

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: P708913

Luminaire Tested: **24APR-X-X-UNV-RL935**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P708913
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-RL935
Description: ArcMed Patient Recessed 2x4 Fixture READING Light
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

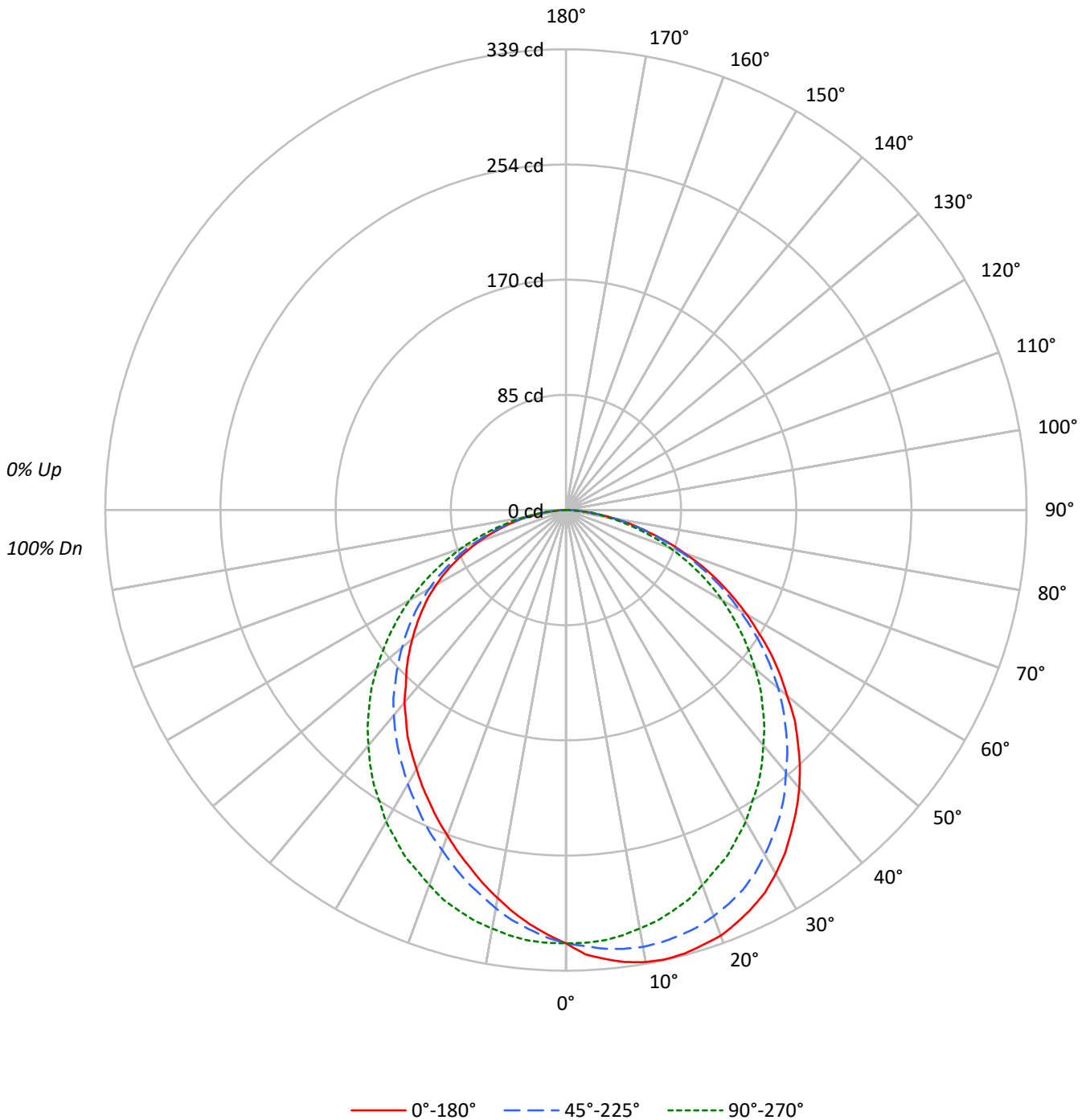
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 876.9 lumens
Efficiency: N/A
Efficacy: 62.6 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°	429	429	429
5°	448	430	413
10°	462	427	396
15°	471	425	379
20°	477	421	365
25°	480	417	352
30°	480	411	342
35°	475	405	334
40°	469	397	325
45°	459	390	316
50°	444	381	309
55°	432	369	303
60°	414	358	297
65°	395	342	286
70°	365	320	269
75°	329	289	245
80°	283	248	212
85°	224	188	153



