

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-RL840-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-RL840-UNV-NP
Description: ArcMed Patient Recessed 4 FT x6 IN Fixture READING Light w/ Nature Pattern Lens
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

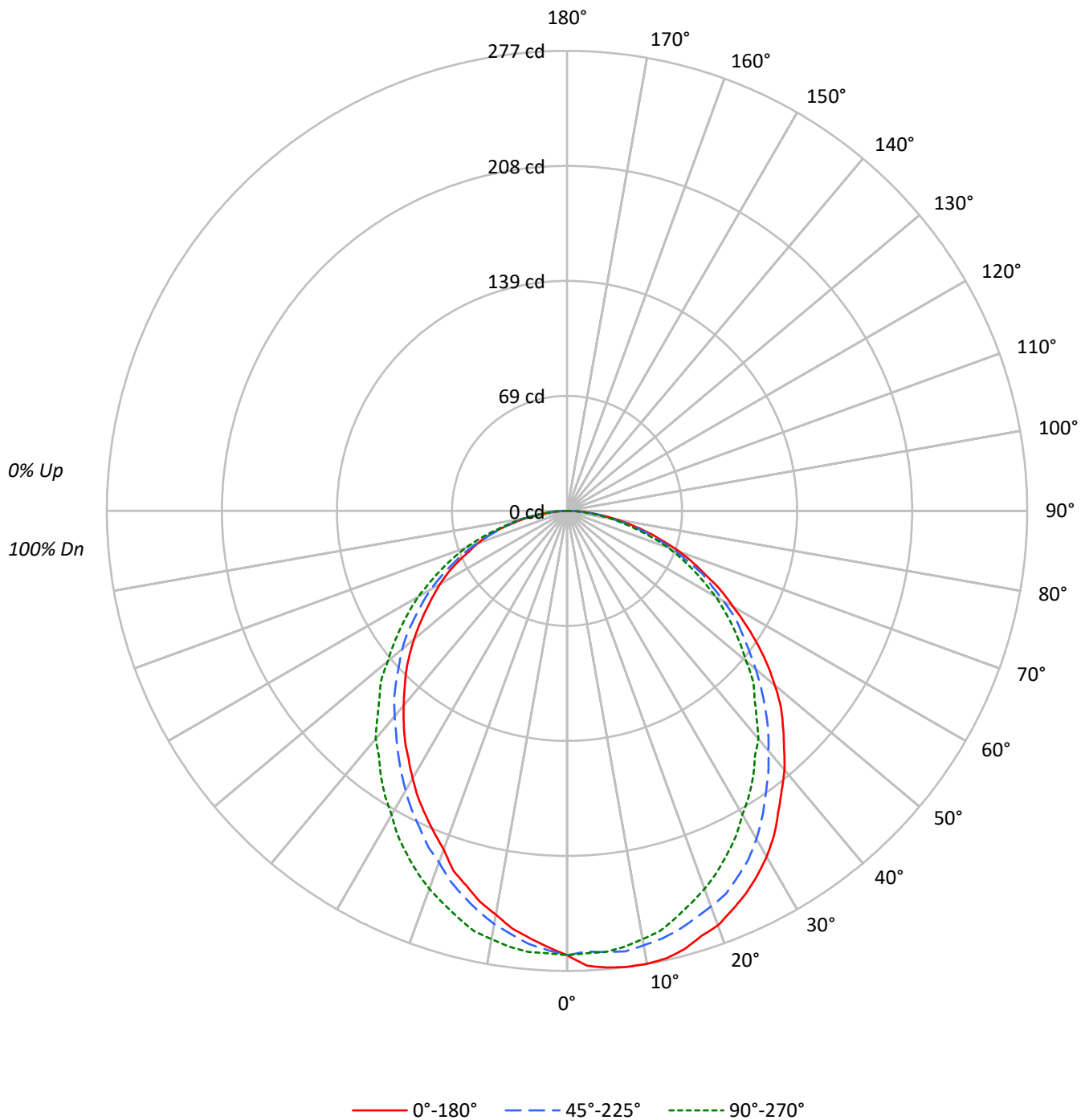
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 697.1 lumens
Efficiency: N/A
Efficacy: 46.2 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: P
CATALOG NUMBER: 4APN-X-X-RL840-UNV-NP

Luminous Intensity Polar Plot





TEST NUMBER: P

CATALOG NUMBER: 4APN-X-X-RL840-UNV-NP

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°	1440	1440	1440
5°	1491	1440	1395
10°	1513	1431	1349
15°	1522	1412	1302
20°	1521	1387	1242
25°	1511	1355	1198
30°	1493	1313	1155
35°	1456	1283	1116
40°	1431	1259	1075
45°	1400	1215	1043
50°	1367	1179	1006
55°	1313	1145	969
60°	1242	1112	949
65°	1183	1063	921
70°	1138	1018	902
75°	1054	917	859
80°	961	843	787
85°	871	692	636



