

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-24-26L835-UNV-NP**

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-24-26L835-UNV-NP
Description: ArcMed Patient Recessed 4 FT x6 IN Fixture Ambient and Exam Light
w/ Nature Pattern Lens
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

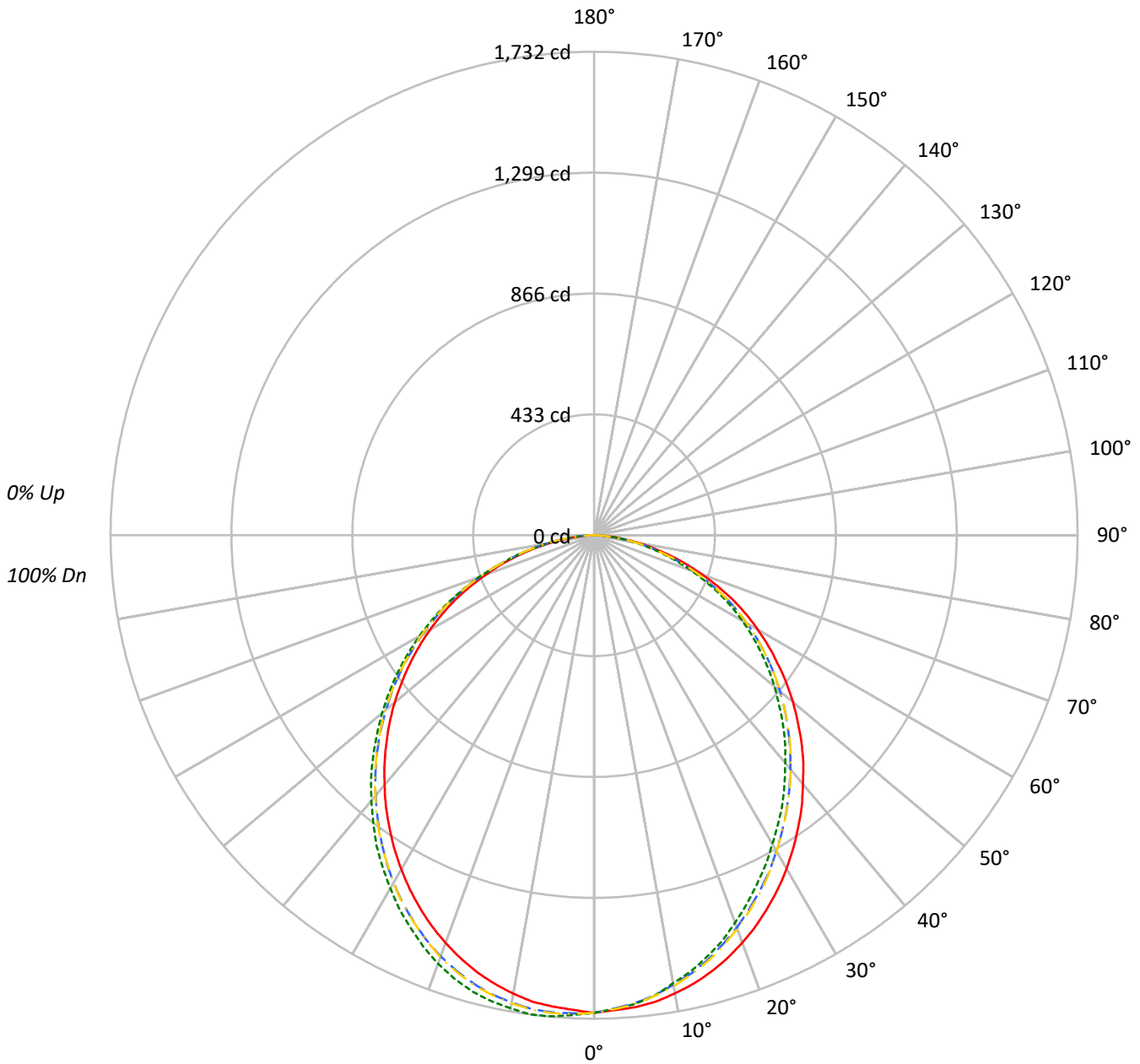
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4522.6 lumens
Efficiency: N/A
Efficacy: 80.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.19 / 1.32
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 56
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

