

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: P708898

Luminaire Tested: **22APR-X-X-UNV-RL940**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P708898
Test Lab: INNOVATION CENTER(G2)
Issue Date: 09/12/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 22APR-X-X-UNV-RL940
Description: ArcMed Patient Recessed 2x2 Fixture READING Light
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

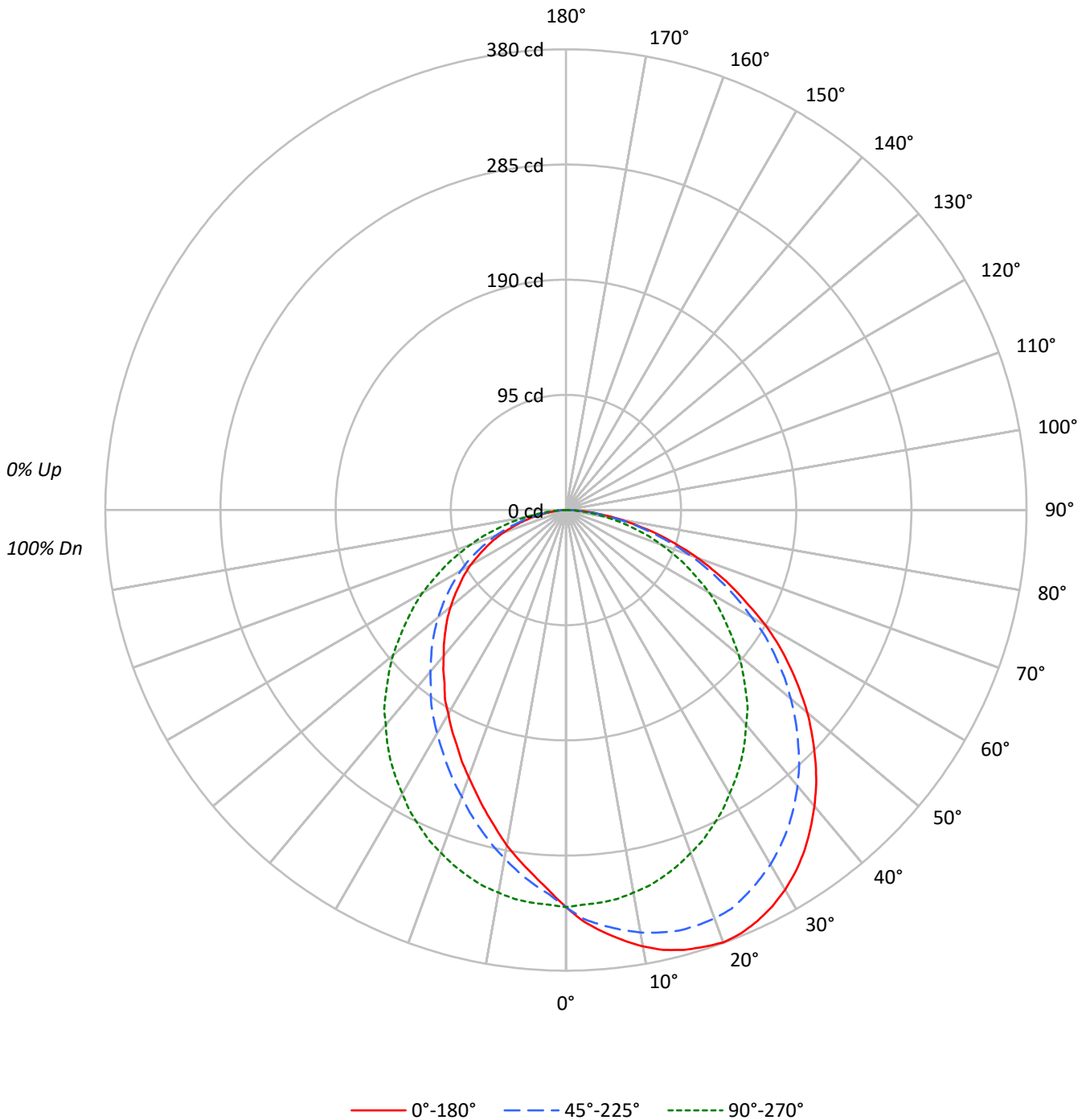
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 913.4 lumens
Efficiency: N/A
Efficacy: 65.2 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.23 / 1.37
Luminous Opening: Rectangular (W 2' x L: 2' 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: P708898
CATALOG NUMBER: 22APR-X-X-UNV-RL940

Luminous Intensity Polar Plot





TEST NUMBER: P708898
 CATALOG NUMBER: 22APR-X-X-UNV-RL940

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	64	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	47	74	62	54	47	60	52	47	58	51	46	56	50	46	46	46	46	44
6	70	57	48	41	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	36	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	26	37	31	26	36	31	26	26	26	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	881	881	881
5°	943	878	817
10°	999	876	768
15°	1046	871	716
20°	1087	862	671
25°	1110	852	634
30°	1124	839	603
35°	1127	828	574
40°	1120	812	551
45°	1107	797	535
50°	1088	780	520
55°	1059	753	502
60°	1023	735	489
65°	968	702	464
70°	910	659	434
75°	831	597	387
80°	722	518	313
85°	599	408	216



