

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: P708842

Luminaire Tested: **24APR-X-89L940-UNV**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P708842
Test Lab: INNOVATION CENTER(G2)
Issue Date: 09/12/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24APR-X-89L940-UNV
Description: ArcMed Patient Recessed 2x2 Fixture EXAM Light
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

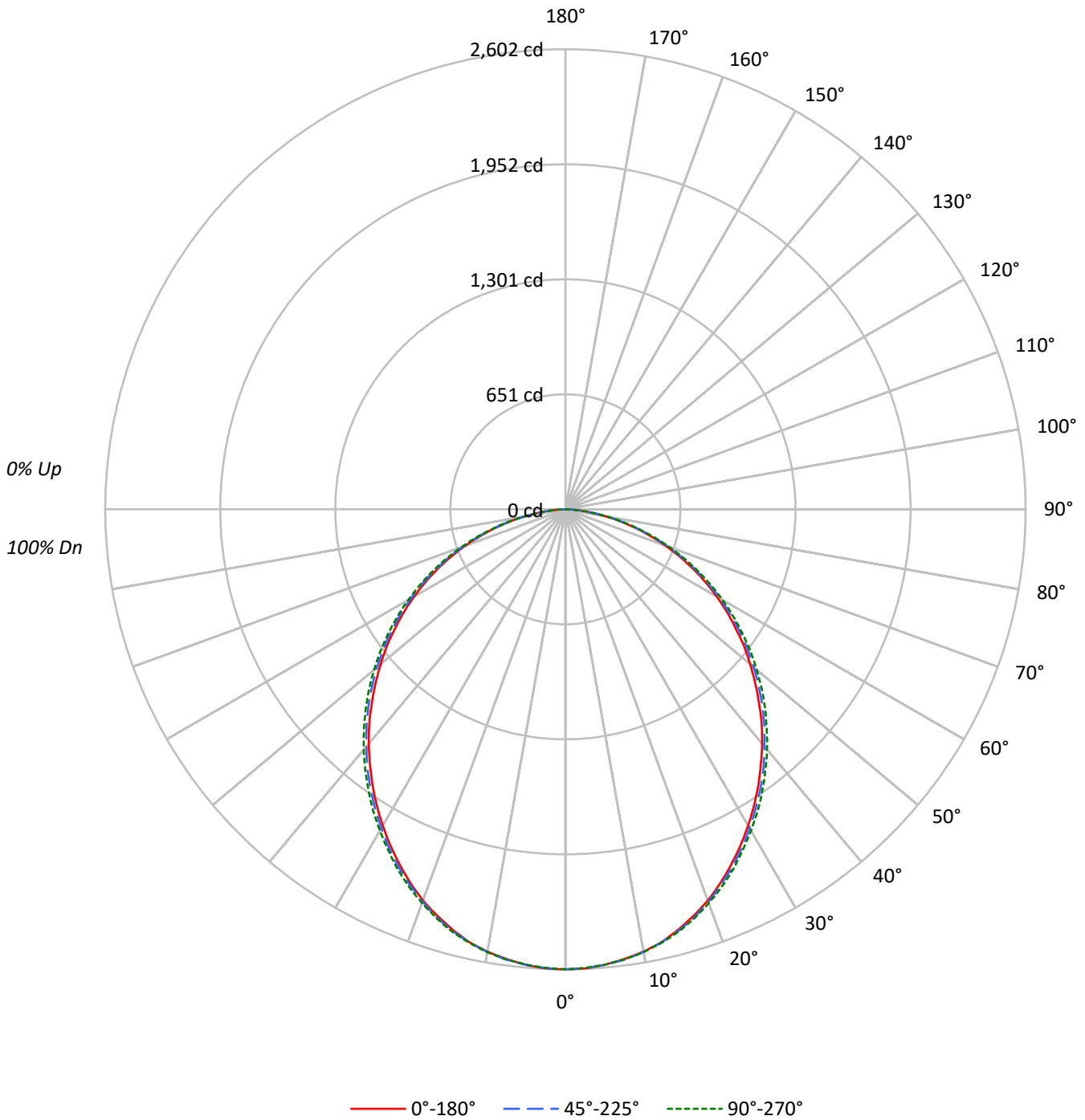
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6818.5 lumens
Efficiency: N/A
Efficacy: 87.8 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°	7001	7001	7001
5°	6984	6986	6982
10°	6942	6948	6950
15°	6859	6878	6891
20°	6744	6766	6788
25°	6584	6628	6668
30°	6418	6471	6519
35°	6248	6317	6378
40°	6078	6149	6231
45°	5888	5994	6077
50°	5711	5818	5909
55°	5515	5632	5730
60°	5316	5424	5529
65°	5060	5173	5272
70°	4737	4841	4939
75°	4275	4380	4461
80°	3608	3739	3775
85°	2683	2850	2803



