

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-24-26L840-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-24-26L840-UNV-NP
Description: ArcMed Patient Recessed 4 FT x6 IN Fixture Ambient and Exam Light
w/ Nature Pattern Lens
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

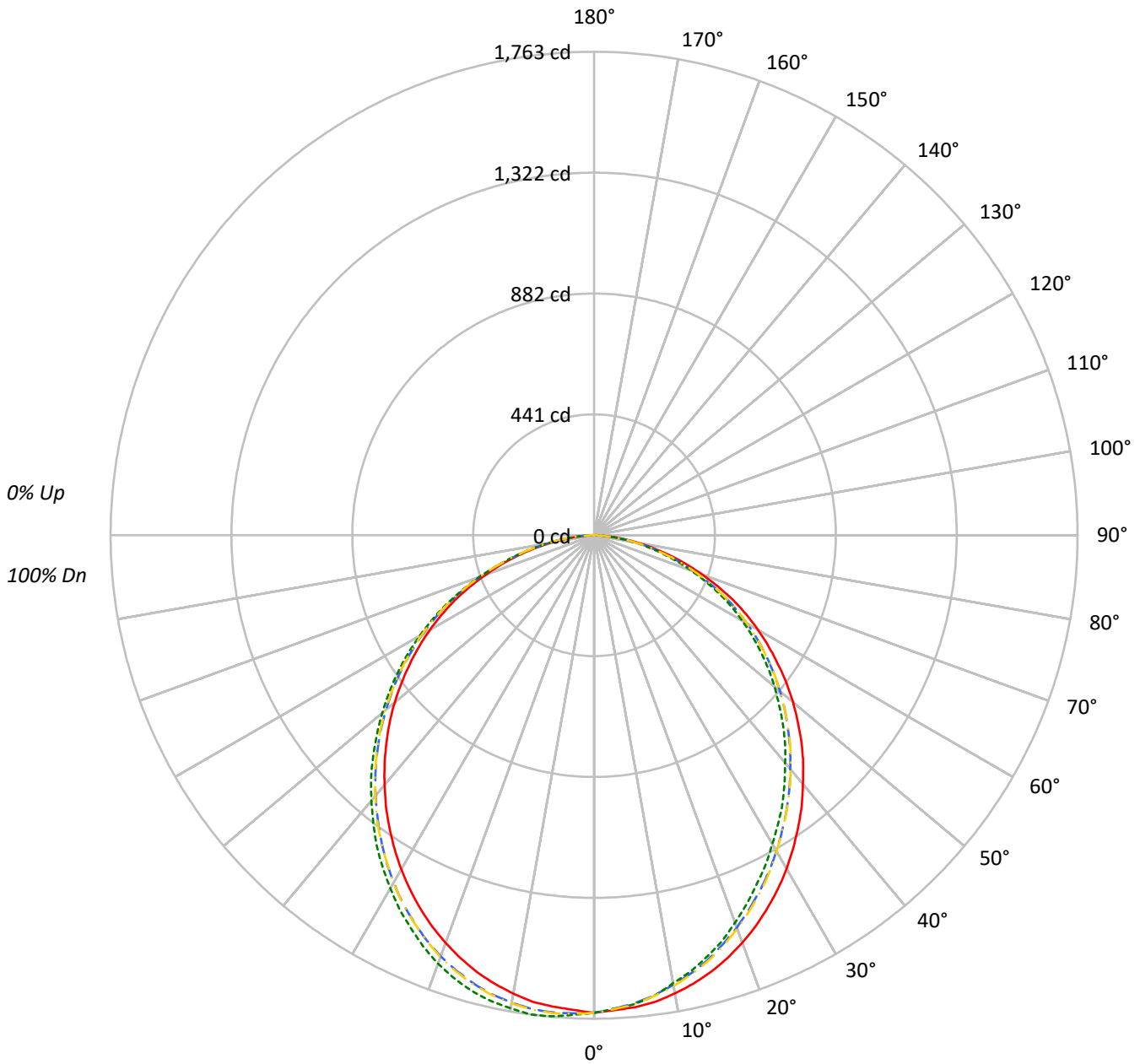
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4603.2 lumens
Efficiency: N/A
Efficacy: 82.2 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 (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

