

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: P708851

Luminaire Tested: **24APR-X-52L950-UNV**

Issue Date: 09/12/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P708851  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 09/12/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 24APR-X-52L950-UNV  
Description: ArcMed Patient Recessed 2x2 Fixture EXAM Light  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

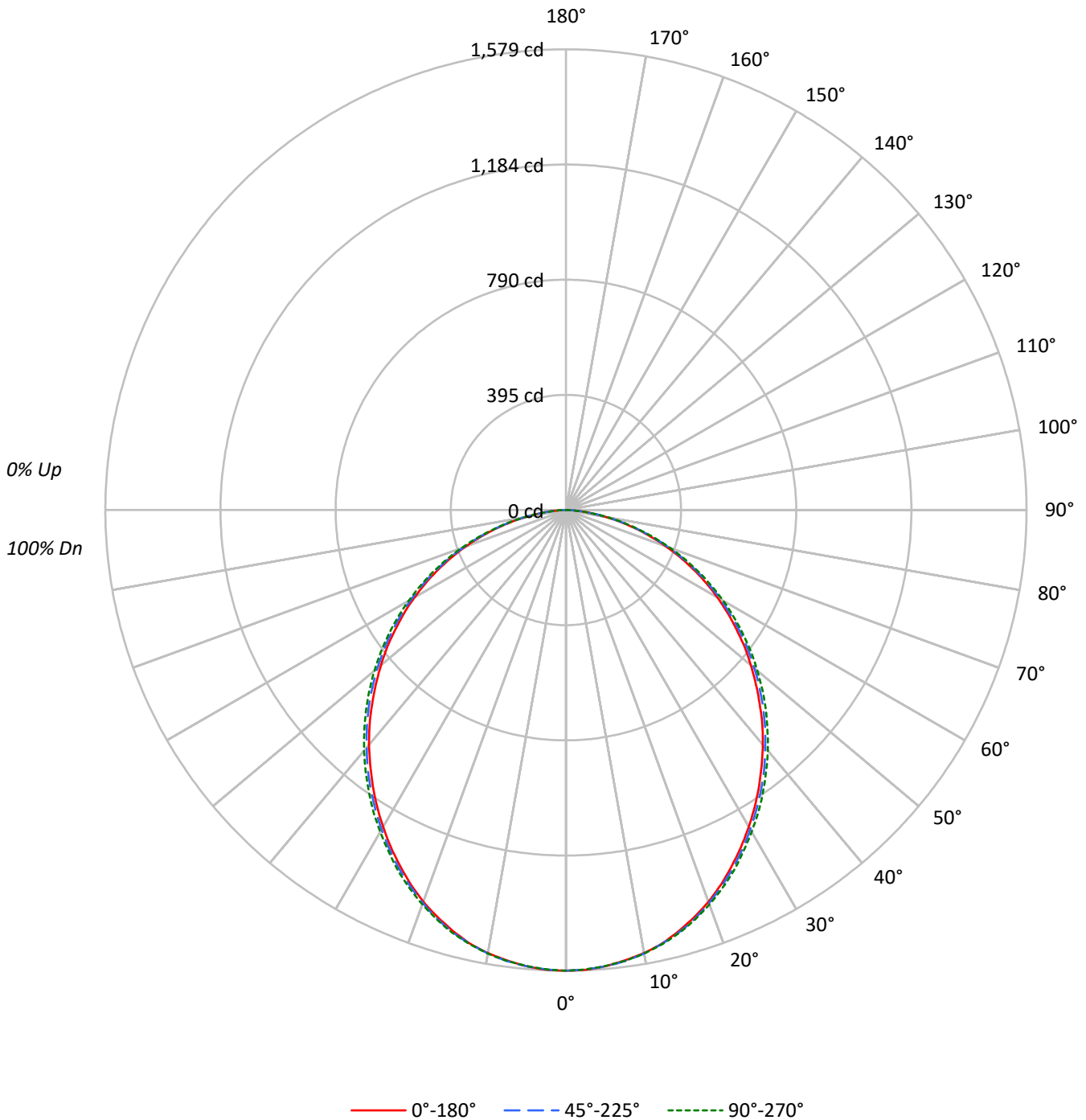
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4138.0 lumens  
Efficiency: N/A  
Efficacy: 97.4 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): 42.5  
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°	4249	4249	4249
5°	4239	4240	4237
10°	4213	4217	4218
15°	4163	4174	4182
20°	4093	4106	4120
25°	3996	4023	4046
30°	3895	3927	3956
35°	3792	3833	3870
40°	3689	3732	3782
45°	3573	3638	3688
50°	3466	3531	3586
55°	3347	3418	3477
60°	3226	3292	3356
65°	3070	3139	3200
70°	2875	2938	2998
75°	2595	2659	2707
80°	2190	2270	2292
85°	1627	1729	1701



