

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: P708941

Luminaire Tested: **24APR-X-160L850-UNV**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P708941
Test Lab: INNOVATION CENTER(G2)
Issue Date: 09/12/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24APR-X-160L850-UNV
Description: ArcMed Patient Recessed 2x4 Fixture EXAM Light
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

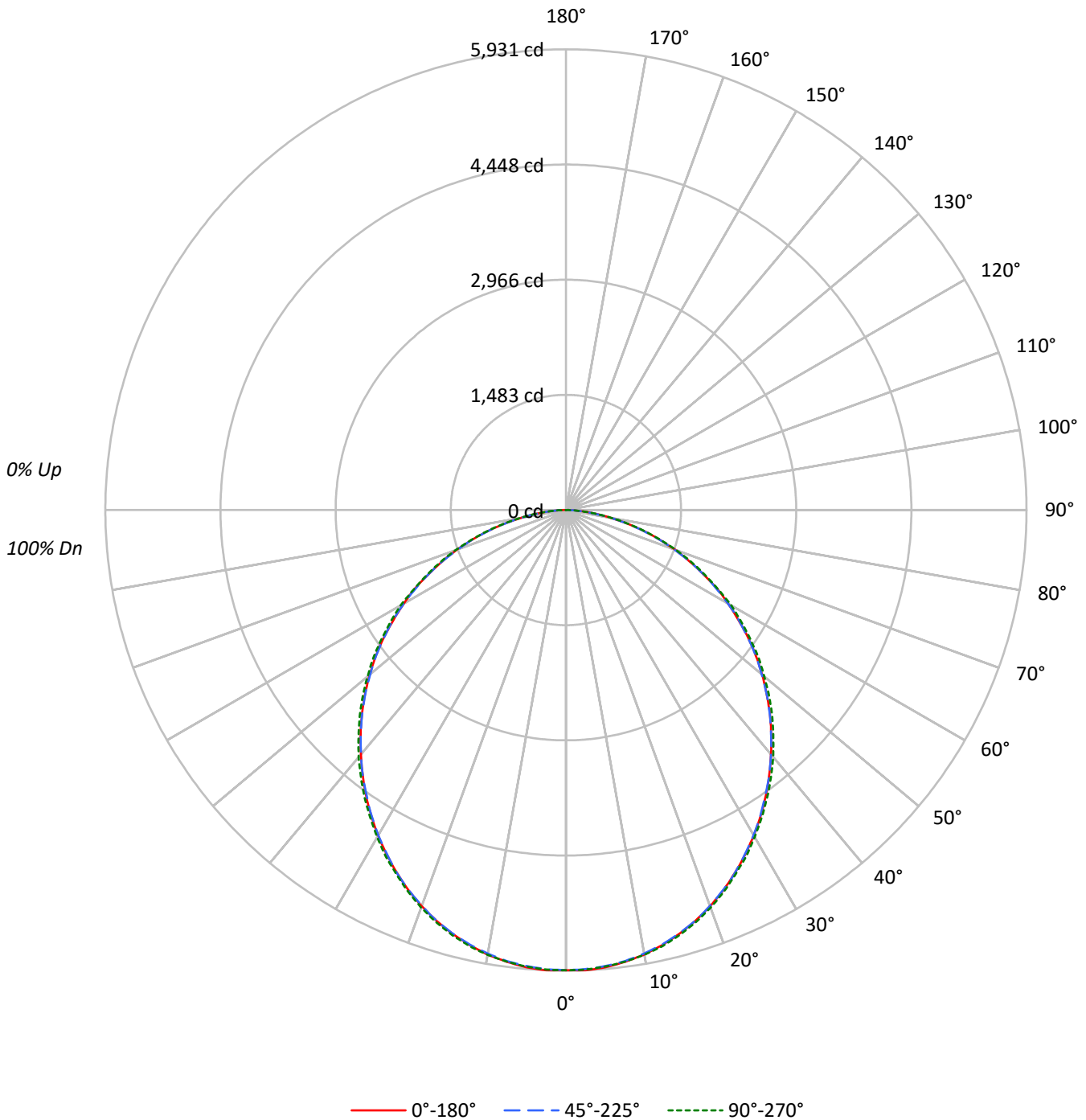
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16078.1 lumens
Efficiency: N/A
Efficacy: 132.7 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): 121.2
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°	7972	7972	7972
5°	7980	7959	7967
10°	7940	7922	7943
15°	7865	7859	7890
20°	7771	7765	7800
25°	7648	7651	7676
30°	7514	7510	7551
35°	7373	7355	7422
40°	7216	7212	7293
45°	7067	7062	7147
50°	6903	6890	6982
55°	6715	6706	6799
60°	6495	6490	6615
65°	6199	6210	6282
70°	5877	5829	5951
75°	5372	5330	5431
80°	4647	4590	4685
85°	3656	3619	3719