TEST NUMBER: P
CATALOG NUMBER: 4APN-24-26L840-UNV-NP

Luminous Intensity Polar Plot



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



TEST NUMBER: P
 CATALOG NUMBER: 4APN-24-26L840-UNV-NP

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°	16067	16067	16067	16067
5°	15995	15891	15977	16308
10°	15893	15539	15902	16410
15°	15745	15198	15755	16438
20°	15522	14758	15532	16324
25°	15251	14292	15281	16094
30°	14956	13846	14979	15829
35°	14615	13486	14650	15571
40°	14261	13054	14311	15210
45°	13956	12701	13969	14863
50°	13591	12328	13620	14471
55°	13159	11926	13208	14062
60°	12736	11509	12754	13548
65°	12212	11005	12212	12948
70°	11335	10178	11308	12028
75°	10281	9222	10206	10826
80°	8857	7933	8698	9287
85°	6817	6066	6606	7463



TEST NUMBER: P
 CATALOG NUMBER: 4APN-24-26L840-UNV-NP

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	164.5	3.6
10°-20°	465.6	10.1
20°-30°	689.4	15.0
30°-40°	808.8	17.6
40°-50°	819.7	17.8
50°-60°	727.5	15.8
60°-70°	546.2	11.9
70°-80°	303.3	6.6
80°-90°	78.3	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°	1319.4	28.7
0°-40°	2128.2	46.2
0°-60°	3675.4	79.8
0°-90°	4603.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4603.2	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1741	1741	1741	1741	1741	
5°	1727	1716	1725	1761	1727	164
15°	1648	1591	1649	1721	1648	465
25°	1498	1404	1501	1581	1498	690
35°	1298	1197	1301	1382	1298	812
45°	1070	973	1071	1139	1070	824
55°	818	741	821	874	818	732
65°	559	504	559	593	559	551
75°	288	259	286	304	288	307
85°	64	57	62	70	64	78
90°	0	0	0	0	0	



