

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: P708924

Luminaire Tested: **24APR-X-200L830-UNV**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P708924
Test Lab: INNOVATION CENTER(G2)
Issue Date: 09/12/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24APR-X-200L830-UNV
Description: ArcMed Patient Recessed 2x4 Fixture EXAM Light
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

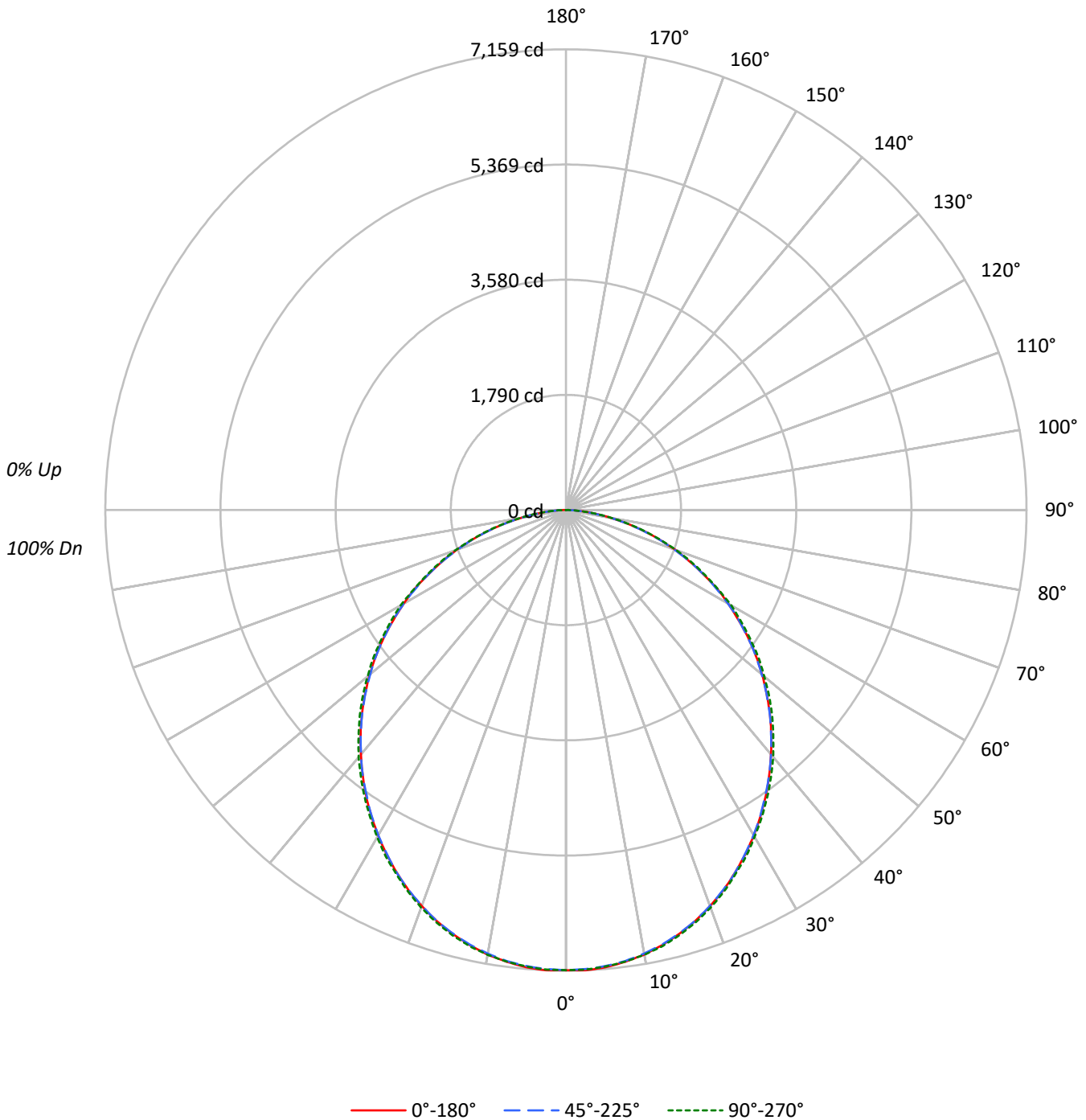
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19406.0 lumens
Efficiency: N/A
Efficacy: 123.5 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 (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	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°	9622	9622	9622
5°	9632	9607	9616
10°	9584	9562	9587
15°	9493	9486	9523
20°	9380	9373	9415
25°	9231	9234	9265
30°	9070	9064	9114
35°	8898	8877	8958
40°	8710	8705	8803
45°	8529	8524	8627
50°	8332	8316	8427
55°	8105	8094	8207
60°	7839	7834	7984
65°	7483	7495	7583
70°	7094	7036	7183
75°	6484	6433	6556
80°	5608	5540	5654
85°	4412	4367	4488



