

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: P709032

Luminaire Tested: **24APR-58-138L935-UNV**

Issue Date: 09/12/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P709032  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 09/12/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 24APR-58-138L935-UNV  
Description: ArcMed Patient Recessed 2x4 Fixture Ambient and Exam Light  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

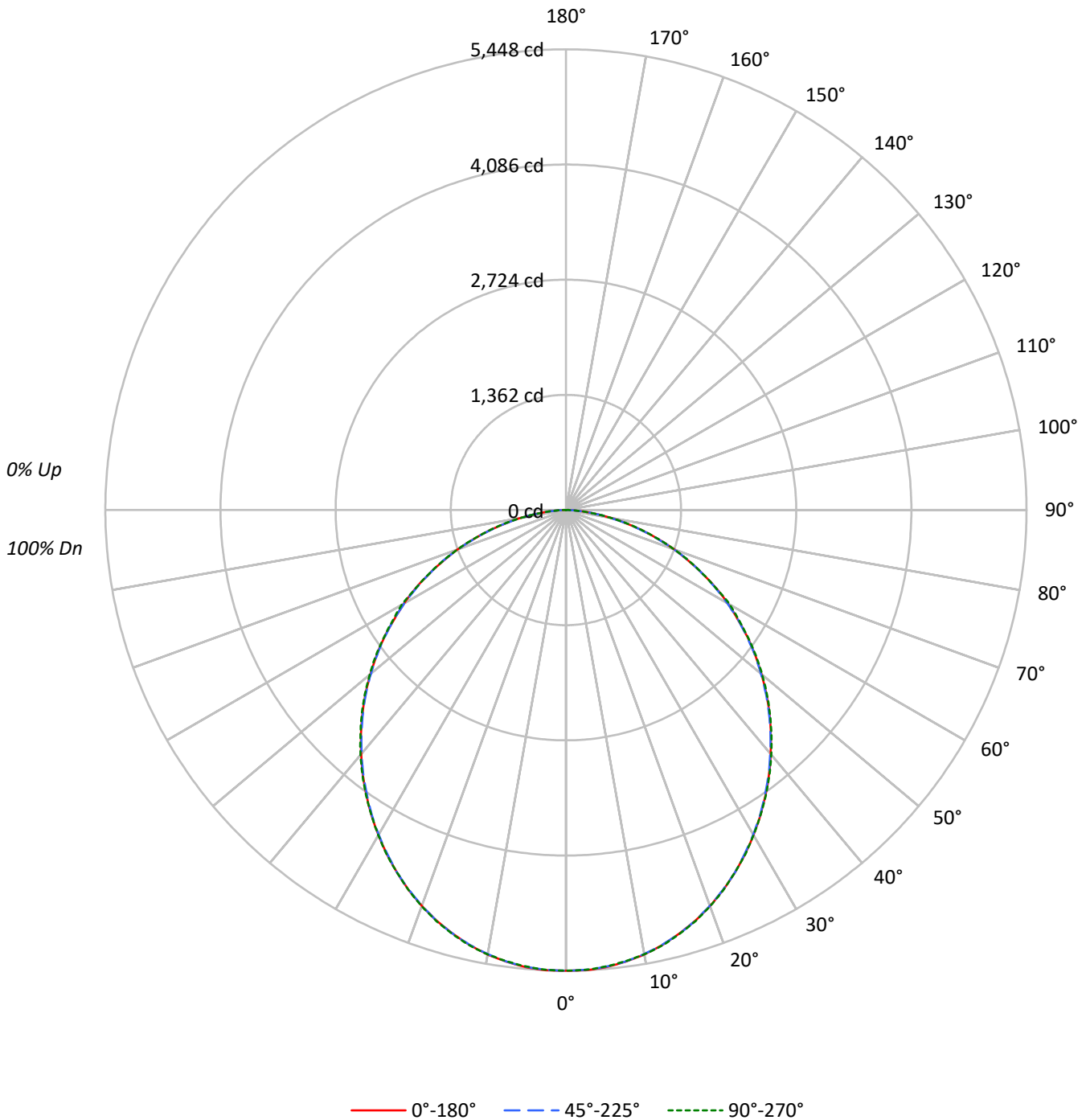
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 14701.1 lumens  
Efficiency: N/A  
Efficacy: 94.6 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.33  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 155.4  
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	92	94	91	89	90	88	86	86	86	86	84
2	99	91	84	78	96	89	83	77	85	80	76	82	78	74	79	75	72	72	72	72	70
3	90	80	72	65	88	78	71	65	75	69	63	73	67	62	70	65	61	61	61	61	59
4	83	71	62	55	80	69	61	55	67	60	54	65	58	53	62	57	53	53	53	53	51
5	76	63	54	48	74	62	54	47	60	53	47	58	52	46	56	51	46	46	46	46	44
6	70	57	48	42	68	56	48	42	54	47	41	53	46	41	51	45	40	40	40	40	38
7	65	52	43	37	64	51	43	37	49	42	36	48	41	36	47	41	36	36	36	36	34
8	61	47	39	33	59	47	38	33	45	38	33	44	37	32	43	37	32	32	32	32	30
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	40	34	29	29	29	29	27
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	26	26	26	26	25

