

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: P709003

Luminaire Tested: **24APR-49L950-X-UNV**

Issue Date: 09/12/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P709003  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 09/12/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 24APR-49L950-X-UNV  
Description: ArcMed Patient Recessed 2x4 Fixture Ambient Light  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

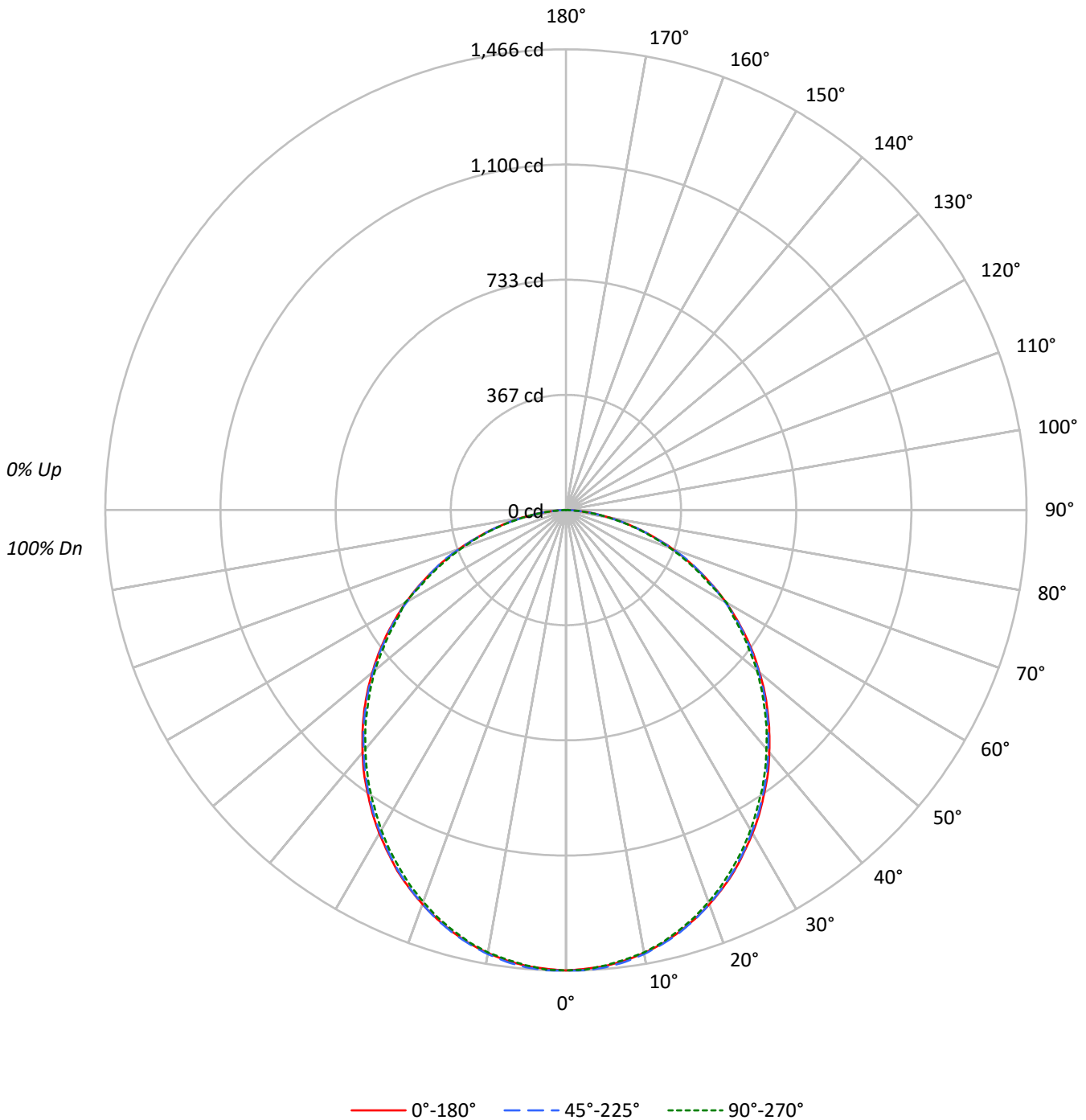
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3902.4 lumens  
Efficiency: N/A  
Efficacy: 91.2 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): 42.8  
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