TEST NUMBER: P
 CATALOG NUMBER: 4APN-X-X-RL840-UNV-NP

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	25.2	3.6
10°-20°	71.1	10.2
20°-30°	104.6	15.0
30°-40°	121.6	17.4
40°-50°	122.4	17.6
50°-60°	108.7	15.6
60°-70°	82.2	11.8
70°-80°	47.5	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°	200.9	28.8
0°-40°	322.5	46.3
0°-60°	553.7	79.4
0°-90°	697.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	697.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	268	268	268	268	268	
5°	276	267	267	262	258	26
15°	273	261	254	240	234	77
25°	254	243	228	210	202	117
35°	222	208	195	177	170	139
45°	184	169	160	146	137	142
55°	140	129	122	112	103	125
65°	93	90	84	76	72	93
75°	51	48	44	40	41	54
85°	14	13	11	11	10	16
90°	0	0	0	0	0	

TEST NUMBER: P

CATALOG NUMBER: 4APN-X-X-RL840-UNV-NP

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	267.5	267.5	267.5	267.5	267.5	267.5	267.5	267.5	267.5
2.5°	274.1	271.3	265.6	264.7	266.6	269.4	264.7	265.6	262.9
5°	276.0	272.2	266.6	263.8	266.6	266.6	261.8	260.9	258.2
7.5°	276.9	273.2	267.5	262.9	264.7	263.8	257.1	256.2	253.5
10°	276.9	273.2	265.6	260.9	261.8	260.0	252.5	250.6	246.8
12.5°	276.0	271.3	263.8	258.2	259.1	255.3	246.8	244.1	241.2
15°	273.2	267.5	260.9	255.3	253.5	249.7	240.3	237.5	233.7
17.5°	268.5	264.7	257.1	250.6	247.8	243.1	233.7	229.9	227.2
20°	265.6	260.0	253.5	245.9	242.2	235.6	225.2	221.6	216.9
22.5°	260.0	255.3	249.7	238.4	235.6	228.1	218.7	213.1	209.3
25°	254.4	248.8	243.1	232.8	228.1	221.6	210.2	205.6	201.8
27.5°	247.8	242.2	236.5	225.2	220.5	213.1	202.7	197.1	194.3
30°	240.3	234.6	228.1	218.7	211.2	204.6	194.3	189.6	185.9
32.5°	231.9	225.2	218.7	209.3	203.7	196.2	185.9	181.2	177.4
35°	221.6	214.9	208.4	200.9	195.3	187.7	177.4	173.6	169.9
37.5°	212.2	205.6	199.0	192.4	185.9	181.2	168.9	165.2	161.4
40°	203.7	195.3	188.6	183.0	179.2	169.9	161.4	156.7	153.0
42.5°	193.3	185.9	179.2	174.6	168.9	163.3	154.0	149.3	144.6
45°	183.9	175.5	168.9	165.2	159.6	153.0	145.5	140.8	137.0
47.5°	174.6	165.2	158.6	154.9	152.0	143.6	137.0	133.3	128.6
50°	163.3	154.9	148.3	145.5	140.8	134.2	129.5	124.8	120.1
52.5°	152.0	145.5	138.0	136.1	131.4	126.7	121.1	117.4	111.7
55°	139.9	134.2	128.6	126.7	122.0	118.3	111.7	108.9	103.3
57.5°	127.7	123.9	120.1	117.4	112.7	108.0	103.3	100.4	95.7
60°	115.4	113.6	108.9	109.8	103.3	98.6	94.8	92.0	88.2
62.5°	105.1	103.3	98.6	95.7	92.9	88.2	85.4	83.5	80.8
65°	92.9	92.0	90.1	86.4	83.5	78.8	76.1	74.1	72.3
67.5°	82.6	81.7	77.9	76.1	74.1	69.4	67.6	65.7	63.8
70°	72.3	70.4	68.5	67.6	64.7	60.1	58.2	56.3	57.3
72.5°	61.0	60.1	57.3	58.2	54.4	50.7	48.8	50.7	49.8
75°	50.7	49.8	47.9	46.0	44.1	41.3	40.4	42.2	41.3
77.5°	40.4	39.5	37.5	36.6	34.8	31.9	33.7	32.8	31.9
80°	31.0	30.1	28.1	28.1	27.2	24.4	25.4	25.4	25.4
82.5°	21.6	21.6	20.7	19.7	17.8	16.9	17.8	17.8	16.9
85°	14.1	14.1	13.2	12.2	11.2	10.3	11.2	11.2	10.3
87.5°	8.5	7.5	6.5	6.5	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)