

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: P708824

Luminaire Tested: **24APR-X-71L840-UNV**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P708824
Test Lab: INNOVATION CENTER(G2)
Issue Date: 09/12/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24APR-X-71L840-UNV
Description: ArcMed Patient Recessed 2x2 Fixture EXAM Light
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

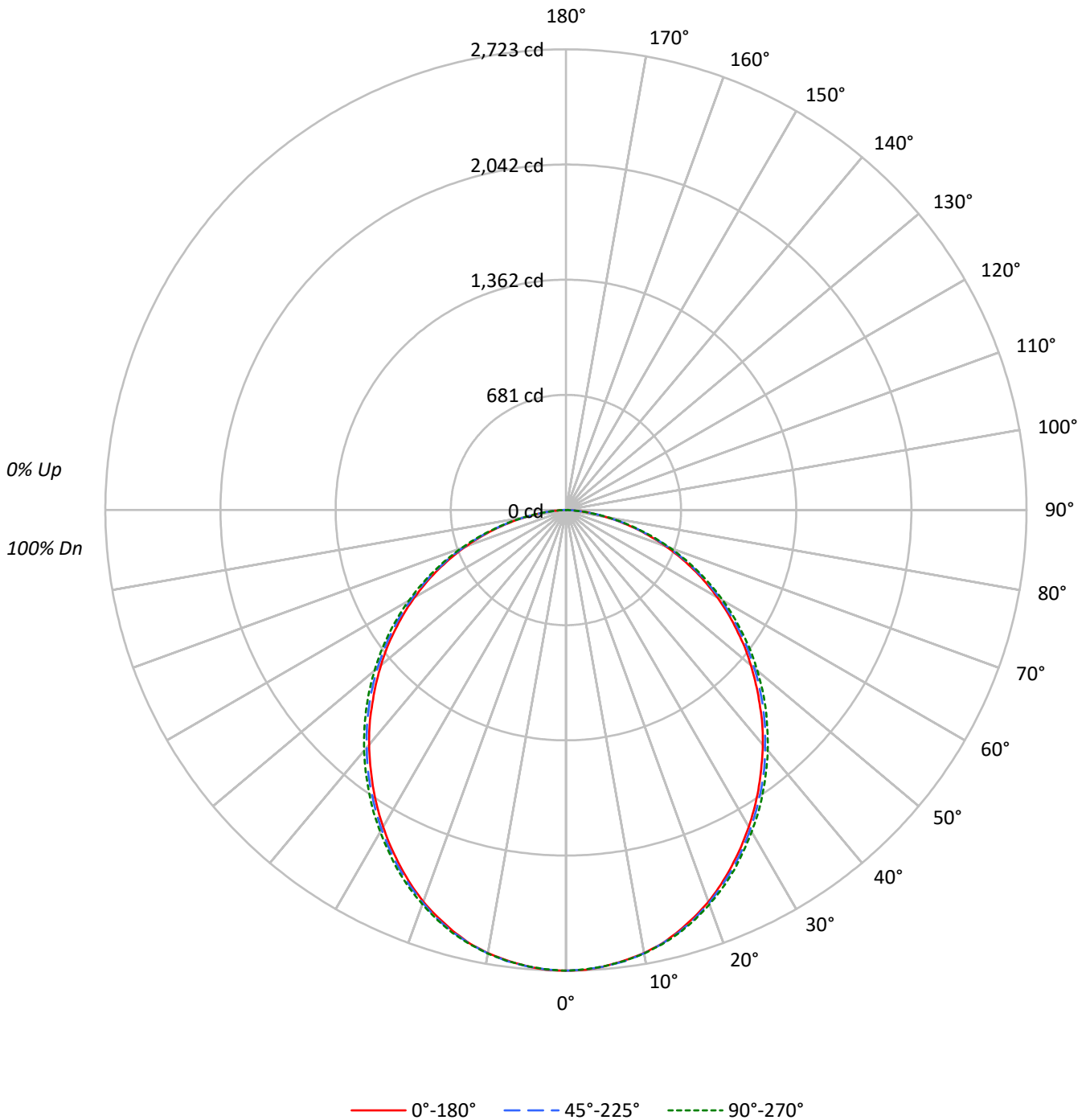
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7135.4 lumens
Efficiency: N/A
Efficacy: 118.9 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): 60
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°	7326	7326	7326
5°	7309	7311	7306
10°	7264	7271	7273
15°	7178	7198	7212
20°	7057	7080	7104
25°	6891	6936	6977
30°	6716	6772	6822
35°	6538	6610	6674
40°	6361	6435	6521
45°	6162	6273	6360
50°	5976	6088	6183
55°	5772	5894	5996
60°	5563	5677	5786
65°	5294	5414	5517
70°	4958	5066	5168
75°	4475	4584	4668
80°	3775	3913	3952
85°	2807	2983	2933



