

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: P709029

Luminaire Tested: **24APR-85-200L935-UNV**

Issue Date: 09/12/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P709029  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 09/12/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 24APR-85-200L935-UNV  
Description: ArcMed Patient Recessed 2x4 Fixture Ambient and Exam Light  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

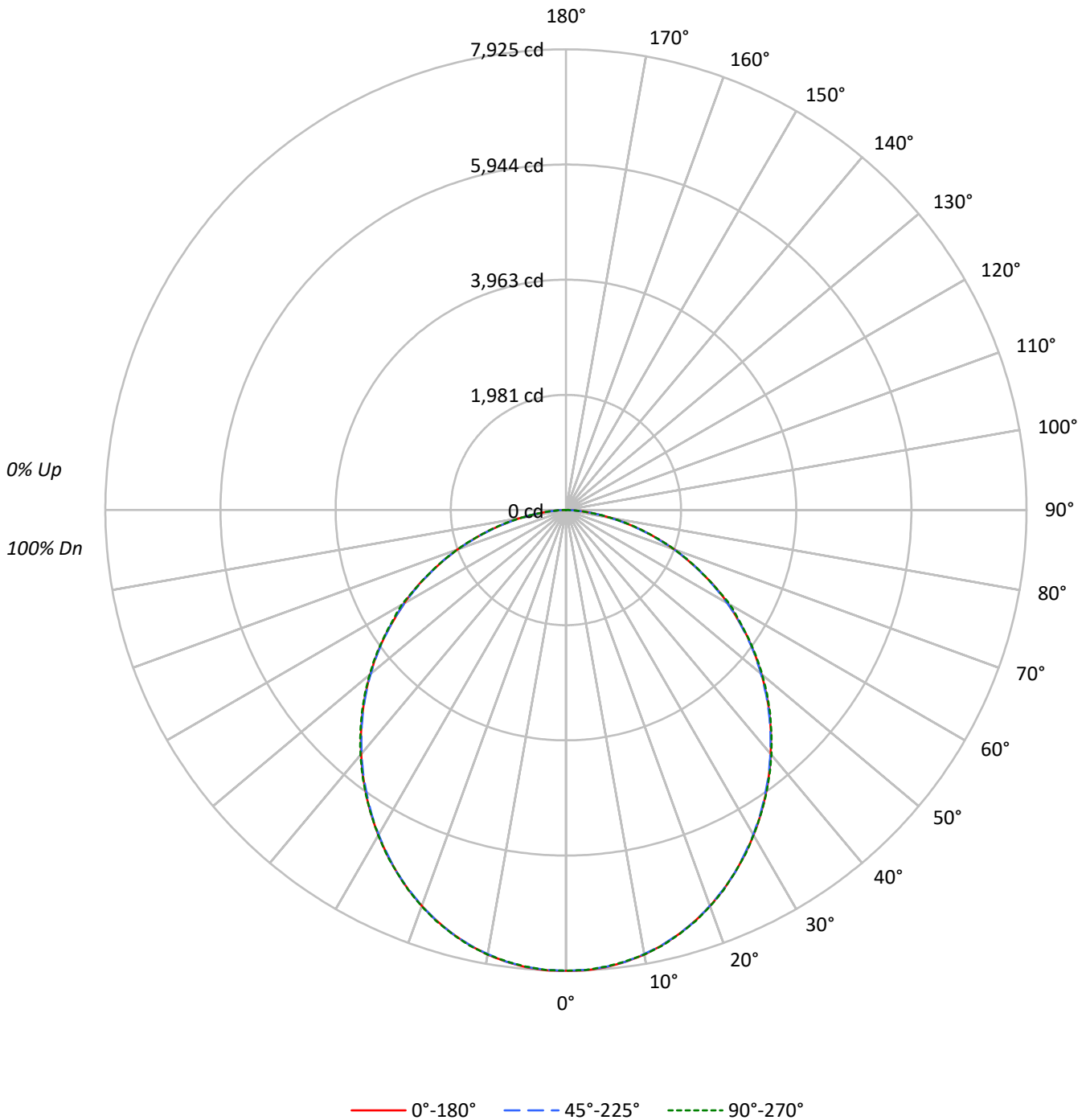
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 21387.9 lumens  
Efficiency: N/A  
Efficacy: 90.9 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): 235.4  
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°	10664	10664	10664
5°	10664	10654	10648
10°	10609	10599	10608
15°	10509	10509	10520
20°	10379	10373	10388
25°	10217	10212	10212
30°	10032	10017	10033
35°	9836	9810	9848
40°	9627	9609	9659
45°	9422	9403	9454
50°	9197	9173	9232
55°	8946	8922	8976
60°	8650	8630	8781
65°	8256	8259	8281
70°	7803	7762	7812
75°	7119	7063	7111
80°	6146	6069	6110
85°	4795	4747	4736