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Luminous Intensity Polar Plot



— 0°-180° - - 45°-225° - - - 90°-270° - · - 135°-315°



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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	95	98	95	92	94	91	89	90	88	86	86	86	86	84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	72	72	72	72	70
3	90	80	72	66	88	78	71	65	75	69	64	73	67	63	70	66	62	62	62	62	59
4	83	71	62	56	81	70	62	55	67	60	54	65	59	54	63	57	53	53	53	53	51
5	76	64	55	48	74	62	54	48	60	53	47	58	52	47	56	51	46	46	46	46	44
6	71	57	48	42	69	56	48	42	55	47	41	53	46	41	51	45	41	41	41	41	39
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	36	36	36	34
8	61	48	39	33	59	47	39	33	45	38	33	44	38	33	43	37	32	32	32	32	31
9	57	44	35	30	56	43	35	30	42	35	30	41	34	30	40	34	29	29	29	29	28
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	27	27	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	15786	15786	15786	15786
5°	15715	15613	15696	16022
10°	15615	15266	15624	16123
15°	15469	14932	15478	16151
20°	15250	14501	15260	16039
25°	14983	14042	15013	15812
30°	14695	13605	14717	15552
35°	14359	13251	14393	15299
40°	14012	12826	14060	14943
45°	13712	12480	13725	14603
50°	13353	12113	13382	14219
55°	12928	11717	12976	13817
60°	12513	11309	12531	13312
65°	11996	10813	11996	12721
70°	11138	10000	11111	11815
75°	10099	9062	10028	10637
80°	8698	7794	8538	9128
85°	6690	5949	6489	7336



