

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: P708911

Luminaire Tested: **24APR-X-X-UNV-RL850**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P708911
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-RL850
Description: ArcMed Patient Recessed 2x4 Fixture READING Light
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

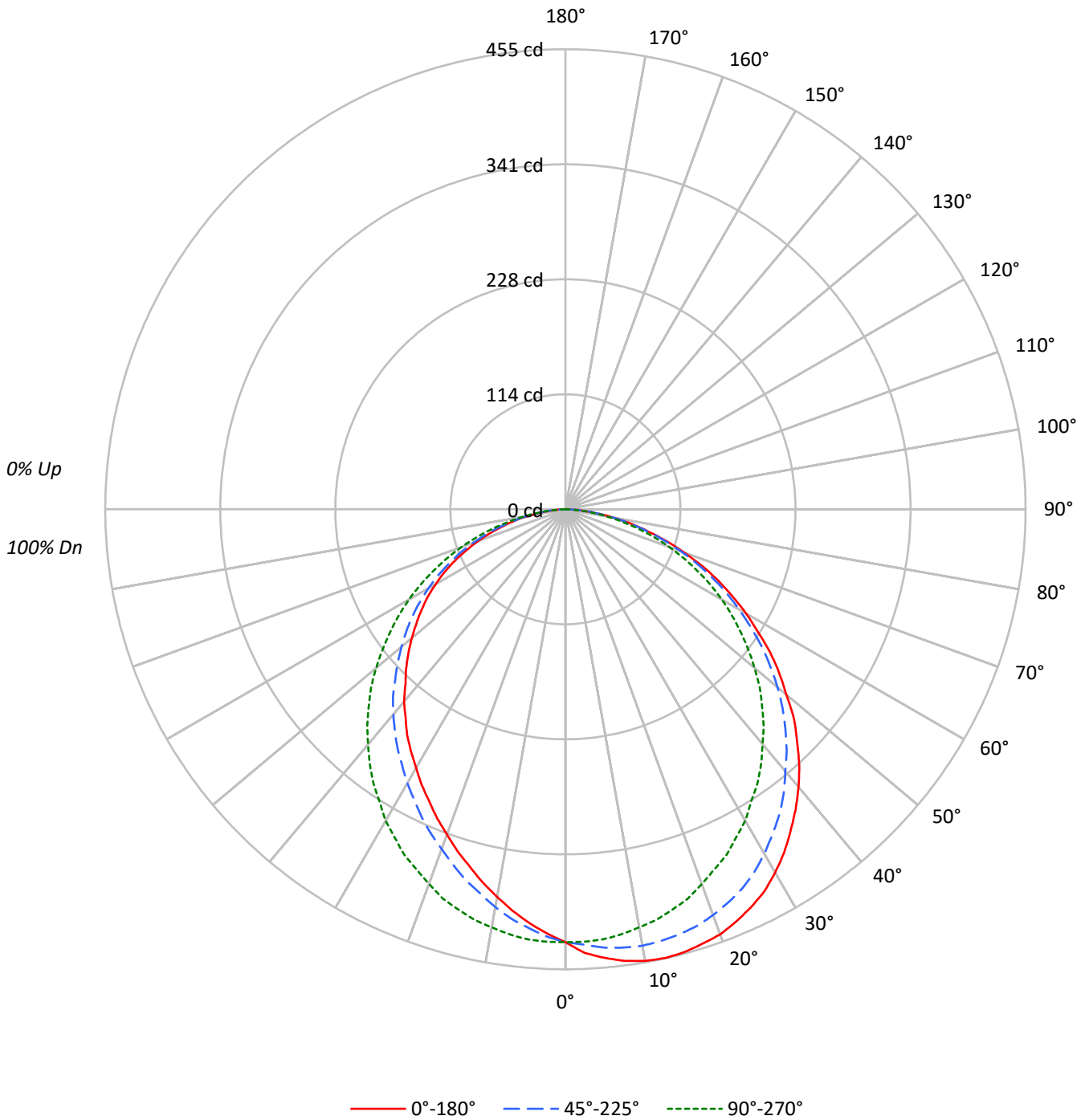
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1177.4 lumens
Efficiency: N/A
Efficacy: 84.1 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	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°	576	576	576
5°	602	577	555
10°	620	574	532
15°	632	571	509
20°	641	565	490
25°	645	560	473
30°	644	552	459
35°	638	544	448
40°	630	533	436
45°	616	523	424
50°	597	511	415
55°	580	496	407
60°	555	481	399
65°	530	458	384
70°	490	430	362
75°	441	388	329
80°	380	332	285
85°	299	252	205



