

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: P708950

Luminaire Tested: **24APR-X-181L935-UNV**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P708950
Test Lab: INNOVATION CENTER(G2)
Issue Date: 09/12/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24APR-X-181L935-UNV
Description: ArcMed Patient Recessed 2x4 Fixture EXAM Light
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

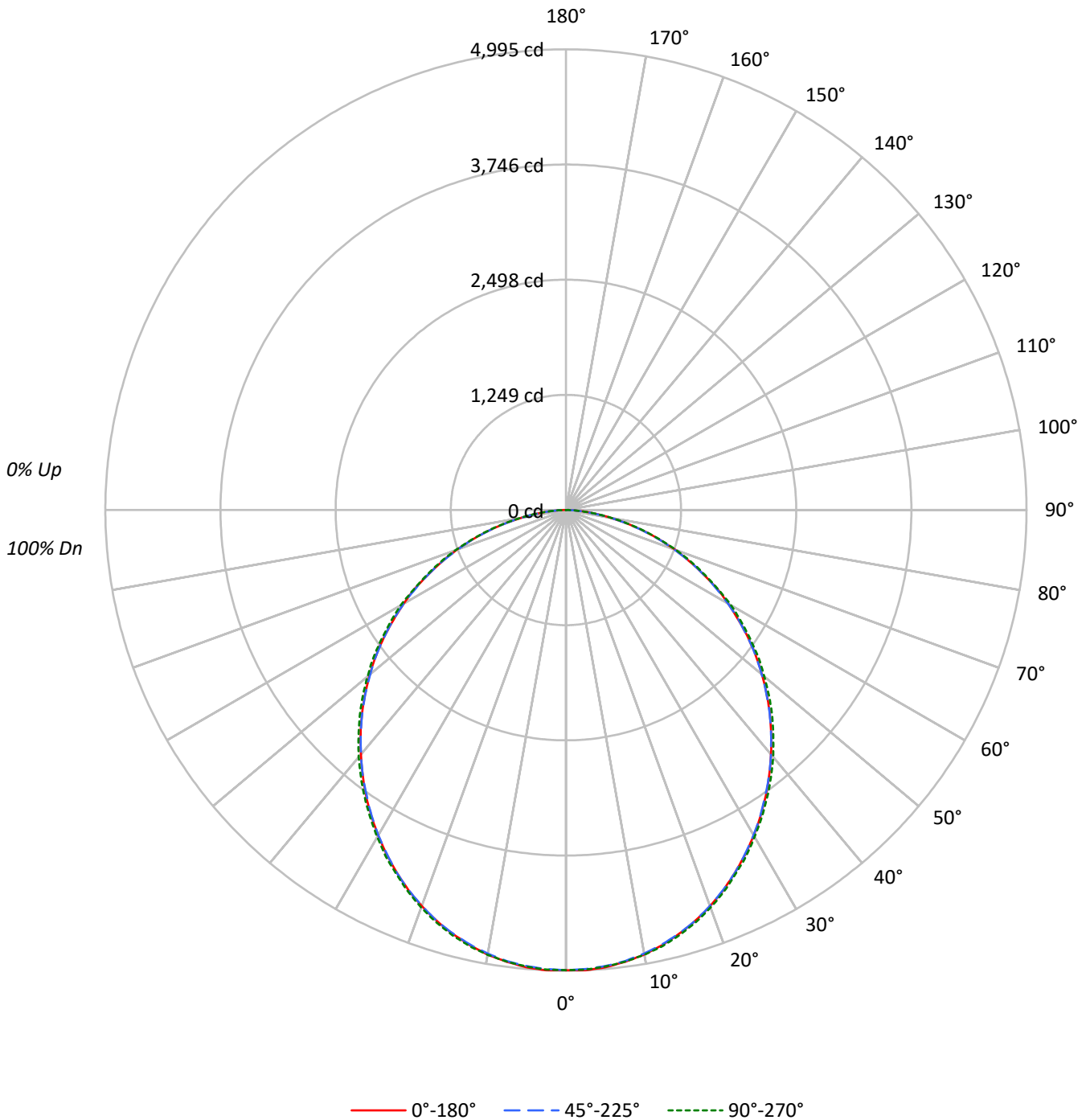
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13539.1 lumens
Efficiency: N/A
Efficacy: 97.3 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): 139.1
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°	6713	6713	6713
5°	6720	6702	6709
10°	6686	6671	6689
15°	6623	6618	6644
20°	6544	6539	6569
25°	6440	6442	6464
30°	6328	6324	6359
35°	6208	6194	6250
40°	6077	6073	6142
45°	5951	5947	6019
50°	5813	5802	5879
55°	5655	5647	5725
60°	5469	5465	5570
65°	5220	5229	5290
70°	4949	4909	5011
75°	4524	4488	4574
80°	3913	3865	3945
85°	3078	3046	3131



