

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-26L940-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-26L940-UNV-ASY
Description: ArcMed Patient Recessed 4 FT x6 IN Fixture EXAM Light w/
ASYMMETRIC Lens
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

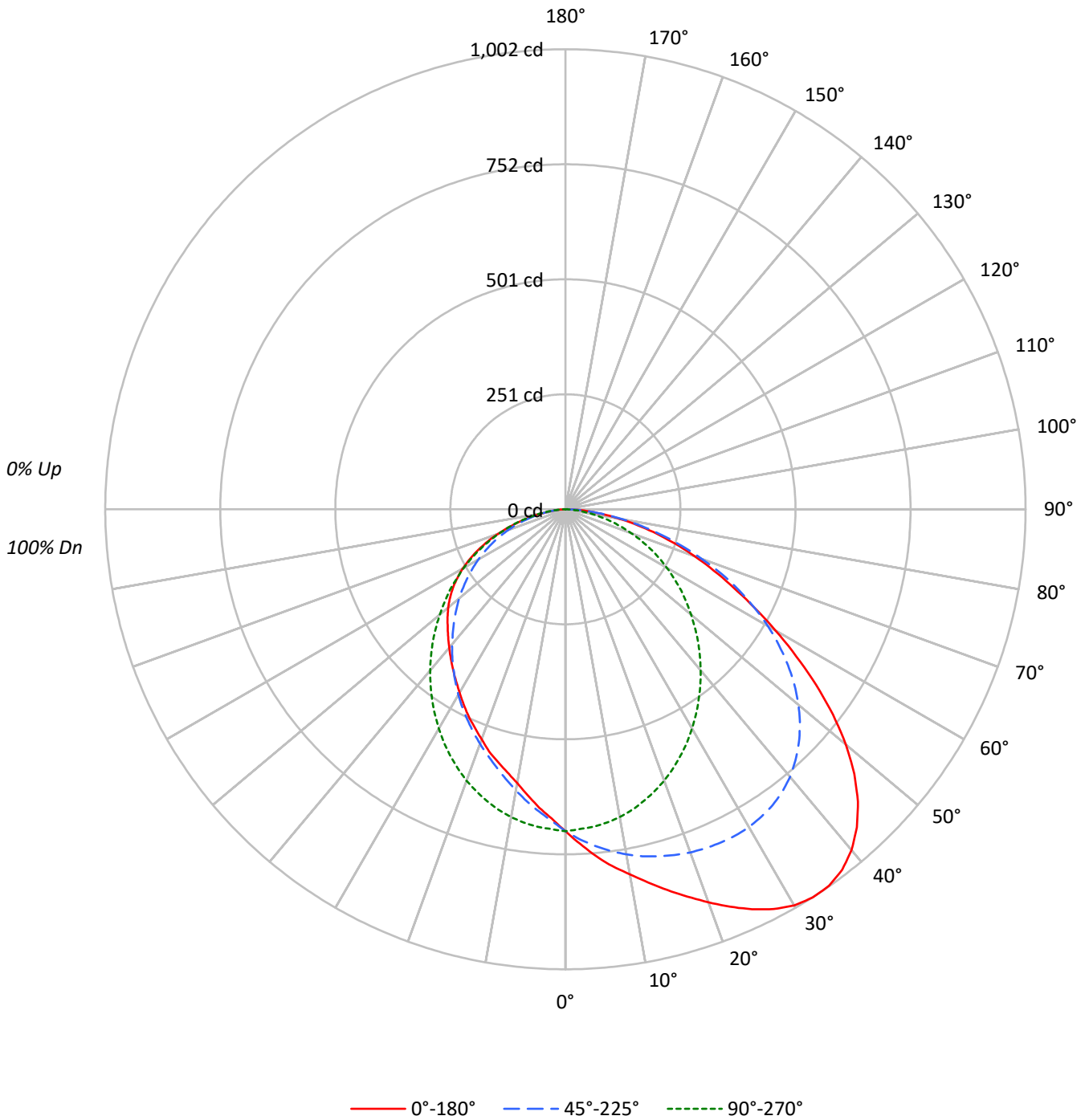
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2171.6 lumens
Efficiency: N/A
Efficacy: 77.0 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	100	100	100	100
1	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84	84	84	84
2	99	90	83	78	96	88	82	77	85	80	75	82	77	73	79	75	72	69	69	69	69
3	90	79	71	64	87	78	70	64	75	68	63	72	66	61	69	64	60	58	58	58	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	62	56	52	49	49	49	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43	43	43	43
6	69	56	47	40	68	55	46	40	53	46	40	51	45	39	50	44	39	37	37	37	37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	45	39	35	33	33	33	33
8	60	46	37	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29	29	29	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26	26	26	26
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25	36	30	25	23	23	23	23

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	6750	6750	6750
5°	7324	6709	6305
10°	7890	6656	5915
15°	8559	6560	5672
20°	9332	6445	5462
25°	10208	6294	5292
30°	11074	6128	5123
35°	11762	5947	5013
40°	12179	5758	4947
45°	12264	5559	4935
50°	11942	5347	4989
55°	11182	5156	5020
60°	10165	4921	4972
65°	9217	4654	4779
70°	8436	4315	4388
75°	7651	3880	3772
80°	6692	3243	2905
85°	5634	2353	2165



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.6	3.1
10°-20°	193.7	8.9
20°-30°	303.4	14.0
30°-40°	380.3	17.5
40°-50°	404.9	18.6
50°-60°	365.5	16.8
60°-70°	270.6	12.5
70°-80°	148.5	6.8
80°-90°	38.1	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°	563.6	26.0
0°-40°	944.0	43.5
0°-60°	1714.4	78.9
0°-90°	2171.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2171.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	701	701	701	701	701	
5°	758	736	694	661	652	74
15°	859	782	658	581	569	245
25°	961	801	592	505	498	445
35°	1001	787	506	425	426	624
45°	901	719	408	342	362	691
55°	666	592	307	260	299	594
65°	405	417	204	176	210	404
75°	206	218	104	90	101	219
85°	51	50	21	20	20	60
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°	701.1	701.1	701.1	701.1	701.1	701.1	701.1	701.1	701.1	701.1	701.1
