

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: P708963

Luminaire Tested: **24APR-X-116L950-UNV**

Issue Date: 09/12/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P708963  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 09/12/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 24APR-X-116L950-UNV  
Description: ArcMed Patient Recessed 2x4 Fixture EXAM Light  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

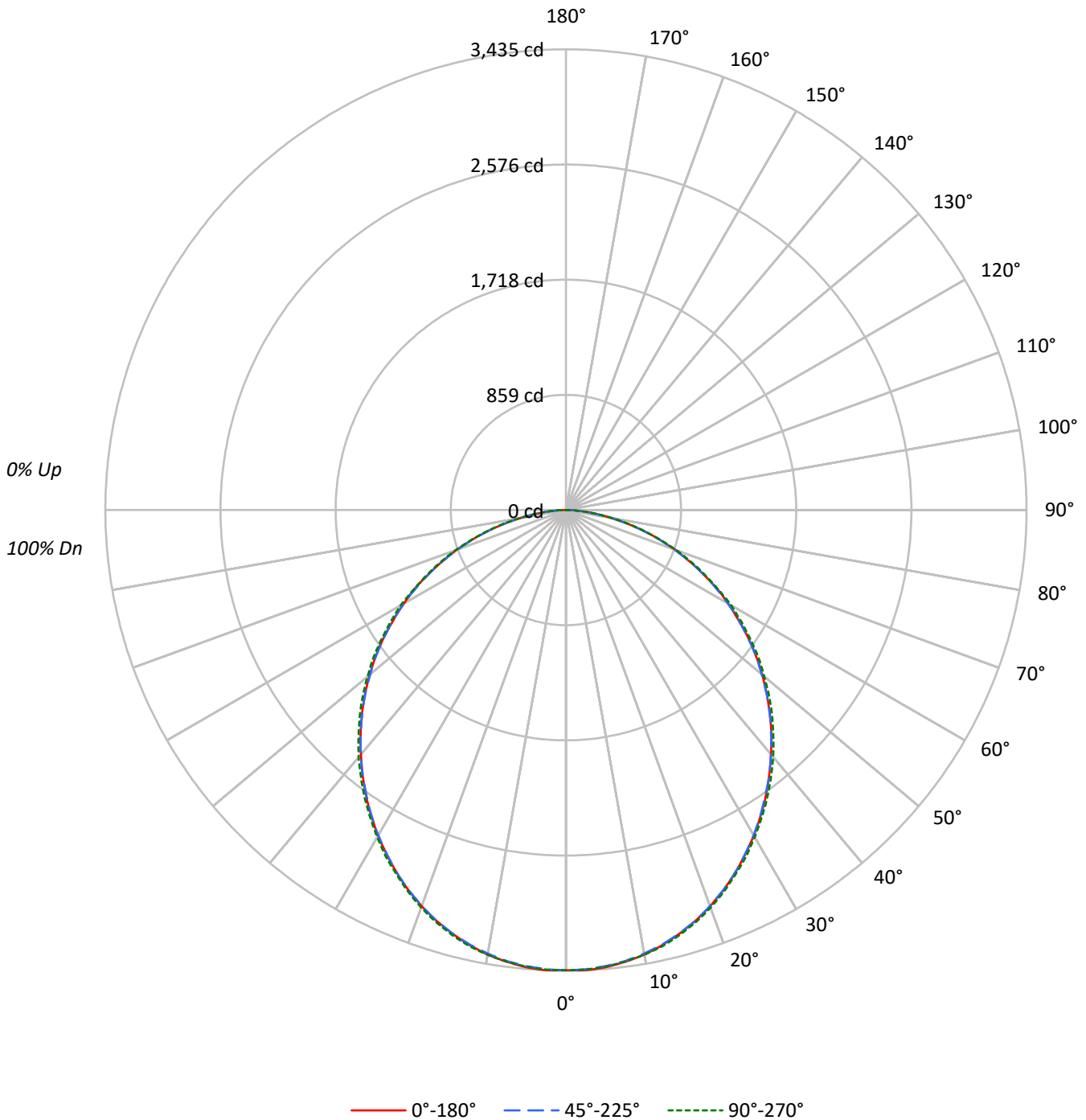
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9312.7 lumens  
Efficiency: N/A  
Efficacy: 108.4 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.22 / 1.33  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 85.9  
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	94	98	94	91	94	91	89	90	88	86	84	84	84	84
2	99	91	84	78	96	89	83	77	85	80	76	82	78	74	79	75	72	70	70	70	70
3	90	80	72	65	88	78	71	65	75	69	63	72	67	62	70	65	61	59	59	59	59
4	83	71	62	55	80	69	61	55	67	60	54	65	58	53	62	57	53	50	50	50	50
5	76	63	54	48	74	62	54	47	60	53	47	58	51	46	56	50	46	44	44	44	44
6	70	57	48	42	68	56	48	41	54	47	41	53	46	41	51	45	40	38	38	38	38
7	65	52	43	37	63	51	43	37	49	42	36	48	41	36	47	40	36	34	34	34	34
8	61	47	39	33	59	47	38	33	45	38	33	44	37	32	43	37	32	30	30	30	30
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	39	33	29	27	27	27	27
10	53	40	32	27	52	39	32	27	39	32	27	38	31	27	37	31	26	25	25	25	25