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	471.6	3.5
10°-20°	1341.0	9.9
20°-30°	1999.9	14.8
30°-40°	2366.5	17.5
40°-50°	2418.1	17.9
50°-60°	2161.0	16.0
60°-70°	1628.8	12.0
70°-80°	916.8	6.8
80°-90°	235.5	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°	3812.5	28.2
0°-40°	6179.0	45.6
0°-60°	10758.0	79.5
0°-90°	13539.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	13539.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4989	4989	4989	4989	4989	
5°	4975	4968	4962	4967	4967	472
15°	4755	4749	4751	4761	4770	1341
25°	4338	4332	4340	4353	4354	1999
35°	3780	3771	3771	3796	3805	2363
45°	3127	3125	3125	3149	3163	2412
55°	2411	2411	2407	2428	2441	2153
65°	1640	1632	1642	1658	1662	1628
75°	870	854	863	859	880	920
85°	199	191	197	200	203	238
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4989.1	4989.1	4989.1	4989.1	4989.1
2.5°	4994.6	4987.0	4981.5	4984.3	4986.3
5°	4975.4	4968.5	4962.4	4967.1	4967.1
7.5°	4939.1	4935.6	4930.8	4934.9	4936.3
10°	4893.8	4886.3	4882.9	4892.5	4895.9
12.5°	4830.1	4821.2	4823.9	4836.3	4841.8
15°	4754.7	4748.6	4751.3	4760.9	4769.8
17.5°	4669.1	4662.2	4668.4	4676.6	4684.8
20°	4570.4	4563.6	4567.0	4578.6	4587.5
22.5°	4460.8	4453.9	4458.0	4468.3	4477.9
25°	4338.1	4332.0	4339.5	4353.2	4353.9
27.5°	4210.0	4203.1	4205.2	4219.6	4232.6
30°	4072.9	4064.0	4070.2	4084.6	4092.8
32.5°	3929.0	3920.8	3925.6	3942.1	3951.7
35°	3779.7	3771.4	3770.8	3796.1	3805.0
37.5°	3621.4	3616.6	3620.7	3641.3	3652.2
40°	3459.7	3452.8	3457.6	3483.7	3496.7
42.5°	3295.9	3291.8	3292.5	3318.5	3328.8
45°	3127.3	3124.6	3125.3	3149.3	3163.0
47.5°	2953.3	2947.1	2949.9	2974.5	2988.9
50°	2777.2	2775.8	2771.7	2796.4	2808.7
52.5°	2596.3	2593.6	2593.6	2615.5	2633.3
55°	2410.6	2410.6	2407.2	2428.4	2440.7
57.5°	2216.0	2217.4	2222.8	2242.0	2254.4
60°	2032.4	2025.5	2031.0	2048.1	2070.0
62.5°	1849.4	1828.8	1834.3	1850.1	1859.0
65°	1639.7	1632.2	1642.5	1658.2	1661.7
67.5°	1447.2	1439.6	1445.1	1456.1	1471.2
70°	1258.1	1238.2	1247.8	1259.4	1273.8
72.5°	1059.3	1042.2	1055.9	1065.5	1075.8
75°	870.2	853.8	863.4	859.3	879.8
77.5°	680.4	668.8	677.0	685.2	701.0
80°	505.0	492.0	498.8	502.3	509.1
82.5°	344.0	334.4	336.4	350.1	346.0
85°	199.4	191.2	197.3	200.1	202.8
87.5°	78.8	71.3	77.4	79.5	80.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)