

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: P

Luminaire Tested: **4APN-X-26L930-UNV-ASY**

Issue Date: 06/06/2024



Test Information

Test Method: LM-79-08
Report Number: P
Test Lab: INNOVATION CENTER(G2)
Issue Date: 06/06/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 4APN-X-26L930-UNV-ASY
Description: ArcMed Patient Recessed 4 FT x6 IN Fixture EXAM Light w/
ASYMMETRIC Lens
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

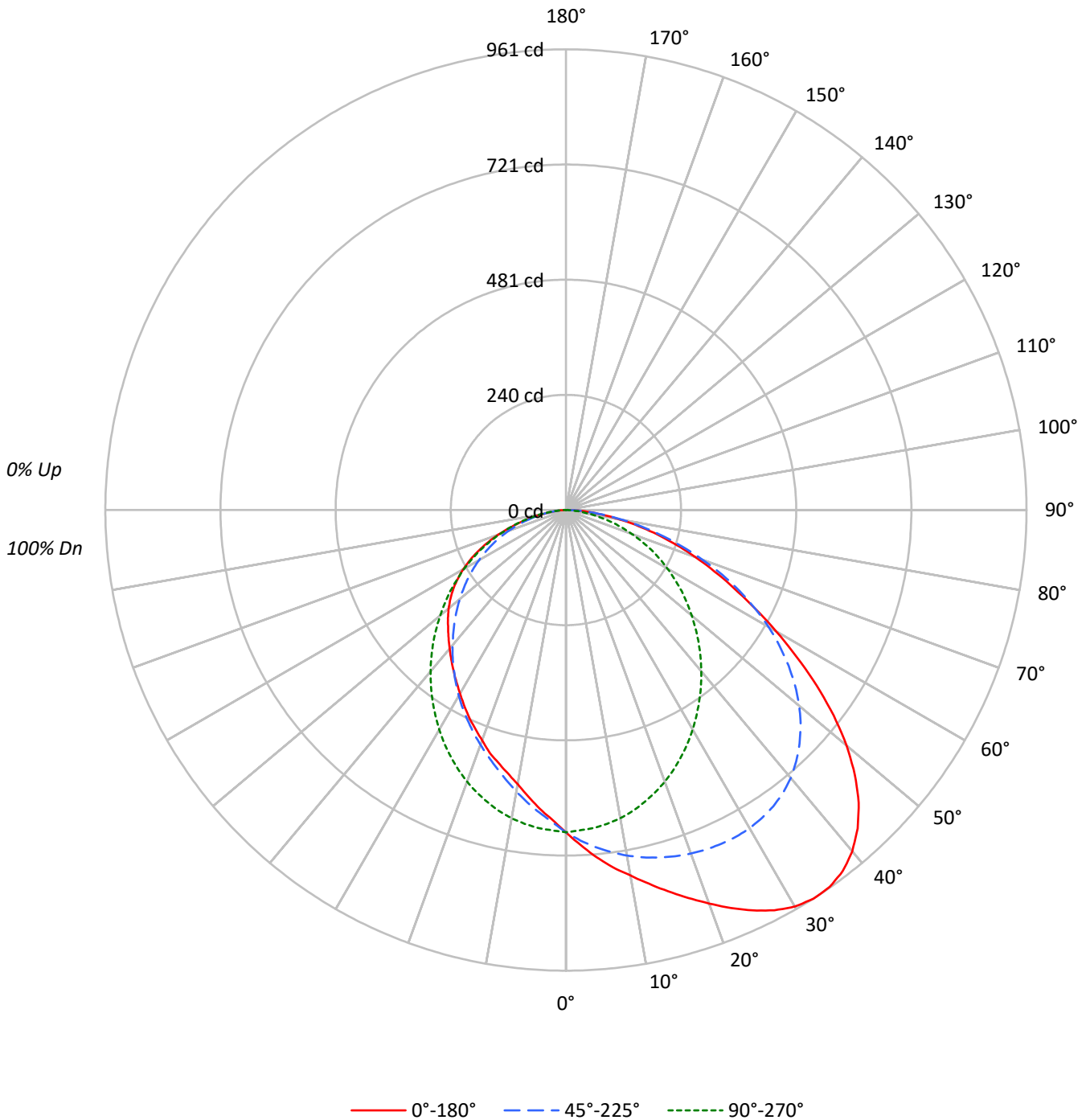
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2082.4 lumens
Efficiency: N/A
Efficacy: 73.8 lumens/watt
Spacing Criteria (0/90/45): 1.53 / 1.18 / 1.46
Luminous Opening: Rectangular (W 0.29' x L: 3.83' x H: 0')
CIE Type: Direct

