

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: P708847

Luminaire Tested: **24APR-X-89L950-UNV**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P708847
Test Lab: INNOVATION CENTER(G2)
Issue Date: 09/12/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24APR-X-89L950-UNV
Description: ArcMed Patient Recessed 2x2 Fixture EXAM Light
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

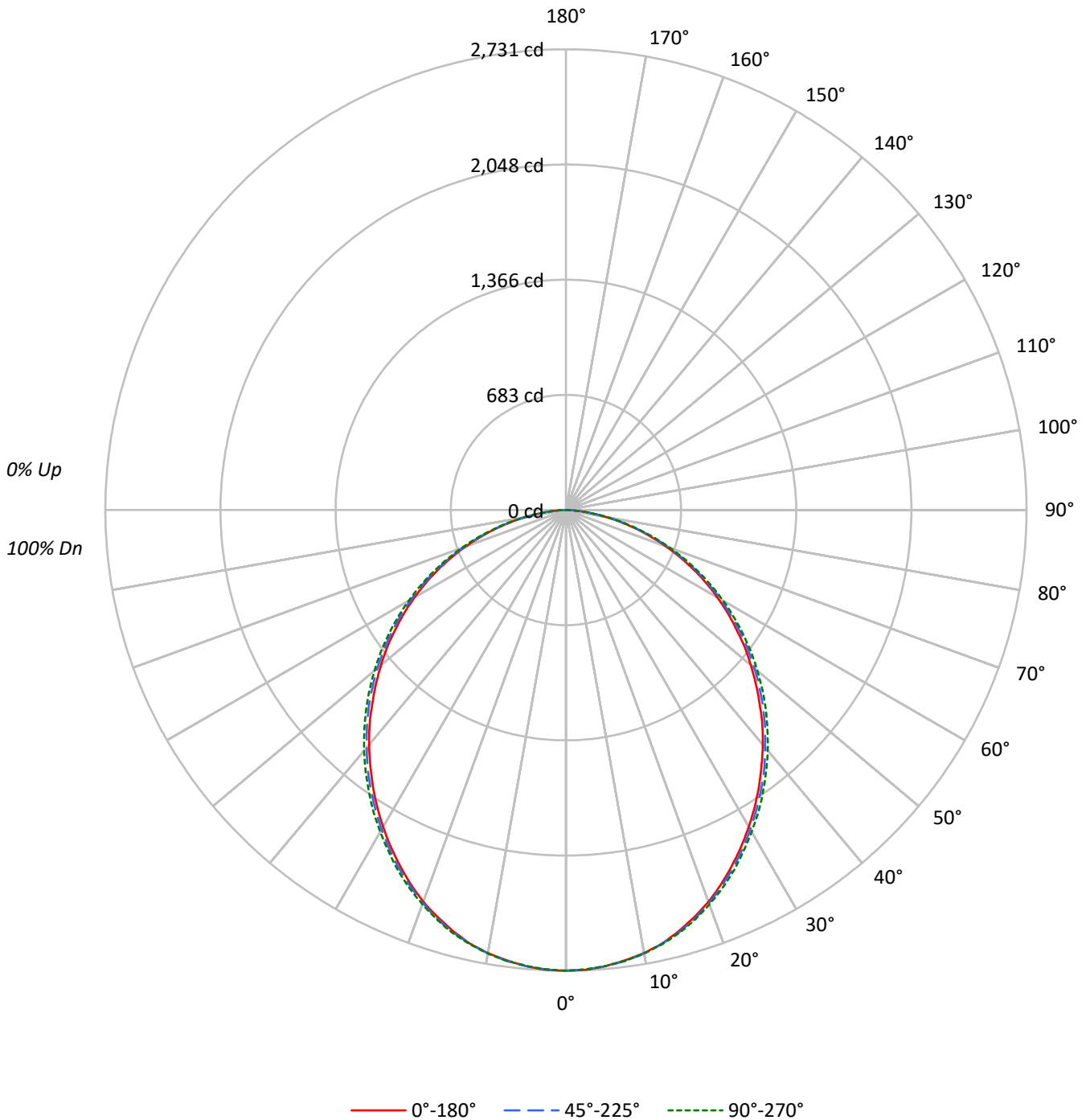
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7156.6 lumens
Efficiency: N/A
Efficacy: 92.1 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): 77.7
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	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°	7348	7348	7348
5°	7330	7332	7328
10°	7286	7292	7295
15°	7199	7219	7233
20°	7078	7102	7125
25°	6911	6957	6998
30°	6736	6792	6843
35°	6557	6630	6694
40°	6380	6454	6540
45°	6180	6291	6378
50°	5994	6106	6202
55°	5788	5911	6014
60°	5579	5694	5803
65°	5310	5429	5533
70°	4973	5081	5184
75°	4487	4598	4683
80°	3786	3925	3963
85°	2816	2992	2942