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	161.6	3.6
10°-20°	457.5	10.1
20°-30°	677.3	15.0
30°-40°	794.6	17.6
40°-50°	805.3	17.8
50°-60°	714.8	15.8
60°-70°	536.6	11.9
70°-80°	298.0	6.6
80°-90°	76.9	1.7
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°	1296.3	28.7
0°-40°	2091.0	46.2
0°-60°	3611.1	79.8
0°-90°	4522.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4522.6	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1711	1711	1711	1711	1711	
5°	1697	1686	1695	1730	1697	161
15°	1620	1563	1620	1691	1620	456
25°	1472	1379	1475	1553	1472	678
35°	1275	1176	1278	1358	1275	798
45°	1051	956	1052	1119	1051	810
55°	804	728	807	859	804	719
65°	550	495	550	583	550	542
75°	283	254	281	298	283	301
85°	63	56	61	69	63	76
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	100°
0°	1711.0	1711.0	1711.0	1711.0	1711.0	1711.0	1711.0	1711.0	1711.0	1711.0	1711.0
2.5°	1702.9	1706.9	1712.0	1706.9	1698.9	1694.8	1694.8	1693.9	1696.8	1697.9	1696.8
5°	1696.8	1698.9	1699.9	1693.9	1684.8	1679.8	1677.8	1676.7	1680.8	1685.8	1680.8
7.5°	1685.8	1684.8	1683.8	1675.7	1665.7	1658.7	1655.6	1654.7	1658.7	1663.7	1659.7
10°	1666.7	1665.7	1662.7	1652.7	1639.6	1630.6	1627.5	1624.6	1627.5	1629.5	1627.5
12.5°	1645.7	1641.6	1637.6	1626.5	1612.5	1602.4	1597.4	1593.4	1597.4	1600.4	1598.4
15°	1619.5	1613.5	1606.5	1594.4	1580.3	1569.2	1563.3	1559.2	1562.2	1563.3	1563.3
17.5°	1588.3	1581.3	1574.3	1559.2	1542.1	1530.1	1523.1	1518.1	1522.0	1524.1	1524.1
20°	1553.2	1545.2	1536.1	1520.0	1501.9	1488.9	1480.9	1474.8	1475.8	1476.9	1476.9
22.5°	1515.0	1505.0	1493.9	1476.9	1457.8	1443.7	1435.6	1428.6	1428.6	1429.7	1429.7
25°	1471.8	1460.8	1449.8	1432.6	1412.6	1397.5	1387.4	1380.4	1380.4	1379.4	1381.4
27.5°	1427.6	1415.5	1404.5	1386.4	1365.3	1350.3	1340.2	1333.2	1332.2	1331.2	1333.2
30°	1379.4	1365.3	1353.3	1334.2	1314.1	1299.0	1289.0	1280.9	1278.9	1277.0	1278.9
32.5°	1328.1	1315.1	1302.0	1281.9	1261.8	1246.8	1236.8	1228.7	1227.7	1226.7	1228.7
35°	1274.9	1260.8	1248.8	1229.7	1209.6	1194.5	1183.5	1176.5	1176.5	1176.5	1176.5
37.5°	1222.7	1208.6	1195.6	1176.5	1156.4	1141.3	1130.3	1123.2	1121.2	1120.2	1121.2
40°	1163.4	1151.3	1139.3	1121.2	1101.1	1086.0	1077.0	1069.0	1066.9	1064.9	1068.0
42.5°	1109.2	1097.1	1084.0	1066.9	1046.8	1031.8	1021.8	1014.8	1013.7	1012.7	1013.7
45°	1050.9	1036.8	1023.8	1007.7	989.6	975.6	965.5	958.4	957.4	956.5	957.4
47.5°	989.6	978.5	967.5	951.4	933.3	919.2	910.2	902.2	900.1	898.2	900.1
50°	930.3	918.2	907.2	892.1	875.1	862.0	854.0	846.9	844.9	843.9	844.9
52.5°	868.1	857.0	846.9	831.8	817.8	804.7	795.7	789.7	788.7	787.7	788.7
55°	803.7	793.7	784.6	772.5	758.5	746.5	738.4	731.4	730.4	728.4	730.4
57.5°	741.5	733.4	724.3	711.3	698.2	687.2	680.2	674.2	673.2	672.1	673.2
60°	678.1	670.1	662.1	651.0	637.9	626.9	620.9	615.9	613.9	612.9	613.9
62.5°	614.9	606.9	600.8	589.7	577.7	568.6	562.6	557.6	555.6	554.6	555.6
65°	549.5	542.5	535.5	525.4	516.4	509.4	503.3	498.3	496.3	495.3	495.3
67.5°	480.3	474.2	469.2	460.2	450.1	443.0	437.0	433.0	431.0	430.0	431.0
70°	412.9	407.9	402.9	395.8	387.8	381.8	377.7	373.8	371.8	370.7	370.7
72.5°	348.6	344.6	339.6	333.6	327.5	321.5	317.4	314.5	312.5	311.5	311.5
75°	283.3	279.3	277.2	272.3	266.3	262.2	258.2	256.2	254.2	254.2	254.2
77.5°	222.0	220.0	218.1	213.0	208.9	205.0	201.9	200.9	199.0	199.0	199.0
80°	163.7	162.7	161.7	158.8	154.7	150.7	148.7	147.7	146.7	146.7	146.7
82.5°	110.5	110.5	109.5	106.5	103.4	102.4	100.5	99.5	99.5	99.5	99.5
85°	63.2	63.2	63.2	62.3	60.3	60.3	58.3	57.3	56.2	56.2	56.2
87.5°	25.1	26.1	27.1	26.1	24.2	24.2	24.2	24.2	24.2	24.2	24.2
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):