TEST NUMBER: P

CATALOG NUMBER: 4APN-24-26L840-UNV-NP

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	100°
0°	1741.4	1741.4	1741.4	1741.4	1741.4	1741.4	1741.4	1741.4	1741.4	1741.4	1741.4
2.5°	1733.3	1737.3	1742.4	1737.3	1729.1	1725.1	1725.1	1724.0	1727.1	1728.1	1727.1
5°	1727.1	1729.1	1730.1	1724.0	1714.8	1709.8	1707.6	1706.6	1710.8	1715.8	1710.8
7.5°	1715.8	1714.8	1713.8	1705.6	1695.4	1688.3	1685.1	1684.1	1688.3	1693.3	1689.3
10°	1696.4	1695.4	1692.3	1682.1	1668.8	1659.6	1656.6	1653.5	1656.6	1658.6	1656.6
12.5°	1674.9	1670.8	1666.8	1655.5	1641.2	1631.0	1625.9	1621.8	1625.9	1628.9	1626.9
15°	1648.4	1642.3	1635.1	1622.8	1608.5	1597.3	1591.1	1587.0	1590.1	1591.1	1591.1
17.5°	1616.6	1609.5	1602.3	1587.0	1569.6	1557.4	1550.2	1545.1	1549.1	1551.2	1551.2
20°	1580.9	1572.7	1563.5	1547.1	1528.7	1515.4	1507.3	1501.1	1502.1	1503.1	1503.1
22.5°	1542.0	1531.8	1520.6	1503.1	1483.7	1469.4	1461.3	1454.1	1454.1	1455.1	1455.1
25°	1498.1	1486.8	1475.6	1458.1	1437.7	1422.4	1412.1	1405.0	1405.0	1403.9	1406.0
27.5°	1453.1	1440.8	1429.6	1411.1	1389.6	1374.3	1364.1	1356.9	1355.9	1354.9	1356.9
30°	1403.9	1389.6	1377.4	1357.9	1337.5	1322.1	1311.9	1303.8	1301.7	1299.7	1301.7
32.5°	1351.8	1338.6	1325.2	1304.8	1284.3	1268.9	1258.8	1250.6	1249.6	1248.6	1250.6
35°	1297.6	1283.3	1271.1	1251.6	1231.1	1215.8	1204.6	1197.4	1197.4	1197.4	1197.4
37.5°	1244.4	1230.1	1216.9	1197.4	1176.9	1161.6	1150.4	1143.2	1141.2	1140.1	1141.2
40°	1184.1	1171.9	1159.6	1141.2	1120.7	1105.4	1096.2	1088.0	1085.9	1083.9	1086.9
42.5°	1128.9	1116.6	1103.4	1085.9	1065.5	1050.2	1039.9	1032.8	1031.7	1030.7	1031.7
45°	1069.6	1055.3	1042.0	1025.6	1007.2	992.9	982.7	975.5	974.5	973.4	974.5
47.5°	1007.2	995.9	984.7	968.4	949.9	935.6	926.4	918.2	916.2	914.2	916.2
50°	946.9	934.6	923.4	908.0	890.7	877.4	869.2	862.0	859.9	858.9	859.9
52.5°	883.5	872.2	862.0	846.7	832.4	819.1	809.9	803.7	802.7	801.7	802.7
55°	818.1	807.9	798.6	786.4	772.0	759.7	751.6	744.4	743.4	741.4	743.4
57.5°	754.7	746.5	737.2	724.0	710.7	699.4	692.2	686.2	685.1	684.1	685.1
60°	690.2	682.0	673.9	662.6	649.4	638.1	631.9	626.9	624.7	623.7	624.7
62.5°	625.8	617.6	611.5	600.2	588.0	578.7	572.7	567.5	565.5	564.4	565.5
65°	559.4	552.2	545.0	534.8	525.6	518.4	512.3	507.2	505.2	504.1	504.1
67.5°	488.8	482.7	477.5	468.4	458.1	451.0	444.8	440.7	438.7	437.7	438.7
70°	420.2	415.2	410.0	402.9	394.7	388.5	384.5	380.4	378.4	377.3	377.3
72.5°	354.8	350.7	345.7	339.5	333.4	327.2	323.2	320.0	318.0	317.0	317.0
75°	288.4	284.3	282.2	277.2	271.0	266.9	262.8	260.7	258.7	258.7	258.7
77.5°	226.0	224.0	221.9	216.8	212.7	208.6	205.5	204.5	202.5	202.5	202.5
80°	166.7	165.7	164.7	161.5	157.5	153.4	151.3	150.3	149.3	149.3	149.3
82.5°	112.5	112.5	111.5	108.4	105.3	104.3	102.2	101.2	101.2	101.2	101.2
85°	64.4	64.4	64.4	63.4	61.3	61.3	59.3	58.3	57.3	57.3	57.3
87.5°	25.5	26.6	27.6	26.6	24.5	24.5	24.5	24.5	24.5	24.5	24.5
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-24-26L840-UNV-NP

CANDELA DISTRIBUTION (continued):

