

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-34L935-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-34L935-UNV-ASY
Description: ArcMed Patient Recessed 4 FT x6 IN Fixture EXAM Light w/
ASYMMETRIC Lens
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

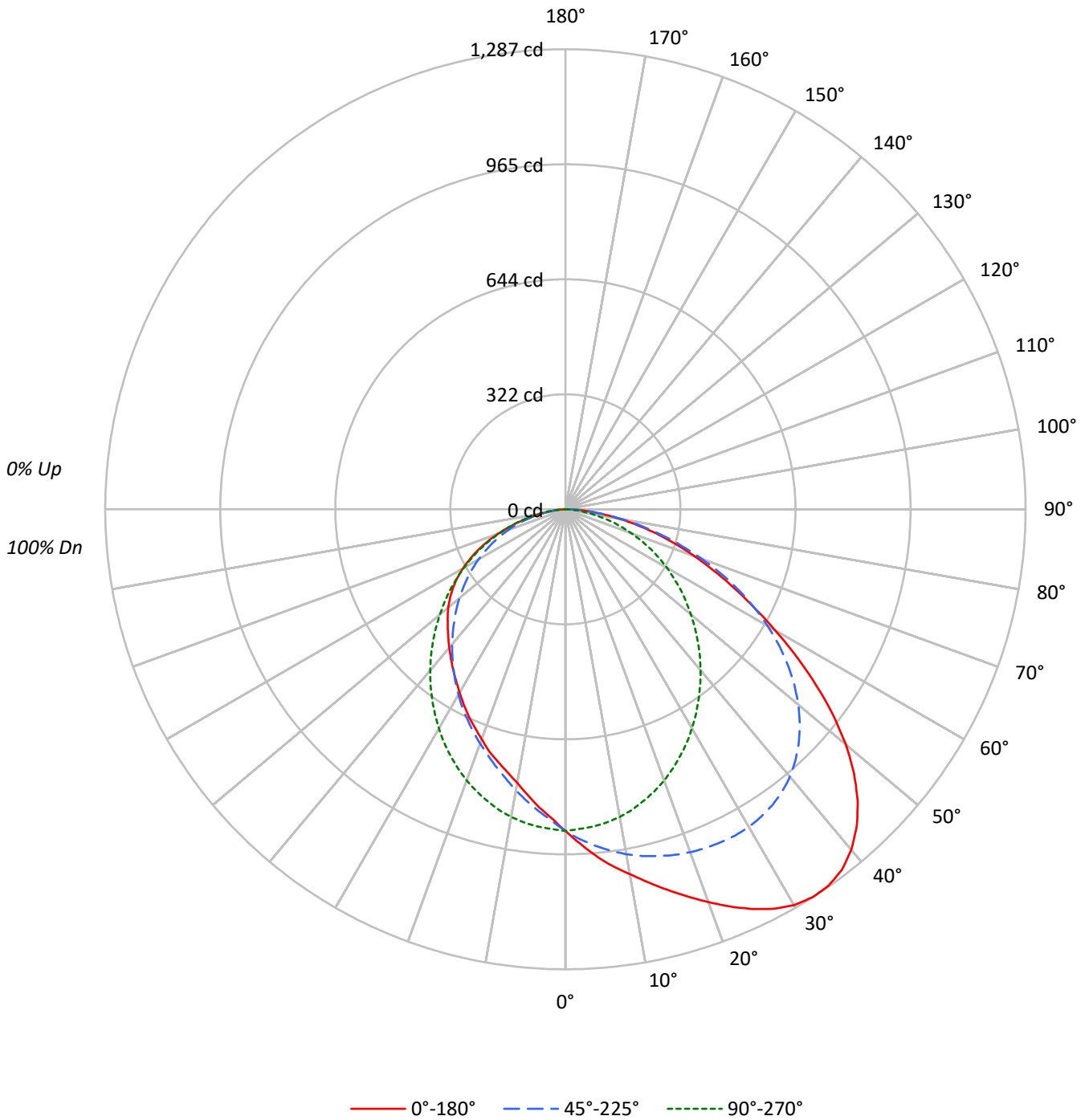
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2787.5 lumens
Efficiency: N/A
Efficacy: 75.7 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): 36.8
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84
2	99	90	83	78	96	88	82	77	85	80	75	82	77	73	79	75	72	69
3	90	79	71	64	87	78	70	64	75	68	63	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	62	56	52	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43
6	69	56	47	40	68	55	46	40	53	46	40	51	45	39	50	44	39	37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	45	39	35	33
8	60	46	37	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25	36	30	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	8664	8664	8664
5°	9401	8612	8093
10°	10129	8544	7594
15°	10987	8420	7281
20°	11979	8273	7011
25°	13104	8078	6793
30°	14215	7866	6576
35°	15098	7633	6433
40°	15633	7391	6350
45°	15743	7136	6335
50°	15329	6864	6404
55°	14354	6618	6444
60°	13047	6317	6381
65°	11830	5975	6135
70°	10829	5540	5633
75°	9824	4981	4843
80°	8593	4164	3731
85°	7235	3027	2784



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.5	3.1
10°-20°	248.6	8.9
20°-30°	389.4	14.0
30°-40°	488.2	17.5
40°-50°	519.8	18.6
50°-60°	469.2	16.8
60°-70°	347.3	12.5
70°-80°	190.6	6.8
80°-90°	48.9	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°	723.5	26.0
0°-40°	1211.7	43.5
0°-60°	2200.6	78.9
0°-90°	2787.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2787.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	900	900	900	900	900	
5°	973	944	891	848	837	95
15°	1102	1004	845	746	730	314
25°	1234	1028	760	648	640	571
35°	1285	1010	650	546	547	801
45°	1156	923	524	439	465	886
55°	855	759	394	334	384	763
65°	519	535	262	226	269	518
75°	264	280	134	116	130	281
85°	66	64	27	26	25	77
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°	899.9	899.9	899.9	899.9	899.9	899.9	899.9	899.9	899.9	899.9	899.9
2.5°	936.2	934.3	932.1	931.4	928.1	923.6	919.5	919.5	914.7	903.3	895.1
5°	972.8	969.9	964.3	959.9	952.8	944.3	935.8	930.6	919.2	901.8	891.1
7.5°	1006.5	1002.8	995.7	987.2	975.8	963.2	949.1	938.0	920.7	897.4	883.7
