

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: P708914

Luminaire Tested: **24APR-X-X-UNV-RL940**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P708914
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-RL940
Description: ArcMed Patient Recessed 2x4 Fixture READING Light
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

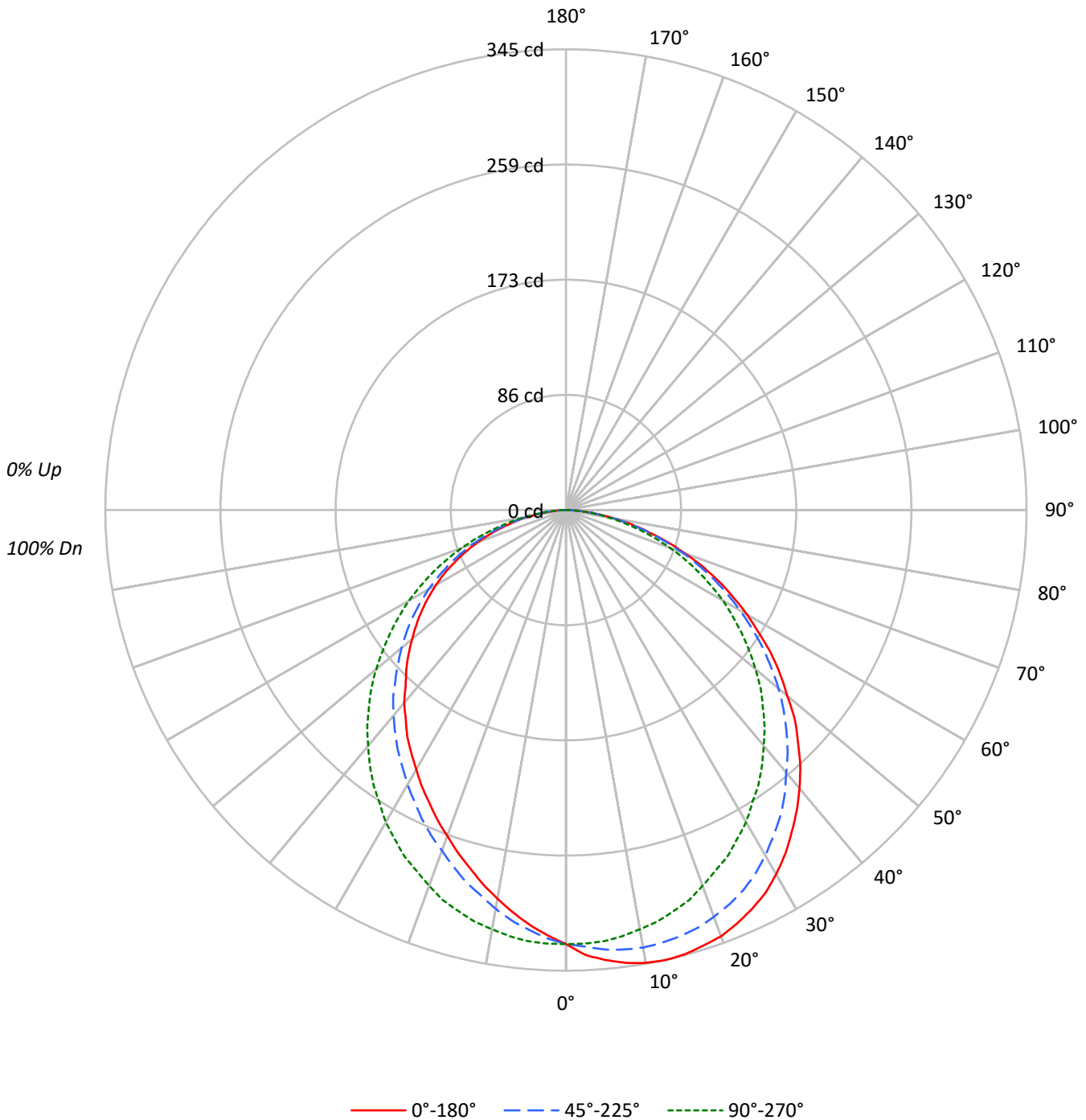
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 893.9 lumens
Efficiency: N/A
Efficacy: 63.9 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

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				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	100	100	100	100
1	109	104	100	96	106	102	98	94	98	94	91	94	91	89	90	88	86	84	84	84	84
2	99	91	84	78	96	89	83	77	85	80	75	82	78	74	79	75	72	70	70	70	70
3	90	80	72	65	88	78	71	65	75	69	63	72	67	62	70	65	61	59	59	59	59
4	83	71	62	55	80	69	61	55	67	60	54	64	58	53	62	57	53	50	50	50	50
5	76	63	54	48	74	62	54	47	60	52	47	58	51	46	56	50	46	44	44	44	44
6	70	57	48	42	68	56	47	41	54	47	41	52	46	41	51	45	40	38	38	38	38
7	65	52	43	37	63	51	42	37	49	42	36	48	41	36	46	40	36	34	34	34	34
8	61	47	39	33	59	46	38	33	45	38	32	44	37	32	43	37	32	30	30	30	30
9	57	43	35	29	55	43	35	29	41	34	29	40	34	29	39	33	29	27	27	27	27
10	53	40	32	27	52	39	32	27	38	31	27	37	31	26	37	31	26	25	25	25	25

