

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-35-37L950-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-35-37L950-UNV-NP
Description: ArcMed Patient Recessed 4 FT x6 IN Fixture Ambient and Exam Light
w/ Nature Pattern Lens
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

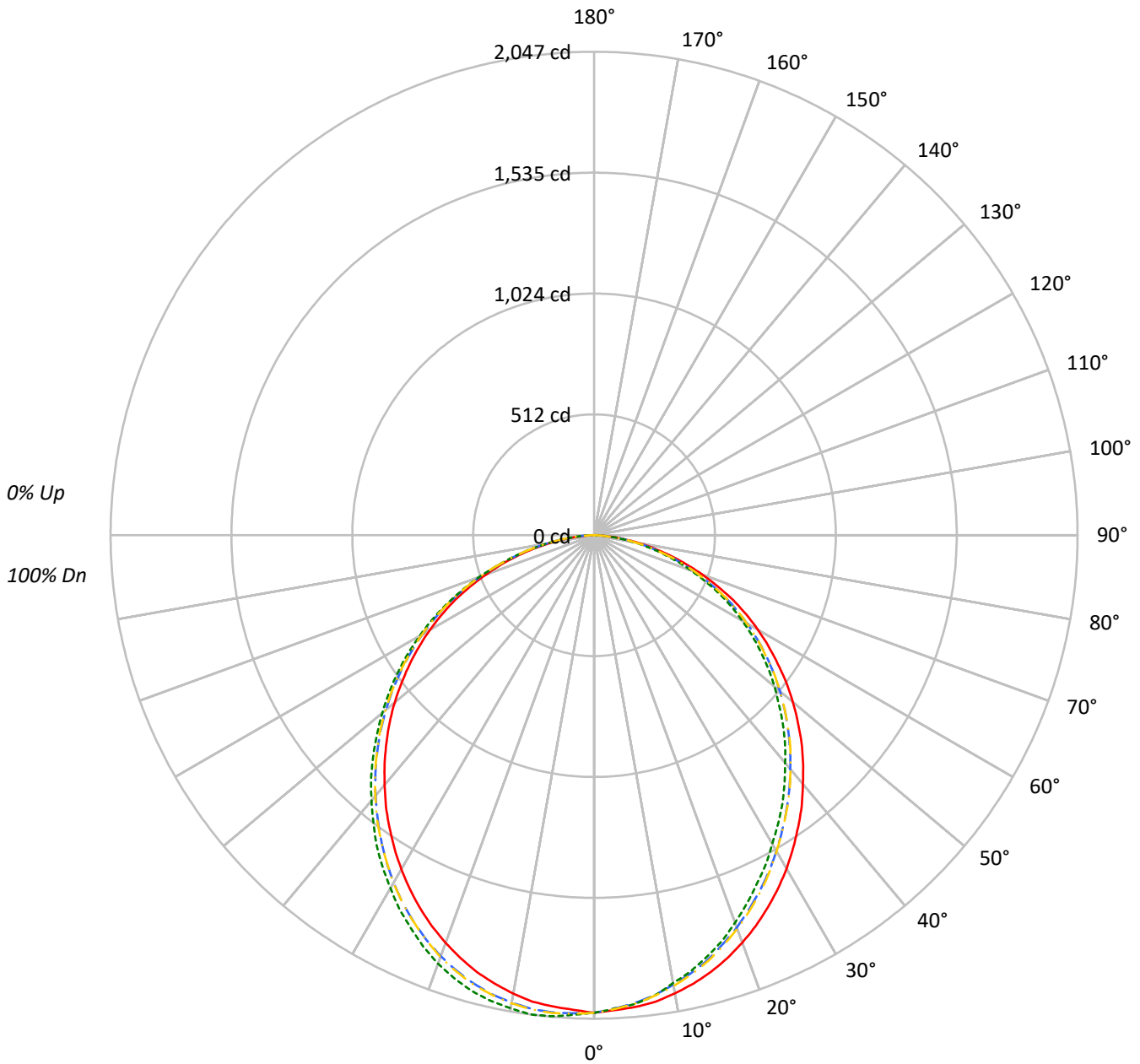
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5344.1 lumens
Efficiency: N/A
Efficacy: 66.0 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): 81
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°	18653	18653	18653	18653
5°	18570	18449	18548	18933
10°	18451	18039	18463	19052
15°	18279	17644	18290	19084
20°	18020	17134	18031	18952
25°	17705	16592	17742	18683
30°	17364	16075	17390	18376
35°	16968	15657	17008	18077
40°	16557	15155	16615	17659
45°	16201	14747	16217	17256
50°	15779	14313	15813	16801
55°	15278	13845	15334	16327
60°	14786	13361	14808	15729
65°	14177	12778	14177	15031
70°	13161	11815	13129	13963
75°	11935	10708	11849	12569
80°	10281	9208	10090	10786
85°	7918	7040	7664	8670



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	190.9	3.6
10°-20°	540.6	10.1
20°-30°	800.3	15.0
30°-40°	939.0	17.6
40°-50°	951.6	17.8
50°-60°	844.6	15.8
60°-70°	634.1	11.9
70°-80°	352.1	6.6
80°-90°	90.9	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°	1531.8	28.7
0°-40°	2470.8	46.2
0°-60°	4267.0	79.8
0°-90°	5344.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5344.1	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2022	2022	2022	2022	2022	
5°	2005	1992	2003	2044	2005	190
15°	1914	1847	1915	1998	1914	539
25°	1739	1630	1743	1835	1739	801
35°	1506	1390	1510	1605	1506	943
45°	1242	1130	1243	1322	1242	957
55°	950	861	953	1015	950	850
65°	649	585	649	688	649	640
75°	335	300	332	353	335	356
85°	75	66	72	82	75	90
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°	2021.7	2021.7	2021.7	2021.7	2021.7	2021.7	2021.7	2021.7	2021.7	2021.7	2021.7
2.5°	2012.2	2017.0	2022.9	2017.0	2007.5	2002.7	2002.7	2001.5	2005.1	2006.3	2005.1
5°	2005.1	2007.5	2008.7	2001.5	1990.9	1984.9	1982.5	1981.4	1986.1	1992.0	1986.1
7.5°	1992.0	1990.9	1989.7	1980.2	1968.3	1960.0	1956.4	1955.2	1960.0	1965.9	1961.2
10°	1969.5	1968.3	1964.7	1952.9	1937.4	1926.7	1923.2	1919.6	1923.2	1925.5	1923.2
