

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: P708942

Luminaire Tested: **24APR-X-138L850-UNV**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P708942
Test Lab: INNOVATION CENTER(G2)
Issue Date: 09/12/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24APR-X-138L850-UNV
Description: ArcMed Patient Recessed 2x4 Fixture EXAM Light
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

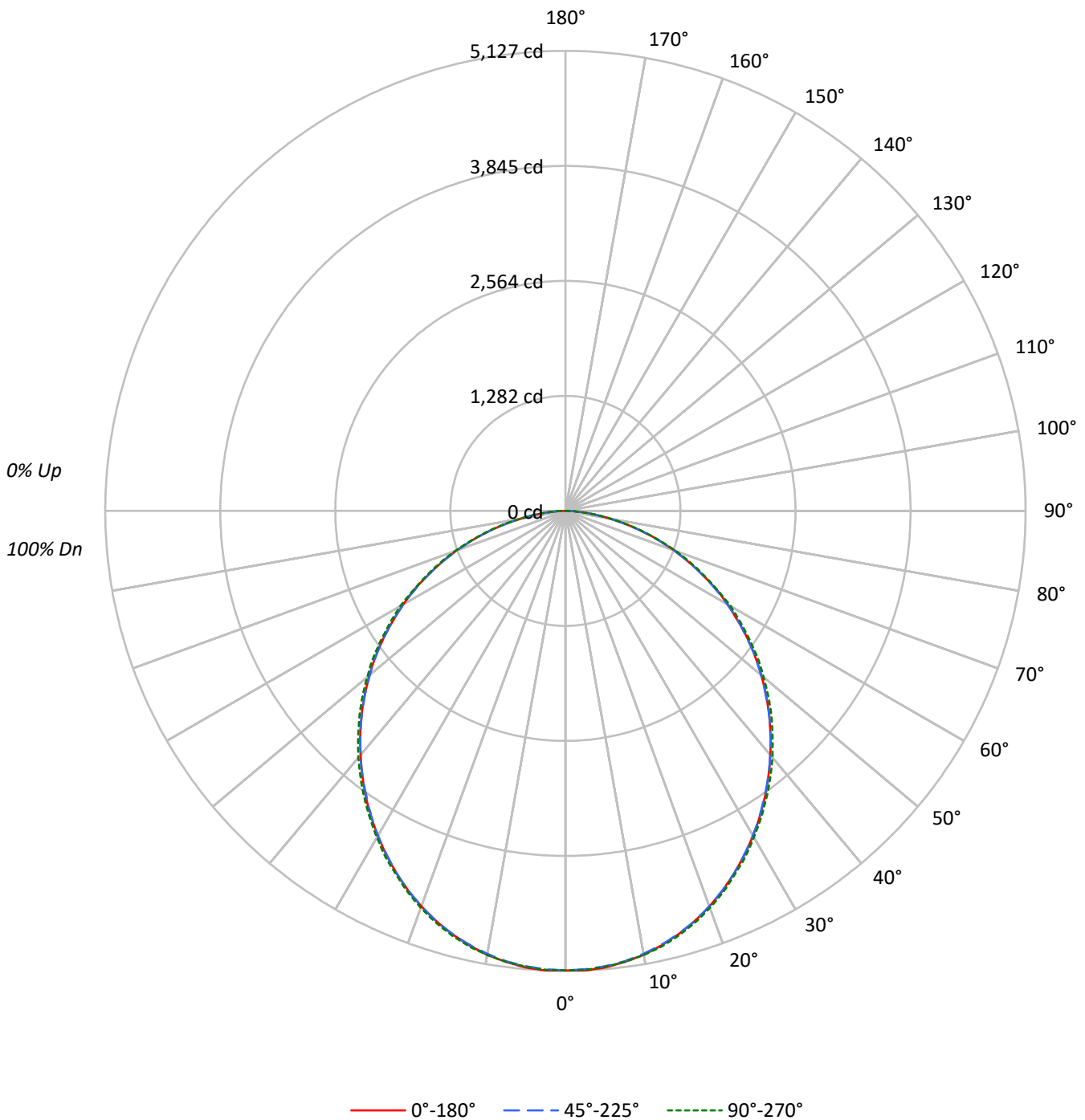
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13897.0 lumens
Efficiency: N/A
Efficacy: 134.1 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): 103.6
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				
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°	6890	6890	6890
5°	6898	6879	6886
10°	6863	6847	6866
15°	6798	6793	6820
20°	6717	6712	6742
25°	6611	6613	6635
30°	6495	6491	6527
35°	6372	6357	6415
40°	6237	6234	6304
45°	6108	6104	6178
50°	5967	5955	6035
55°	5804	5796	5877
60°	5614	5610	5718
65°	5358	5367	5430
70°	5080	5039	5144
75°	4643	4607	4695
80°	4017	3967	4049
85°	3160	3128	3214



