

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: P708970

Luminaire Tested: **24APR-76L835-X-UNV**

Issue Date: 09/12/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P708970  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 09/12/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 24APR-76L835-X-UNV  
Description: ArcMed Patient Recessed 2x4 Fixture Ambient Light  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

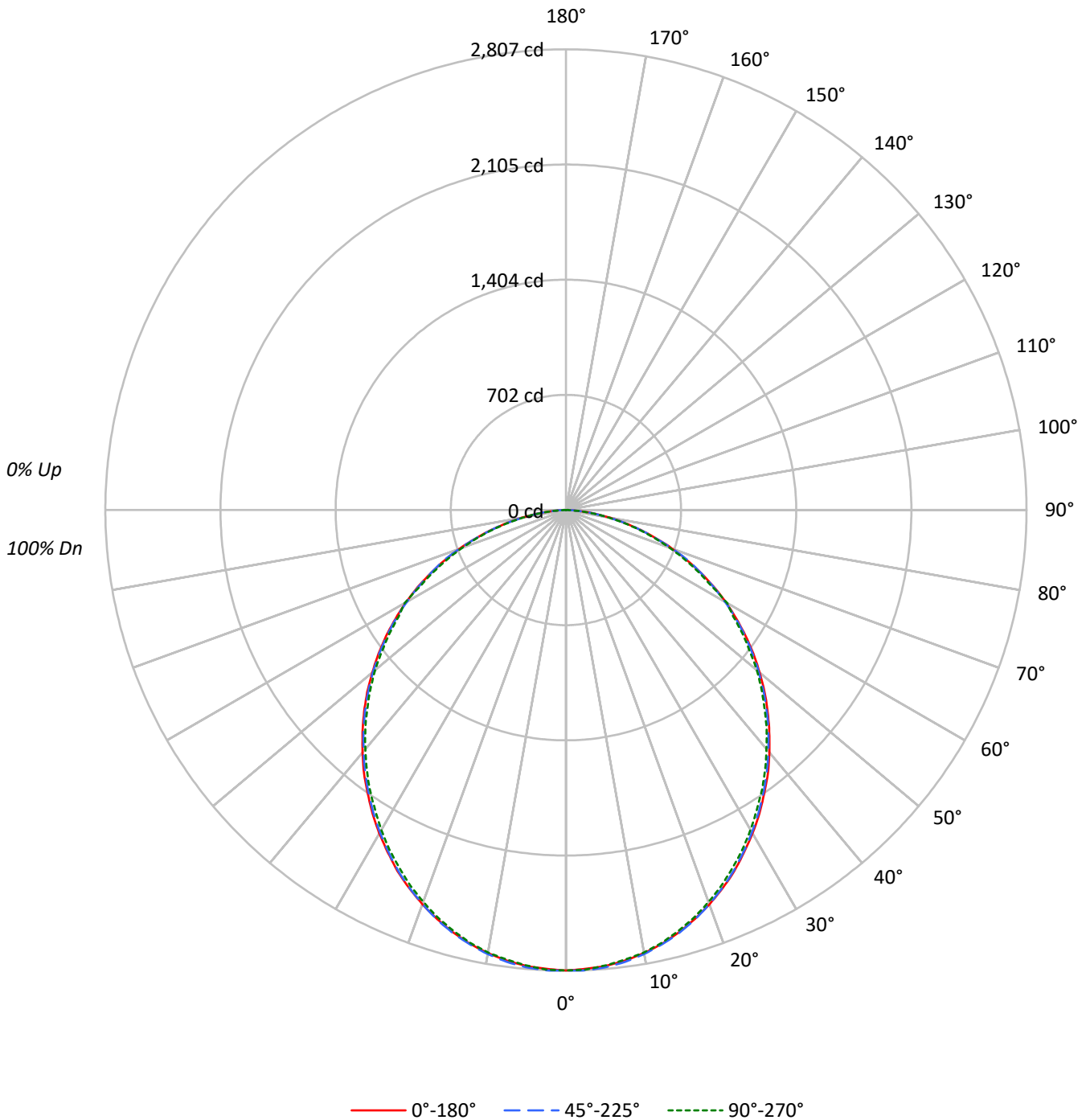
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7472.4 lumens  
Efficiency: N/A  
Efficacy: 107.7 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.2 / 1.32  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 69.4  
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	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	72	72	72	72	70
3	90	80	72	65	88	78	71	65	75	69	64	73	67	63	70	65	61	61	61	61	59
4	83	71	62	56	81	70	61	55	67	60	54	65	59	54	63	57	53	53	53	53	51
5	76	63	55	48	74	62	54	48	60	53	47	58	52	47	56	51	46	46	46	46	44
6	70	57	48	42	69	56	48	42	54	47	41	53	46	41	51	45	41	41	41	41	39
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	36	36	36	34
8	61	47	39	33	59	47	39	33	45	38	33	44	37	33	43	37	32	32	32	32	30
9	57	44	35	30	55	43	35	30	42	35	30	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	27	27	27	27	25