	110°	120°	130°	140°	150°	160°	170°	180°	190°	200°	210°
0°	1741.4	1741.4	1741.4	1741.4	1741.4	1741.4	1741.4	1741.4	1741.4	1741.4	1741.4
2.5°	1724.0	1726.1	1727.1	1732.3	1738.3	1742.4	1737.3	1732.3	1740.4	1749.6	1749.6
5°	1706.6	1708.7	1711.8	1717.9	1726.1	1731.1	1729.1	1725.1	1737.3	1747.6	1748.6
7.5°	1685.1	1687.3	1691.3	1697.4	1707.6	1714.8	1714.8	1715.8	1727.1	1739.4	1742.4
10°	1653.5	1658.6	1664.8	1673.9	1684.1	1693.3	1696.4	1697.4	1711.8	1725.1	1729.1
12.5°	1623.8	1628.9	1635.1	1645.3	1657.6	1667.8	1670.8	1674.9	1690.3	1705.6	1711.8
15°	1590.1	1595.2	1602.3	1612.6	1625.9	1637.1	1643.3	1649.4	1664.8	1681.1	1688.3
17.5°	1550.2	1555.3	1562.4	1574.8	1590.1	1603.4	1610.5	1617.6	1635.1	1652.4	1659.6
20°	1503.1	1510.3	1520.6	1532.8	1550.2	1565.6	1573.7	1581.9	1600.3	1617.6	1625.9
22.5°	1455.1	1463.3	1474.6	1488.8	1507.3	1523.6	1533.8	1544.1	1562.4	1579.8	1589.1
25°	1407.1	1416.3	1427.5	1442.8	1460.2	1476.6	1488.8	1501.1	1519.5	1537.9	1547.1
27.5°	1357.9	1366.1	1377.4	1392.7	1412.1	1429.6	1441.8	1455.1	1473.5	1492.9	1502.1
30°	1303.8	1312.9	1323.2	1338.6	1360.0	1379.4	1391.7	1406.0	1424.4	1443.9	1453.1
32.5°	1251.6	1259.8	1270.1	1285.4	1306.8	1327.3	1340.6	1354.9	1373.3	1392.7	1400.9
35°	1197.4	1205.6	1216.9	1232.2	1253.6	1273.1	1286.4	1300.7	1318.1	1336.4	1345.7
37.5°	1144.2	1152.4	1163.7	1179.0	1199.4	1218.9	1232.2	1246.5	1263.9	1281.3	1289.4
40°	1089.1	1097.2	1106.4	1121.7	1142.2	1161.6	1173.9	1188.2	1205.6	1224.0	1232.2
42.5°	1032.8	1040.9	1052.2	1067.6	1086.9	1104.4	1117.6	1130.9	1147.3	1163.7	1171.9
45°	976.6	983.7	994.9	1009.2	1027.7	1044.1	1057.3	1070.6	1085.9	1101.3	1109.4
47.5°	918.2	926.4	935.6	949.9	968.4	985.7	999.1	1011.3	1025.6	1040.9	1048.1
50°	862.0	869.2	878.4	891.7	909.1	925.4	936.7	948.9	962.2	976.6	982.7
52.5°	803.7	810.9	820.1	833.4	847.7	863.0	873.2	884.5	897.8	911.1	917.2
55°	744.4	749.5	757.7	770.0	785.4	799.7	809.9	821.1	832.4	843.6	850.7
57.5°	686.2	692.2	700.4	711.7	725.0	738.2	747.5	756.7	767.9	779.2	784.3
60°	626.9	631.9	638.1	648.3	661.6	672.9	682.0	691.2	700.4	710.7	715.7
62.5°	566.5	571.6	577.7	588.0	599.2	609.4	617.6	625.8	634.0	643.2	648.3
65°	506.2	511.2	517.4	524.5	533.7	543.0	551.2	559.4	565.5	571.6	576.7
67.5°	440.7	445.9	452.0	458.1	466.3	475.5	481.7	488.8	494.9	502.0	505.2
70°	379.4	383.5	389.6	394.7	401.9	408.0	413.1	419.2	423.4	429.5	434.6
72.5°	319.0	323.2	328.2	333.4	337.5	342.5	348.7	353.8	358.9	365.0	367.1
75°	260.7	262.8	266.9	271.0	275.0	279.2	282.2	286.3	290.4	294.5	297.5
77.5°	203.5	205.5	209.7	212.7	215.7	218.8	220.9	222.9	227.0	230.0	233.2
80°	149.3	151.3	154.4	157.5	160.5	163.7	163.7	163.7	168.7	172.8	173.8
82.5°	101.2	102.2	104.3	106.3	108.4	110.5	110.5	109.4	112.5	115.5	117.6
85°	58.3	59.3	61.3	61.3	62.4	62.4	62.4	62.4	64.4	67.5	69.5
87.5°	23.5	23.5	24.5	24.5	25.5	25.5	24.5	23.5	25.5	28.7	29.7
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-24-26L840-UNV-NP

