

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: P708978

Luminaire Tested: **24APR-49L840-X-UNV**

Issue Date: 09/12/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P708978  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 09/12/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 24APR-49L840-X-UNV  
Description: ArcMed Patient Recessed 2x4 Fixture Ambient Light  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

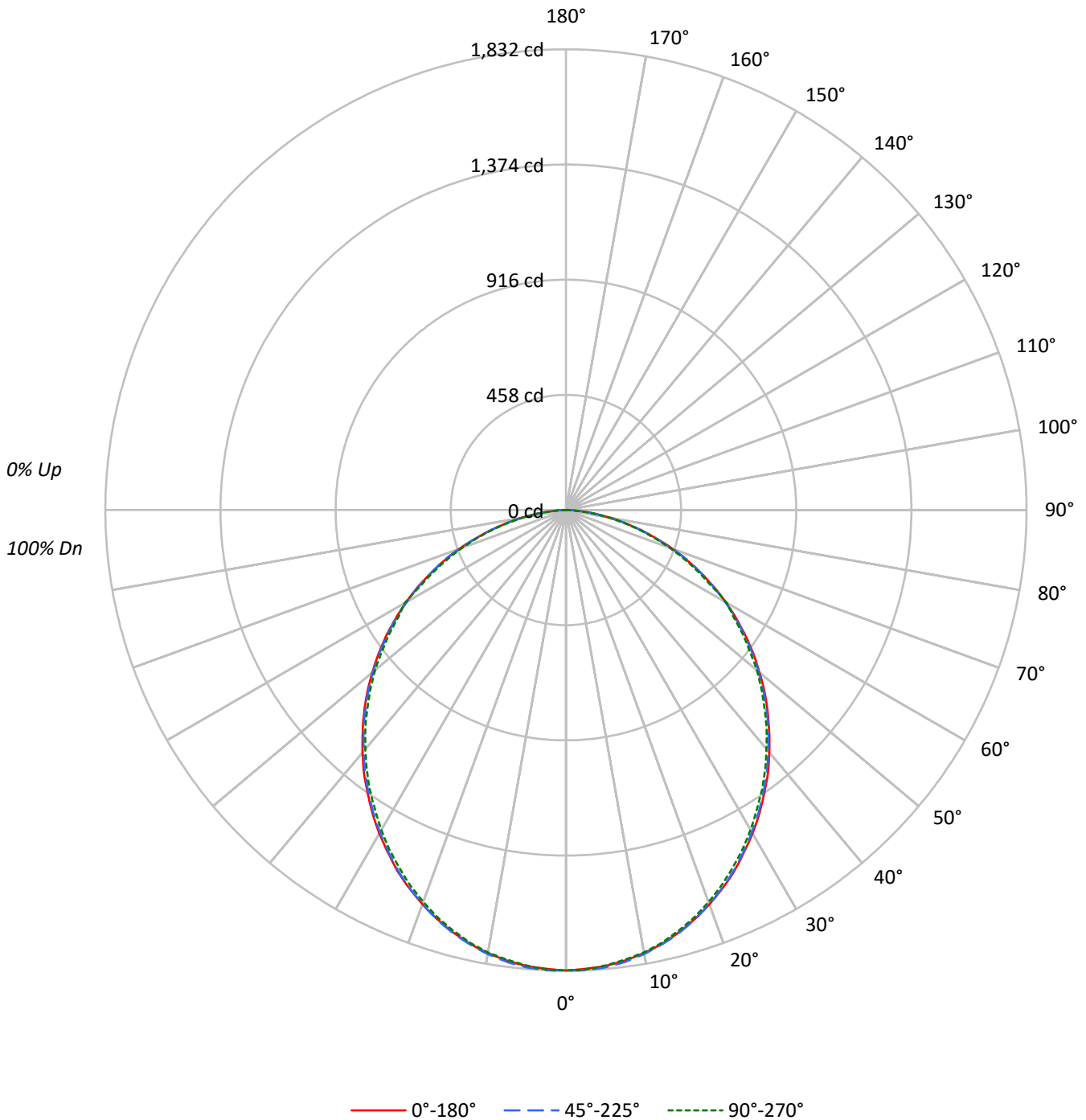
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4876.7 lumens  
Efficiency: N/A  
Efficacy: 113.9 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): 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	100	100	100	100
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84	84	84	84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	72	70	70	70	70
3	90	80	72	65	88	78	71	65	75	69	64	73	67	63	70	65	61	59	59	59	59
4	83	71	62	56	81	70	61	55	67	60	54	65	59	54	63	57	53	51	51	51	51
5	76	63	55	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44	44	44	44
6	70	57	48	42	69	56	48	42	54	47	41	53	46	41	51	45	41	39	39	39	39
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	34	34	34	34
8	61	47	39	33	59	47	39	33	45	38	33	44	37	33	43	37	32	30	30	30	30
9	57	44	35	30	55	43	35	30	42	35	30	41	34	29	40	34	29	27	27	27	27
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25	25	25	25