	110°	120°	130°	140°	150°	160°	170°	180°	190°	200°	210°
0°	1711.0	1711.0	1711.0	1711.0	1711.0	1711.0	1711.0	1711.0	1711.0	1711.0	1711.0
2.5°	1693.9	1695.8	1696.8	1701.9	1707.9	1712.0	1706.9	1701.9	1709.9	1719.0	1719.0
5°	1676.7	1678.8	1681.8	1687.8	1695.8	1700.9	1698.9	1694.8	1706.9	1716.9	1718.0
7.5°	1655.6	1657.7	1661.7	1667.7	1677.8	1684.8	1684.8	1685.8	1696.8	1708.9	1712.0
10°	1624.6	1629.5	1635.6	1644.7	1654.7	1663.7	1666.7	1667.7	1681.8	1694.8	1698.9
12.5°	1595.4	1600.4	1606.5	1616.5	1628.5	1638.6	1641.6	1645.7	1660.7	1675.7	1681.8
15°	1562.2	1567.3	1574.3	1584.4	1597.4	1608.4	1614.5	1620.5	1635.6	1651.7	1658.7
17.5°	1523.1	1528.1	1535.1	1547.2	1562.2	1575.3	1582.3	1589.3	1606.5	1623.5	1630.6
20°	1476.9	1483.9	1493.9	1506.0	1523.1	1538.2	1546.2	1554.2	1572.3	1589.3	1597.4
22.5°	1429.7	1437.7	1448.7	1462.8	1480.9	1497.0	1507.0	1517.1	1535.1	1552.2	1561.2
25°	1382.4	1391.5	1402.5	1417.6	1434.6	1450.8	1462.8	1474.8	1492.9	1511.0	1520.0
27.5°	1334.2	1342.2	1353.3	1368.3	1387.4	1404.5	1416.6	1429.7	1447.7	1466.8	1475.8
30°	1280.9	1290.0	1300.0	1315.1	1336.2	1355.2	1367.3	1381.4	1399.5	1418.6	1427.6
32.5°	1229.7	1237.8	1247.8	1262.9	1284.0	1304.1	1317.1	1331.2	1349.3	1368.3	1376.4
35°	1176.5	1184.5	1195.6	1210.6	1231.7	1250.8	1263.9	1277.9	1295.0	1313.1	1322.1
37.5°	1124.2	1132.2	1143.3	1158.4	1178.5	1197.6	1210.6	1224.7	1241.7	1258.8	1266.9
40°	1070.0	1078.0	1087.0	1102.2	1122.2	1141.3	1153.3	1167.4	1184.5	1202.6	1210.6
42.5°	1014.8	1022.8	1033.8	1048.9	1068.0	1085.0	1098.1	1111.2	1127.2	1143.3	1151.3
45°	959.4	966.4	977.5	991.6	1009.7	1025.7	1038.8	1051.9	1066.9	1082.1	1090.1
47.5°	902.2	910.2	919.2	933.3	951.4	968.5	981.6	993.6	1007.7	1022.8	1029.8
50°	846.9	854.0	863.0	876.1	893.1	909.2	920.2	932.3	945.4	959.4	965.5
52.5°	789.7	796.7	805.7	818.8	832.8	848.0	858.0	869.1	882.1	895.2	901.2
55°	731.4	736.4	744.4	756.5	771.6	785.6	795.7	806.7	817.8	828.9	835.9
57.5°	674.2	680.2	688.2	699.2	712.3	725.3	734.4	743.4	754.5	765.5	770.6
60°	615.9	620.9	626.9	636.9	650.0	661.1	670.1	679.1	688.2	698.2	703.3
62.5°	556.6	561.6	567.7	577.7	588.7	598.7	606.9	614.9	622.9	631.9	636.9
65°	497.3	502.3	508.4	515.4	524.4	533.5	541.5	549.5	555.6	561.6	566.7
67.5°	433.0	438.0	444.0	450.1	458.1	467.2	473.2	480.3	486.3	493.3	496.3
70°	372.8	376.7	382.8	387.8	394.8	400.9	405.9	411.9	415.9	422.0	427.0
72.5°	313.5	317.4	322.5	327.5	331.6	336.5	342.6	347.6	352.7	358.7	360.7
75°	256.2	258.2	262.2	266.3	270.2	274.3	277.2	281.3	285.4	289.3	292.4
77.5°	199.9	201.9	206.0	208.9	212.0	215.0	217.0	219.0	223.0	226.1	229.0
80°	146.7	148.7	151.7	154.7	157.8	160.7	160.7	160.7	165.8	169.8	170.8
82.5°	99.5	100.5	102.4	104.5	106.5	108.5	108.5	107.5	110.5	113.5	115.5
85°	57.3	58.3	60.3	60.3	61.3	61.3	61.3	61.3	63.2	66.3	68.3
87.5°	23.1	23.1	24.2	24.2	25.1	25.1	24.2	23.1	25.1	28.1	29.1
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):

