

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-39L950-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-39L950-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

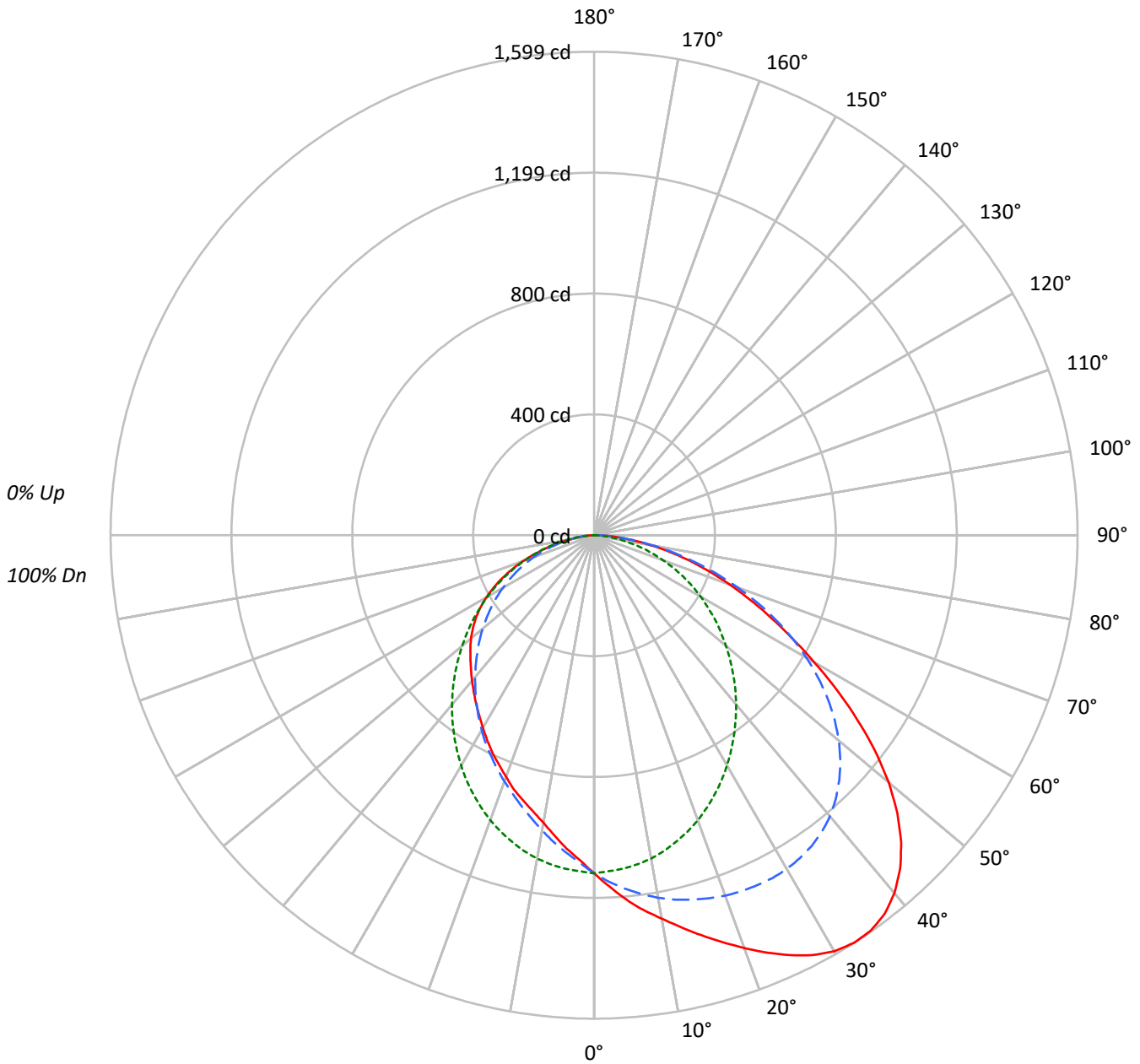
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3463.0 lumens
Efficiency: N/A
Efficacy: 75.6 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): 45.8
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



— 0°-180° - - 45°-225° - - - 90°-270°



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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	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°	10763	10763	10763
5°	11680	10698	10055
10°	12583	10616	9434
15°	13649	10461	9046
20°	14882	10278	8709
25°	16279	10036	8440
30°	17660	9773	8169
35°	18757	9483	7993
40°	19422	9183	7889
45°	19558	8866	7871
50°	19044	8528	7956
55°	17832	8223	8006
60°	16211	7848	7927
65°	14698	7422	7620
70°	13452	6882	6998
75°	12204	6190	6019
80°	10673	5173	4635
85°	8981	3756	3446