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	245.5	3.6
10°-20°	695.6	10.2
20°-30°	1027.5	15.1
30°-40°	1202.2	17.6
40°-50°	1214.2	17.8
50°-60°	1073.2	15.7
60°-70°	803.4	11.8
70°-80°	446.5	6.5
80°-90°	110.4	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°	1968.6	28.9
0°-40°	3170.8	46.5
0°-60°	5458.2	80.1
0°-90°	6818.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6818.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2602	2602	2602	2602	2602	
5°	2585	2586	2586	2587	2585	245
15°	2462	2464	2469	2474	2474	694
25°	2218	2221	2232	2239	2246	1021
35°	1902	1907	1923	1936	1941	1190
45°	1547	1559	1575	1591	1597	1195
55°	1176	1185	1200	1215	1221	1053
65°	795	800	812	823	828	787
75°	411	414	421	429	429	436
85°	87	90	92	91	91	106
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2601.7	2601.7	2601.7	2601.7	2601.7
2.5°	2599.4	2599.4	2597.1	2597.8	2596.3
5°	2585.4	2586.2	2586.2	2587.0	2584.6
7.5°	2565.2	2566.8	2569.1	2569.9	2567.6
10°	2540.4	2542.0	2542.7	2545.8	2543.5
12.5°	2507.8	2508.6	2509.4	2514.0	2511.7
15°	2462.0	2463.6	2469.0	2473.7	2473.7
17.5°	2410.8	2413.9	2420.1	2426.3	2424.8
20°	2355.0	2357.3	2362.7	2371.3	2370.5
22.5°	2289.0	2291.3	2299.1	2308.4	2310.7
25°	2217.6	2220.7	2232.4	2239.3	2245.6
27.5°	2143.9	2147.8	2158.7	2169.5	2172.6
30°	2065.5	2071.7	2082.6	2094.2	2098.1
32.5°	1985.6	1988.7	2003.5	2015.9	2023.6
35°	1901.8	1907.2	1922.8	1936.0	1941.4
37.5°	1815.7	1823.4	1839.7	1853.7	1858.4
40°	1730.3	1736.5	1750.5	1768.4	1773.8
42.5°	1641.9	1647.3	1664.4	1679.9	1685.3
45°	1547.2	1558.9	1575.1	1591.4	1596.9
47.5°	1455.7	1466.5	1482.8	1499.1	1505.3
50°	1364.1	1375.7	1389.7	1406.8	1411.4
52.5°	1272.5	1281.8	1296.6	1311.3	1318.3
55°	1175.5	1184.9	1200.4	1215.1	1221.3
57.5°	1084.0	1090.2	1104.9	1118.9	1124.3
60°	987.8	994.0	1007.9	1022.7	1027.3
62.5°	893.1	897.0	910.2	924.1	927.2
65°	794.6	800.0	812.4	823.3	827.9
67.5°	698.3	703.0	713.9	725.5	727.8
70°	602.1	605.2	615.3	623.9	627.7
72.5°	505.1	508.2	519.1	523.8	527.6
75°	411.2	413.6	421.3	429.1	429.1
77.5°	319.7	323.6	329.8	332.9	334.4
80°	232.8	236.7	241.3	244.4	243.6
82.5°	153.6	157.5	160.6	162.2	160.6
85°	86.9	90.0	92.3	90.8	90.8
87.5°	34.1	35.7	37.2	36.5	34.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)