

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: P708939

Luminaire Tested: **24APR-X-200L850-UNV**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P708939
Test Lab: INNOVATION CENTER(G2)
Issue Date: 09/12/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24APR-X-200L850-UNV
Description: ArcMed Patient Recessed 2x4 Fixture EXAM Light
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

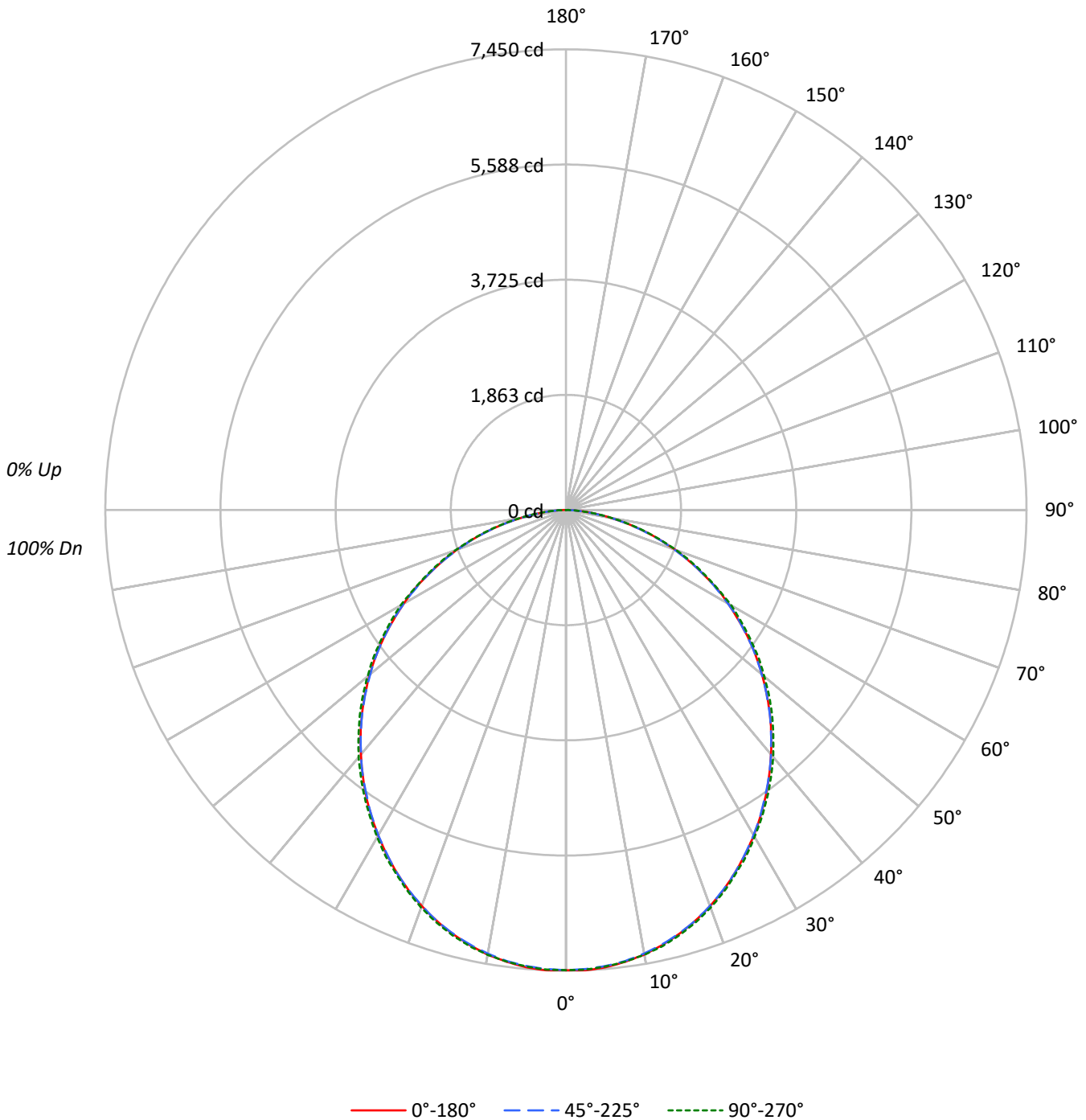
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20194.3 lumens
Efficiency: N/A
Efficacy: 128.5 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): 157.1
Input Voltage (V): 120
Input Current (A_{in}): 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	94	98	94	91	94	91	89	90	88	86	86	86	86	84
2	99	91	84	78	96	89	83	77	85	80	76	82	78	74	79	75	72	72	72	72	70
3	90	80	72	65	88	78	71	65	75	69	63	72	67	62	70	65	61	61	61	61	59
4	83	71	62	55	80	69	61	55	67	60	54	65	58	53	62	57	53	53	53	53	50
5	76	63	54	48	74	62	54	47	60	53	47	58	51	46	56	50	46	46	46	46	44
6	70	57	48	42	68	56	48	41	54	47	41	53	46	41	51	45	40	40	40	40	38
7	65	52	43	37	63	51	43	37	49	42	36	48	41	36	47	40	36	36	36	36	34
8	61	47	39	33	59	47	38	33	45	38	33	44	37	32	43	37	32	32	32	32	30
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	39	33	29	29	29	29	27
10	53	40	32	27	52	39	32	27	39	32	27	38	31	27	37	31	26	26	26	26	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10012	10012	10012
5°	10023	9997	10007
10°	9973	9950	9977
15°	9879	9872	9910
20°	9761	9754	9797
25°	9606	9609	9641
30°	9438	9432	9484
35°	9260	9238	9322
40°	9064	9058	9161
45°	8876	8870	8977
50°	8671	8654	8769
55°	8434	8422	8540
60°	8157	8152	8309
65°	7786	7799	7890
70°	7382	7321	7475
75°	6748	6695	6822
80°	5836	5765	5884
85°	4591	4543	4670



