

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: P708926

Luminaire Tested: **24APR-X-160L830-UNV**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P708926
Test Lab: INNOVATION CENTER(G2)
Issue Date: 09/12/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24APR-X-160L830-UNV
Description: ArcMed Patient Recessed 2x4 Fixture EXAM Light
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

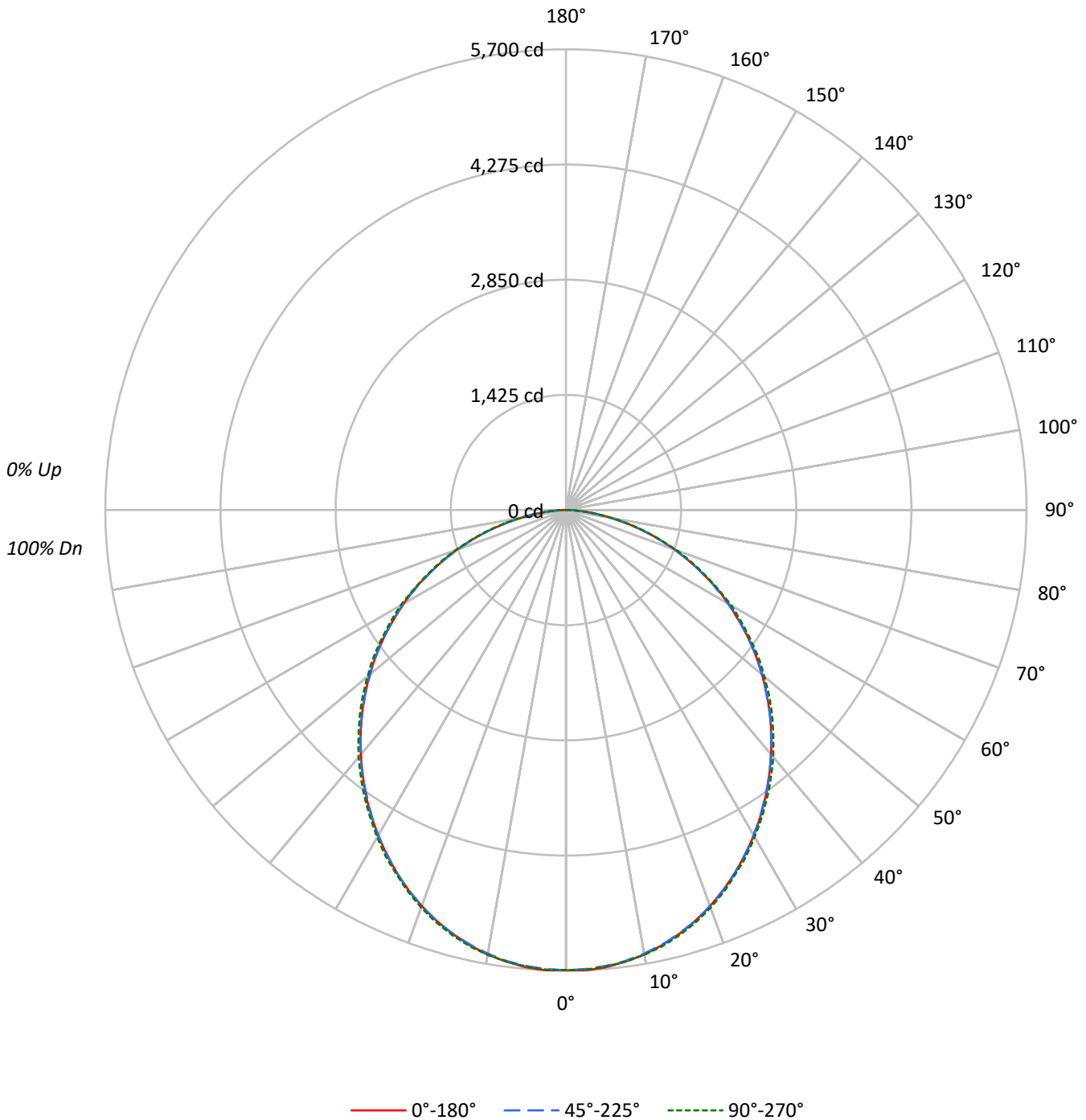
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15450.5 lumens
Efficiency: N/A
Efficacy: 127.5 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): 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	100	100	100	100
1	109	104	100	96	106	102	98	94	98	94	91	94	91	89	90	88	86	84	84	84	84
2	99	91	84	78	96	89	83	77	85	80	76	82	78	74	79	75	72	70	70	70	70
3	90	80	72	65	88	78	71	65	75	69	63	72	67	62	70	65	61	59	59	59	59
4	83	71	62	55	80	69	61	55	67	60	54	65	58	53	62	57	53	50	50	50	50
5	76	63	54	48	74	62	54	47	60	53	47	58	51	46	56	50	46	44	44	44	44
6	70	57	48	42	68	56	48	41	54	47	41	53	46	41	51	45	40	38	38	38	38
7	65	52	43	37	63	51	43	37	49	42	36	48	41	36	47	40	36	34	34	34	34
8	61	47	39	33	59	47	38	33	45	38	33	44	37	32	43	37	32	30	30	30	30
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	39	33	29	27	27	27	27
10	53	40	32	27	52	39	32	27	39	32	27	38	31	27	37	31	26	25	25	25	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7660	7660	7660
5°	7669	7648	7656
10°	7630	7613	7633
15°	7558	7553	7582
20°	7468	7462	7496
25°	7349	7352	7376
30°	7221	7216	7256
35°	7085	7068	7132
40°	6934	6930	7009
45°	6791	6786	6868
50°	6634	6621	6709
55°	6453	6444	6534
60°	6241	6237	6357
65°	5957	5967	6037
70°	5648	5602	5719
75°	5163	5122	5219
80°	4465	4411	4502
85°	3512	3477	3574