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

	0°	45°	90°
0°	4617	4617	4617
5°	4622	4610	4615
10°	4599	4589	4601
15°	4556	4552	4570
20°	4501	4498	4518
25°	4430	4431	4446
30°	4353	4350	4374
35°	4270	4260	4299
40°	4180	4177	4224
45°	4093	4090	4140
50°	3998	3991	4044
55°	3890	3884	3938
60°	3762	3759	3831
65°	3591	3597	3639
70°	3404	3377	3447
75°	3112	3087	3146
80°	2692	2658	2713
85°	2118	2095	2154



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	324.4	3.5
10°-20°	922.4	9.9
20°-30°	1375.6	14.8
30°-40°	1627.7	17.5
40°-50°	1663.2	17.9
50°-60°	1486.4	16.0
60°-70°	1120.3	12.0
70°-80°	630.6	6.8
80°-90°	162.0	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°	2622.4	28.2
0°-40°	4250.1	45.6
0°-60°	7399.7	79.5
0°-90°	9312.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9312.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3432	3432	3432	3432	3432	
5°	3422	3418	3413	3417	3417	325
15°	3270	3266	3268	3275	3281	922
25°	2984	2980	2985	2994	2995	1375
35°	2600	2594	2594	2611	2617	1626
45°	2151	2149	2150	2166	2176	1659
55°	1658	1658	1656	1670	1679	1481
65°	1128	1123	1130	1141	1143	1120
75°	599	587	594	591	605	633
85°	137	132	136	138	140	164
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3431.6	3431.6	3431.6	3431.6	3431.6
2.5°	3435.4	3430.2	3426.5	3428.4	3429.8
5°	3422.2	3417.5	3413.3	3416.6	3416.6
7.5°	3397.2	3394.9	3391.6	3394.4	3395.4
10°	3366.1	3361.0	3358.6	3365.2	3367.6
12.5°	3322.3	3316.2	3318.1	3326.5	3330.3
15°	3270.5	3266.2	3268.1	3274.7	3280.8
17.5°	3211.5	3206.8	3211.1	3216.7	3222.4
20°	3143.7	3139.0	3141.3	3149.3	3155.5
22.5°	3068.3	3063.6	3066.4	3073.4	3080.0
25°	2983.9	2979.7	2984.8	2994.3	2994.7
27.5°	2895.8	2891.1	2892.5	2902.4	2911.3
30°	2801.5	2795.4	2799.6	2809.5	2815.2
32.5°	2702.5	2696.9	2700.2	2711.5	2718.1
35°	2599.8	2594.1	2593.7	2611.1	2617.2
37.5°	2490.9	2487.6	2490.4	2504.6	2512.1
40°	2379.7	2375.0	2378.3	2396.2	2405.1
42.5°	2267.0	2264.2	2264.7	2282.6	2289.7
45°	2151.1	2149.2	2149.7	2166.2	2175.6
47.5°	2031.4	2027.1	2029.0	2046.0	2055.9
50°	1910.2	1909.3	1906.5	1923.4	1931.9
52.5°	1785.8	1783.9	1783.9	1799.0	1811.3
55°	1658.1	1658.1	1655.7	1670.3	1678.8
57.5°	1524.2	1525.2	1528.9	1542.1	1550.6
60°	1397.9	1393.2	1397.0	1408.8	1423.8
62.5°	1272.1	1257.9	1261.7	1272.6	1278.7
65°	1127.9	1122.7	1129.7	1140.6	1142.9
67.5°	995.4	990.2	994.0	1001.5	1011.9
70°	865.3	851.7	858.3	866.3	876.2
72.5°	728.7	716.9	726.3	732.9	740.0
75°	598.6	587.3	593.9	591.0	605.2
77.5°	468.0	460.0	465.7	471.3	482.2
80°	347.4	338.4	343.1	345.5	350.2
82.5°	236.6	230.0	231.4	240.8	238.0
85°	137.2	131.5	135.7	137.6	139.5
87.5°	54.2	49.0	53.3	54.7	55.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)