

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-24L950-X-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-24L950-X-UNV-ASY
Description: ArcMed Patient Recessed 4 FT x6 IN Fixture Ambient Light w/
ASYMMETRIC Lens
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

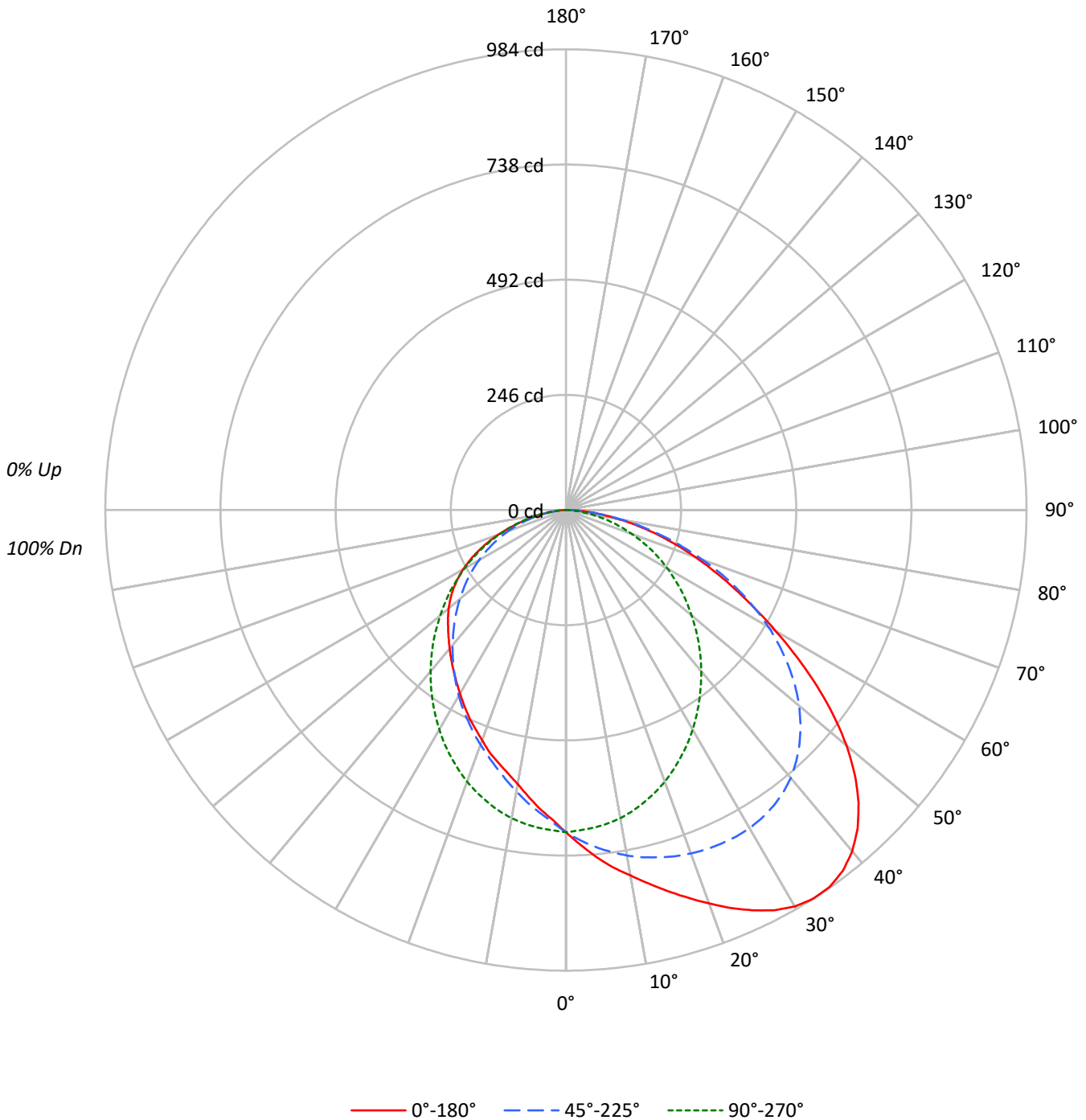
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2131.7 lumens
Efficiency: N/A
Efficacy: 76.4 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): 27.9
Input Voltage (V): 120
Input Current (A_{in}): 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

TEST NUMBER: P
CATALOG NUMBER: 4APN-24L950-X-UNV-ASY

Luminous Intensity Polar Plot





TEST NUMBER: P
 CATALOG NUMBER: 4APN-24L950-X-UNV-ASY

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°	6626	6626	6626
5°	7189	6585	6189
10°	7745	6534	5807
15°	8402	6440	5569
20°	9161	6326	5361
25°	10021	6178	5196
30°	10871	6015	5028
35°	11546	5838	4920
40°	11956	5653	4856
45°	12040	5457	4846
50°	11723	5250	4898
55°	10977	5061	4928
60°	9978	4831	4881
65°	9048	4570	4690
70°	8281	4236	4307
75°	7514	3809	3705
80°	6570	3182	2855
85°	5534	2309	2121