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	749.0	3.5
10°-20°	2127.3	9.9
20°-30°	3168.1	14.8
30°-40°	3742.9	17.5
40°-50°	3818.4	17.9
50°-60°	3407.0	15.9
60°-70°	2568.6	12.0
70°-80°	1440.2	6.7
80°-90°	366.5	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°	6044.4	28.3
0°-40°	9787.3	45.8
0°-60°	17012.7	79.5
0°-90°	21387.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	21387.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	7925	7925	7925	7925	7925	
5°	7896	7892	7888	7890	7884	749
15°	7544	7540	7544	7549	7552	2127
25°	6882	6874	6879	6885	6879	3169
35°	5988	5980	5972	5990	5996	3746
45°	4952	4948	4942	4956	4968	3819
55°	3814	3805	3804	3815	3826	3406
65°	2593	2580	2594	2602	2601	2573
75°	1369	1346	1359	1351	1368	1449
85°	311	299	308	307	307	371
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	7925.4	7925.4	7925.4	7925.4	7925.4
2.5°	7925.4	7921.6	7918.6	7917.8	7919.3
5°	7895.7	7891.9	7888.1	7889.6	7883.6
7.5°	7838.6	7839.4	7836.4	7837.1	7830.3
10°	7764.8	7761.0	7758.0	7764.8	7764.1
12.5°	7665.1	7658.2	7661.3	7672.0	7672.7
15°	7544.1	7539.5	7544.1	7549.4	7552.4
17.5°	7406.3	7402.5	7407.8	7408.6	7414.7
20°	7248.7	7244.2	7244.2	7251.8	7254.8
22.5°	7074.4	7067.6	7069.1	7074.4	7078.2
25°	6881.8	6873.5	6878.8	6884.9	6878.8
27.5°	6674.0	6669.5	6664.1	6671.8	6681.7
30°	6457.1	6448.0	6447.2	6452.5	6457.9
32.5°	6228.0	6217.3	6217.3	6224.2	6228.7
35°	5988.2	5979.8	5972.2	5989.7	5995.8
37.5°	5740.8	5730.9	5730.2	5740.8	5750.7
40°	5481.3	5472.9	5470.6	5488.9	5499.5
42.5°	5219.4	5214.1	5208.8	5227.0	5235.4
45°	4951.5	4948.4	4941.6	4956.1	4968.2
47.5°	4675.9	4666.0	4663.8	4680.5	4692.7
50°	4393.5	4389.7	4382.1	4397.3	4410.3
52.5°	4107.3	4102.8	4097.4	4111.1	4124.8
55°	3813.5	3805.1	3803.6	3815.0	3826.5
57.5°	3507.5	3500.7	3511.3	3522.0	3531.1
60°	3214.5	3198.5	3206.9	3219.0	3263.2
62.5°	2919.9	2891.7	2897.8	2931.3	2912.3
65°	2593.3	2580.4	2594.1	2601.7	2601.0
67.5°	2287.4	2272.1	2292.7	2286.6	2295.7
70°	1983.6	1957.0	1973.0	1975.3	1985.9
72.5°	1670.0	1647.2	1660.9	1667.7	1674.6
75°	1369.4	1345.8	1358.7	1351.1	1367.8
77.5°	1070.2	1055.8	1064.1	1069.5	1082.4
80°	793.2	777.2	783.3	784.0	788.6
82.5°	537.4	525.2	526.7	540.4	535.1
85°	310.6	299.1	307.5	306.8	306.8
87.5°	121.0	111.9	120.3	119.5	118.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)