

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: P708819

Luminaire Tested: **24APR-X-71L835-UNV**

Issue Date: 09/12/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P708819  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 09/12/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 24APR-X-71L835-UNV  
Description: ArcMed Patient Recessed 2x2 Fixture EXAM Light  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

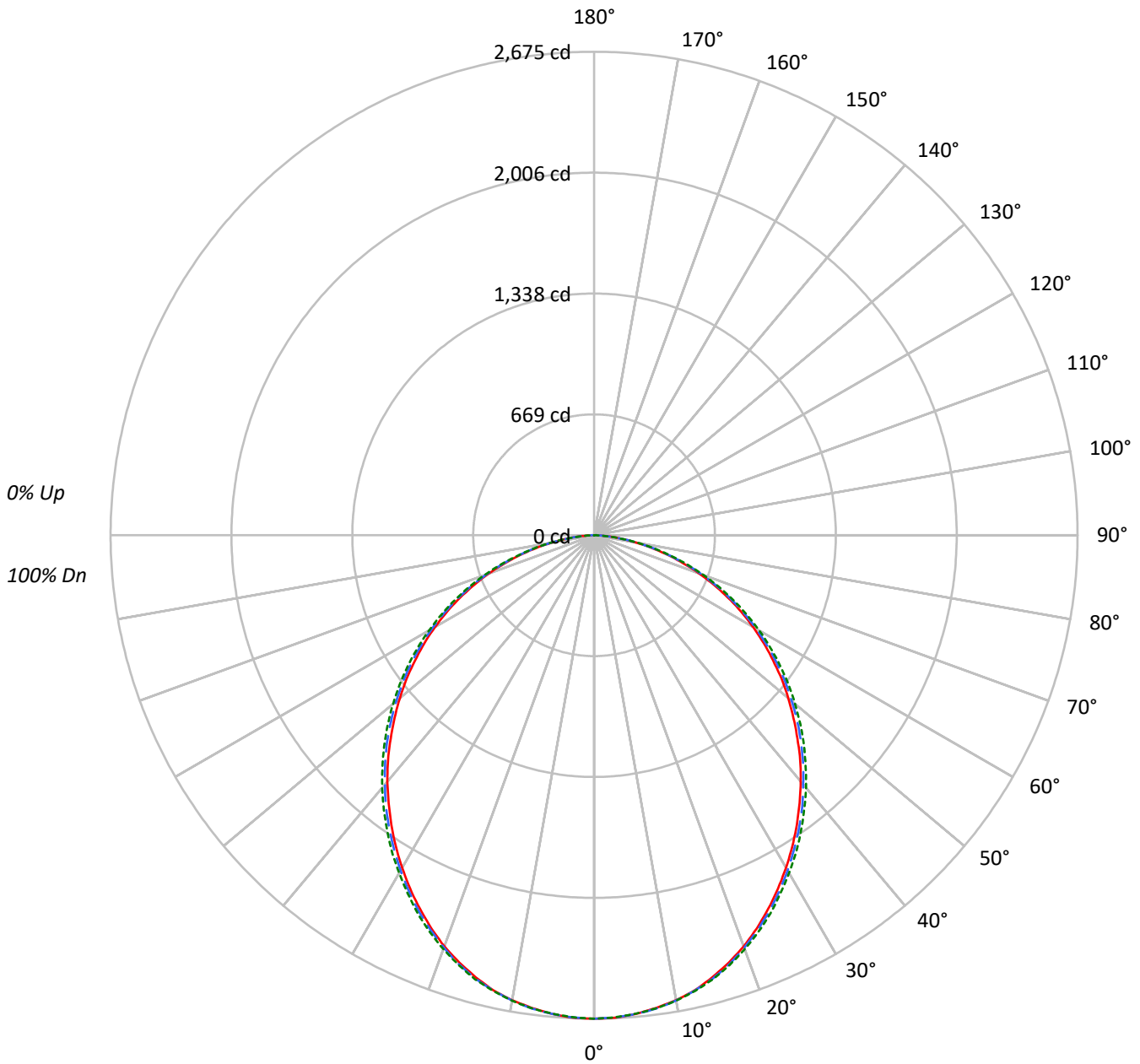
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7010.5 lumens  
Efficiency: N/A  
Efficacy: 116.8 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