TEST NUMBER: P708898
 CATALOG NUMBER: 22APR-X-X-UNV-RL940

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.0	3.4
10°-20°	89.0	9.7
20°-30°	134.1	14.7
30°-40°	160.1	17.5
40°-50°	164.3	18.0
50°-60°	147.0	16.1
60°-70°	110.4	12.1
70°-80°	61.7	6.8
80°-90°	15.7	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°	254.1	27.8
0°-40°	414.3	45.4
0°-60°	725.6	79.4
0°-90°	913.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	913.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	328	328	328	328	328	
5°	349	344	325	310	303	34
15°	376	359	313	272	257	106
25°	374	351	287	232	213	172
35°	343	320	252	194	175	214
45°	291	271	210	156	140	224
55°	226	211	161	119	107	202
65°	152	143	110	81	73	150
75°	80	74	57	41	37	84
85°	19	18	13	8	7	23
90°	0	0	0	0	0	



TEST NUMBER: P708898

CATALOG NUMBER: 22APR-X-X-UNV-RL940

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	327.5	327.5	327.5	327.5	327.5	327.5	327.5	327.5	327.5
2.5°	339.9	338.3	337.6	332.1	325.9	323.6	317.4	317.4	314.3
5°	349.2	347.6	343.8	335.2	325.1	318.2	309.6	306.5	302.6
7.5°	357.7	354.6	349.2	336.8	323.6	312.7	301.1	295.7	291.8
10°	365.5	362.4	353.9	338.3	320.5	306.5	291.8	284.8	280.9
12.5°	371.7	367.8	357.0	338.3	317.4	298.8	282.5	273.2	268.5
15°	375.6	371.7	359.3	337.6	312.7	291.8	272.4	262.3	256.9
17.5°	377.9	373.3	359.3	335.2	307.3	283.2	262.3	250.6	245.2
20°	379.5	374.0	358.5	331.4	301.1	274.7	251.4	240.6	234.4
22.5°	377.9	371.7	356.2	327.5	294.9	265.4	242.1	229.7	224.3
25°	374.0	368.6	350.8	321.3	287.1	256.9	232.0	218.8	213.4
27.5°	368.6	363.2	344.5	314.3	279.4	247.5	221.9	208.7	204.1
30°	361.6	355.4	337.6	306.5	270.0	237.5	212.6	199.4	194.0
32.5°	353.1	346.9	329.0	298.8	261.5	228.1	203.3	190.1	185.5
35°	343.0	337.6	319.7	287.9	252.2	218.8	194.0	179.3	174.6
37.5°	331.4	325.9	308.8	278.6	242.1	209.5	183.1	170.7	166.1
40°	318.9	313.5	297.2	266.9	231.2	199.4	173.8	161.4	156.8
42.5°	305.7	300.3	284.8	256.1	221.9	189.3	164.5	152.9	149.0
45°	291.0	286.3	270.8	243.7	209.5	177.7	156.0	144.3	140.5
47.5°	275.5	270.8	256.9	231.2	197.9	167.6	146.7	135.8	132.7
50°	260.0	255.3	242.1	217.3	186.2	156.8	137.4	127.3	124.2
52.5°	242.9	239.0	227.4	204.1	173.0	146.7	128.0	119.5	115.6
55°	225.8	221.9	211.1	190.1	160.6	136.6	118.7	110.2	107.1
57.5°	208.7	205.6	195.6	173.8	149.0	125.7	109.4	101.7	99.3
60°	190.1	187.0	176.9	159.1	136.6	114.8	100.1	93.1	90.8
62.5°	169.9	167.6	159.9	143.6	122.6	104.0	90.8	83.8	81.5
65°	152.1	149.8	142.8	128.8	110.2	93.1	80.7	75.3	72.9
67.5°	133.5	131.9	125.7	113.3	97.0	82.3	70.6	66.0	64.4
70°	115.6	114.1	108.6	97.8	83.8	70.6	61.3	56.6	55.1
72.5°	97.0	97.0	91.6	82.3	71.4	59.0	51.2	48.1	45.8
75°	79.9	78.4	74.5	67.5	57.4	48.1	41.1	38.0	37.2
77.5°	62.1	62.1	59.0	52.8	45.8	37.2	32.6	29.5	28.7
80°	46.6	46.6	43.5	38.8	33.4	27.2	23.3	21.7	20.2
82.5°	31.8	31.8	29.5	25.6	22.5	17.8	15.5	14.0	13.2
85°	19.4	18.6	17.8	15.5	13.2	10.1	8.5	7.8	7.0
87.5°	9.3	9.3	8.5	6.2	5.4	3.9	3.1	2.3	2.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)