CANDELA DISTRIBUTION (continued):

	220°	230°	240°	250°	260°	270°	280°	290°	300°	310°	320°
0°	1741.4	1741.4	1741.4	1741.4	1741.4	1741.4	1741.4	1741.4	1741.4	1741.4	1741.4
2.5°	1745.5	1744.5	1747.6	1748.6	1750.6	1750.6	1751.6	1751.6	1749.6	1746.5	1747.6
5°	1746.5	1746.5	1749.6	1752.6	1756.8	1760.8	1757.8	1754.8	1752.6	1749.6	1748.6
7.5°	1741.4	1743.5	1746.5	1751.6	1756.8	1762.9	1758.8	1754.8	1749.6	1745.5	1743.5
10°	1729.1	1731.1	1736.3	1741.4	1746.5	1751.6	1747.6	1743.5	1739.4	1734.3	1732.3
12.5°	1713.8	1716.9	1723.0	1728.1	1733.3	1739.4	1734.3	1729.1	1724.0	1718.9	1715.8
15°	1691.3	1695.4	1702.6	1708.7	1715.8	1721.0	1716.9	1712.8	1706.6	1699.5	1694.4
17.5°	1662.6	1668.8	1676.0	1683.1	1689.3	1694.4	1691.3	1687.3	1680.1	1671.9	1665.8
20°	1631.0	1637.1	1643.3	1650.4	1657.6	1662.6	1658.6	1653.5	1646.3	1640.1	1634.1
22.5°	1594.1	1600.3	1607.4	1613.6	1619.8	1624.8	1619.8	1613.6	1607.4	1601.3	1595.2
25°	1552.3	1558.4	1566.6	1572.7	1576.8	1580.9	1576.8	1571.6	1565.6	1559.4	1553.3
27.5°	1508.3	1514.4	1522.6	1528.7	1532.8	1536.9	1532.8	1527.7	1521.6	1515.4	1509.3
30°	1459.2	1465.3	1473.5	1479.6	1482.7	1485.8	1481.7	1477.6	1472.5	1466.3	1460.2
32.5°	1407.1	1413.1	1419.3	1425.4	1430.6	1434.6	1430.6	1426.4	1420.3	1412.1	1406.0
35°	1351.8	1357.9	1365.1	1371.3	1377.4	1382.5	1376.4	1369.2	1364.1	1358.9	1353.9
37.5°	1293.6	1300.7	1308.9	1316.1	1318.1	1322.1	1318.1	1313.9	1308.9	1303.8	1297.6
40°	1236.3	1242.4	1249.6	1256.7	1259.8	1262.9	1258.8	1254.7	1248.6	1243.4	1237.3
42.5°	1176.9	1183.1	1189.2	1195.4	1199.4	1203.6	1199.4	1193.3	1189.2	1185.1	1180.1
45°	1115.6	1121.7	1126.9	1133.0	1136.1	1139.1	1135.1	1129.9	1125.9	1122.8	1117.6
47.5°	1053.2	1058.4	1063.4	1068.6	1070.6	1073.7	1069.6	1066.6	1063.4	1060.4	1056.3
50°	987.8	992.9	999.1	1004.2	1005.2	1008.2	1004.2	1001.1	998.0	994.9	991.9
52.5°	923.4	927.4	932.6	937.7	939.7	941.7	937.7	933.6	930.5	928.5	925.4
55°	855.9	859.9	865.1	869.2	872.2	874.2	870.2	866.1	863.0	862.0	858.9
57.5°	788.4	792.5	797.6	801.7	803.7	805.7	801.7	797.6	795.6	793.5	791.4
60°	719.9	724.0	728.1	731.1	733.2	734.2	730.1	727.0	726.0	725.0	722.9
62.5°	652.4	654.4	658.5	660.6	662.6	663.7	660.6	658.5	657.5	656.5	655.4
65°	581.9	586.9	590.0	592.0	592.0	593.1	590.0	589.0	588.0	586.9	584.9
67.5°	509.2	513.3	515.4	517.4	517.4	517.4	517.4	517.4	516.4	514.4	512.3
70°	439.7	442.7	444.8	445.9	445.9	445.9	443.8	442.7	443.8	443.8	442.7
72.5°	369.2	371.2	372.2	373.2	372.2	372.2	372.2	374.2	374.2	373.2	371.2
75°	300.7	302.7	303.7	304.7	303.7	303.7	303.7	305.7	304.7	304.7	303.7
77.5°	236.2	237.2	237.2	238.2	237.2	237.2	238.2	240.3	239.3	239.3	239.3
80°	174.8	174.8	174.8	175.9	174.8	174.8	175.9	177.9	176.9	176.9	176.9
82.5°	118.7	119.7	119.7	119.7	120.7	121.7	121.7	121.7	121.7	121.7	120.7
85°	70.5	71.5	70.5	70.5	70.5	70.5	71.5	72.6	72.6	72.6	72.6
87.5°	30.7	31.7	30.7	29.7	28.7	28.7	30.7	32.7	32.7	31.7	31.7
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-24-26L840-UNV-NP

