

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: P708915

Luminaire Tested: **24APR-X-X-UNV-RL950**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P708915
Test Lab: INNOVATION CENTER(G2)
Issue Date: 09/12/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24APR-X-X-UNV-RL950
Description: ArcMed Patient Recessed 2x4 Fixture READING Light
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

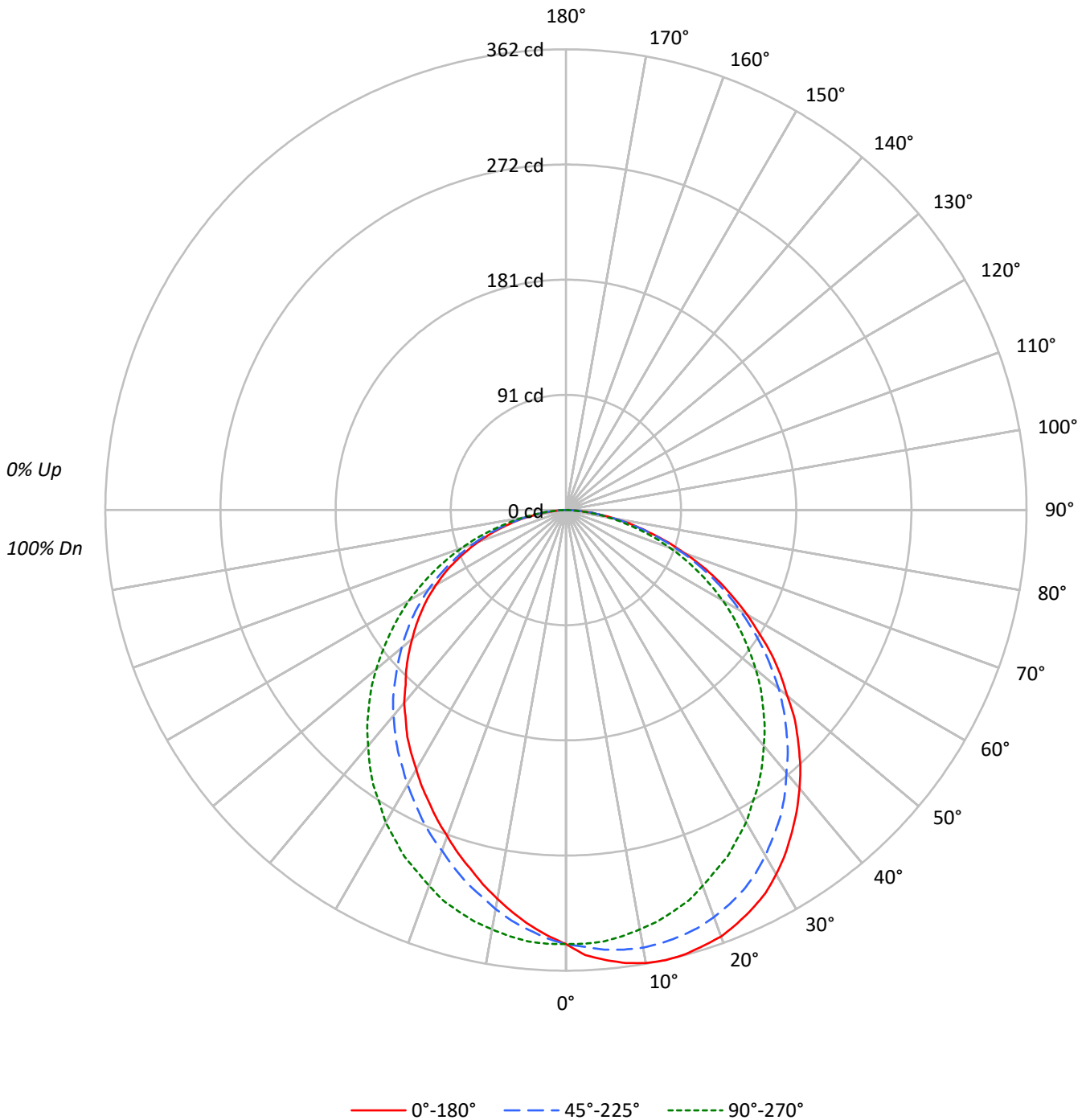
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 938.3 lumens
Efficiency: N/A
Efficacy: 67.0 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.23 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 14
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: P708915
CATALOG NUMBER: 24APR-X-X-UNV-RL950

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			0	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	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	86	84
2	99	91	84	78	96	89	83	77	85	80	75	82	78	74	79	75	72	72	72	72	70
3	90	80	72	65	88	78	71	65	75	69	63	72	67	62	70	65	61	61	61	61	59
4	83	71	62	55	80	69	61	55	67	60	54	64	58	53	62	57	53	53	53	53	50
5	76	63	54	48	74	62	54	47	60	52	47	58	51	46	56	50	46	46	46	46	44
6	70	57	48	42	68	56	47	41	54	47	41	52	46	41	51	45	40	40	40	40	38
7	65	52	43	37	63	51	42	37	49	42	36	48	41	36	46	40	36	36	36	36	34
8	61	47	39	33	59	46	38	33	45	38	32	44	37	32	43	37	32	32	32	32	30
9	57	43	35	29	55	43	35	29	41	34	29	40	34	29	39	33	29	29	29	29	27
10	53	40	32	27	52	39	32	27	38	31	27	37	31	26	37	31	26	26	26	26	25