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	484.1	3.5
10°-20°	1376.4	9.9
20°-30°	2052.8	14.8
30°-40°	2429.0	17.5
40°-50°	2482.0	17.9
50°-60°	2218.1	16.0
60°-70°	1671.9	12.0
70°-80°	941.1	6.8
80°-90°	241.7	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°	3913.3	28.2
0°-40°	6342.3	45.6
0°-60°	11042.4	79.5
0°-90°	13897.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	13897.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5121	5121	5121	5121	5121	
5°	5107	5100	5094	5098	5098	485
15°	4880	4874	4877	4887	4896	1376
25°	4453	4446	4454	4468	4469	2052
35°	3880	3871	3870	3896	3906	2426
45°	3210	3207	3208	3232	3247	2476
55°	2474	2474	2471	2493	2505	2210
65°	1683	1675	1686	1702	1706	1671
75°	893	876	886	882	903	945
85°	205	196	203	205	208	244
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5121.0	5121.0	5121.0	5121.0	5121.0
2.5°	5126.6	5118.8	5113.2	5116.0	5118.1
5°	5106.9	5099.9	5093.5	5098.4	5098.4
7.5°	5069.6	5066.1	5061.2	5065.4	5066.8
10°	5023.2	5015.5	5011.9	5021.8	5025.3
12.5°	4957.8	4948.6	4951.5	4964.1	4969.7
15°	4880.4	4874.1	4876.9	4886.7	4895.9
17.5°	4792.5	4785.5	4791.8	4800.2	4808.7
20°	4691.2	4684.2	4687.7	4699.7	4708.8
22.5°	4578.7	4571.7	4575.9	4586.4	4596.3
25°	4452.8	4446.5	4454.2	4468.3	4469.0
27.5°	4321.3	4314.2	4316.3	4331.1	4344.5
30°	4180.6	4171.5	4177.8	4192.6	4201.0
32.5°	4032.9	4024.5	4029.4	4046.3	4056.1
35°	3879.6	3871.1	3870.4	3896.5	3905.6
37.5°	3717.1	3712.2	3716.4	3737.5	3748.8
40°	3551.1	3544.1	3549.0	3575.7	3589.1
42.5°	3383.0	3378.8	3379.5	3406.2	3416.8
45°	3210.0	3207.2	3207.9	3232.5	3246.6
47.5°	3031.4	3025.0	3027.8	3053.2	3067.9
50°	2850.6	2849.2	2845.0	2870.3	2883.0
52.5°	2664.9	2662.1	2662.1	2684.6	2702.9
55°	2474.3	2474.3	2470.8	2492.6	2505.3
57.5°	2274.6	2276.0	2281.6	2301.3	2314.0
60°	2086.1	2079.0	2084.7	2102.3	2124.8
62.5°	1898.3	1877.2	1882.8	1899.0	1908.1
65°	1683.1	1675.3	1685.9	1702.1	1705.6
67.5°	1485.4	1477.7	1483.3	1494.6	1510.1
70°	1291.3	1270.9	1280.8	1292.7	1307.5
72.5°	1087.4	1069.8	1083.8	1093.7	1104.2
75°	893.2	876.4	886.2	882.0	903.1
77.5°	698.4	686.5	694.9	703.3	719.5
80°	518.4	505.0	512.0	515.5	522.6
82.5°	353.1	343.2	345.3	359.4	355.2
85°	204.7	196.2	202.6	205.4	208.2
87.5°	80.9	73.1	79.5	81.6	82.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)