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	703.5	3.5
10°-20°	2000.1	9.9
20°-30°	2983.0	14.8
30°-40°	3529.7	17.5
40°-50°	3606.7	17.9
50°-60°	3223.2	16.0
60°-70°	2429.4	12.0
70°-80°	1367.5	6.8
80°-90°	351.3	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°	5686.6	28.2
0°-40°	9216.2	45.6
0°-60°	16046.1	79.5
0°-90°	20194.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	20194.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7442	7442	7442	7442	7442	
5°	7421	7411	7402	7409	7409	704
15°	7092	7083	7087	7101	7114	2000
25°	6470	6461	6473	6493	6494	2981
35°	5638	5625	5624	5662	5675	3525
45°	4665	4660	4662	4697	4718	3598
55°	3596	3596	3590	3622	3640	3211
65°	2446	2434	2450	2473	2478	2429
75°	1298	1274	1288	1282	1312	1373
85°	297	285	294	298	302	355
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	7441.5	7441.5	7441.5	7441.5	7441.5
2.5°	7449.6	7438.4	7430.2	7434.3	7437.4
5°	7421.0	7410.8	7401.6	7408.8	7408.8
7.5°	7366.9	7361.7	7354.6	7360.7	7362.8
10°	7299.4	7288.2	7283.0	7297.4	7302.5
12.5°	7204.4	7191.1	7195.2	7213.5	7221.7
15°	7091.9	7082.7	7086.8	7101.1	7114.4
17.5°	6964.2	6954.0	6963.1	6975.4	6987.7
20°	6817.0	6806.8	6811.9	6829.3	6842.5
22.5°	6653.5	6643.3	6649.4	6664.7	6679.0
25°	6470.5	6461.3	6472.6	6493.0	6494.0
27.5°	6279.4	6269.2	6272.3	6293.7	6313.1
30°	6075.0	6061.7	6070.9	6092.4	6104.6
32.5°	5860.4	5848.1	5855.3	5879.8	5894.1
35°	5637.6	5625.3	5624.3	5662.1	5675.4
37.5°	5401.5	5394.3	5400.5	5431.1	5447.5
40°	5160.3	5150.1	5157.2	5196.0	5215.5
42.5°	4916.0	4909.9	4910.9	4949.7	4965.1
45°	4664.6	4660.5	4661.5	4697.3	4717.7
47.5°	4405.0	4395.8	4399.9	4436.7	4458.1
50°	4142.3	4140.3	4134.1	4170.9	4189.3
52.5°	3872.5	3868.4	3868.4	3901.1	3927.7
55°	3595.5	3595.5	3590.4	3622.1	3640.5
57.5°	3305.3	3307.3	3315.5	3344.1	3362.5
60°	3031.4	3021.1	3029.3	3054.9	3087.6
62.5°	2758.5	2727.8	2736.0	2759.5	2772.8
65°	2445.7	2434.5	2449.8	2473.3	2478.4
67.5°	2158.5	2147.3	2155.5	2171.8	2194.3
70°	1876.5	1846.8	1861.1	1878.5	1900.0
72.5°	1580.1	1554.5	1575.0	1589.3	1604.6
75°	1298.0	1273.5	1287.8	1281.6	1312.3
77.5°	1014.9	997.5	1009.8	1022.0	1045.5
80°	753.2	733.8	744.0	749.2	759.4
82.5°	513.1	498.8	501.8	522.3	516.1
85°	297.4	285.1	294.3	298.4	302.5
87.5°	117.5	106.3	115.5	118.6	119.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)