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	560.1	3.5
10°-20°	1592.4	9.9
20°-30°	2374.9	14.8
30°-40°	2810.2	17.5
40°-50°	2871.5	17.9
50°-60°	2566.2	16.0
60°-70°	1934.2	12.0
70°-80°	1088.7	6.8
80°-90°	279.7	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°	4527.5	28.2
0°-40°	7337.7	45.6
0°-60°	12775.4	79.5
0°-90°	16078.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	16078.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5925	5925	5925	5925	5925	
5°	5908	5900	5893	5899	5899	561
15°	5646	5639	5642	5654	5664	1592
25°	5152	5144	5153	5170	5170	2373
35°	4488	4479	4478	4508	4519	2807
45°	3714	3711	3711	3740	3756	2864
55°	2863	2863	2859	2884	2898	2557
65°	1947	1938	1950	1969	1973	1934
75°	1033	1014	1025	1020	1045	1093
85°	237	227	234	238	241	283
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5924.7	5924.7	5924.7	5924.7	5924.7
2.5°	5931.2	5922.2	5915.7	5919.0	5921.4
5°	5908.4	5900.3	5892.9	5898.6	5898.6
7.5°	5865.3	5861.2	5855.5	5860.4	5862.0
10°	5811.6	5802.6	5798.6	5809.9	5814.0
12.5°	5735.9	5725.3	5728.6	5743.2	5749.7
15°	5646.4	5639.1	5642.3	5653.7	5664.3
17.5°	5544.7	5536.5	5543.9	5553.6	5563.4
20°	5427.5	5419.4	5423.4	5437.3	5447.8
22.5°	5297.3	5289.2	5294.0	5306.3	5317.6
25°	5151.6	5144.3	5153.3	5169.5	5170.4
27.5°	4999.5	4991.3	4993.8	5010.9	5026.3
30°	4836.7	4826.2	4833.5	4850.6	4860.3
32.5°	4665.9	4656.1	4661.8	4681.3	4692.7
35°	4488.5	4478.7	4477.9	4508.0	4518.6
37.5°	4300.5	4294.8	4299.7	4324.1	4337.1
40°	4108.5	4100.3	4106.0	4136.9	4152.4
42.5°	3914.0	3909.1	3909.9	3940.8	3953.0
45°	3713.8	3710.6	3711.4	3739.8	3756.1
47.5°	3507.1	3499.8	3503.1	3532.3	3549.4
50°	3298.0	3296.4	3291.5	3320.8	3335.4
52.5°	3083.2	3079.9	3079.9	3106.0	3127.1
55°	2862.7	2862.7	2858.6	2883.8	2898.5
57.5°	2631.6	2633.2	2639.7	2662.5	2677.1
60°	2413.5	2405.3	2411.9	2432.2	2458.2
62.5°	2196.2	2171.8	2178.3	2197.0	2207.6
65°	1947.2	1938.3	1950.5	1969.2	1973.3
67.5°	1718.6	1709.6	1716.1	1729.1	1747.1
70°	1494.0	1470.4	1481.8	1495.6	1512.7
72.5°	1258.0	1237.7	1253.9	1265.3	1277.5
75°	1033.4	1013.9	1025.3	1020.4	1044.8
77.5°	808.0	794.2	804.0	813.7	832.4
80°	599.7	584.2	592.4	596.5	604.6
82.5°	408.5	397.1	399.5	415.8	410.9
85°	236.8	227.0	234.4	237.6	240.9
87.5°	93.6	84.6	92.0	94.4	95.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)