

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: P709002

Luminaire Tested: **24APR-58L950-X-UNV**

Issue Date: 09/12/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P709002  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 09/12/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 24APR-58L950-X-UNV  
Description: ArcMed Patient Recessed 2x4 Fixture Ambient Light  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

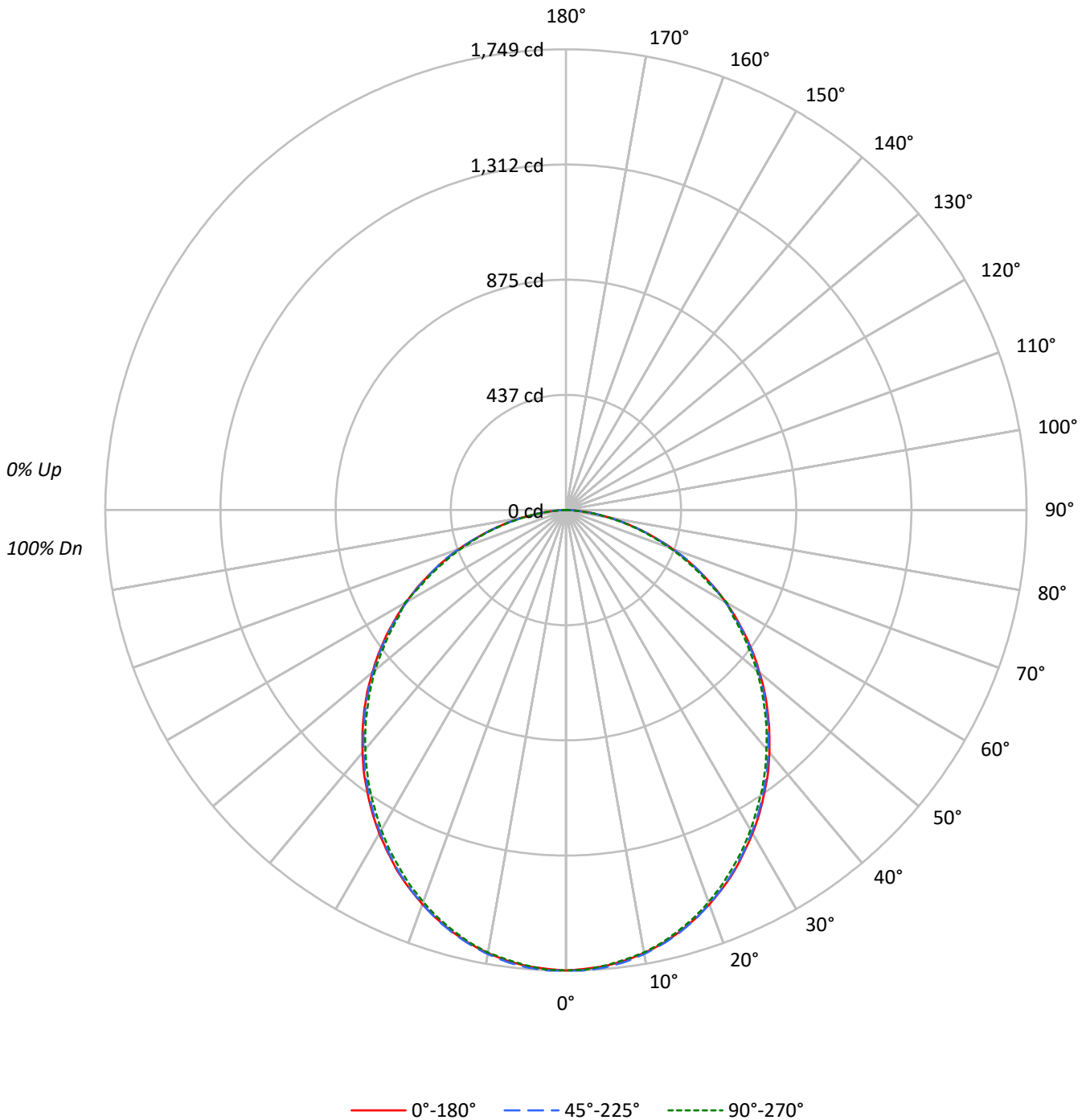
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4656.1 lumens  
Efficiency: N/A  
Efficacy: 89.9 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): 51.8  
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				
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°	2352	2352	2352
5°	2347	2353	2344
10°	2333	2339	2330
15°	2311	2315	2303
20°	2281	2280	2267
25°	2246	2241	2224
30°	2202	2195	2178
35°	2156	2149	2131
40°	2110	2100	2081
45°	2062	2051	2030
50°	2009	2001	1981
55°	1954	1943	1919
60°	1889	1876	1902
65°	1802	1797	1763
70°	1691	1694	1647
75°	1535	1524	1489
80°	1320	1303	1268
85°	1008	1000	922