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	459	459	459
5°	479	460	442
10°	494	457	424
15°	504	455	406
20°	511	450	390
25°	514	446	377
30°	513	440	366
35°	508	433	357
40°	502	425	347
45°	491	417	338
50°	475	407	331
55°	462	395	325
60°	442	383	318
65°	422	365	306
70°	391	343	288
75°	351	309	263
80°	303	265	227
85°	239	201	164



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.3	3.4
10°-20°	91.9	9.8
20°-30°	138.0	14.7
30°-40°	164.3	17.5
40°-50°	168.3	17.9
50°-60°	150.3	16.0
60°-70°	113.5	12.1
70°-80°	63.5	6.8
80°-90°	16.2	1.7
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°	262.1	27.9
0°-40°	426.5	45.5
0°-60°	745.1	79.4
0°-90°	938.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	938.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	341	341	341	341	341	
5°	355	347	340	331	327	34
15°	362	347	326	303	291	102
25°	346	330	300	268	254	159
35°	309	294	264	230	217	194
45°	258	245	219	190	178	199
55°	197	189	168	147	138	176
65°	133	128	115	101	96	131
75°	68	67	59	54	50	72
85°	16	16	13	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°	341.1	341.1	341.1	341.1	341.1	341.1	341.1	341.1	341.1
2.5°	350.1	346.0	343.5	342.7	341.1	340.3	337.0	335.4	334.6
5°	354.9	350.9	346.8	343.5	340.3	337.0	331.3	328.1	327.3
7.5°	359.0	354.1	348.4	344.4	337.8	333.0	325.6	320.7	319.1
10°	361.5	356.6	349.2	342.7	334.6	327.3	318.3	311.8	310.2
12.5°	362.3	357.4	348.4	341.1	331.3	321.6	310.2	303.7	301.2
15°	361.5	355.8	346.8	338.7	326.4	315.0	302.8	294.7	291.4
17.5°	359.0	354.1	344.4	334.6	321.6	307.7	293.9	285.7	282.5
20°	356.6	350.9	340.3	329.7	314.2	299.6	284.9	276.0	272.7
22.5°	351.7	346.8	335.4	323.2	306.9	292.3	276.8	267.0	263.8
25°	346.0	341.1	329.7	316.7	300.4	283.3	267.8	258.1	254.0
27.5°	339.5	333.8	322.4	309.4	291.4	274.3	258.1	248.3	245.0
30°	330.5	325.6	313.4	300.4	283.3	265.4	249.1	239.3	235.3
32.5°	320.7	316.7	303.7	290.6	272.7	255.6	239.3	229.6	226.3
35°	309.4	304.5	293.9	280.9	263.8	245.9	230.4	219.8	217.4
37.5°	298.0	293.1	282.5	270.3	253.2	235.3	220.6	210.0	206.8
40°	285.7	280.9	269.5	259.7	241.8	225.5	210.8	201.1	197.8
42.5°	272.7	267.8	258.1	247.5	231.2	214.9	201.1	189.7	186.4
45°	258.1	254.0	245.0	235.3	219.0	204.3	189.7	179.9	177.5
47.5°	244.2	240.2	232.0	222.2	207.6	192.9	179.1	170.1	167.7
50°	227.1	225.5	218.2	209.2	194.6	180.7	168.5	160.4	157.9
52.5°	212.5	210.8	203.5	195.4	181.5	169.3	157.9	150.6	148.2
55°	197.0	194.6	188.9	180.7	168.5	157.1	147.3	140.0	138.4
57.5°	179.9	178.3	173.4	166.9	155.5	145.7	136.0	130.3	128.6
60°	164.4	162.8	157.9	153.0	142.5	132.7	124.6	118.9	118.0
62.5°	148.2	147.3	143.3	138.4	128.6	120.5	113.2	108.3	107.5
65°	132.7	131.1	127.8	123.7	114.8	108.3	100.9	96.9	96.1
67.5°	116.4	114.8	112.3	109.1	100.9	95.2	89.5	85.5	84.7
70°	99.3	99.3	96.9	94.4	87.1	83.0	77.3	74.1	73.3
72.5°	83.9	83.0	81.4	79.0	73.3	70.0	65.1	62.7	61.9
75°	67.6	66.8	66.8	64.3	59.4	56.2	53.7	51.3	50.5
77.5°	53.7	52.9	52.1	50.5	46.4	44.0	41.5	39.9	39.9
80°	39.1	39.1	39.1	37.4	34.2	32.6	30.9	29.3	29.3
82.5°	26.1	26.9	26.1	25.2	22.8	22.0	21.2	19.5	19.5
85°	15.5	15.5	15.5	16.3	13.0	12.2	12.2	11.4	10.6
87.5°	6.5	7.3	6.5	6.5	4.9	4.9	4.1	4.1	3.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)