

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: P708886

Luminaire Tested: **22APR-22-52L940-UNV**

Issue Date: 09/12/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P708886  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 09/12/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 22APR-22-52L940-UNV  
Description: ArcMed Patient Recessed 2x2 Fixture Ambient and Exam Light  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

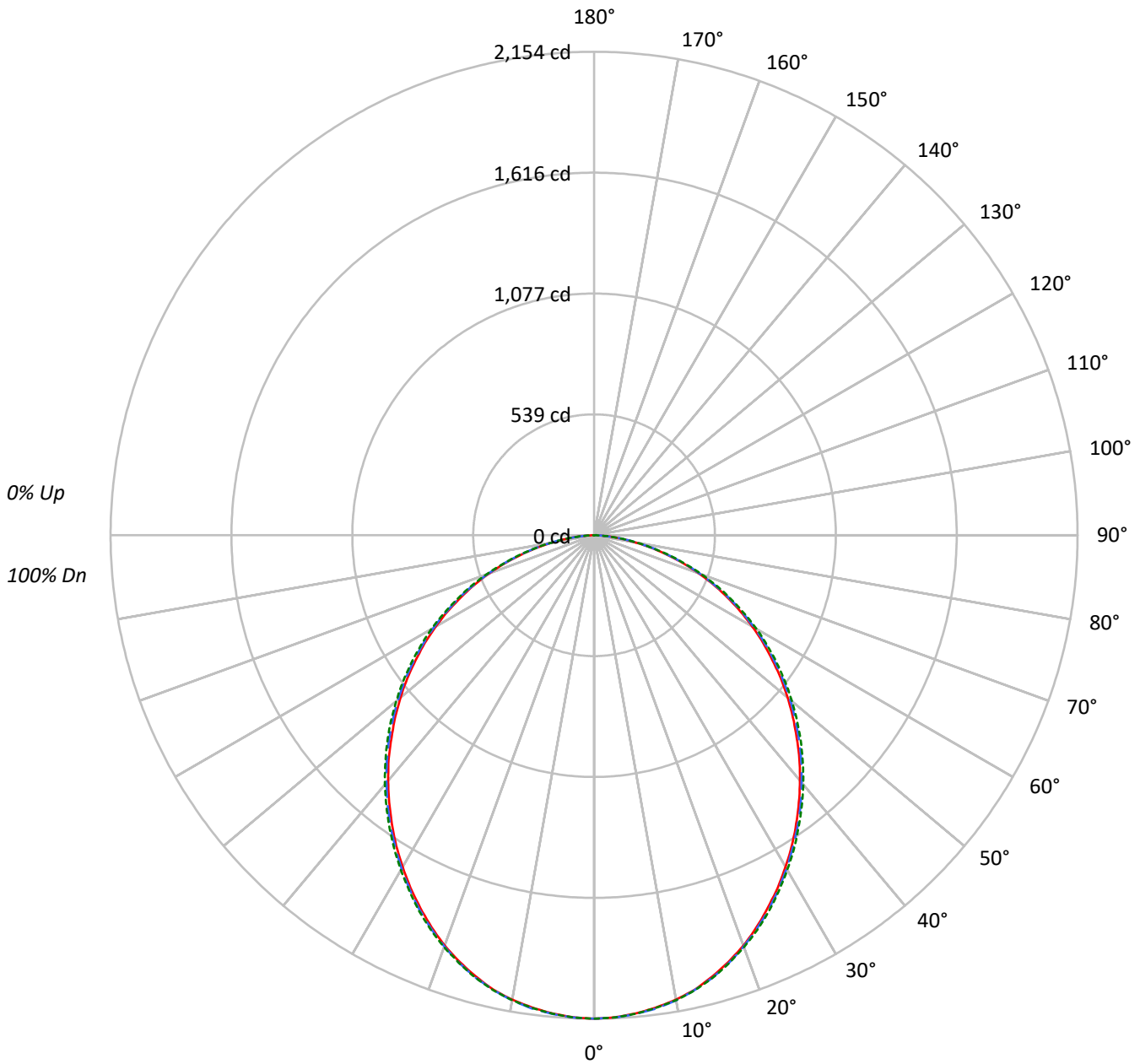
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5601.7 lumens  
Efficiency: N/A  
Efficacy: 87.8 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.19 / 1.31  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 63.8  
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	81	76	82	78	74	79	76	73	73	73	73	71
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	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	53	53	53	51
5	76	64	55	48	74	63	54	48	61	53	47	59	52	47	57	51	46	46	46	46	44
6	71	57	49	42	69	57	48	42	55	47	42	53	46	41	51	46	41	41	41	41	39
7	66	52	44	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	41	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°	5796	5796	5796
5°	5777	5784	5779
10°	5740	5749	5748
15°	5670	5685	5688
20°	5573	5584	5592
25°	5439	5464	5481
30°	5300	5329	5349
35°	5158	5193	5220
40°	5013	5052	5093
45°	4857	4917	4959
50°	4712	4768	4817
55°	4550	4611	4668
60°	4385	4442	4505
65°	4167	4236	4285
70°	3900	3953	4009
75°	3508	3572	3619
80°	2961	3037	3065
85°	2217	2313	2300