TEST NUMBER: P
 CATALOG NUMBER: 4APN-24L950-X-UNV-ASY

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.4	3.1
10°-20°	190.1	8.9
20°-30°	297.8	14.0
30°-40°	373.4	17.5
40°-50°	397.5	18.6
50°-60°	358.8	16.8
60°-70°	265.6	12.5
70°-80°	145.7	6.8
80°-90°	37.4	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°	553.3	26.0
0°-40°	926.6	43.5
0°-60°	1682.9	78.9
0°-90°	2131.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2131.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	688	688	688	688	688	
5°	744	722	681	649	640	72
15°	843	768	646	571	559	240
25°	943	786	582	496	489	437
35°	982	772	497	417	419	613
45°	884	706	401	336	356	678
55°	654	581	302	255	294	583
65°	397	409	201	173	206	396
75°	202	214	102	88	100	215
85°	50	49	21	20	19	59
90°	0	0	0	0	0	



TEST NUMBER: P
 CATALOG NUMBER: 4APN-24L950-X-UNV-ASY

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	688.2	688.2	688.2	688.2	688.2	688.2	688.2	688.2	688.2	688.2	688.2
2.5°	715.9	714.5	712.8	712.3	709.7	706.3	703.2	703.2	699.5	690.8	684.5
5°	743.9	741.7	737.4	734.0	728.7	722.2	715.7	711.7	702.9	689.6	681.4
7.5°	769.7	766.9	761.5	755.0	746.2	736.6	725.8	717.4	704.1	686.2	675.8
10°	792.3	789.8	783.3	775.3	762.9	749.3	733.5	720.8	702.7	680.6	668.4
12.5°	817.2	814.7	805.6	794.9	777.9	759.8	738.9	721.3	699.0	672.4	658.5
15°	843.0	839.6	829.4	815.0	792.3	768.0	742.3	719.6	693.0	662.5	646.1
17.5°	868.4	865.0	852.3	833.9	805.6	775.3	743.7	715.7	684.5	650.3	632.5
20°	894.2	890.8	874.6	851.4	817.2	780.7	743.4	709.7	674.4	636.5	617.5
22.5°	919.9	915.9	896.4	868.1	826.8	784.4	740.3	701.5	661.6	620.6	600.3
25°	943.4	939.4	917.9	884.5	837.0	786.1	734.9	690.2	647.5	603.1	581.6
27.5°	963.7	958.9	936.6	899.8	845.8	786.7	727.8	677.5	631.1	584.1	562.3
30°	977.9	973.6	949.9	910.6	850.9	784.7	718.8	662.5	612.1	563.8	541.1
32.5°	984.1	980.4	957.0	915.7	851.7	779.6	707.7	645.8	592.3	542.3	519.4
35°	982.4	978.7	956.4	914.8	849.2	772.2	693.9	626.8	571.1	519.9	496.7
37.5°	971.7	967.4	947.1	907.2	841.8	761.5	678.0	606.2	548.2	497.0	473.5
40°	951.3	947.1	929.5	892.7	829.4	747.1	659.9	584.1	524.7	473.0	449.8
42.5°	922.2	917.6	903.8	870.1	811.6	728.1	639.3	560.6	499.8	449.8	425.4
45°	884.3	879.7	870.4	841.8	788.4	705.8	615.8	535.2	473.8	423.5	400.8
47.5°	837.3	833.3	828.8	806.7	759.8	680.0	589.5	508.0	446.7	398.8	375.7
50°	782.7	778.7	780.2	765.2	726.7	650.3	560.6	479.5	418.6	371.4	350.5
52.5°	720.8	717.6	724.4	717.9	688.2	617.2	529.8	450.0	390.1	345.4	325.3
55°	654.0	650.6	663.6	665.6	645.2	580.7	494.7	419.5	361.2	319.9	301.5
57.5°	585.3	582.4	599.1	608.5	598.3	541.4	459.4	388.1	331.5	293.3	275.0
60°	518.2	516.0	533.5	548.8	547.6	499.8	422.6	354.2	301.8	266.5	250.9
62.5°	455.1	452.6	470.1	488.2	494.7	455.4	386.1	320.8	272.1	239.6	225.7
65°	397.2	394.6	409.6	428.3	440.1	409.0	346.8	286.3	242.1	212.4	200.6
67.5°	344.0	344.0	353.3	370.6	385.0	361.5	306.6	253.5	211.3	187.3	175.4
70°	294.2	293.9	300.7	312.9	329.5	310.6	265.9	218.9	182.2	161.0	150.5
72.5°	246.9	248.9	251.5	260.8	278.3	261.9	225.4	185.0	153.6	134.9	126.2
75°	202.0	201.7	205.4	213.6	226.3	214.1	185.0	151.9	125.3	110.0	102.4
77.5°	159.0	158.7	161.8	166.6	177.4	167.7	146.0	121.4	97.6	84.9	79.5
80°	118.5	118.5	121.4	123.9	131.8	124.2	108.9	90.8	71.6	61.7	57.4
82.5°	82.3	84.0	82.9	86.3	90.8	84.3	74.7	62.2	47.5	40.7	37.9
85°	50.1	51.5	50.1	52.9	54.9	49.2	44.4	37.1	27.4	22.9	20.9
87.5°	25.7	25.5	25.2	26.6	27.2	23.8	20.9	17.8	12.2	9.3	7.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P
 CATALOG NUMBER: 4APN-24L950-X-UNV-ASY