10°	1036.1	1032.7	1024.2	1013.9	997.6	979.8	959.1	942.5	918.8	890.0	874.0
12.5°	1068.6	1065.3	1053.4	1039.4	1017.2	993.5	966.2	943.2	914.0	879.2	861.1
15°	1102.3	1097.8	1084.5	1065.7	1036.1	1004.3	970.6	941.0	906.2	866.3	844.8
17.5°	1135.6	1131.1	1114.5	1090.4	1053.4	1013.9	972.4	935.8	895.1	850.4	827.1
20°	1169.2	1164.8	1143.7	1113.4	1068.6	1020.9	972.1	928.1	881.8	832.3	807.5
22.5°	1202.9	1197.7	1172.2	1135.2	1081.2	1025.7	968.0	917.3	865.2	811.5	784.9
25°	1233.6	1228.4	1200.3	1156.6	1094.5	1027.9	961.0	902.5	846.7	788.6	760.5
27.5°	1260.2	1253.9	1224.7	1176.6	1106.0	1028.7	951.7	885.9	825.2	763.8	735.3
30°	1278.7	1273.2	1242.1	1190.7	1112.6	1026.1	939.9	866.3	800.4	737.2	707.6
32.5°	1286.8	1282.0	1251.3	1197.3	1113.7	1019.4	925.5	844.5	774.5	709.1	679.1
35°	1284.6	1279.8	1250.6	1196.2	1110.4	1009.8	907.3	819.7	746.8	679.9	649.5
37.5°	1270.6	1265.0	1238.4	1186.2	1100.8	995.7	886.6	792.7	716.8	649.9	619.2
40°	1243.9	1238.4	1215.5	1167.4	1084.5	976.9	863.0	763.8	686.1	618.5	588.1
42.5°	1205.8	1199.9	1181.8	1137.8	1061.2	952.1	836.0	733.1	653.6	588.1	556.3
45°	1156.3	1150.4	1138.2	1100.8	1030.9	922.9	805.3	699.8	619.6	553.7	524.1
47.5°	1094.9	1089.7	1083.8	1054.9	993.5	889.2	770.9	664.3	584.1	521.5	491.2
50°	1023.5	1018.3	1020.2	1000.6	950.2	850.4	733.1	627.0	547.4	485.7	458.3
52.5°	942.5	938.4	947.3	938.8	899.9	807.1	692.8	588.5	510.1	451.6	425.4
55°	855.2	850.7	867.8	870.4	843.7	759.4	646.9	548.5	472.3	418.3	394.3
57.5°	765.3	761.6	783.4	795.6	782.3	708.0	600.7	507.5	433.5	383.6	359.5
60°	677.6	674.7	697.6	717.6	716.1	653.6	552.6	463.1	394.7	348.4	328.1
62.5°	595.2	591.8	614.8	638.4	646.9	595.5	504.9	419.5	355.8	313.3	295.2
65°	519.3	516.0	535.6	560.0	575.5	534.9	453.5	374.3	316.6	277.8	262.3
67.5°	449.8	449.8	462.0	484.6	503.4	472.7	401.0	331.4	276.3	244.9	229.3
70°	384.7	384.3	393.2	409.1	430.9	406.1	347.7	286.3	238.2	210.5	196.8
72.5°	322.9	325.5	328.8	341.0	364.0	342.5	294.8	241.9	200.9	176.4	165.0
75°	264.1	263.7	268.5	279.3	295.9	280.0	241.9	198.6	163.9	143.9	133.9
77.5°	207.9	207.5	211.6	217.9	231.9	219.3	190.9	158.7	127.6	111.0	103.9
80°	155.0	155.0	158.7	162.0	172.4	162.4	142.4	118.7	93.6	80.6	75.1
82.5°	107.6	109.9	108.4	112.8	118.7	110.2	97.7	81.4	62.1	53.3	49.6
85°	65.5	67.3	65.5	69.2	71.8	64.4	58.1	48.5	35.9	30.0	27.4
87.5°	33.7	33.3	32.9	34.8	35.5	31.1	27.4	23.3	15.9	12.2	10.4