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

	0°	45°	90°
0°	3775	3775	3775
5°	3766	3777	3761
10°	3745	3753	3740
15°	3709	3716	3696
20°	3660	3659	3638
25°	3605	3597	3569
30°	3535	3522	3496
35°	3460	3448	3420
40°	3387	3370	3340
45°	3309	3292	3258
50°	3224	3211	3179
55°	3136	3119	3079
60°	3031	3011	3053
65°	2893	2884	2830
70°	2714	2718	2644
75°	2464	2445	2390
80°	2118	2090	2034
85°	1618	1604	1480



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	265.0	3.5
10°-20°	750.6	10.0
20°-30°	1114.2	14.9
30°-40°	1311.5	17.6
40°-50°	1332.8	17.8
50°-60°	1184.8	15.9
60°-70°	893.7	12.0
70°-80°	496.4	6.6
80°-90°	123.4	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°	2129.8	28.5
0°-40°	3441.3	46.1
0°-60°	5958.9	79.7
0°-90°	7472.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7472.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2806	2806	2806	2806	2806	
5°	2788	2793	2796	2792	2785	265
15°	2663	2666	2668	2661	2653	751
25°	2428	2426	2423	2412	2404	1117
35°	2107	2108	2099	2087	2082	1319
45°	1739	1739	1730	1716	1712	1342
55°	1337	1327	1330	1315	1313	1194
65°	909	903	906	894	889	899
75°	474	468	470	467	460	503
85°	105	102	104	100	96	126
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2805.5	2805.5	2805.5	2805.5	2805.5
2.5°	2798.3	2803.7	2807.3	2802.8	2801.9
5°	2788.4	2792.9	2796.5	2792.0	2784.9
7.5°	2768.7	2774.1	2776.8	2772.3	2762.5
10°	2741.0	2746.3	2747.2	2742.7	2737.4
12.5°	2706.9	2710.5	2710.5	2706.9	2700.6
15°	2663.0	2665.7	2667.5	2661.2	2653.1
17.5°	2612.8	2617.3	2615.5	2605.7	2602.1
20°	2556.4	2560.0	2555.5	2549.2	2541.1
22.5°	2494.5	2495.4	2491.9	2484.7	2476.6
25°	2428.2	2426.5	2422.9	2412.1	2404.1
27.5°	2351.2	2354.8	2345.8	2336.0	2330.6
30°	2275.0	2275.9	2267.0	2254.4	2249.9
32.5°	2193.5	2191.7	2185.4	2172.0	2164.8
35°	2106.6	2107.5	2099.4	2086.9	2082.4
37.5°	2022.3	2017.0	2010.7	1996.4	1993.7
40°	1928.3	1927.4	1918.4	1905.9	1901.4
42.5°	1834.2	1833.3	1826.1	1813.6	1810.0
45°	1739.2	1739.2	1730.2	1715.9	1712.3
47.5°	1642.4	1638.8	1632.6	1620.0	1615.5
50°	1540.3	1537.6	1534.0	1519.7	1518.8
52.5°	1439.9	1438.1	1431.9	1419.3	1412.1
55°	1336.9	1327.0	1329.7	1315.4	1312.7
57.5°	1231.1	1221.3	1226.7	1214.1	1208.7
60°	1126.3	1116.5	1119.1	1111.1	1134.4
62.5°	1018.8	1012.5	1012.5	1031.3	997.3
65°	908.6	903.2	905.9	894.2	888.9
67.5°	800.2	792.1	809.1	787.6	778.7
70°	689.9	684.6	690.8	678.3	672.0
72.5°	580.6	576.1	574.4	569.9	564.5
75°	474.0	467.7	470.4	466.8	459.7
77.5°	370.1	368.3	367.4	362.9	357.5
80°	273.3	271.5	269.7	266.1	262.5
82.5°	182.8	181.0	180.1	178.3	177.4
85°	104.8	102.1	103.9	99.5	95.9
87.5°	39.4	38.5	40.3	36.7	34.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)