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.2	3.4
10°-20°	85.9	9.8
20°-30°	129.0	14.7
30°-40°	153.6	17.5
40°-50°	157.3	17.9
50°-60°	140.5	16.0
60°-70°	106.1	12.1
70°-80°	59.3	6.8
80°-90°	15.2	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°	245.0	27.9
0°-40°	398.6	45.5
0°-60°	696.4	79.4
0°-90°	876.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	876.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	319	319	319	319	319	
5°	332	324	318	310	306	32
15°	338	324	305	283	272	95
25°	323	308	281	250	237	149
35°	289	275	246	215	203	181
45°	241	229	205	177	166	186
55°	184	176	158	138	129	164
65°	124	120	107	94	90	122
75°	63	62	56	50	47	68
85°	14	14	12	11	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°	318.8	318.8	318.8	318.8	318.8	318.8	318.8	318.8	318.8
2.5°	327.2	323.4	321.1	320.3	318.8	318.0	315.0	313.5	312.7
5°	331.7	327.9	324.1	321.1	318.0	315.0	309.7	306.6	305.9
7.5°	335.5	331.0	325.7	321.8	315.8	311.2	304.3	299.8	298.3
10°	337.8	333.3	326.4	320.3	312.7	305.9	297.5	291.4	289.9
12.5°	338.6	334.0	325.7	318.8	309.7	300.5	289.9	283.8	281.5
15°	337.8	332.5	324.1	316.5	305.1	294.5	283.0	275.4	272.4
17.5°	335.5	331.0	321.8	312.7	300.5	287.6	274.7	267.1	264.0
20°	333.3	327.9	318.0	308.2	293.7	280.0	266.3	257.9	254.9
22.5°	328.7	324.1	313.5	302.1	286.8	273.2	258.7	249.6	246.5
25°	323.4	318.8	308.2	296.0	280.8	264.8	250.3	241.2	237.4
27.5°	317.3	312.0	301.3	289.1	272.4	256.4	241.2	232.1	229.0
30°	308.9	304.3	292.9	280.8	264.8	248.0	232.8	223.7	219.9
32.5°	299.8	296.0	283.8	271.6	254.9	238.9	223.7	214.6	211.5
35°	289.1	284.6	274.7	262.5	246.5	229.8	215.3	205.4	203.2
37.5°	278.5	273.9	264.0	252.6	236.6	219.9	206.2	196.3	193.3
40°	267.1	262.5	251.8	242.7	226.0	210.8	197.1	187.9	184.9
42.5°	254.9	250.3	241.2	231.3	216.1	200.9	187.9	177.3	174.2
45°	241.2	237.4	229.0	219.9	204.7	191.0	177.3	168.2	165.9
47.5°	228.3	224.5	216.8	207.7	194.0	180.3	167.4	159.0	156.7
50°	212.3	210.8	203.9	195.5	181.8	168.9	157.5	149.9	147.6
52.5°	198.6	197.1	190.2	182.6	169.7	158.3	147.6	140.8	138.5
55°	184.1	181.8	176.5	168.9	157.5	146.8	137.7	130.9	129.3
57.5°	168.2	166.6	162.1	156.0	145.3	136.2	127.1	121.7	120.2
60°	153.7	152.2	147.6	143.0	133.2	124.0	116.4	111.1	110.3
62.5°	138.5	137.7	133.9	129.3	120.2	112.6	105.8	101.2	100.4
65°	124.0	122.5	119.5	115.7	107.3	101.2	94.3	90.5	89.8
67.5°	108.8	107.3	105.0	102.0	94.3	89.0	83.7	79.9	79.1
70°	92.8	92.8	90.5	88.3	81.4	77.6	72.3	69.2	68.5
72.5°	78.4	77.6	76.1	73.8	68.5	65.4	60.9	58.6	57.8
75°	63.2	62.4	62.4	60.1	55.5	52.5	50.2	47.9	47.2
77.5°	50.2	49.5	48.7	47.2	43.4	41.1	38.8	37.3	37.3
80°	36.5	36.5	36.5	35.0	32.0	30.4	28.9	27.4	27.4
82.5°	24.3	25.1	24.3	23.6	21.3	20.5	19.8	18.3	18.3
85°	14.5	14.5	14.5	15.2	12.2	11.4	11.4	10.7	9.9
87.5°	6.1	6.8	6.1	6.1	4.6	4.6	3.8	3.8	3.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)