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	7330	7330	7330
5°	7330	7323	7319
10°	7292	7286	7291
15°	7223	7223	7231
20°	7134	7130	7140
25°	7023	7019	7019
30°	6896	6885	6896
35°	6761	6743	6769
40°	6617	6605	6639
45°	6476	6463	6498
50°	6321	6305	6345
55°	6149	6133	6170
60°	5946	5932	6036
65°	5675	5677	5692
70°	5364	5335	5370
75°	4893	4855	4888
80°	4224	4172	4200
85°	3296	3264	3256



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	514.9	3.5
10°-20°	1462.2	9.9
20°-30°	2177.6	14.8
30°-40°	2572.7	17.5
40°-50°	2624.6	17.9
50°-60°	2341.8	15.9
60°-70°	1765.5	12.0
70°-80°	989.9	6.7
80°-90°	251.9	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°	4154.7	28.3
0°-40°	6727.4	45.8
0°-60°	11693.8	79.5
0°-90°	14701.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	14701.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	5448	5448	5448	5448	5448	
5°	5427	5425	5422	5423	5419	515
15°	5186	5182	5186	5189	5191	1462
25°	4730	4724	4728	4732	4728	2179
35°	4116	4110	4105	4117	4121	2575
45°	3403	3401	3397	3407	3415	2625
55°	2621	2616	2614	2622	2630	2341
65°	1783	1774	1783	1788	1788	1768
75°	941	925	934	929	940	996
85°	214	206	211	211	211	255
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	5447.6	5447.6	5447.6	5447.6	5447.6
2.5°	5447.6	5445.0	5442.9	5442.4	5443.4
5°	5427.2	5424.6	5421.9	5423.0	5418.8
7.5°	5387.9	5388.5	5386.4	5386.9	5382.2
10°	5337.2	5334.6	5332.5	5337.2	5336.7
12.5°	5268.7	5263.9	5266.0	5273.4	5273.9
15°	5185.5	5182.3	5185.5	5189.1	5191.2
17.5°	5090.8	5088.1	5091.8	5092.3	5096.5
20°	4982.5	4979.3	4979.3	4984.6	4986.6
22.5°	4862.6	4857.9	4859.0	4862.6	4865.3
25°	4730.3	4724.5	4728.2	4732.4	4728.2
27.5°	4587.4	4584.3	4580.6	4585.9	4592.7
30°	4438.3	4432.0	4431.5	4435.2	4438.9
32.5°	4280.8	4273.5	4273.5	4278.2	4281.4
35°	4116.0	4110.3	4105.0	4117.1	4121.3
37.5°	3946.0	3939.2	3938.7	3946.0	3952.8
40°	3767.6	3761.8	3760.3	3772.8	3780.1
42.5°	3587.6	3583.9	3580.3	3592.8	3598.6
45°	3403.4	3401.3	3396.6	3406.6	3414.9
47.5°	3214.0	3207.2	3205.7	3217.2	3225.5
50°	3019.9	3017.3	3012.1	3022.5	3031.4
52.5°	2823.2	2820.1	2816.4	2825.8	2835.2
55°	2621.2	2615.5	2614.4	2622.3	2630.1
57.5°	2410.9	2406.2	2413.5	2420.9	2427.1
60°	2209.5	2198.5	2204.3	2212.6	2243.0
62.5°	2007.0	1987.6	1991.8	2014.9	2001.8
65°	1782.6	1773.7	1783.1	1788.3	1787.8
67.5°	1572.2	1561.8	1575.9	1571.7	1578.0
70°	1363.5	1345.2	1356.1	1357.7	1365.0
72.5°	1147.9	1132.2	1141.6	1146.3	1151.0
75°	941.2	925.0	933.9	928.7	940.2
77.5°	735.6	725.7	731.4	735.1	744.0
80°	545.2	534.2	538.4	538.9	542.0
82.5°	369.4	361.0	362.1	371.5	367.8
85°	213.5	205.6	211.4	210.9	210.9
87.5°	83.2	76.9	82.7	82.1	81.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)