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	688.2	688.2	688.2	688.2	688.2	688.2	688.2	688.2	688.2	688.2
2.5°	680.9	682.6	680.0	670.7	667.0	663.0	661.4	659.7	662.8	661.9
5°	675.2	673.2	666.7	654.8	648.6	642.1	639.0	637.0	641.3	640.4
7.5°	667.6	661.9	652.3	637.9	630.0	621.2	616.9	614.4	617.2	616.7
10°	658.0	648.6	636.7	619.5	610.2	600.5	595.7	592.0	594.3	594.0
12.5°	645.8	633.6	619.2	599.7	590.1	580.2	575.9	573.4	576.2	575.4
15°	632.2	617.5	600.8	581.0	570.6	561.5	558.4	556.4	558.7	558.7
17.5°	617.2	600.0	581.6	561.5	551.6	544.5	541.4	540.0	541.1	542.8
20°	600.5	581.3	561.5	542.0	533.5	526.1	523.3	521.9	524.4	523.3
22.5°	582.1	561.8	541.1	522.7	515.1	507.8	504.9	504.1	506.9	505.8
25°	562.6	540.6	520.2	503.5	495.9	489.6	487.1	486.3	487.7	489.1
27.5°	544.2	519.4	499.3	484.3	477.5	471.5	469.3	467.9	469.0	470.7
30°	521.9	497.9	478.1	464.2	457.7	452.0	450.3	449.2	450.9	452.3
32.5°	501.0	476.6	456.8	443.3	437.6	432.2	431.9	431.4	433.4	435.1
35°	478.3	454.6	435.3	422.6	417.2	412.7	413.6	414.4	416.7	418.6
37.5°	455.4	432.2	413.8	402.2	397.2	393.5	396.0	397.2	400.3	402.2
40°	432.2	409.0	392.1	381.6	376.5	374.8	378.5	381.0	384.7	386.4
42.5°	408.5	387.0	370.0	360.4	356.1	356.1	360.9	364.9	369.1	370.8
45°	384.7	363.8	347.6	338.9	335.8	338.0	343.7	348.8	354.2	355.9
47.5°	360.7	340.3	325.6	317.7	316.0	319.4	326.4	333.2	339.4	341.7
50°	336.6	318.2	303.5	296.2	296.2	300.4	309.5	317.9	324.7	327.0
52.5°	312.6	295.0	280.0	274.7	275.8	281.7	292.2	301.0	308.6	310.9
55°	288.2	271.0	258.0	253.5	255.4	262.8	273.5	283.7	291.1	293.6
57.5°	264.2	247.8	235.9	232.2	235.1	243.3	255.7	264.5	272.1	274.4
60°	239.9	223.2	213.9	211.0	214.7	223.2	235.9	244.1	251.2	253.5
62.5°	215.8	200.3	192.1	189.5	193.8	202.8	215.3	222.6	228.0	230.3
65°	191.5	177.6	170.0	168.3	172.8	181.6	193.5	199.7	203.7	205.9
67.5°	167.5	155.6	148.5	147.1	151.9	159.8	170.9	174.2	177.9	180.2
70°	143.7	132.9	127.0	126.2	130.4	138.0	147.4	149.1	151.1	153.0
72.5°	120.2	111.7	105.8	105.5	109.5	115.7	123.3	123.6	124.2	126.2
75°	97.6	90.0	85.4	86.3	88.5	93.6	99.6	97.9	98.2	99.6
77.5°	75.8	69.6	66.5	67.0	68.7	72.4	76.4	74.4	73.3	74.7
80°	54.6	49.2	48.1	48.4	49.5	52.0	54.3	52.6	50.4	51.5
82.5°	35.9	32.5	32.0	32.2	33.1	34.5	35.1	32.5	32.0	32.8
85°	19.8	18.4	18.4	19.2	19.5	19.8	19.8	18.4	18.7	19.2
87.5°	7.9	7.9	8.8	9.6	9.1	7.9	6.8	4.5	4.5	5.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)