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	676.0	3.5
10°-20°	1922.0	9.9
20°-30°	2866.5	14.8
30°-40°	3391.9	17.5
40°-50°	3465.9	17.9
50°-60°	3097.4	16.0
60°-70°	2334.6	12.0
70°-80°	1314.1	6.8
80°-90°	337.5	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°	5464.6	28.2
0°-40°	8856.5	45.6
0°-60°	15419.7	79.5
0°-90°	19406.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	19406.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7151	7151	7151	7151	7151	
5°	7131	7122	7113	7120	7120	677
15°	6815	6806	6810	6824	6837	1922
25°	6218	6209	6220	6240	6240	2865
35°	5418	5406	5405	5441	5454	3387
45°	4482	4479	4480	4514	4534	3457
55°	3455	3455	3450	3481	3498	3086
65°	2350	2340	2354	2377	2382	2334
75°	1247	1224	1238	1232	1261	1319
85°	286	274	283	287	291	341
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	7151.0	7151.0	7151.0	7151.0	7151.0
2.5°	7158.8	7148.0	7140.2	7144.1	7147.0
5°	7131.3	7121.5	7112.7	7119.5	7119.5
7.5°	7079.3	7074.4	7067.5	7073.4	7075.4
10°	7014.5	7003.7	6998.7	7012.5	7017.4
12.5°	6923.1	6910.4	6914.3	6932.0	6939.8
15°	6815.1	6806.2	6810.2	6823.9	6836.7
17.5°	6692.3	6682.5	6691.3	6703.1	6714.9
20°	6550.9	6541.1	6546.0	6562.7	6575.4
22.5°	6393.7	6383.9	6389.8	6404.6	6418.3
25°	6217.9	6209.1	6219.9	6239.6	6240.5
27.5°	6034.3	6024.5	6027.4	6048.0	6066.7
30°	5837.9	5825.1	5833.9	5854.6	5866.3
32.5°	5631.6	5619.8	5626.7	5650.3	5664.0
35°	5417.5	5405.7	5404.7	5441.1	5453.8
37.5°	5190.6	5183.7	5189.6	5219.1	5234.8
40°	4958.8	4949.0	4955.9	4993.2	5011.9
42.5°	4724.1	4718.2	4719.2	4756.5	4771.2
45°	4482.5	4478.6	4479.6	4513.9	4533.6
47.5°	4233.0	4224.2	4228.1	4263.5	4284.1
50°	3980.6	3978.7	3972.8	4008.1	4025.8
52.5°	3721.3	3717.4	3717.4	3748.8	3774.4
55°	3455.2	3455.2	3450.3	3480.7	3498.4
57.5°	3176.2	3178.2	3186.1	3213.6	3231.2
60°	2913.0	2903.2	2911.1	2935.6	2967.1
62.5°	2650.8	2621.3	2629.2	2651.8	2664.6
65°	2350.3	2339.5	2354.2	2376.8	2381.7
67.5°	2074.3	2063.5	2071.3	2087.1	2108.7
70°	1803.2	1774.7	1788.5	1805.2	1825.8
72.5°	1518.4	1493.8	1513.5	1527.2	1542.0
75°	1247.3	1223.7	1237.5	1231.6	1261.1
77.5°	975.3	958.6	970.4	982.1	1004.7
80°	723.8	705.2	715.0	719.9	729.7
82.5°	493.0	479.3	482.2	501.9	496.0
85°	285.8	274.0	282.9	286.8	290.7
87.5°	112.9	102.1	111.0	113.9	114.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)