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.2	3.1
10°-20°	308.8	8.9
20°-30°	483.8	14.0
30°-40°	606.5	17.5
40°-50°	645.7	18.6
50°-60°	582.9	16.8
60°-70°	431.5	12.5
70°-80°	236.8	6.8
80°-90°	60.8	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°	898.8	26.0
0°-40°	1505.3	43.5
0°-60°	2734.0	78.9
0°-90°	3463.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3463.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1118	1118	1118	1118	1118	
5°	1209	1173	1107	1054	1040	118
15°	1369	1248	1050	927	908	391
25°	1532	1277	945	806	794	709
35°	1596	1254	807	678	680	995
45°	1436	1146	651	546	578	1101
55°	1062	943	490	415	477	947
65°	645	664	326	281	334	644
75°	328	348	166	144	162	349
85°	81	80	34	32	31	96
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°	1118.0	1118.0	1118.0	1118.0	1118.0	1118.0	1118.0	1118.0	1118.0	1118.0	1118.0
2.5°	1163.1	1160.8	1158.0	1157.1	1153.0	1147.4	1142.4	1142.4	1136.4	1122.2	1112.1
5°	1208.6	1204.9	1198.0	1192.5	1183.8	1173.2	1162.6	1156.2	1141.9	1120.3	1107.0
7.5°	1250.4	1245.8	1237.1	1226.5	1212.2	1196.6	1179.2	1165.4	1143.8	1114.8	1097.8
10°	1287.1	1283.0	1272.4	1259.6	1239.4	1217.3	1191.6	1170.9	1141.5	1105.6	1085.9
12.5°	1327.6	1323.4	1308.7	1291.3	1263.7	1234.3	1200.3	1171.8	1135.5	1092.3	1069.8
15°	1369.4	1363.9	1347.3	1323.9	1287.1	1247.6	1205.8	1169.0	1125.9	1076.2	1049.6
17.5°	1410.8	1405.2	1384.6	1354.7	1308.7	1259.6	1208.1	1162.6	1112.1	1056.5	1027.5
20°	1452.6	1447.1	1420.9	1383.2	1327.6	1268.3	1207.6	1153.0	1095.5	1033.9	1003.2
22.5°	1494.4	1488.0	1456.3	1410.3	1343.2	1274.3	1202.6	1139.6	1074.8	1008.2	975.1
25°	1532.5	1526.1	1491.2	1437.0	1359.8	1277.0	1193.9	1121.3	1051.9	979.7	944.8
27.5°	1565.6	1557.8	1521.5	1461.8	1374.0	1278.0	1182.4	1100.6	1025.2	948.9	913.5
30°	1588.6	1581.7	1543.1	1479.2	1382.3	1274.7	1167.7	1076.2	994.4	915.8	879.1
32.5°	1598.7	1592.7	1554.6	1487.5	1383.6	1266.5	1149.7	1049.1	962.3	880.9	843.7
35°	1596.0	1590.0	1553.7	1486.1	1379.5	1254.5	1127.2	1018.3	927.8	844.6	806.9
37.5°	1578.5	1571.6	1538.5	1473.7	1367.6	1237.1	1101.5	984.8	890.6	807.4	769.3
40°	1545.4	1538.5	1510.0	1450.3	1347.3	1213.6	1072.1	948.9	852.4	768.3	730.7
42.5°	1498.1	1490.7	1468.2	1413.5	1318.4	1182.8	1038.5	910.8	812.0	730.7	691.1
45°	1436.5	1429.1	1414.0	1367.6	1280.7	1146.5	1000.4	869.4	769.7	687.9	651.2
47.5°	1360.2	1353.8	1346.4	1310.6	1234.3	1104.7	957.7	825.3	725.6	647.9	610.3
50°	1271.5	1265.1	1267.4	1243.0	1180.5	1056.5	910.8	778.9	680.1	603.4	569.4
52.5°	1170.9	1165.8	1176.9	1166.3	1118.0	1002.7	860.7	731.1	633.7	561.1	528.5
55°	1062.4	1056.9	1078.1	1081.3	1048.2	943.4	803.7	681.5	586.8	519.7	489.9
57.5°	950.8	946.2	973.3	988.5	971.9	879.5	746.3	630.5	538.6	476.5	446.7
60°	841.9	838.2	866.7	891.5	889.7	812.0	686.5	575.3	490.3	432.9	407.6
62.5°	739.4	735.2	763.7	793.2	803.7	739.8	627.3	521.1	442.1	389.2	366.7
65°	645.2	641.0	665.4	695.7	715.0	664.5	563.4	465.0	393.4	345.1	325.8
67.5°	558.8	558.8	574.0	602.0	625.4	587.3	498.1	411.7	343.3	304.2	284.9
