

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: P708829

Luminaire Tested: **24APR-X-71L850-UNV**

Issue Date: 09/12/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P708829  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 09/12/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 24APR-X-71L850-UNV  
Description: ArcMed Patient Recessed 2x2 Fixture EXAM Light  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

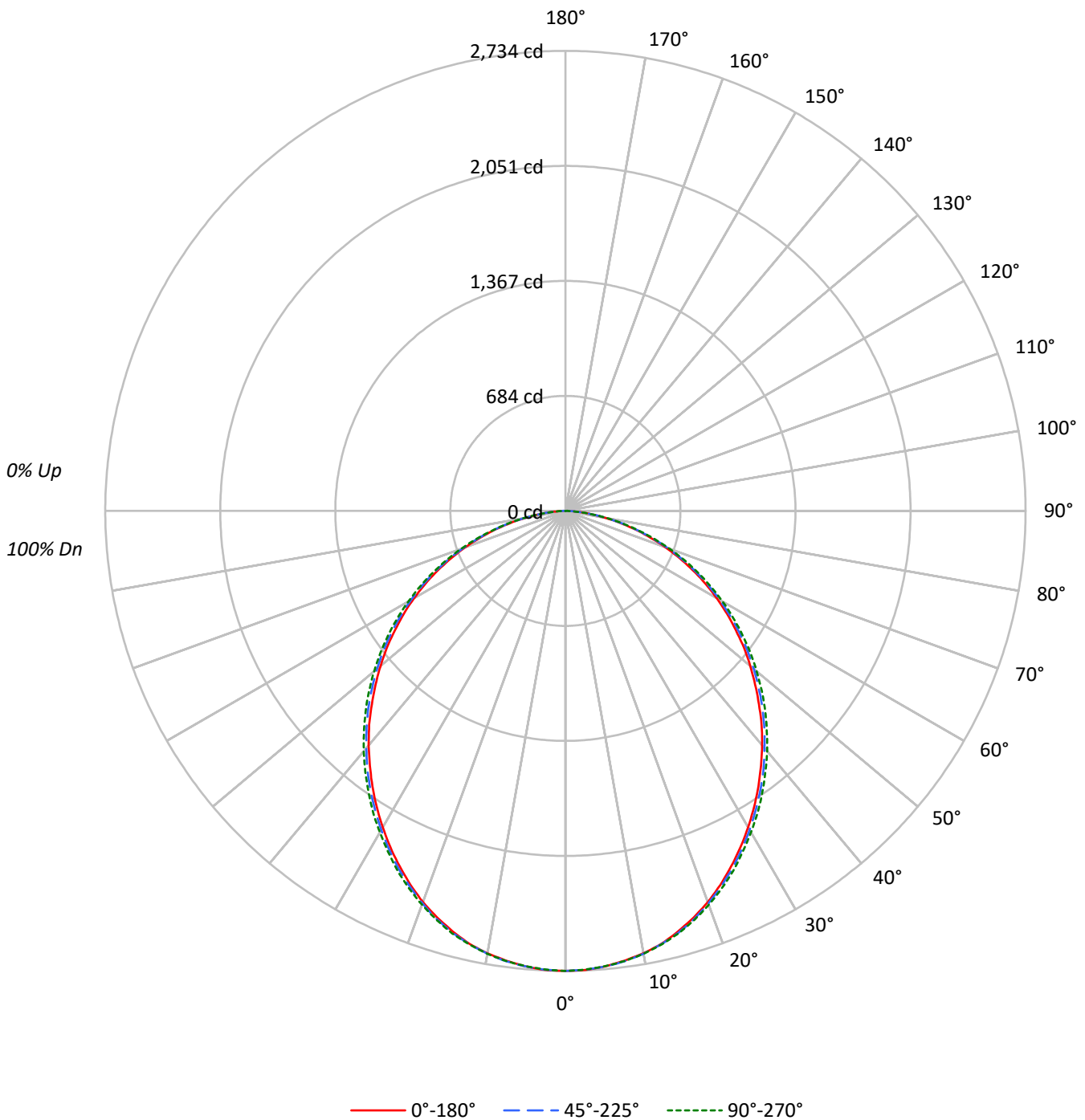
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7165.3 lumens  
Efficiency: N/A  
Efficacy: 119.4 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.31  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 60  
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				
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	95	98	95	92	94	91	89	90	88	86	86	86	86	84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	73	73	73	70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	62	62	62	60
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	53	53	53	51
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	57	51	46	46	46	46	44
6	71	57	49	42	69	56	48	42	55	47	42	53	46	41	51	45	41	41	41	41	39
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	36	36	36	34
8	61	48	39	33	60	47	39	33	46	38	33	44	38	33	43	37	33	33	33	33	31
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30	30	30	30	28
10	54	40	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	27	27	27	25