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.5	3.4
10°-20°	115.3	9.8
20°-30°	173.1	14.7
30°-40°	206.2	17.5
40°-50°	211.2	17.9
50°-60°	188.6	16.0
60°-70°	142.4	12.1
70°-80°	79.7	6.8
80°-90°	20.3	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°	329.0	27.9
0°-40°	535.2	45.5
0°-60°	935.0	79.4
0°-90°	1177.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1177.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	428	428	428	428	428	
5°	445	435	427	416	411	43
15°	454	435	410	380	366	128
25°	434	414	377	336	319	200
35°	388	369	331	289	273	243
45°	324	308	275	238	223	250
55°	247	237	212	185	174	220
65°	166	160	144	127	121	164
75°	85	84	75	67	63	91
85°	19	19	16	15	13	23
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°	428.1	428.1	428.1	428.1	428.1	428.1	428.1	428.1	428.1
2.5°	439.3	434.2	431.1	430.1	428.1	427.0	423.0	420.9	419.9
5°	445.4	440.3	435.2	431.1	427.0	423.0	415.8	411.7	410.7
7.5°	450.5	444.4	437.3	432.1	424.0	417.8	408.6	402.5	400.5
10°	453.6	447.5	438.3	430.1	419.9	410.7	399.5	391.3	389.2
12.5°	454.6	448.5	437.3	428.1	415.8	403.5	389.2	381.1	378.0
15°	453.6	446.4	435.2	425.0	409.7	395.4	380.0	369.8	365.7
17.5°	450.5	444.4	432.1	419.9	403.5	386.2	368.8	358.6	354.5
20°	447.5	440.3	427.0	413.8	394.3	376.0	357.6	346.3	342.2
22.5°	441.3	435.2	420.9	405.6	385.2	366.8	347.4	335.1	331.0
25°	434.2	428.1	413.8	397.4	377.0	355.5	336.1	323.9	318.7
27.5°	426.0	418.9	404.6	388.2	365.7	344.3	323.9	311.6	307.5
30°	414.8	408.6	393.3	377.0	355.5	333.0	312.6	300.4	295.2
32.5°	402.5	397.4	381.1	364.7	342.2	320.8	300.4	288.1	284.0
35°	388.2	382.1	368.8	352.5	331.0	308.5	289.1	275.8	272.8
37.5°	373.9	367.8	354.5	339.2	317.7	295.2	276.9	263.6	259.5
40°	358.6	352.5	338.2	325.9	303.4	283.0	264.6	252.3	248.3
42.5°	342.2	336.1	323.9	310.6	290.1	269.7	252.3	238.0	234.0
45°	323.9	318.7	307.5	295.2	274.8	256.4	238.0	225.8	222.7
47.5°	306.5	301.4	291.2	278.9	260.5	242.1	224.8	213.5	210.5
50°	285.0	283.0	273.8	262.6	244.2	226.8	211.5	201.3	198.2
52.5°	266.6	264.6	255.4	245.2	227.8	212.5	198.2	189.0	185.9
55°	247.2	244.2	237.0	226.8	211.5	197.2	184.9	175.7	173.7
57.5°	225.8	223.7	217.6	209.4	195.1	182.9	170.6	163.5	161.4
60°	206.4	204.3	198.2	192.1	178.8	166.5	156.3	149.2	148.1
62.5°	185.9	184.9	179.8	173.7	161.4	151.2	142.0	135.9	134.9
65°	166.5	164.5	160.4	155.3	144.0	135.9	126.7	121.6	120.6
67.5°	146.1	144.0	141.0	136.9	126.7	119.5	112.4	107.3	106.2
70°	124.6	124.6	121.6	118.5	109.3	104.2	97.1	93.0	91.9
72.5°	105.2	104.2	102.2	99.1	91.9	87.9	81.7	78.7	77.6
75°	84.8	83.8	83.8	80.7	74.6	70.5	67.4	64.4	63.3
77.5°	67.4	66.4	65.4	63.3	58.2	55.2	52.1	50.1	50.1
80°	49.0	49.0	49.0	47.0	42.9	40.9	38.8	36.8	36.8
82.5°	32.7	33.7	32.7	31.7	28.6	27.6	26.6	24.5	24.5
85°	19.4	19.4	19.4	20.4	16.3	15.3	15.3	14.3	13.3
87.5°	8.2	9.2	8.2	8.2	6.1	6.1	5.1	5.1	4.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)