12.5°	1944.5	1939.8	1935.0	1922.0	1905.4	1893.5	1887.5	1882.8	1887.5	1891.1	1888.7
15°	1913.7	1906.5	1898.2	1884.0	1867.4	1854.3	1847.2	1842.4	1846.0	1847.2	1847.2
17.5°	1876.9	1868.5	1860.2	1842.4	1822.2	1808.0	1799.7	1793.8	1798.5	1800.9	1800.9
20°	1835.3	1825.8	1815.1	1796.1	1774.8	1759.4	1749.9	1742.8	1743.9	1745.1	1745.1
22.5°	1790.2	1778.4	1765.3	1745.1	1722.6	1705.9	1696.4	1688.1	1688.1	1689.3	1689.3
25°	1739.2	1726.1	1713.1	1692.9	1669.1	1651.3	1639.4	1631.1	1631.1	1629.9	1632.3
27.5°	1686.9	1672.7	1659.6	1638.2	1613.3	1595.5	1583.6	1575.3	1574.1	1572.9	1575.3
30°	1629.9	1613.3	1599.1	1576.5	1552.7	1534.9	1523.1	1513.6	1511.3	1508.9	1511.3
32.5°	1569.4	1553.9	1538.5	1514.8	1491.1	1473.3	1461.4	1451.9	1450.7	1449.5	1451.9
35°	1506.5	1489.9	1475.7	1453.1	1429.3	1411.5	1398.5	1390.1	1390.1	1390.1	1390.1
37.5°	1444.8	1428.1	1412.7	1390.1	1366.4	1348.6	1335.5	1327.2	1324.8	1323.6	1324.8
40°	1374.7	1360.5	1346.2	1324.8	1301.1	1283.3	1272.6	1263.1	1260.7	1258.3	1261.9
42.5°	1310.6	1296.3	1280.9	1260.7	1237.0	1219.2	1207.4	1199.0	1197.9	1196.7	1197.9
45°	1241.7	1225.2	1209.7	1190.7	1169.4	1152.7	1140.9	1132.5	1131.4	1130.2	1131.4
47.5°	1169.4	1156.3	1143.2	1124.2	1102.9	1086.2	1075.5	1066.0	1063.7	1061.3	1063.7
50°	1099.3	1085.0	1072.0	1054.2	1034.0	1018.5	1009.0	1000.7	998.3	997.2	998.3
52.5°	1025.7	1012.6	1000.7	982.9	966.3	950.9	940.3	933.1	931.9	930.8	931.9
55°	949.8	937.9	927.2	912.9	896.3	882.1	872.6	864.3	863.1	860.7	863.1
57.5°	876.1	866.6	855.9	840.5	825.1	812.0	803.7	796.6	795.4	794.2	795.4
60°	801.3	791.8	782.3	769.2	753.8	740.7	733.6	727.7	725.3	724.1	725.3
62.5°	726.5	717.0	709.9	696.8	682.6	672.0	664.8	658.9	656.5	655.3	656.5
65°	649.4	641.1	632.8	620.9	610.2	601.9	594.8	588.8	586.5	585.3	585.3
67.5°	567.5	560.3	554.4	543.7	531.8	523.5	516.4	511.6	509.3	508.1	509.3
70°	487.9	482.0	476.0	467.7	458.2	451.1	446.3	441.6	439.2	438.0	438.0
72.5°	411.9	407.2	401.3	394.2	387.0	379.9	375.2	371.6	369.2	368.0	368.0
75°	334.8	330.0	327.7	321.7	314.6	309.9	305.1	302.7	300.4	300.4	300.4
77.5°	262.4	260.0	257.6	251.7	246.9	242.2	238.6	237.4	235.0	235.0	235.0
80°	193.5	192.3	191.1	187.5	182.8	178.0	175.7	174.5	173.3	173.3	173.3
82.5°	130.6	130.6	129.4	125.9	122.3	121.1	118.8	117.6	117.6	117.6	117.6
85°	74.8	74.8	74.8	73.6	71.3	71.3	68.9	67.7	66.5	66.5	66.5