Input Watts (W): 28.2
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				
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	97	94	91	93	91	88	90	88	86	86	86	86	84
2	99	90	83	78	96	88	82	77	85	80	75	82	77	73	79	75	72	72	72	72	69
3	90	79	71	64	87	78	70	64	75	68	63	72	66	61	69	64	60	60	60	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	62	56	52	52	52	52	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	45	45	45	43
6	69	56	47	40	68	55	46	40	53	46	40	51	45	39	50	44	39	39	39	39	37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	45	39	35	35	35	35	33
8	60	46	37	32	58	45	37	31	44	37	31	43	36	31	42	35	31	31	31	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	28	28	28	26
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25	36	30	25	25	25	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	6472	6472	6472
5°	7023	6433	6046
10°	7567	6383	5673
15°	8207	6290	5439
20°	8949	6180	5237
25°	9789	6035	5075
30°	10619	5876	4911
35°	11279	5702	4807
40°	11679	5522	4744
45°	11761	5330	4733
50°	11452	5128	4784
55°	10724	4945	4814
60°	9747	4719	4767
65°	8839	4463	4583
70°	8090	4138	4208
75°	7339	3720	3619
80°	6420	3110	2789
85°	5402	2253	2077



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.8	3.1
10°-20°	185.7	8.9
20°-30°	290.9	14.0
30°-40°	364.7	17.5
40°-50°	388.3	18.6
50°-60°	350.5	16.8
60°-70°	259.5	12.5
70°-80°	142.4	6.8
80°-90°	36.5	1.8
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°	540.5	26.0
0°-40°	905.2	43.5
0°-60°	1644.0	78.9
0°-90°	2082.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2082.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	672	672	672	672	672	
5°	727	706	666	634	626	71
15°	823	750	631	557	546	235
25°	922	768	568	484	478	426
35°	960	754	485	408	409	598
45°	864	689	392	328	348	662
55°	639	567	295	250	287	570
65°	388	400	196	169	201	387
75°	197	209	100	86	97	210
85°	49	48	20	19	19	58
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	672.3	672.3	672.3	672.3	672.3	672.3	672.3	672.3	672.3	672.3	672.3
2.5°	699.4	698.0	696.3	695.8	693.3	690.0	686.9	686.9	683.3	674.8	668.7
5°	726.7	724.5	720.4	717.1	711.8	705.5	699.1	695.2	686.7	673.7	665.7
7.5°	751.9	749.1	743.9	737.5	728.9	719.5	709.0	700.8	687.8	670.4	660.1
10°	774.0	771.5	765.1	757.4	745.2	732.0	716.5	704.1	686.4	664.8	652.9
12.5°	798.3	795.8	787.0	776.5	759.9	742.2	721.8	704.6	682.8	656.8	643.3
15°	823.4	820.1	810.2	796.1	774.0	750.2	725.1	703.0	677.0	647.1	631.1
17.5°	848.3	845.0	832.6	814.6	787.0	757.4	726.5	699.1	668.7	635.3	617.9
20°	873.5	870.1	854.4	831.7	798.3	762.6	726.2	693.3	658.8	621.7	603.2
22.5°	898.6	894.7	875.7	848.0	807.7	766.2	723.1	685.3	646.3	606.3	586.4
25°	921.5	917.7	896.7	864.1	817.6	767.9	717.9	674.2	632.5	589.1	568.1
27.5°	941.4	936.7	914.9	879.0	826.2	768.5	711.0	661.8	616.5	570.6	549.3
30°	955.2	951.1	927.9	889.5	831.2	766.5	702.1	647.1	598.0	550.7	528.6
32.5°	961.3	957.7	934.8	894.5	832.0	761.5	691.4	630.8	578.6	529.7	507.3
35°	959.7	956.1	934.2	893.6	829.5	754.4	677.8	612.3	557.9	507.9	485.2
37.5°	949.2	945.0	925.1	886.2	822.3	743.9	662.3	592.2	535.5	485.5	462.6
40°	929.3	925.1	908.0	872.1	810.2	729.8	644.7	570.6	512.6	462.0	439.4
42.5°	900.8	896.4	882.8	850.0	792.8	711.3	624.5	547.7	488.3	439.4	415.6
45°	863.8	859.4	850.2	822.3	770.1	689.4	601.6	522.8	462.8	413.7	391.5
47.5°	817.9	814.0	809.6	788.1	742.2	664.3	575.9	496.3	436.3	389.6	367.0
50°	764.6	760.7	762.1	747.5	709.9	635.3	547.7	468.4	409.0	362.8	342.4