— 0°-180°    - - 45°-225°    - - - 90°-270°



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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°	7198	7198	7198
5°	7180	7183	7178
10°	7137	7144	7146
15°	7052	7072	7085
20°	6934	6957	6979
25°	6770	6815	6855
30°	6599	6654	6703
35°	6424	6494	6557
40°	6250	6322	6406
45°	6054	6163	6248
50°	5871	5982	6075
55°	5670	5790	5891
60°	5466	5577	5685
65°	5202	5319	5420
70°	4871	4977	5078
75°	4396	4504	4587
80°	3708	3845	3882
85°	2760	2930	2881



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	252.4	3.6
10°-20°	715.1	10.2
20°-30°	1056.4	15.1
30°-40°	1236.1	17.6
40°-50°	1248.4	17.8
50°-60°	1103.4	15.7
60°-70°	826.0	11.8
70°-80°	459.1	6.5
80°-90°	113.5	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°	2024.0	28.9
0°-40°	3260.1	46.5
0°-60°	5611.9	80.1
0°-90°	7010.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7010.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2675	2675	2675	2675	2675	
5°	2658	2659	2659	2660	2657	252
15°	2531	2533	2539	2543	2543	713
25°	2280	2283	2295	2302	2309	1050
35°	1955	1961	1977	1990	1996	1223
45°	1591	1603	1620	1636	1642	1229
55°	1209	1218	1234	1249	1256	1082
65°	817	822	835	846	851	809
75°	423	425	433	441	441	448
85°	89	92	95	93	93	109
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2675.0	2675.0	2675.0	2675.0	2675.0
2.5°	2672.6	2672.6	2670.2	2671.0	2669.4
5°	2658.2	2659.0	2659.0	2659.8	2657.4
7.5°	2637.5	2639.1	2641.5	2642.3	2639.9
10°	2611.9	2613.5	2614.3	2617.5	2615.1
12.5°	2578.4	2579.2	2580.0	2584.8	2582.4
15°	2531.4	2533.0	2538.6	2543.3	2543.3
17.5°	2478.7	2481.9	2488.3	2494.7	2493.1
20°	2421.3	2423.7	2429.3	2438.0	2437.2
22.5°	2353.5	2355.9	2363.8	2373.4	2375.8
25°	2280.1	2283.3	2295.2	2302.4	2308.8
27.5°	2204.3	2208.3	2219.4	2230.6	2233.8
30°	2123.7	2130.1	2141.3	2153.2	2157.2
32.5°	2041.5	2044.7	2059.9	2072.6	2080.6
35°	1955.4	1961.0	1976.9	1990.5	1996.1
37.5°	1866.8	1874.8	1891.5	1905.9	1910.7
40°	1779.1	1785.4	1799.8	1818.2	1823.7
42.5°	1688.1	1693.7	1711.2	1727.2	1732.8
45°	1590.8	1602.8	1619.5	1636.3	1641.8
47.5°	1496.6	1507.8	1524.6	1541.3	1547.7
50°	1402.5	1414.5	1428.8	1446.4	1451.2
52.5°	1308.4	1317.9	1333.1	1348.3	1355.4
55°	1208.6	1218.2	1234.2	1249.3	1255.7
57.5°	1114.5	1120.9	1136.0	1150.4	1156.0
60°	1015.6	1022.0	1036.3	1051.5	1056.3
62.5°	918.3	922.2	935.8	950.2	953.4
65°	816.9	822.5	835.3	846.4	851.2
67.5°	718.0	722.8	734.0	745.9	748.3
70°	619.1	622.3	632.6	641.4	645.4
72.5°	519.4	522.5	533.7	538.5	542.5
75°	422.8	425.2	433.2	441.2	441.2
77.5°	328.7	332.7	339.1	342.2	343.8
80°	239.3	243.3	248.1	251.3	250.5
82.5°	158.0	162.0	165.1	166.7	165.1
85°	89.4	92.5	94.9	93.3	93.3
87.5°	35.1	36.7	38.3	37.5	35.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)