20°	69.8	10.2
20°-30°	102.8	15.0
30°-40°	119.5	17.4
40°-50°	120.3	17.6
50°-60°	106.8	15.6
60°-70°	80.7	11.8
70°-80°	46.6	6.8
80°-90°	13.5	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°	197.4	28.8
0°-40°	316.9	46.3
0°-60°	544.0	79.4
0°-90°	684.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	684.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	263	263	263	263	263	
5°	271	262	262	257	254	26
15°	268	256	249	236	230	76
25°	250	239	224	207	198	115
35°	218	205	192	174	167	137
45°	181	166	157	143	135	139
55°	137	126	120	110	101	123
65°	91	88	82	75	71	91
75°	50	47	43	40	41	53
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°	262.9	262.9	262.9	262.9	262.9	262.9	262.9	262.9	262.9
2.5°	269.3	266.6	261.0	260.1	261.9	264.7	260.1	261.0	258.3
5°	271.2	267.5	261.9	259.2	261.9	261.9	257.3	256.4	253.6
7.5°	272.1	268.4	262.9	258.3	260.1	259.2	252.7	251.8	249.0
10°	272.1	268.4	261.0	256.4	257.3	255.5	248.1	246.3	242.6
12.5°	271.2	266.6	259.2	253.6	254.6	250.9	242.6	239.8	237.0
15°	268.4	262.9	256.4	250.9	249.0	245.3	236.1	233.4	229.7
17.5°	263.8	260.1	252.7	246.3	243.5	238.9	229.7	226.0	223.2
20°	261.0	255.5	249.0	241.7	238.0	231.5	221.4	217.7	213.1
22.5°	255.5	250.9	245.3	234.3	231.5	224.1	214.9	209.4	205.7
25°	250.0	244.4	238.9	228.7	224.1	217.7	206.6	202.0	198.2
27.5°	243.5	238.0	232.4	221.4	216.8	209.4	199.2	193.6	190.9
30°	236.1	230.6	224.1	214.9	207.5	201.0	190.9	186.2	182.6
32.5°	227.8	221.4	214.9	205.7	200.1	192.7	182.6	177.9	174.3
35°	217.7	211.2	204.8	197.3	191.8	184.4	174.3	170.6	166.9
37.5°	208.5	202.0	195.5	189.0	182.6	177.9	166.0	162.3	158.6
40°	200.1	191.8	185.3	179.8	176.1	166.9	158.6	154.0	150.3
42.5°	189.9	182.6	176.1	171.5	166.0	160.4	151.2	146.6	142.0
45°	180.7	172.4	166.0	162.3	156.7	150.3	142.9	138.3	134.6
47.5°	171.5	162.3	155.8	152.1	149.4	141.1	134.6	130.9	126.3
50°	160.4	152.1	145.7	142.9	138.3	131.8	127.2	122.6	118.0
52.5°	149.4	142.9	135.5	133.7	129.1	124.5	118.9	115.2	109.7
55°	137.4	131.8	126.3	124.5	119.9	116.2	109.7	107.0	101.4
57.5°	125.4	121.7	118.0	115.2	110.6	106.0	101.4	98.7	94.0
60°	113.4	111.6	107.0	107.9	101.4	96.8	93.1	90.4	86.7
62.5°	103.3	101.4	96.8	94.0	91.3	86.7	83.9	82.1	79.3
65°	91.3	90.4	88.5	84.8	82.1	77.4	74.7	72.8	71.0
67.5°	81.1	80.2	76.5	74.7	72.8	68.2	66.4	64.5	62.7
70°	71.0	69.2	67.3	66.4	63.6	59.0	57.2	55.3	56.2
72.5°	59.9	59.0	56.2	57.2	53.5	49.8	47.9	49.8	48.9
75°	49.8	48.9	47.0	45.2	43.3	40.6	39.6	41.5	40.6
77.5°	39.6	38.7	36.9	36.0	34.1	31.3	33.2	32.3	31.3
80°	30.4	29.5	27.7	27.7	26.7	24.0	24.9	24.9	24.9
82.5°	21.2	21.2	20.3	19.4	17.5	16.6	17.5	17.5	16.6
85°	13.8	13.8	12.9	12.0	11.1	10.1	11.1	11.1	10.1
87.5°	8.3	7.4	6.5	6.5	5.5	5.5	5.5	5.5	3.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)