87.5°	29.7	30.9	32.1	30.9	28.5	28.5	28.5	28.5	28.5	28.5	28.5
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°	2021.7	2021.7	2021.7	2021.7	2021.7	2021.7	2021.7	2021.7	2021.7	2021.7	2021.7
2.5°	2001.5	2003.9	2005.1	2011.0	2018.2	2022.9	2017.0	2011.0	2020.5	2031.2	2031.2
5°	1981.4	1983.7	1987.3	1994.4	2003.9	2009.9	2007.5	2002.7	2017.0	2028.9	2030.0
7.5°	1956.4	1958.8	1963.5	1970.7	1982.5	1990.9	1990.9	1992.0	2005.1	2019.4	2022.9
10°	1919.6	1925.5	1932.7	1943.4	1955.2	1965.9	1969.5	1970.7	1987.3	2002.7	2007.5
12.5°	1885.2	1891.1	1898.2	1910.1	1924.4	1936.2	1939.8	1944.5	1962.4	1980.2	1987.3
15°	1846.0	1851.9	1860.2	1872.1	1887.5	1900.6	1907.7	1914.9	1932.7	1951.7	1960.0
17.5°	1799.7	1805.6	1813.9	1828.2	1846.0	1861.4	1869.7	1878.0	1898.2	1918.4	1926.7
20°	1745.1	1753.4	1765.3	1779.6	1799.7	1817.5	1827.0	1836.5	1857.9	1878.0	1887.5
22.5°	1689.3	1698.8	1711.9	1728.5	1749.9	1768.9	1780.8	1792.6	1813.9	1834.1	1844.8
25°	1633.5	1644.2	1657.3	1675.1	1695.3	1714.3	1728.5	1742.8	1764.1	1785.5	1796.1
27.5°	1576.5	1586.0	1599.1	1616.9	1639.4	1659.6	1673.9	1689.3	1710.7	1733.3	1743.9
30°	1513.6	1524.3	1536.1	1553.9	1578.9	1601.4	1615.7	1632.3	1653.7	1676.3	1686.9
32.5°	1453.1	1462.6	1474.5	1492.3	1517.2	1540.9	1556.3	1572.9	1594.3	1616.9	1626.4
35°	1390.1	1399.6	1412.7	1430.5	1455.5	1478.0	1493.5	1510.1	1530.2	1551.6	1562.2
37.5°	1328.4	1337.9	1351.0	1368.8	1392.5	1415.1	1430.5	1447.2	1467.3	1487.5	1497.0
40°	1264.3	1273.8	1284.5	1302.3	1326.0	1348.6	1362.8	1379.5	1399.6	1421.0	1430.5
42.5°	1199.0	1208.5	1221.6	1239.4	1261.9	1282.1	1297.5	1313.0	1332.0	1351.0	1360.5
45°	1133.7	1142.0	1155.1	1171.7	1193.1	1212.1	1227.5	1242.9	1260.7	1278.5	1288.0
47.5°	1066.0	1075.5	1086.2	1102.9	1124.2	1144.4	1159.9	1174.1	1190.7	1208.5	1216.9
50°	1000.7	1009.0	1019.7	1035.2	1055.4	1074.4	1087.4	1101.7	1117.1	1133.7	1140.9
52.5°	933.1	941.4	952.1	967.5	984.1	1001.9	1013.8	1026.8	1042.3	1057.7	1064.9
55°	864.3	870.2	879.7	893.9	911.8	928.4	940.3	953.3	966.3	979.3	987.7
57.5°	796.6	803.7	813.2	826.3	841.7	857.1	867.8	878.5	891.6	904.6	910.6
60°	727.7	733.6	740.7	752.6	768.1	781.1	791.8	802.5	813.2	825.1	831.0
62.5°	657.7	663.7	670.8	682.6	695.6	707.5	717.0	726.5	736.0	746.7	752.6
65°	587.6	593.6	600.7	609.0	619.7	630.4	639.9	649.4	656.5	663.7	669.6