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	437	437	437
5°	457	438	421
10°	471	436	404
15°	480	433	387
20°	486	429	372
25°	489	425	359
30°	489	419	348
35°	484	413	340
40°	478	405	331
45°	468	397	322
50°	453	388	315
55°	440	377	309
60°	422	365	303
65°	402	348	291
70°	372	327	275
75°	335	294	250
80°	288	253	216
85°	227	191	156



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.8	3.4
10°-20°	87.6	9.8
20°-30°	131.4	14.7
30°-40°	156.6	17.5
40°-50°	160.4	17.9
50°-60°	143.2	16.0
60°-70°	108.1	12.1
70°-80°	60.5	6.8
80°-90°	15.4	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°	249.8	27.9
0°-40°	406.3	45.5
0°-60°	709.9	79.4
0°-90°	893.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	893.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	325	325	325	325	325	
5°	338	330	324	316	312	32
15°	344	330	311	288	278	97
25°	330	314	286	255	242	152
35°	295	280	251	220	207	184
45°	246	234	209	181	169	190
55°	188	180	161	140	132	167
65°	126	122	109	96	92	125
75°	64	64	57	51	48	69
85°	15	15	12	12	10	17
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°	325.0	325.0	325.0	325.0	325.0	325.0	325.0	325.0	325.0
2.5°	333.5	329.6	327.3	326.5	325.0	324.2	321.1	319.6	318.8
5°	338.2	334.3	330.4	327.3	324.2	321.1	315.7	312.6	311.8
7.5°	342.1	337.4	332.0	328.1	321.9	317.2	310.2	305.6	304.0
10°	344.4	339.7	332.7	326.5	318.8	311.8	303.3	297.1	295.5
12.5°	345.2	340.5	332.0	325.0	315.7	306.4	295.5	289.3	287.0
15°	344.4	338.9	330.4	322.7	311.0	300.2	288.5	280.8	277.7
17.5°	342.1	337.4	328.1	318.8	306.4	293.2	280.0	272.2	269.1
20°	339.7	334.3	324.2	314.1	299.4	285.4	271.5	262.9	259.8
22.5°	335.1	330.4	319.6	307.9	292.4	278.4	263.7	254.4	251.3
25°	329.6	325.0	314.1	301.7	286.2	269.9	255.2	245.9	242.0
27.5°	323.4	318.0	307.1	294.7	277.7	261.4	245.9	236.6	233.5
30°	314.9	310.2	298.6	286.2	269.9	252.9	237.3	228.0	224.2
32.5°	305.6	301.7	289.3	276.9	259.8	243.5	228.0	218.7	215.6
35°	294.7	290.1	280.0	267.6	251.3	234.2	219.5	209.4	207.1
37.5°	283.9	279.2	269.1	257.5	241.2	224.2	210.2	200.1	197.0
40°	272.2	267.6	256.7	247.4	230.4	214.8	200.9	191.6	188.5
42.5°	259.8	255.2	245.9	235.8	220.3	204.8	191.6	180.7	177.6
45°	245.9	242.0	233.5	224.2	208.6	194.7	180.7	171.4	169.1
47.5°	232.7	228.8	221.1	211.7	197.8	183.8	170.6	162.1	159.8
50°	216.4	214.8	207.9	199.3	185.4	172.2	160.6	152.8	150.5
52.5°	202.4	200.9	193.9	186.1	173.0	161.3	150.5	143.5	141.2
55°	187.7	185.4	179.9	172.2	160.6	149.7	140.4	133.4	131.9
57.5°	171.4	169.9	165.2	159.0	148.1	138.8	129.5	124.1	122.5
60°	156.7	155.1	150.5	145.8	135.7	126.4	118.7	113.2	112.5
62.5°	141.2	140.4	136.5	131.9	122.5	114.8	107.8	103.2	102.4
65°	126.4	124.9	121.8	117.9	109.4	103.2	96.2	92.3	91.5
67.5°	110.9	109.4	107.0	103.9	96.2	90.7	85.3	81.4	80.7
70°	94.6	94.6	92.3	90.0	83.0	79.1	73.7	70.6	69.8
72.5°	79.9	79.1	77.6	75.2	69.8	66.7	62.0	59.7	58.9
75°	64.4	63.6	63.6	61.3	56.6	53.5	51.2	48.9	48.1
77.5°	51.2	50.4	49.6	48.1	44.2	41.9	39.6	38.0	38.0
80°	37.2	37.2	37.2	35.7	32.6	31.0	29.5	27.9	27.9
82.5°	24.8	25.6	24.8	24.0	21.7	20.9	20.2	18.6	18.6
85°	14.7	14.7	14.7	15.5	12.4	11.6	11.6	10.9	10.1
87.5°	6.2	7.0	6.2	6.2	4.7	4.7	3.9	3.9	3.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)