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	1741.4	1741.4	1741.4	1741.4
2.5°	1751.6	1751.6	1742.4	1733.3
5°	1750.6	1748.6	1738.3	1727.1
7.5°	1744.5	1741.4	1728.1	1715.8
10°	1730.1	1726.1	1711.8	1696.4
12.5°	1712.8	1706.6	1690.3	1674.9
15°	1690.3	1683.1	1665.8	1648.4
17.5°	1660.6	1652.4	1635.1	1616.6
20°	1628.9	1619.8	1600.3	1580.9
22.5°	1590.1	1581.9	1561.4	1542.0
25°	1548.1	1538.9	1518.5	1498.1
27.5°	1503.1	1492.9	1472.5	1453.1
30°	1454.1	1443.9	1423.4	1403.9
32.5°	1401.9	1393.8	1373.3	1351.8
35°	1348.8	1338.6	1318.1	1297.6
37.5°	1292.6	1283.3	1263.9	1244.4
40°	1233.2	1224.0	1203.6	1184.1
42.5°	1174.9	1166.7	1147.3	1128.9
45°	1112.6	1104.4	1085.9	1069.6
47.5°	1050.2	1042.0	1024.6	1007.2
50°	986.7	978.6	962.2	946.9
52.5°	920.3	914.2	898.9	883.5
55°	853.9	846.7	831.4	818.1
57.5°	787.4	782.2	767.9	754.7
60°	718.9	712.7	701.5	690.2
62.5°	652.4	647.2	636.0	625.8
65°	581.9	577.7	568.5	559.4
67.5°	509.2	506.2	497.0	488.8
70°	439.7	434.6	427.4	420.2
72.5°	369.2	367.1	361.0	354.8
75°	301.7	299.7	293.5	288.4
77.5°	238.2	236.2	231.1	226.0
80°	175.9	174.8	170.8	166.7
82.5°	120.7	119.7	116.5	112.5
85°	72.6	70.5	67.5	64.4
87.5°	31.7	30.7	27.6	25.5
90°	0.0	0.0	0.0	0.0

(END OF REPORT)