2.5°	729.3	727.9	726.2	725.6	723.0	719.5	716.4	716.4	712.6	703.7	697.3
5°	757.9	755.6	751.2	747.8	742.3	735.7	729.0	725.0	716.1	702.5	694.2
7.5°	784.1	781.2	775.7	769.1	760.2	750.4	739.4	730.8	717.2	699.1	688.4
10°	807.1	804.5	797.9	789.8	777.2	763.3	747.2	734.2	715.8	693.3	680.9
12.5°	832.5	829.9	820.7	809.7	792.4	774.0	752.7	734.8	712.0	685.0	670.8
15°	858.7	855.3	844.9	830.2	807.1	782.4	756.1	733.1	706.0	674.9	658.2
17.5°	884.6	881.2	868.2	849.5	820.7	789.8	757.6	729.0	697.3	662.5	644.3
20°	910.9	907.4	891.0	867.4	832.5	795.3	757.3	723.0	687.0	648.4	629.1
22.5°	937.1	933.1	913.2	884.4	842.3	799.1	754.1	714.6	674.0	632.2	611.5
25°	961.0	957.0	935.1	901.1	852.7	800.8	748.6	703.1	659.6	614.4	592.5
27.5°	981.8	976.9	954.1	916.6	861.6	801.4	741.4	690.1	642.9	595.0	572.9
30°	996.2	991.8	967.6	927.6	866.8	799.4	732.2	674.9	623.6	574.3	551.2
32.5°	1002.5	998.8	974.8	932.8	867.6	794.2	721.0	657.9	603.4	552.4	529.1
35°	1000.8	997.0	974.3	931.9	865.1	786.7	706.9	638.6	581.8	529.6	506.0
37.5°	989.8	985.5	964.8	924.1	857.6	775.7	690.7	617.5	558.5	506.3	482.4
40°	969.1	964.8	946.9	909.4	844.9	761.0	672.3	595.0	534.5	481.8	458.2
42.5°	939.4	934.8	920.7	886.4	826.7	741.7	651.2	571.1	509.2	458.2	433.4
45°	900.8	896.2	886.7	857.6	803.1	719.0	627.3	545.2	482.7	431.4	408.3
47.5°	853.0	848.9	844.3	821.8	774.0	692.7	600.5	517.5	455.0	406.3	382.7
50°	797.3	793.3	794.7	779.5	740.3	662.5	571.1	488.4	426.5	378.4	357.0
52.5°	734.2	731.1	738.0	731.3	701.1	628.8	539.7	458.5	397.4	351.8	331.4
55°	666.2	662.8	676.0	678.0	657.3	591.6	504.0	427.3	368.0	325.9	307.2
57.5°	596.2	593.3	610.3	619.8	609.5	551.5	468.0	395.4	337.7	298.8	280.1
60°	527.9	525.6	543.5	559.0	557.9	509.2	430.5	360.8	307.5	271.4	255.6
62.5°	463.6	461.1	478.9	497.4	504.0	463.9	393.3	326.8	277.2	244.1	230.0
65°	404.6	402.0	417.3	436.3	448.4	416.7	353.3	291.6	246.7	216.4	204.3
67.5°	350.4	350.4	359.9	377.5	392.2	368.3	312.4	258.2	215.3	190.8	178.7
70°	299.7	299.4	306.3	318.7	335.7	316.4	270.9	223.0	185.6	164.0	153.3
72.5°	251.6	253.6	256.2	265.7	283.5	266.8	229.7	188.5	156.5	137.5	128.5
75°	205.7	205.5	209.2	217.6	230.5	218.1	188.5	154.7	127.7	112.1	104.3
77.5°	161.9	161.7	164.8	169.7	180.7	170.9	148.7	123.6	99.4	86.4	81.0
80°	120.7	120.7	123.6	126.2	134.3	126.5	110.9	92.5	72.9	62.8	58.5
82.5°	83.9	85.6	84.4	87.9	92.5	85.9	76.1	63.4	48.4	41.5	38.6
85°	51.0	52.4	51.0	53.9	55.9	50.1	45.2	37.7	28.0	23.3	21.3
87.5°	26.2	25.9	25.6	27.1	27.7	24.2	21.3	18.2	12.4	9.5	8.1