52.5°	704.1	701.0	707.7	701.3	672.3	602.9	517.6	439.6	381.0	337.4	317.8
55°	638.9	635.5	648.3	650.2	630.3	567.3	483.3	409.8	352.9	312.5	294.6
57.5°	571.7	568.9	585.3	594.4	584.4	528.9	448.7	379.1	323.8	286.5	268.6
60°	506.2	504.0	521.1	536.1	535.0	488.3	412.8	346.0	294.8	260.3	245.1
62.5°	444.6	442.1	459.2	476.9	483.3	444.9	377.2	313.3	265.8	234.0	220.5
65°	388.0	385.5	400.1	418.4	430.0	399.6	338.8	279.6	236.5	207.5	195.9
67.5°	336.0	336.0	345.1	362.0	376.1	353.1	299.5	247.6	206.4	182.9	171.3
70°	287.4	287.1	293.7	305.6	321.9	303.4	259.7	213.9	178.0	157.2	147.0
72.5°	241.2	243.2	245.7	254.8	271.9	255.9	220.2	180.7	150.0	131.8	123.2
75°	197.3	197.0	200.6	208.6	221.1	209.2	180.7	148.4	122.4	107.5	100.0
77.5°	155.3	155.0	158.1	162.8	173.3	163.9	142.6	118.5	95.3	82.9	77.6
80°	115.8	115.8	118.5	121.0	128.8	121.3	106.4	88.7	69.9	60.2	56.1
82.5°	80.4	82.1	81.0	84.3	88.7	82.3	72.9	60.8	46.4	39.8	37.0
85°	48.9	50.3	48.9	51.7	53.6	48.1	43.4	36.2	26.8	22.4	20.4
87.5°	25.1	24.9	24.6	26.0	26.5	23.2	20.4	17.4	11.9	9.1	7.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	672.3	672.3	672.3	672.3	672.3	672.3	672.3	672.3	672.3	672.3
2.5°	665.1	666.8	664.3	655.2	651.6	647.7	646.0	644.4	647.4	646.6
5°	659.6	657.6	651.3	639.7	633.6	627.3	624.2	622.3	626.4	625.6
7.5°	652.1	646.6	637.2	623.1	615.4	606.8	602.7	600.2	602.9	602.4
10°	642.7	633.6	622.0	605.1	596.0	586.6	581.9	578.3	580.6	580.3
12.5°	630.8	619.0	604.9	585.8	576.4	566.7	562.6	560.1	562.9	562.0
15°	617.6	603.2	586.9	567.6	557.3	548.5	545.5	543.5	545.7	545.7
17.5°	602.9	586.1	568.1	548.5	538.8	531.9	528.9	527.5	528.6	530.3
20°	586.6	567.8	548.5	529.4	521.1	514.0	511.2	509.8	512.3	511.2
22.5°	568.7	548.8	528.6	510.6	503.2	496.0	493.2	492.4	495.2	494.1
25°	549.6	528.1	508.2	491.9	484.4	478.3	475.8	475.0	476.4	477.8
27.5°	531.6	507.3	487.7	473.1	466.4	460.6	458.4	457.0	458.1	459.8
30°	509.8	486.3	467.0	453.4	447.1	441.6	439.9	438.8	440.5	441.8
32.5°	489.4	465.6	446.3	433.0	427.5	422.2	421.9	421.4	423.3	425.0
35°	467.3	444.0	425.3	412.8	407.6	403.2	404.0	404.8	407.0	409.0
37.5°	444.9	422.2	404.3	392.9	388.0	384.4	386.9	388.0	391.0	392.9
40°	422.2	399.6	383.0	372.8	367.8	366.1	369.7	372.2	375.8	377.5
42.5°	399.0	378.0	361.4	352.0	347.9	347.9	352.6	356.5	360.6	362.3
45°	375.8	355.4	339.6	331.0	328.0	330.2	335.7	340.7	346.0	347.6
47.5°	352.3	332.4	318.0	310.3	308.7	312.0	318.9	325.5	331.6	333.8
50°	328.8	310.9	296.5	289.3	289.3	293.5	302.3	310.6	317.2	319.4
52.5°	305.3	288.2	273.6	268.3	269.4	275.2	285.4	294.0	301.5	303.7
55°	281.6	264.7	252.0	247.6	249.5	256.7	267.2	277.2	284.3	286.8
57.5°	258.1	242.1	230.5	226.9	229.6	237.6	249.8	258.4	265.8	268.0
60°	234.3	218.0	208.9	206.1	209.7	218.0	230.5	238.5	245.4	247.6
62.5°	210.8	195.6	187.6	185.1	189.3	198.1	210.3	217.5	222.7	224.9
65°	187.1	173.5	166.1	164.4	168.8	177.4	189.0	195.1	199.0	201.2
67.5°	163.6	152.0	145.1	143.7	148.4	156.1	166.9	170.2	173.8	176.0
70°	140.4	129.9	124.1	123.2	127.4	134.8	144.0	145.6	147.6	149.5
72.5°	117.4	109.1	103.3	103.1	106.9	113.0	120.5	120.8	121.3	123.2
75°	95.3	87.9	83.4	84.3	86.5	91.5	97.3	95.6	95.9	97.3
77.5°	74.1	68.0	64.9	65.5	67.1	70.7	74.6	72.7	71.6	72.9
80°	53.3	48.1	47.0	47.3	48.4	50.8	53.1	51.4	49.2	50.3
82.5°	35.1	31.8	31.2	31.5	32.3	33.7	34.3	31.8	31.2	32.1
85°	19.3	18.0	18.0	18.8	19.1	19.3	19.3	18.0	18.2	18.8
87.5°	7.7	7.7	8.6	9.4	8.8	7.7	6.6	4.4	4.4	5.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)