	220°	230°	240°	250°	260°	270°	280°	290°	300°	310°	320°
0°	1711.0	1711.0	1711.0	1711.0	1711.0	1711.0	1711.0	1711.0	1711.0	1711.0	1711.0
2.5°	1714.9	1713.9	1716.9	1718.0	1720.0	1720.0	1721.0	1721.0	1719.0	1715.9	1716.9
5°	1715.9	1715.9	1719.0	1722.0	1726.0	1730.0	1727.0	1724.0	1722.0	1719.0	1718.0
7.5°	1711.0	1713.0	1715.9	1721.0	1726.0	1732.1	1728.0	1724.0	1719.0	1714.9	1713.0
10°	1698.9	1700.9	1705.9	1711.0	1715.9	1721.0	1716.9	1713.0	1708.9	1703.9	1701.9
12.5°	1683.8	1686.8	1692.9	1697.9	1702.9	1708.9	1703.9	1698.9	1693.9	1688.8	1685.8
15°	1661.7	1665.7	1672.8	1678.8	1685.8	1690.9	1686.8	1682.8	1676.7	1669.7	1664.8
17.5°	1633.6	1639.6	1646.6	1653.7	1659.7	1664.8	1661.7	1657.7	1650.7	1642.6	1636.5
20°	1602.4	1608.4	1614.5	1621.5	1628.5	1633.6	1629.5	1624.6	1617.5	1611.5	1605.5
22.5°	1566.3	1572.3	1579.3	1585.4	1591.4	1596.4	1591.4	1585.4	1579.3	1573.3	1567.3
25°	1525.1	1531.1	1539.1	1545.2	1549.1	1553.2	1549.1	1544.2	1538.2	1532.1	1526.1
27.5°	1481.8	1487.9	1495.9	1501.9	1506.0	1510.1	1506.0	1500.9	1494.9	1488.9	1482.9
30°	1433.6	1439.7	1447.7	1453.7	1456.8	1459.8	1455.7	1451.8	1446.7	1440.7	1434.6
32.5°	1382.4	1388.4	1394.4	1400.5	1405.5	1409.6	1405.5	1401.5	1395.4	1387.4	1381.4
35°	1328.1	1334.2	1341.2	1347.2	1353.3	1358.3	1352.3	1345.2	1340.2	1335.2	1330.2
37.5°	1270.9	1277.9	1286.0	1293.0	1295.0	1299.0	1295.0	1291.0	1286.0	1280.9	1274.9
40°	1214.6	1220.6	1227.7	1234.7	1237.8	1240.7	1236.8	1232.7	1226.7	1221.6	1215.7
42.5°	1156.4	1162.4	1168.5	1174.4	1178.5	1182.5	1178.5	1172.4	1168.5	1164.4	1159.4
45°	1096.1	1102.2	1107.1	1113.1	1116.2	1119.2	1115.2	1110.2	1106.1	1103.1	1098.1
47.5°	1034.8	1039.8	1044.8	1049.9	1051.9	1054.9	1050.9	1047.9	1044.8	1041.9	1037.8
50°	970.5	975.6	981.6	986.5	987.6	990.6	986.5	983.6	980.5	977.5	974.6
52.5°	907.2	911.2	916.3	921.3	923.3	925.3	921.3	917.3	914.3	912.2	909.2
55°	840.9	844.9	849.9	854.0	857.0	859.0	855.0	850.9	848.0	846.9	843.9
57.5°	774.6	778.6	783.6	787.7	789.7	791.6	787.7	783.6	781.7	779.6	777.6
60°	707.3	711.3	715.3	718.3	720.4	721.4	717.3	714.3	713.4	712.3	710.3
62.5°	641.0	643.0	647.0	649.0	651.0	652.0	649.0	647.0	646.0	645.0	644.0
65°	571.6	576.7	579.7	581.7	581.7	582.7	579.7	578.6	577.7	576.7	574.7
67.5°	500.3	504.3	506.4	508.4	508.4	508.4	508.4	508.4	507.4	505.3	503.3
70°	432.0	435.0	437.0	438.0	438.0	438.0	436.0	435.0	436.0	436.0	435.0
72.5°	362.7	364.7	365.7	366.7	365.7	365.7	365.7	367.7	367.7	366.7	364.7
75°	295.4	297.3	298.4	299.4	298.4	298.4	298.4	300.4	299.4	299.4	298.4
77.5°	232.1	233.1	233.1	234.1	233.1	233.1	234.1	236.1	235.1	235.1	235.1
80°	171.8	171.8	171.8	172.8	171.8	171.8	172.8	174.8	173.8	173.8	173.8
82.5°	116.5	117.6	117.6	117.6	118.6	119.6	119.6	119.6	119.6	119.6	118.6
85°	69.3	70.3	69.3	69.3	69.3	69.3	70.3	71.4	71.4	71.4	71.4
87.5°	30.1	31.2	30.1	29.1	28.1	28.1	30.1	32.2	32.2	31.2	31.2
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-24-26L835-UNV-NP