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	165.1	3.5
10°-20°	467.7	10.0
20°-30°	694.2	14.9
30°-40°	817.2	17.6
40°-50°	830.5	17.8
50°-60°	738.3	15.9
60°-70°	556.9	12.0
70°-80°	309.3	6.6
80°-90°	76.9	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°	1327.1	28.5
0°-40°	2144.2	46.1
0°-60°	3713.0	79.7
0°-90°	4656.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4656.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1748	1748	1748	1748	1748	
5°	1738	1740	1742	1740	1735	165
15°	1659	1661	1662	1658	1653	468
25°	1513	1512	1510	1503	1498	696
35°	1313	1313	1308	1300	1298	822
45°	1084	1084	1078	1069	1067	836
55°	833	827	828	820	818	744
65°	566	563	564	557	554	560
75°	295	291	293	291	286	313
85°	65	64	65	62	60	79
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1748.1	1748.1	1748.1	1748.1	1748.1
2.5°	1743.6	1747.0	1749.2	1746.4	1745.9
5°	1737.5	1740.3	1742.5	1739.7	1735.2
7.5°	1725.2	1728.5	1730.2	1727.4	1721.3
10°	1707.9	1711.2	1711.8	1709.0	1705.7
12.5°	1686.7	1688.9	1688.9	1686.7	1682.8
15°	1659.3	1661.0	1662.1	1658.2	1653.2
17.5°	1628.1	1630.8	1629.7	1623.6	1621.4
20°	1592.9	1595.1	1592.3	1588.4	1583.4
22.5°	1554.4	1554.9	1552.7	1548.2	1543.2
25°	1513.0	1511.9	1509.7	1503.0	1498.0
27.5°	1465.0	1467.3	1461.7	1455.5	1452.2
30°	1417.6	1418.1	1412.5	1404.7	1401.9
32.5°	1366.8	1365.6	1361.7	1353.4	1348.9
35°	1312.6	1313.2	1308.1	1300.3	1297.5
37.5°	1260.1	1256.8	1252.9	1243.9	1242.3
40°	1201.5	1200.9	1195.4	1187.5	1184.7
42.5°	1142.9	1142.3	1137.9	1130.0	1127.8
45°	1083.7	1083.7	1078.1	1069.2	1066.9
47.5°	1023.4	1021.2	1017.3	1009.4	1006.6
50°	959.7	958.1	955.8	946.9	946.3
52.5°	897.2	896.1	892.2	884.4	879.9
55°	833.0	826.9	828.5	819.6	817.9
57.5°	767.1	761.0	764.3	756.5	753.2
60°	701.8	695.7	697.3	692.3	706.8
62.5°	634.8	630.9	630.9	642.6	621.4
65°	566.1	562.8	564.5	557.2	553.9
67.5°	498.6	493.6	504.2	490.8	485.2
70°	429.9	426.6	430.5	422.6	418.7
72.5°	361.8	359.0	357.9	355.1	351.7
75°	295.3	291.4	293.1	290.9	286.4
77.5°	230.6	229.5	228.9	226.1	222.8
80°	170.3	169.2	168.1	165.8	163.6
82.5°	113.9	112.8	112.2	111.1	110.5
85°	65.3	63.6	64.8	62.0	59.7
87.5°	24.6	24.0	25.1	22.9	21.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)