

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: P708909

Luminaire Tested: **24APR-X-X-UNV-RL835**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P708909
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-RL835
Description: ArcMed Patient Recessed 2x4 Fixture READING Light
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

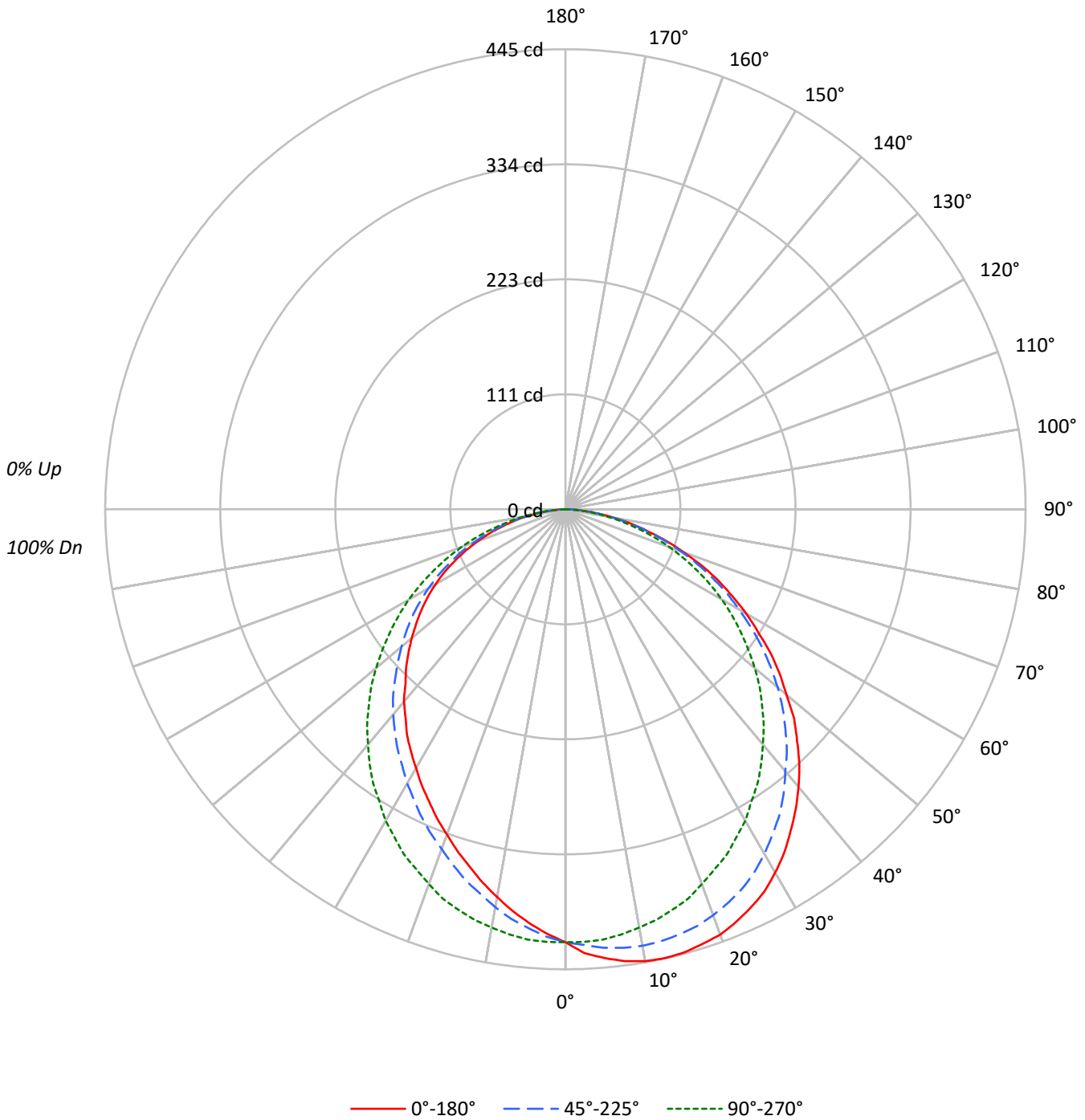
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1152.0 lumens
Efficiency: N/A
Efficacy: 82.3 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: P708909
CATALOG NUMBER: 24APR-X-X-UNV-RL835

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	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	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°	563	563	563
5°	589	564	543
10°	606	561	520
15°	618	558	498
20°	627	552	479
25°	631	548	463
30°	630	540	449
35°	624	532	438
40°	616	521	427
45°	603	512	415
50°	584	500	406
55°	567	485	399
60°	543	471	390
65°	519	449	375
70°	480	421	354
75°	431	379	322
80°	372	325	279
85°	293	247	201