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°	701.1	701.1	701.1	701.1	701.1	701.1	701.1	701.1	701.1	701.1
2.5°	693.6	695.3	692.7	683.2	679.5	675.4	673.7	672.0	675.2	674.3
5°	687.8	685.8	679.2	667.1	660.7	654.1	651.0	648.9	653.3	652.4
7.5°	680.1	674.3	664.5	649.8	641.7	632.8	628.5	625.9	628.8	628.2
10°	670.3	660.7	648.6	631.1	621.6	611.8	606.9	603.1	605.4	605.1
12.5°	657.9	645.5	630.8	610.9	601.1	591.0	586.7	584.1	587.0	586.1
15°	644.0	629.1	612.1	591.9	581.2	572.0	568.8	566.8	569.1	569.1
17.5°	628.8	611.2	592.5	572.0	561.9	554.7	551.5	550.1	551.2	553.0
20°	611.8	592.2	572.0	552.1	543.5	536.0	533.1	531.7	534.2	533.1
22.5°	593.0	572.3	551.2	532.5	524.7	517.2	514.4	513.5	516.4	515.2
25°	573.1	550.7	529.9	512.9	505.1	498.8	496.2	495.3	496.8	498.2
27.5°	554.4	529.1	508.6	493.3	486.4	480.4	478.1	476.6	477.8	479.5
30°	531.7	507.2	487.0	472.9	466.2	460.5	458.7	457.6	459.3	460.8
32.5°	510.3	485.5	465.4	451.5	445.8	440.3	440.0	439.4	441.5	443.2
35°	487.3	463.1	443.5	430.5	425.0	420.4	421.3	422.2	424.5	426.5
37.5°	463.9	440.3	421.6	409.8	404.6	400.8	403.4	404.6	407.7	409.8
40°	440.3	416.7	399.4	388.7	383.5	381.8	385.6	388.2	391.9	393.6
42.5°	416.1	394.2	376.9	367.1	362.8	362.8	367.7	371.7	376.0	377.8
45°	391.9	370.6	354.1	345.2	342.0	344.4	350.1	355.3	360.8	362.5
47.5°	367.4	346.7	331.7	323.6	321.9	325.3	332.5	339.5	345.8	348.1
50°	342.9	324.2	309.2	301.7	301.7	306.0	315.2	323.9	330.8	333.1
52.5°	318.4	300.6	285.3	279.8	281.0	287.0	297.7	306.6	314.4	316.7
55°	293.6	276.1	262.8	258.2	260.2	267.7	278.6	289.0	296.5	299.1
57.5°	269.1	252.4	240.3	236.6	239.5	247.8	260.5	269.4	277.2	279.5
60°	244.4	227.4	217.8	215.0	218.7	227.4	240.3	248.7	255.9	258.2
62.5°	219.9	204.0	195.7	193.1	197.4	206.6	219.3	226.8	232.3	234.6
65°	195.1	181.0	173.2	171.5	176.1	185.0	197.1	203.4	207.5	209.8
67.5°	170.6	158.5	151.3	149.8	154.7	162.8	174.0	177.5	181.3	183.6
70°	146.4	135.4	129.4	128.5	132.8	140.6	150.1	151.9	153.9	155.9
72.5°	122.5	113.8	107.8	107.5	111.5	117.9	125.6	125.9	126.5	128.5
75°	99.4	91.6	87.0	87.9	90.2	95.4	101.4	99.7	100.0	101.4
77.5°	77.2	70.9	67.7	68.3	70.0	73.8	77.8	75.8	74.6	76.1
80°	55.6	50.1	49.0	49.3	50.4	53.0	55.3	53.6	51.3	52.4
82.5°	36.6	33.1	32.6	32.9	33.7	35.2	35.7	33.1	32.6	33.4
85°	20.2	18.7	18.7	19.6	19.9	20.2	20.2	18.7	19.0	19.6
87.5°	8.1	8.1	8.9	9.8	9.2	8.1	6.9	4.6	4.6	5.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)