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	256.9	3.6
10°-20°	727.9	10.2
20°-30°	1075.2	15.1
30°-40°	1258.1	17.6
40°-50°	1270.7	17.8
50°-60°	1123.1	15.7
60°-70°	840.7	11.8
70°-80°	467.2	6.5
80°-90°	115.5	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°	2060.0	28.9
0°-40°	3318.1	46.5
0°-60°	5711.9	80.1
0°-90°	7135.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7135.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2723	2723	2723	2723	2723	
5°	2706	2706	2706	2707	2705	257
15°	2576	2578	2584	2589	2589	726
25°	2321	2324	2336	2343	2350	1069
35°	1990	1996	2012	2026	2032	1245
45°	1619	1631	1648	1665	1671	1250
55°	1230	1240	1256	1272	1278	1102
65°	832	837	850	862	866	823
75°	430	433	441	449	449	456
85°	91	94	97	95	95	111
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2722.6	2722.6	2722.6	2722.6	2722.6
2.5°	2720.2	2720.2	2717.7	2718.6	2716.9
5°	2705.6	2706.4	2706.4	2707.2	2704.8
7.5°	2684.5	2686.1	2688.5	2689.3	2686.9
10°	2658.5	2660.1	2660.9	2664.2	2661.7
12.5°	2624.4	2625.2	2626.0	2630.9	2628.4
15°	2576.5	2578.1	2583.8	2588.6	2588.6
17.5°	2522.9	2526.1	2532.6	2539.1	2537.5
20°	2464.4	2466.8	2472.5	2481.5	2480.6
22.5°	2395.4	2397.8	2405.9	2415.7	2418.1
25°	2320.7	2323.9	2336.1	2343.4	2349.9
27.5°	2243.5	2247.6	2259.0	2270.3	2273.6
30°	2161.5	2168.0	2179.4	2191.6	2195.6
32.5°	2077.9	2081.1	2096.6	2109.6	2117.7
35°	1990.2	1995.9	2012.1	2025.9	2031.6
37.5°	1900.1	1908.2	1925.2	1939.9	1944.7
40°	1810.7	1817.2	1831.9	1850.5	1856.2
42.5°	1718.2	1723.9	1741.7	1758.0	1763.7
45°	1619.1	1631.3	1648.3	1665.4	1671.1
47.5°	1523.3	1534.7	1551.7	1568.8	1575.3
50°	1427.5	1439.7	1454.3	1472.1	1477.0
52.5°	1331.7	1341.4	1356.8	1372.3	1379.6
55°	1230.2	1239.9	1256.2	1271.6	1278.1
57.5°	1134.4	1140.9	1156.3	1170.9	1176.6
60°	1033.7	1040.2	1054.8	1070.2	1075.1
62.5°	934.6	938.7	952.5	967.1	970.3
65°	831.5	837.2	850.2	861.5	866.4
67.5°	730.8	735.7	747.0	759.2	761.7
70°	630.1	633.4	643.9	652.8	656.9
72.5°	528.6	531.9	543.2	548.1	552.2
75°	430.4	432.8	440.9	449.0	449.0
77.5°	334.5	338.6	345.1	348.3	350.0
80°	243.6	247.7	252.5	255.8	255.0
82.5°	160.8	164.8	168.1	169.7	168.1
85°	90.9	94.2	96.6	95.0	95.0
87.5°	35.7	37.4	39.0	38.2	36.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)