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

	0°	45°	90°
0°	7357	7357	7357
5°	7339	7341	7337
10°	7295	7301	7304
15°	7208	7228	7242
20°	7087	7110	7134
25°	6919	6965	7007
30°	6745	6800	6851
35°	6566	6638	6702
40°	6388	6462	6548
45°	6188	6299	6386
50°	6001	6114	6209
55°	5796	5918	6021
60°	5586	5701	5810
65°	5317	5436	5540
70°	4979	5087	5190
75°	4494	4604	4688
80°	3790	3930	3967
85°	2819	2995	2946



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	258.0	3.6
10°-20°	730.9	10.2
20°-30°	1079.8	15.1
30°-40°	1263.4	17.6
40°-50°	1276.0	17.8
50°-60°	1127.8	15.7
60°-70°	844.2	11.8
70°-80°	469.2	6.5
80°-90°	116.0	1.6
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°	2068.7	28.9
0°-40°	3332.1	46.5
0°-60°	5735.9	80.1
0°-90°	7165.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7165.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2734	2734	2734	2734	2734	
5°	2717	2718	2718	2719	2716	258
15°	2587	2589	2595	2600	2600	729
25°	2330	2334	2346	2353	2360	1073
35°	1999	2004	2021	2034	2040	1250
45°	1626	1638	1655	1672	1678	1256
55°	1235	1245	1261	1277	1283	1106
65°	835	841	854	865	870	827
75°	432	435	443	451	451	458
85°	91	95	97	95	95	112
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2734.1	2734.1	2734.1	2734.1	2734.1
2.5°	2731.6	2731.6	2729.2	2730.0	2728.3
5°	2716.9	2717.7	2717.7	2718.6	2716.1
7.5°	2695.7	2697.4	2699.8	2700.6	2698.2
10°	2669.6	2671.3	2672.1	2675.3	2672.9
12.5°	2635.4	2636.2	2637.0	2641.9	2639.5
15°	2587.3	2588.9	2594.6	2599.5	2599.5
17.5°	2533.5	2536.7	2543.2	2549.8	2548.1
20°	2474.8	2477.2	2482.9	2491.9	2491.1
22.5°	2405.4	2407.9	2416.0	2425.8	2428.3
25°	2330.4	2333.7	2345.9	2353.3	2359.8
27.5°	2253.0	2257.0	2268.5	2279.9	2283.1
30°	2170.6	2177.1	2188.5	2200.8	2204.9
32.5°	2086.6	2089.9	2105.4	2118.4	2126.6
35°	1998.6	2004.3	2020.6	2034.4	2040.1
37.5°	1908.0	1916.2	1933.3	1948.0	1952.9
40°	1818.4	1824.9	1839.6	1858.3	1864.0
42.5°	1725.4	1731.1	1749.0	1765.4	1771.1
45°	1625.9	1638.1	1655.3	1672.4	1678.1
47.5°	1529.7	1541.1	1558.2	1575.4	1581.9
50°	1433.5	1445.7	1460.4	1478.3	1483.2
52.5°	1337.3	1347.0	1362.5	1378.0	1385.4
55°	1235.3	1245.1	1261.4	1276.9	1283.4
57.5°	1139.1	1145.6	1161.1	1175.8	1181.5
60°	1038.0	1044.5	1059.2	1074.7	1079.6
62.5°	938.5	942.6	956.5	971.1	974.4
65°	835.0	840.7	853.7	865.1	870.0
67.5°	733.9	738.8	750.2	762.4	764.9
70°	632.8	636.0	646.6	655.6	659.7
72.5°	530.8	534.1	545.5	550.4	554.5
75°	432.2	434.6	442.8	450.9	450.9
77.5°	335.9	340.0	346.5	349.8	351.4
80°	244.6	248.7	253.6	256.9	256.0
82.5°	161.5	165.5	168.8	170.4	168.8
85°	91.3	94.6	97.0	95.4	95.4
87.5°	35.9	37.5	39.1	38.3	36.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)