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°	899.9	899.9	899.9	899.9	899.9	899.9	899.9	899.9	899.9	899.9
2.5°	890.3	892.5	889.2	877.0	872.2	867.0	864.8	862.6	866.7	865.5
5°	882.9	880.3	871.8	856.3	848.2	839.6	835.6	833.0	838.5	837.4
7.5°	872.9	865.5	853.0	834.1	823.7	812.3	806.7	803.4	807.1	806.4
10°	860.4	848.2	832.6	810.1	797.9	785.3	779.0	774.2	777.1	776.8
12.5°	844.5	828.6	809.7	784.2	771.6	758.6	753.1	749.8	753.5	752.4
15°	826.7	807.5	785.6	759.8	746.1	734.2	730.2	727.6	730.5	730.5
17.5°	807.1	784.5	760.5	734.2	721.3	712.0	708.0	706.1	707.6	709.8
20°	785.3	760.1	734.2	708.7	697.6	688.0	684.3	682.4	685.8	684.3
22.5°	761.2	734.6	707.6	683.6	673.6	664.0	660.3	659.1	662.8	661.4
25°	735.7	706.9	680.2	658.4	648.4	640.3	637.0	635.8	637.7	639.5
27.5°	711.7	679.1	652.9	633.3	624.4	616.6	613.6	611.8	613.3	615.5
30°	682.4	651.0	625.1	607.0	598.5	591.1	588.9	587.4	589.6	591.5
32.5°	655.1	623.3	597.4	579.6	572.2	565.2	564.8	564.1	566.7	568.9
35°	625.5	594.4	569.3	552.6	545.6	539.7	540.8	541.9	544.8	547.4
37.5°	595.5	565.2	541.1	526.0	519.3	514.5	517.8	519.3	523.4	526.0
40°	565.2	534.9	512.7	499.0	492.3	490.1	494.9	498.2	503.1	505.3
42.5°	534.1	506.0	483.8	471.2	465.7	465.7	472.0	477.2	482.7	484.9
45°	503.1	475.7	454.6	443.1	439.1	442.0	449.4	456.1	463.1	465.3
47.5°	471.6	445.0	425.7	415.4	413.2	417.6	426.9	435.7	443.9	446.8
50°	440.2	416.1	396.9	387.3	387.3	392.8	404.7	415.8	424.6	427.6
52.5°	408.7	385.8	366.2	359.2	360.6	368.4	382.1	393.6	403.5	406.5
55°	376.9	354.4	337.3	331.4	334.0	343.6	357.7	371.0	380.6	383.9
57.5°	345.5	324.0	308.5	303.7	307.4	318.1	334.4	345.8	355.8	358.8
60°	313.7	291.8	279.6	275.9	280.7	291.8	308.5	319.2	328.5	331.4
62.5°	282.2	261.9	251.2	247.8	253.4	265.2	281.5	291.1	298.1	301.1
65°	250.4	232.3	222.3	220.1	226.0	237.5	253.0	261.1	266.3	269.3
67.5°	219.0	203.4	194.2	192.3	198.6	209.0	223.4	227.9	232.7	235.6
70°	187.9	173.8	166.1	165.0	170.5	180.5	192.7	194.9	197.5	200.1
72.5°	157.2	146.1	138.3	138.0	143.1	151.3	161.3	161.6	162.4	165.0
75°	127.6	117.6	111.7	112.8	115.8	122.4	130.2	128.0	128.4	130.2
77.5°	99.1	91.0	86.9	87.7	89.9	94.7	99.9	97.3	95.8	97.7
80°	71.4	64.4	62.9	63.3	64.7	68.1	71.0	68.8	65.8	67.3
82.5°	47.0	42.5	41.8	42.2	43.3	45.1	45.9	42.5	41.8	42.9
85°	25.9	24.0	24.0	25.2	25.5	25.9	25.9	24.0	24.4	25.2
87.5°	10.4	10.4	11.5	12.6	11.8	10.4	8.9	5.9	5.9	7.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)