

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: P708844

Luminaire Tested: **24APR-X-71L940-UNV**

Issue Date: 09/12/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P708844  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 09/12/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 24APR-X-71L940-UNV  
Description: ArcMed Patient Recessed 2x2 Fixture EXAM Light  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

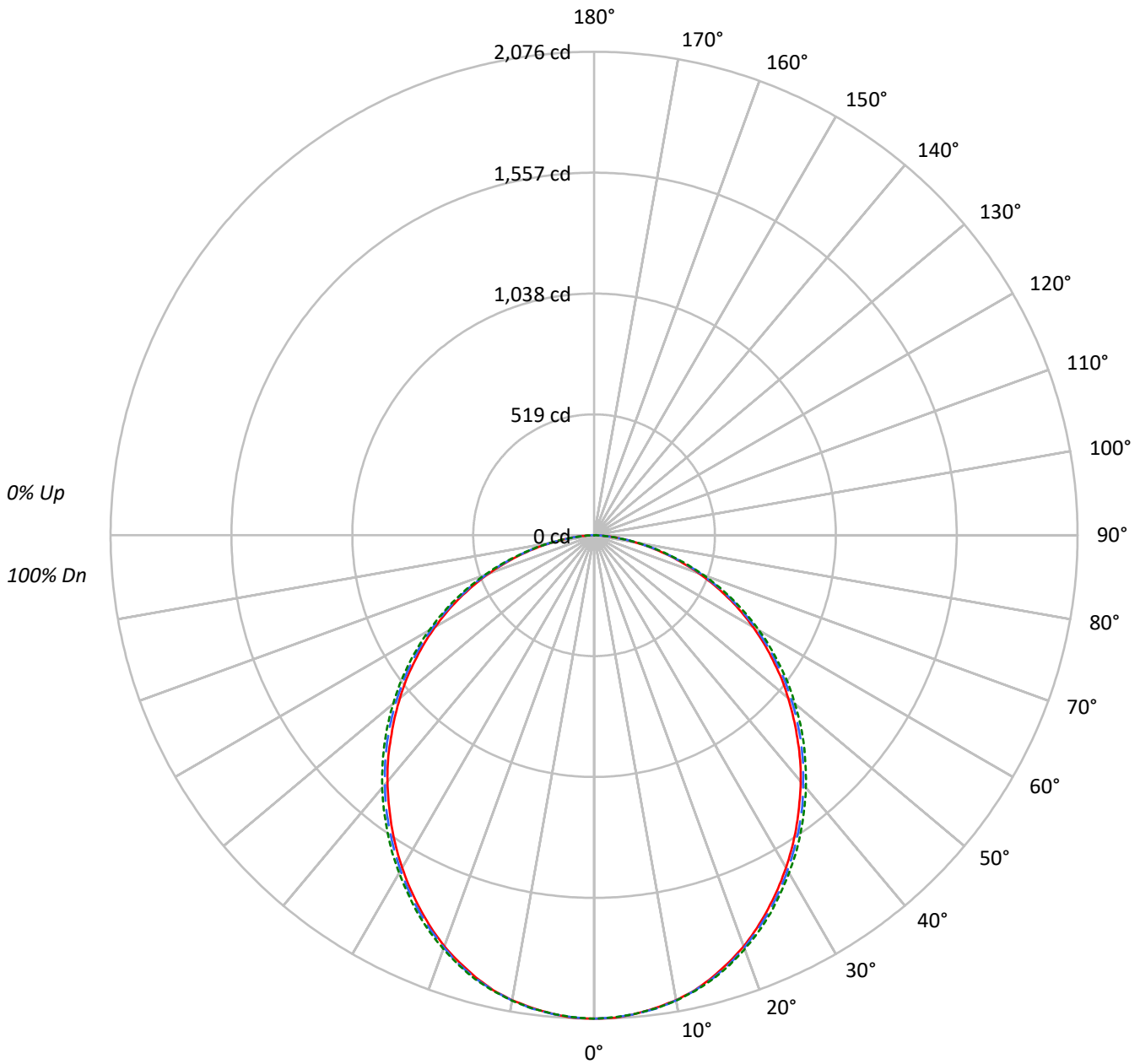
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5440.0 lumens  
Efficiency: N/A  
Efficacy: 90.7 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				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°	5586	5586	5586
5°	5572	5574	5570
10°	5538	5543	5545
15°	5472	5488	5498
20°	5381	5398	5416
25°	5253	5288	5320
30°	5121	5163	5202
35°	4984	5039	5088
40°	4849	4906	4971
45°	4698	4783	4848
50°	4556	4641	4714
55°	4400	4493	4571
60°	4242	4328	4411
65°	4036	4127	4206
70°	3780	3862	3940
75°	3411	3496	3559
80°	2878	2983	3013
85°	2140	2276	2235