67.5°	511.6	517.6	524.7	531.8	541.3	552.0	559.1	567.5	574.6	582.9	586.5
70°	440.4	445.1	452.3	458.2	466.5	473.6	479.6	486.7	491.5	498.6	504.5
72.5°	370.4	375.2	381.1	387.0	391.8	397.7	404.9	410.8	416.7	423.8	426.1
75°	302.7	305.1	309.9	314.6	319.4	324.1	327.7	332.4	337.2	341.9	345.5
77.5°	236.2	238.6	243.4	246.9	250.5	254.0	256.4	258.8	263.5	267.1	270.7
80°	173.3	175.7	179.2	182.8	186.3	189.9	189.9	189.9	195.8	200.6	201.8
82.5°	117.6	118.8	121.1	123.5	125.9	128.3	128.3	127.1	130.6	134.2	136.5
85°	67.7	68.9	71.3	71.3	72.4	72.4	72.4	72.4	74.8	78.4	80.8
87.5°	27.3	27.3	28.5	28.5	29.7	29.7	28.5	27.3	29.7	33.3	34.4
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):

	220°	230°	240°	250°	260°	270°	280°	290°	300°	310°	320°
0°	2021.7	2021.7	2021.7	2021.7	2021.7	2021.7	2021.7	2021.7	2021.7	2021.7	2021.7
2.5°	2026.5	2025.3	2028.9	2030.0	2032.4	2032.4	2033.6	2033.6	2031.2	2027.7	2028.9
5°	2027.7	2027.7	2031.2	2034.8	2039.5	2044.3	2040.7	2037.2	2034.8	2031.2	2030.0
7.5°	2021.7	2024.1	2027.7	2033.6	2039.5	2046.7	2041.9	2037.2	2031.2	2026.5	2024.1
10°	2007.5	2009.9	2015.8	2021.7	2027.7	2033.6	2028.9	2024.1	2019.4	2013.4	2011.0
12.5°	1989.7	1993.2	2000.4	2006.3	2012.2	2019.4	2013.4	2007.5	2001.5	1995.6	1992.0
15°	1963.5	1968.3	1976.6	1983.7	1992.0	1998.0	1993.2	1988.5	1981.4	1973.0	1967.1
17.5°	1930.3	1937.4	1945.7	1954.0	1961.2	1967.1	1963.5	1958.8	1950.5	1941.0	1933.9
20°	1893.5	1900.6	1907.7	1916.0	1924.4	1930.3	1925.5	1919.6	1911.3	1904.2	1897.0
22.5°	1850.7	1857.9	1866.2	1873.3	1880.4	1886.4	1880.4	1873.3	1866.2	1859.0	1851.9
25°	1802.0	1809.2	1818.7	1825.8	1830.5	1835.3	1830.5	1824.6	1817.5	1810.3	1803.2
27.5°	1751.1	1758.2	1767.7	1774.8	1779.6	1784.3	1779.6	1773.6	1766.5	1759.4	1752.3
30°	1694.1	1701.2	1710.7	1717.8	1721.4	1724.9	1720.2	1715.4	1709.5	1702.4	1695.3
32.5°	1633.5	1640.6	1647.7	1654.9	1660.8	1665.6	1660.8	1656.1	1648.9	1639.4	1632.3
35°	1569.4	1576.5	1584.8	1591.9	1599.1	1605.0	1597.9	1589.6	1583.6	1577.7	1571.7
37.5°	1501.8	1510.1	1519.5	1527.8	1530.2	1534.9	1530.2	1525.4	1519.5	1513.6	1506.5
40°	1435.3	1442.4	1450.7	1459.0	1462.6	1466.2	1461.4	1456.7	1449.5	1443.6	1436.5
42.5°	1366.4	1373.5	1380.6	1387.8	1392.5	1397.3	1392.5	1385.4	1380.6	1375.9	1370.0