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	257.7	3.6
10°-20°	730.0	10.2
20°-30°	1078.4	15.1
30°-40°	1261.8	17.6
40°-50°	1274.4	17.8
50°-60°	1126.4	15.7
60°-70°	843.2	11.8
70°-80°	468.6	6.5
80°-90°	115.9	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°	2066.2	28.9
0°-40°	3328.0	46.5
0°-60°	5728.8	80.1
0°-90°	7156.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7156.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2731	2731	2731	2731	2731	
5°	2714	2714	2714	2715	2713	258
15°	2584	2586	2591	2596	2596	728
25°	2328	2331	2343	2350	2357	1072
35°	1996	2002	2018	2032	2038	1249
45°	1624	1636	1653	1670	1676	1254
55°	1234	1244	1260	1275	1282	1105
65°	834	840	853	864	869	826
75°	432	434	442	450	450	457
85°	91	94	97	95	95	112
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2730.7	2730.7	2730.7	2730.7	2730.7
2.5°	2728.3	2728.3	2725.8	2726.6	2725.0
5°	2713.6	2714.4	2714.4	2715.2	2712.8
7.5°	2692.4	2694.1	2696.5	2697.3	2694.9
10°	2666.4	2668.0	2668.8	2672.1	2669.6
12.5°	2632.2	2633.0	2633.8	2638.7	2636.2
15°	2584.1	2585.7	2591.4	2596.3	2596.3
17.5°	2530.4	2533.6	2540.1	2546.6	2545.0
20°	2471.7	2474.2	2479.9	2488.8	2488.0
22.5°	2402.5	2404.9	2413.1	2422.9	2425.3
25°	2327.6	2330.8	2343.0	2350.4	2356.9
27.5°	2250.2	2254.3	2265.7	2277.1	2280.3
30°	2167.9	2174.5	2185.9	2198.1	2202.2
32.5°	2084.1	2087.3	2102.8	2115.8	2124.0
35°	1996.1	2001.8	2018.1	2031.9	2037.6
37.5°	1905.7	1913.9	1931.0	1945.6	1950.5
40°	1816.1	1822.6	1837.3	1856.0	1861.7
42.5°	1723.3	1729.0	1746.9	1763.2	1768.9
45°	1623.9	1636.1	1653.2	1670.3	1676.0
47.5°	1527.8	1539.2	1556.3	1573.4	1579.9
50°	1431.7	1443.9	1458.6	1476.5	1481.4
52.5°	1335.6	1345.4	1360.9	1376.3	1383.7
55°	1233.8	1243.6	1259.9	1275.4	1281.9
57.5°	1137.7	1144.2	1159.7	1174.4	1180.1
60°	1036.7	1043.3	1057.9	1073.4	1078.3
62.5°	937.4	941.5	955.3	970.0	973.2
65°	834.0	839.7	852.7	864.1	869.0
67.5°	733.0	737.9	749.3	761.5	763.9
70°	632.0	635.2	645.8	654.8	658.9
72.5°	530.2	533.4	544.8	549.7	553.8
75°	431.6	434.1	442.2	450.4	450.4
77.5°	335.5	339.6	346.1	349.4	351.0
80°	244.3	248.4	253.3	256.5	255.7
82.5°	161.3	165.3	168.6	170.2	168.6
85°	91.2	94.5	96.9	95.3	95.3
87.5°	35.8	37.5	39.1	38.3	36.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)