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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°	1971	1971	1971
5°	1967	1972	1964
10°	1956	1960	1953
15°	1937	1940	1930
20°	1912	1911	1900
25°	1883	1878	1864
30°	1846	1839	1826
35°	1807	1801	1786
40°	1769	1760	1744
45°	1728	1719	1701
50°	1684	1677	1660
55°	1638	1629	1608
60°	1583	1573	1594
65°	1511	1506	1478
70°	1417	1419	1381
75°	1287	1277	1248
80°	1106	1091	1062
85°	844	838	773



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	138.4	3.5
10°-20°	392.0	10.0
20°-30°	581.9	14.9
30°-40°	684.9	17.6
40°-50°	696.0	17.8
50°-60°	618.7	15.9
60°-70°	466.7	12.0
70°-80°	259.2	6.6
80°-90°	64.5	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°	1112.2	28.5
0°-40°	1797.1	46.1
0°-60°	3111.9	79.7
0°-90°	3902.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3902.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1465	1465	1465	1465	1465	
5°	1456	1459	1460	1458	1454	138
15°	1391	1392	1393	1390	1386	392
25°	1268	1267	1265	1260	1256	584
35°	1100	1101	1096	1090	1088	689
45°	908	908	904	896	894	701
55°	698	693	694	687	686	624
65°	474	472	473	467	464	470
75°	248	244	246	244	240	262
85°	55	53	54	52	50	66
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1465.1	1465.1	1465.1	1465.1	1465.1
2.5°	1461.4	1464.2	1466.0	1463.7	1463.2
5°	1456.2	1458.6	1460.4	1458.1	1454.3
7.5°	1445.9	1448.7	1450.1	1447.8	1442.6
10°	1431.4	1434.2	1434.7	1432.3	1429.5
12.5°	1413.6	1415.5	1415.5	1413.6	1410.4
15°	1390.7	1392.1	1393.0	1389.8	1385.6
17.5°	1364.5	1366.8	1365.9	1360.8	1358.9
20°	1335.0	1336.9	1334.5	1331.3	1327.1
22.5°	1302.7	1303.2	1301.3	1297.6	1293.4
25°	1268.1	1267.2	1265.3	1259.7	1255.5
27.5°	1227.9	1229.7	1225.1	1219.9	1217.1
30°	1188.1	1188.6	1183.9	1177.3	1175.0
32.5°	1145.5	1144.6	1141.3	1134.3	1130.5
35°	1100.1	1100.6	1096.4	1089.8	1087.5
37.5°	1056.1	1053.3	1050.0	1042.6	1041.2
40°	1007.0	1006.5	1001.8	995.3	993.0
42.5°	957.9	957.4	953.7	947.1	945.2
45°	908.3	908.3	903.6	896.1	894.2
47.5°	857.7	855.9	852.6	846.0	843.7
50°	804.4	803.0	801.1	793.6	793.1
52.5°	752.0	751.0	747.8	741.2	737.5
55°	698.2	693.0	694.4	686.9	685.5
57.5°	642.9	637.8	640.6	634.1	631.2
60°	588.2	583.0	584.5	580.2	592.4
62.5°	532.0	528.8	528.8	538.6	520.8
65°	474.5	471.7	473.1	467.0	464.2
67.5°	417.9	413.7	422.5	411.3	406.6
70°	360.3	357.5	360.8	354.2	351.0
72.5°	303.2	300.9	299.9	297.6	294.8
75°	247.5	244.3	245.7	243.8	240.1
77.5°	193.3	192.3	191.9	189.5	186.7
80°	142.7	141.8	140.8	139.0	137.1
82.5°	95.5	94.5	94.1	93.1	92.7
85°	54.7	53.3	54.3	51.9	50.1
87.5°	20.6	20.1	21.1	19.2	17.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)