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	149.0	3.6
10°-20°	422.1	10.2
20°-30°	623.6	15.1
30°-40°	729.6	17.6
40°-50°	736.9	17.8
50°-60°	651.3	15.7
60°-70°	487.5	11.8
70°-80°	271.0	6.5
80°-90°	67.0	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°	1194.7	28.9
0°-40°	1924.3	46.5
0°-60°	3312.5	80.1
0°-90°	4138.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4138.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1579	1579	1579	1579	1579	
5°	1569	1570	1570	1570	1569	149
15°	1494	1495	1498	1501	1501	421
25°	1346	1348	1355	1359	1363	620
35°	1154	1158	1167	1175	1178	722
45°	939	946	956	966	969	725
55°	713	719	728	737	741	639
65°	482	486	493	500	502	478
75°	250	251	256	260	260	265
85°	53	55	56	55	55	65
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1578.9	1578.9	1578.9	1578.9	1578.9
2.5°	1577.5	1577.5	1576.1	1576.6	1575.6
5°	1569.1	1569.5	1569.5	1570.0	1568.6
7.5°	1556.8	1557.8	1559.2	1559.6	1558.2
10°	1541.7	1542.7	1543.2	1545.0	1543.6
12.5°	1522.0	1522.4	1522.9	1525.7	1524.3
15°	1494.2	1495.1	1498.4	1501.2	1501.2
17.5°	1463.1	1465.0	1468.7	1472.5	1471.6
20°	1429.2	1430.6	1433.9	1439.1	1438.6
22.5°	1389.2	1390.6	1395.3	1400.9	1402.4
25°	1345.8	1347.7	1354.8	1359.0	1362.8
27.5°	1301.1	1303.5	1310.1	1316.6	1318.5
30°	1253.5	1257.3	1263.9	1271.0	1273.3
32.5°	1205.0	1206.9	1215.9	1223.4	1228.1
35°	1154.2	1157.5	1166.9	1174.9	1178.2
37.5°	1101.9	1106.6	1116.5	1125.0	1127.8
40°	1050.1	1053.9	1062.4	1073.2	1076.5
42.5°	996.4	999.7	1010.1	1019.5	1022.8
45°	939.0	946.0	955.9	965.8	969.1
47.5°	883.4	890.0	899.9	909.8	913.6
50°	827.8	834.9	843.4	853.7	856.6
52.5°	772.3	777.9	786.9	795.8	800.1
55°	713.4	719.1	728.5	737.4	741.2
57.5°	657.9	661.6	670.6	679.0	682.3
60°	599.5	603.2	611.7	620.7	623.5
62.5°	542.0	544.4	552.4	560.8	562.7
65°	482.2	485.5	493.0	499.6	502.5
67.5°	423.8	426.6	433.2	440.3	441.7
70°	365.4	367.3	373.4	378.6	381.0
72.5°	306.6	308.4	315.0	317.9	320.2
75°	249.6	251.0	255.7	260.4	260.4
77.5°	194.0	196.4	200.1	202.0	203.0
80°	141.3	143.6	146.5	148.3	147.9
82.5°	93.2	95.6	97.5	98.4	97.5
85°	52.7	54.6	56.0	55.1	55.1
87.5°	20.7	21.7	22.6	22.1	21.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)