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	538.2	3.5
10°-20°	1530.3	9.9
20°-30°	2282.2	14.8
30°-40°	2700.5	17.5
40°-50°	2759.4	17.9
50°-60°	2466.0	16.0
60°-70°	1858.7	12.0
70°-80°	1046.3	6.8
80°-90°	268.7	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°	4350.7	28.2
0°-40°	7051.2	45.6
0°-60°	12276.7	79.5
0°-90°	15450.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	15450.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5693	5693	5693	5693	5693	
5°	5678	5670	5663	5668	5668	539
15°	5426	5419	5422	5433	5443	1530
25°	4950	4944	4952	4968	4968	2281
35°	4313	4304	4303	4332	4342	2697
45°	3569	3566	3566	3594	3610	2752
55°	2751	2751	2747	2771	2785	2457
65°	1871	1863	1874	1892	1896	1858
75°	993	974	985	981	1004	1050
85°	228	218	225	228	232	271
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5693.4	5693.4	5693.4	5693.4	5693.4
2.5°	5699.7	5691.1	5684.8	5687.9	5690.3
5°	5677.8	5669.9	5662.9	5668.4	5668.4
7.5°	5636.3	5632.4	5626.9	5631.6	5633.2
10°	5584.7	5576.1	5572.2	5583.1	5587.1
12.5°	5512.0	5501.8	5505.0	5519.0	5525.3
15°	5426.0	5418.9	5422.1	5433.0	5443.2
17.5°	5328.2	5320.4	5327.4	5336.8	5346.2
20°	5215.6	5207.8	5211.7	5225.0	5235.2
22.5°	5090.5	5082.7	5087.4	5099.1	5110.1
25°	4950.5	4943.5	4952.1	4967.7	4968.5
27.5°	4804.3	4796.5	4798.8	4815.3	4830.1
30°	4647.9	4637.8	4644.8	4661.2	4670.6
32.5°	4483.7	4474.3	4479.8	4498.6	4509.5
35°	4313.3	4303.9	4303.1	4332.0	4342.2
37.5°	4132.6	4127.1	4131.8	4155.3	4167.8
40°	3948.1	3940.3	3945.7	3975.5	3990.3
42.5°	3761.2	3756.5	3757.3	3787.0	3798.7
45°	3568.8	3565.7	3566.5	3593.9	3609.5
47.5°	3370.2	3363.2	3366.3	3394.5	3410.9
50°	3169.3	3167.7	3163.0	3191.2	3205.2
52.5°	2962.8	2959.7	2959.7	2984.7	3005.0
55°	2750.9	2750.9	2747.0	2771.2	2785.3
57.5°	2528.8	2530.4	2536.7	2558.6	2572.6
60°	2319.3	2311.5	2317.7	2337.3	2362.3
62.5°	2110.5	2087.0	2093.3	2111.3	2121.4
65°	1871.2	1862.6	1874.3	1892.3	1896.2
67.5°	1651.5	1642.9	1649.1	1661.7	1678.9
70°	1435.7	1413.0	1423.9	1437.2	1453.7
72.5°	1208.9	1189.4	1205.0	1215.9	1227.7
75°	993.1	974.3	985.3	980.6	1004.0
77.5°	776.5	763.2	772.6	782.0	799.9
80°	576.3	561.4	569.3	573.2	581.0
82.5°	392.5	381.6	383.9	399.6	394.9
85°	227.5	218.2	225.2	228.3	231.5
87.5°	89.9	81.3	88.4	90.7	91.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)