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	195.9	3.6
10°-20°	554.9	10.2
20°-30°	819.8	15.1
30°-40°	959.2	17.6
40°-50°	968.8	17.8
50°-60°	856.2	15.7
60°-70°	641.0	11.8
70°-80°	356.2	6.5
80°-90°	88.1	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°	1570.6	28.9
0°-40°	2529.8	46.5
0°-60°	4354.8	80.1
0°-90°	5440.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5440.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2076	2076	2076	2076	2076	
5°	2063	2063	2063	2064	2062	196
15°	1964	1966	1970	1974	1974	554
25°	1769	1772	1781	1787	1792	815
35°	1517	1522	1534	1545	1549	949
45°	1234	1244	1257	1270	1274	953
55°	938	945	958	970	974	840
65°	634	638	648	657	660	628
75°	328	330	336	342	342	348
85°	69	72	74	72	72	85
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2075.7	2075.7	2075.7	2075.7	2075.7
2.5°	2073.9	2073.9	2072.0	2072.6	2071.4
5°	2062.7	2063.3	2063.3	2064.0	2062.1
7.5°	2046.6	2047.9	2049.7	2050.3	2048.5
10°	2026.8	2028.1	2028.7	2031.2	2029.3
12.5°	2000.8	2001.4	2002.1	2005.8	2003.9
15°	1964.3	1965.5	1969.9	1973.6	1973.6
17.5°	1923.4	1925.9	1930.9	1935.8	1934.6
20°	1878.9	1880.7	1885.1	1891.9	1891.2
22.5°	1826.2	1828.1	1834.3	1841.7	1843.6
25°	1769.3	1771.8	1781.0	1786.6	1791.6
27.5°	1710.5	1713.6	1722.2	1730.9	1733.4
30°	1648.0	1652.9	1661.6	1670.9	1674.0
32.5°	1584.2	1586.7	1598.4	1608.3	1614.5
35°	1517.3	1521.7	1534.0	1544.6	1548.9
37.5°	1448.6	1454.8	1467.8	1478.9	1482.7
40°	1380.5	1385.5	1396.6	1410.8	1415.2
42.5°	1309.9	1314.3	1327.9	1340.3	1344.6
45°	1234.4	1243.7	1256.7	1269.7	1274.0
47.5°	1161.4	1170.0	1183.0	1196.0	1201.0
50°	1088.3	1097.6	1108.7	1122.4	1126.1
52.5°	1015.3	1022.7	1034.5	1046.2	1051.8
55°	937.9	945.3	957.7	969.5	974.4
57.5°	864.8	869.8	881.5	892.7	897.0
60°	788.1	793.0	804.2	815.9	819.6
62.5°	712.5	715.6	726.2	737.3	739.8
65°	633.9	638.3	648.2	656.8	660.5
67.5°	557.2	560.9	569.5	578.8	580.7
70°	480.4	482.9	490.9	497.7	500.8
72.5°	403.0	405.5	414.2	417.9	421.0
75°	328.1	330.0	336.2	342.3	342.3
77.5°	255.1	258.2	263.1	265.6	266.8
80°	185.7	188.8	192.5	195.0	194.4
82.5°	122.6	125.7	128.1	129.4	128.1
85°	69.3	71.8	73.7	72.4	72.4
87.5°	27.2	28.5	29.7	29.1	27.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)