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2463	2463	2463
5°	2458	2465	2455
10°	2444	2450	2441
15°	2421	2425	2412
20°	2389	2388	2375
25°	2353	2347	2329
30°	2307	2299	2281
35°	2258	2250	2232
40°	2210	2199	2180
45°	2160	2149	2126
50°	2104	2096	2075
55°	2047	2036	2010
60°	1978	1965	1992
65°	1888	1882	1847
70°	1771	1774	1725
75°	1608	1596	1560
80°	1382	1364	1327
85°	1056	1047	966



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	172.9	3.5
10°-20°	489.9	10.0
20°-30°	727.1	14.9
30°-40°	855.9	17.6
40°-50°	869.8	17.8
50°-60°	773.2	15.9
60°-70°	583.3	12.0
70°-80°	324.0	6.6
80°-90°	80.5	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°	1390.0	28.5
0°-40°	2245.9	46.1
0°-60°	3888.9	79.7
0°-90°	4876.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4876.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1831	1831	1831	1831	1831	
5°	1820	1823	1825	1822	1818	173
15°	1738	1740	1741	1737	1732	490
25°	1585	1584	1581	1574	1569	729
35°	1375	1375	1370	1362	1359	861
45°	1135	1135	1129	1120	1118	876
55°	872	866	868	858	857	780
65°	593	590	591	584	580	587
75°	309	305	307	305	300	328
85°	68	67	68	65	63	82
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1830.9	1830.9	1830.9	1830.9	1830.9
2.5°	1826.2	1829.8	1832.1	1829.2	1828.6
5°	1819.8	1822.7	1825.1	1822.2	1817.5
7.5°	1806.9	1810.5	1812.2	1809.3	1802.9
10°	1788.8	1792.3	1792.9	1790.0	1786.5
12.5°	1766.6	1768.9	1768.9	1766.6	1762.5
15°	1737.9	1739.7	1740.9	1736.8	1731.5
17.5°	1705.2	1708.1	1707.0	1700.5	1698.2
20°	1668.4	1670.7	1667.8	1663.7	1658.4
22.5°	1628.0	1628.6	1626.3	1621.6	1616.3
25°	1584.7	1583.6	1581.2	1574.2	1568.9
27.5°	1534.4	1536.8	1530.9	1524.5	1521.0
30°	1484.7	1485.3	1479.5	1471.3	1468.4
32.5°	1431.5	1430.4	1426.3	1417.5	1412.8
35°	1374.8	1375.4	1370.1	1361.9	1359.0
37.5°	1319.8	1316.3	1312.2	1302.9	1301.1
40°	1258.4	1257.8	1252.0	1243.8	1240.9
42.5°	1197.0	1196.4	1191.8	1183.6	1181.2
45°	1135.0	1135.0	1129.2	1119.8	1117.5
47.5°	1071.9	1069.5	1065.5	1057.3	1054.3
50°	1005.2	1003.5	1001.1	991.8	991.2
52.5°	939.7	938.6	934.5	926.3	921.6
55°	872.5	866.0	867.8	858.4	856.7
57.5°	803.5	797.0	800.6	792.4	788.9
60°	735.1	728.6	730.4	725.1	740.3
62.5°	664.9	660.8	660.8	673.1	650.9
65°	593.0	589.5	591.2	583.6	580.1
67.5°	522.2	516.9	528.0	514.0	508.2
70°	450.3	446.8	450.9	442.7	438.6
72.5°	378.9	376.0	374.8	371.9	368.4
75°	309.3	305.3	307.0	304.7	300.0
77.5°	241.5	240.3	239.8	236.8	233.3
80°	178.4	177.2	176.0	173.7	171.3
82.5°	119.3	118.1	117.5	116.4	115.8
85°	68.4	66.7	67.8	64.9	62.6
87.5°	25.7	25.1	26.3	24.0	22.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)