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	203.2	3.6
10°-20°	574.7	10.3
20°-30°	847.1	15.1
30°-40°	988.7	17.6
40°-50°	996.4	17.8
50°-60°	879.4	15.7
60°-70°	657.7	11.7
70°-80°	364.5	6.5
80°-90°	90.1	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°	1625.1	29.0
0°-40°	2613.7	46.7
0°-60°	4489.4	80.1
0°-90°	5601.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5601.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2154	2154	2154	2154	2154	
5°	2138	2141	2141	2142	2139	203
15°	2035	2039	2041	2042	2042	574
25°	1832	1836	1840	1844	1846	844
35°	1570	1574	1581	1587	1589	982
45°	1276	1284	1292	1301	1303	986
55°	970	976	983	992	995	868
65°	654	658	665	671	673	648
75°	337	339	344	347	348	358
85°	72	74	75	74	74	88
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2153.8	2153.8	2153.8	2153.8	2153.8
2.5°	2149.7	2152.0	2150.2	2152.0	2150.2
5°	2138.5	2141.2	2141.2	2141.7	2139.4
7.5°	2121.9	2125.1	2126.4	2126.9	2123.7
10°	2100.8	2104.0	2104.0	2105.8	2103.5
12.5°	2073.9	2075.7	2075.3	2078.0	2076.2
15°	2035.3	2038.9	2040.7	2042.5	2041.6
17.5°	1992.3	1996.8	1998.1	2001.3	1999.0
20°	1946.1	1949.2	1950.1	1955.0	1952.8
22.5°	1890.9	1894.0	1897.2	1901.7	1902.1
25°	1831.7	1835.7	1840.2	1843.8	1846.0
27.5°	1770.7	1774.7	1778.7	1783.2	1784.1
30°	1705.6	1710.6	1715.0	1720.4	1721.3
32.5°	1640.1	1641.9	1648.6	1654.5	1657.2
35°	1570.1	1573.7	1580.9	1587.2	1589.0
37.5°	1498.8	1504.2	1511.8	1518.5	1520.3
40°	1427.0	1431.5	1438.2	1447.2	1449.9
42.5°	1354.4	1357.5	1366.5	1374.1	1376.3
45°	1276.3	1284.4	1292.0	1301.0	1303.2
47.5°	1201.8	1208.1	1215.7	1224.3	1227.8
50°	1125.6	1133.2	1139.0	1148.4	1150.7
52.5°	1049.3	1054.2	1062.3	1070.4	1074.0
55°	969.9	975.7	982.9	991.9	995.0
57.5°	893.6	896.8	904.8	912.5	915.2
60°	814.7	817.8	825.4	833.5	837.1
62.5°	735.7	738.4	744.7	754.1	754.1
65°	654.5	657.7	665.3	670.7	672.9
67.5°	575.6	578.3	583.6	590.4	593.5
70°	495.7	498.0	502.4	509.2	509.6
72.5°	415.9	418.1	423.9	426.2	429.3
75°	337.4	339.1	343.6	347.2	348.1
77.5°	262.4	265.1	268.3	269.6	271.0
80°	191.1	193.8	196.0	197.4	197.8
82.5°	126.5	129.2	130.5	131.4	131.0
85°	71.8	74.0	74.9	74.0	74.5
87.5°	28.3	29.6	30.5	30.1	29.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)