70°	477.9	477.5	488.5	508.2	535.4	504.6	432.0	355.7	295.9	261.5	244.5
72.5°	401.2	404.4	408.5	423.7	452.2	425.5	366.2	300.5	249.5	219.2	205.0
75°	328.1	327.6	333.6	346.9	367.6	347.9	300.5	246.8	203.6	178.8	166.4
77.5°	258.3	257.8	262.9	270.7	288.1	272.5	237.1	197.1	158.5	137.9	129.1
80°	192.5	192.5	197.1	201.3	214.1	201.7	176.9	147.5	116.3	100.2	93.3
82.5°	133.7	136.5	134.6	140.2	147.5	136.9	121.3	101.1	77.2	66.2	61.6
85°	81.3	83.6	81.3	85.9	89.1	80.0	72.1	60.2	44.6	37.2	34.0
87.5°	41.8	41.4	40.9	43.2	44.1	38.6	34.0	29.0	19.8	15.2	12.9
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°	1118.0	1118.0	1118.0	1118.0	1118.0	1118.0	1118.0	1118.0	1118.0	1118.0
2.5°	1106.1	1108.8	1104.7	1089.5	1083.6	1077.1	1074.4	1071.6	1076.7	1075.3
5°	1096.9	1093.7	1083.1	1063.8	1053.7	1043.1	1038.1	1034.9	1041.8	1040.4
7.5°	1084.5	1075.3	1059.7	1036.2	1023.4	1009.1	1002.2	998.1	1002.7	1001.8
10°	1068.9	1053.7	1034.4	1006.4	991.2	975.6	967.8	961.8	965.5	965.0
12.5°	1049.1	1029.3	1005.9	974.2	958.6	942.5	935.6	931.5	936.1	934.7
15°	1027.1	1003.2	976.0	943.9	926.9	912.2	907.1	903.9	907.6	907.6
17.5°	1002.7	974.7	944.8	912.2	896.1	884.6	879.5	877.2	879.1	881.8
20°	975.6	944.3	912.2	880.5	866.7	854.7	850.1	847.8	852.0	850.1
22.5°	945.7	912.6	879.1	849.2	836.8	824.9	820.3	818.9	823.5	821.6
25°	914.0	878.2	845.1	818.0	805.6	795.4	791.3	789.9	792.2	794.5
27.5°	884.1	843.7	811.1	786.7	775.7	766.0	762.4	760.1	761.9	764.7
30°	847.8	808.8	776.6	754.1	743.5	734.3	731.6	729.7	732.5	734.8
32.5°	813.8	774.3	742.1	720.1	710.9	702.2	701.7	700.8	704.0	706.8
35°	777.1	738.5	707.2	686.5	677.8	670.5	671.8	673.2	676.9	680.1
37.5°	739.8	702.2	672.3	653.5	645.2	639.2	643.3	645.2	650.2	653.5
40°	702.2	664.5	636.9	619.9	611.6	608.9	614.9	619.0	625.0	627.7
42.5°	663.6	628.6	601.1	585.4	578.5	578.5	586.4	592.8	599.7	602.4
45°	625.0	591.0	564.8	550.5	545.5	549.1	558.3	566.6	575.3	578.1
47.5°	585.9	552.8	528.9	516.1	513.3	518.8	530.3	541.3	551.4	555.1
50°	546.8	517.0	493.1	481.1	481.1	488.0	502.7	516.5	527.5	531.2
52.5°	507.8	479.3	454.9	446.2	448.0	457.7	474.7	488.9	501.3	505.0
55°	468.3	440.2	419.1	411.7	415.0	426.9	444.4	460.9	472.9	477.0
57.5°	429.2	402.5	383.2	377.3	381.9	395.2	415.4	429.7	442.1	445.7
60°	389.7	362.6	347.4	342.8	348.8	362.6	383.2	396.6	408.1	411.7
62.5°	350.6	325.3	312.0	307.9	314.8	329.5	349.7	361.7	370.4	374.1
65°	311.1	288.6	276.2	273.4	280.8	295.0	314.3	324.4	330.9	334.5
67.5°	272.0	252.7	241.3	239.0	246.8	259.6	277.6	283.1	289.0	292.7
70°	233.4	216.0	206.3	205.0	211.8	224.3	239.4	242.2	245.4	248.6
72.5°	195.3	181.5	171.9	171.4	177.8	187.9	200.4	200.8	201.7	205.0
75°	158.5	146.1	138.8	140.2	143.8	152.1	161.8	159.0	159.5	161.8
77.5°	123.2	113.0	108.0	108.9	111.7	117.6	124.1	120.9	119.0	121.3
80°	88.7	80.0	78.1	78.6	80.4	84.6	88.2	85.5	81.8	83.6
82.5°	58.4	52.8	51.9	52.4	53.8	56.1	57.0	52.8	51.9	53.3
85°	32.2	29.9	29.9	31.2	31.7	32.2	32.2	29.9	30.3	31.2
87.5°	12.9	12.9	14.2	15.6	14.7	12.9	11.0	7.4	7.4	8.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)