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	1711.0	1711.0	1711.0	1711.0
2.5°	1721.0	1721.0	1712.0	1702.9
5°	1720.0	1718.0	1707.9	1696.8
7.5°	1713.9	1711.0	1697.9	1685.8
10°	1699.9	1695.8	1681.8	1666.7
12.5°	1682.8	1676.7	1660.7	1645.7
15°	1660.7	1653.7	1636.5	1619.5
17.5°	1631.6	1623.5	1606.5	1588.3
20°	1600.4	1591.4	1572.3	1553.2
22.5°	1562.2	1554.2	1534.1	1515.0
25°	1521.0	1512.0	1491.9	1471.8
27.5°	1476.9	1466.8	1446.7	1427.6
30°	1428.6	1418.6	1398.5	1379.4
32.5°	1377.4	1369.4	1349.3	1328.1
35°	1325.2	1315.1	1295.0	1274.9
37.5°	1269.9	1260.8	1241.7	1222.7
40°	1211.6	1202.6	1182.5	1163.4
42.5°	1154.3	1146.3	1127.2	1109.2
45°	1093.0	1085.0	1066.9	1050.9
47.5°	1031.8	1023.8	1006.6	989.6
50°	969.5	961.5	945.4	930.3
52.5°	904.2	898.2	883.1	868.1
55°	838.9	831.8	816.8	803.7
57.5°	773.6	768.6	754.5	741.5
60°	706.3	700.3	689.2	678.1
62.5°	641.0	636.0	624.9	614.9
65°	571.6	567.7	558.5	549.5
67.5°	500.3	497.3	488.3	480.3
70°	432.0	427.0	420.0	412.9
72.5°	362.7	360.7	354.6	348.6
75°	296.3	294.4	288.3	283.3
77.5°	234.1	232.1	227.1	222.0
80°	172.8	171.8	167.8	163.7
82.5°	118.6	117.6	114.5	110.5
85°	71.4	69.3	66.3	63.2
87.5°	31.2	30.1	27.1	25.1
90°	0.0	0.0	0.0	0.0

(END OF REPORT)