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.6	3.4
10°-20°	112.8	9.8
20°-30°	169.4	14.7
30°-40°	201.8	17.5
40°-50°	206.7	17.9
50°-60°	184.5	16.0
60°-70°	139.3	12.1
70°-80°	78.0	6.8
80°-90°	19.9	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°	321.9	27.9
0°-40°	523.6	45.5
0°-60°	914.8	79.4
0°-90°	1152.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1152.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	419	419	419	419	419	
5°	436	426	418	407	402	42
15°	444	426	401	372	358	125
25°	425	405	369	329	312	196
35°	380	361	324	283	267	238
45°	317	301	269	233	218	244
55°	242	232	207	181	170	216
65°	163	157	141	124	118	161
75°	83	82	73	66	62	89
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°	418.8	418.8	418.8	418.8	418.8	418.8	418.8	418.8	418.8
2.5°	429.8	424.8	421.8	420.8	418.8	417.8	413.8	411.8	410.8
5°	435.8	430.8	425.8	421.8	417.8	413.8	406.8	402.8	401.8
7.5°	440.8	434.8	427.8	422.8	414.8	408.8	399.8	393.8	391.8
10°	443.8	437.8	428.8	420.8	410.8	401.8	390.8	382.8	380.8
12.5°	444.8	438.8	427.8	418.8	406.8	394.8	380.8	372.8	369.8
15°	443.8	436.8	425.8	415.8	400.8	386.8	371.8	361.8	357.8
17.5°	440.8	434.8	422.8	410.8	394.8	377.8	360.8	350.8	346.8
20°	437.8	430.8	417.8	404.8	385.8	367.8	349.8	338.8	334.8
22.5°	431.8	425.8	411.8	396.8	376.8	358.8	339.8	327.8	323.9
25°	424.8	418.8	404.8	388.8	368.8	347.8	328.8	316.9	311.9
27.5°	416.8	409.8	395.8	379.8	357.8	336.8	316.9	304.9	300.9
30°	405.8	399.8	384.8	368.8	347.8	325.9	305.9	293.9	288.9
32.5°	393.8	388.8	372.8	356.8	334.8	313.9	293.9	281.9	277.9
35°	379.8	373.8	360.8	344.8	323.9	301.9	282.9	269.9	266.9
37.5°	365.8	359.8	346.8	331.8	310.9	288.9	270.9	257.9	253.9
40°	350.8	344.8	330.8	318.9	296.9	276.9	258.9	246.9	242.9
42.5°	334.8	328.8	316.9	303.9	283.9	263.9	246.9	232.9	228.9
45°	316.9	311.9	300.9	288.9	268.9	250.9	232.9	220.9	217.9
47.5°	299.9	294.9	284.9	272.9	254.9	236.9	219.9	208.9	205.9
50°	278.9	276.9	267.9	256.9	238.9	221.9	206.9	196.9	193.9
52.5°	260.9	258.9	249.9	239.9	222.9	207.9	193.9	184.9	181.9
55°	241.9	238.9	231.9	221.9	206.9	192.9	180.9	171.9	169.9
57.5°	220.9	218.9	212.9	204.9	190.9	178.9	166.9	159.9	157.9
60°	201.9	199.9	193.9	187.9	174.9	162.9	152.9	145.9	144.9
62.5°	181.9	180.9	175.9	169.9	157.9	147.9	138.9	132.9	131.9
65°	162.9	160.9	156.9	151.9	140.9	132.9	123.9	118.9	117.9
67.5°	142.9	140.9	137.9	133.9	123.9	116.9	109.9	105.0	104.0
70°	121.9	121.9	118.9	115.9	107.0	102.0	95.0	91.0	90.0
72.5°	103.0	102.0	100.0	97.0	90.0	86.0	80.0	77.0	76.0
75°	83.0	82.0	82.0	79.0	73.0	69.0	66.0	63.0	62.0
77.5°	66.0	65.0	64.0	62.0	57.0	54.0	51.0	49.0	49.0
80°	48.0	48.0	48.0	46.0	42.0	40.0	38.0	36.0	36.0
82.5°	32.0	33.0	32.0	31.0	28.0	27.0	26.0	24.0	24.0
85°	19.0	19.0	19.0	20.0	16.0	15.0	15.0	14.0	13.0
87.5°	8.0	9.0	8.0	8.0	6.0	6.0	5.0	5.0	4.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)