45°	1295.1	1302.3	1308.2	1315.3	1318.9	1322.5	1317.7	1311.8	1307.0	1303.5	1297.5
47.5°	1222.8	1228.7	1234.7	1240.6	1242.9	1246.5	1241.7	1238.2	1234.7	1231.1	1226.4
50°	1146.8	1152.7	1159.9	1165.8	1167.0	1170.5	1165.8	1162.2	1158.7	1155.1	1151.5
52.5°	1072.0	1076.7	1082.7	1088.6	1091.0	1093.4	1088.6	1083.9	1080.3	1077.9	1074.4
55°	993.6	998.3	1004.3	1009.0	1012.6	1015.0	1010.2	1005.5	1001.9	1000.7	997.2
57.5°	915.3	920.1	926.0	930.8	933.1	935.5	930.8	926.0	923.6	921.3	918.9
60°	835.8	840.5	845.3	848.8	851.2	852.4	847.6	844.1	842.9	841.7	839.3
62.5°	757.4	759.7	764.5	766.9	769.2	770.4	766.9	764.5	763.3	762.1	760.9
65°	675.5	681.5	685.0	687.4	687.4	688.5	685.0	683.8	682.6	681.5	679.1
67.5°	591.2	596.0	598.3	600.7	600.7	600.7	600.7	600.7	599.5	597.1	594.8
70°	510.5	514.0	516.4	517.6	517.6	517.6	515.2	514.0	515.2	515.2	514.0
72.5°	428.5	430.9	432.1	433.3	432.1	432.1	432.1	434.5	434.5	433.3	430.9
75°	349.0	351.4	352.6	353.8	352.6	352.6	352.6	355.0	353.8	353.8	352.6
77.5°	274.2	275.4	275.4	276.6	275.4	275.4	276.6	279.0	277.8	277.8	277.8
80°	203.0	203.0	203.0	204.2	203.0	203.0	204.2	206.5	205.3	205.3	205.3
82.5°	137.7	138.9	138.9	138.9	140.1	141.3	141.3	141.3	141.3	141.3	140.1
85°	81.9	83.1	81.9	81.9	81.9	81.9	83.1	84.3	84.3	84.3	84.3
87.5°	35.6	36.8	35.6	34.4	33.3	33.3	35.6	38.0	38.0	36.8	36.8
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-35-37L950-UNV-NP

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	2021.7	2021.7	2021.7	2021.7
2.5°	2033.6	2033.6	2022.9	2012.2
5°	2032.4	2030.0	2018.2	2005.1
7.5°	2025.3	2021.7	2006.3	1992.0
10°	2008.7	2003.9	1987.3	1969.5
12.5°	1988.5	1981.4	1962.4	1944.5
15°	1962.4	1954.0	1933.9	1913.7
17.5°	1927.9	1918.4	1898.2	1876.9
20°	1891.1	1880.4	1857.9	1835.3
22.5°	1846.0	1836.5	1812.7	1790.2
25°	1797.3	1786.7	1762.9	1739.2
27.5°	1745.1	1733.3	1709.5	1686.9
30°	1688.1	1676.3	1652.5	1629.9
32.5°	1627.6	1618.1	1594.3	1569.4
35°	1565.8	1553.9	1530.2	1506.5
37.5°	1500.6	1489.9	1467.3	1444.8
40°	1431.7	1421.0	1397.3	1374.7
42.5°	1364.0	1354.5	1332.0	1310.6
45°	1291.6	1282.1	1260.7	1241.7
47.5°	1219.2	1209.7	1189.5	1169.4
50°	1145.6	1136.1	1117.1	1099.3
52.5°	1068.4	1061.3	1043.5	1025.7
55°	991.2	982.9	965.1	949.8
57.5°	914.1	908.2	891.6	876.1
60°	834.6	827.4	814.4	801.3
62.5°	757.4	751.4	738.4	726.5
65°	675.5	670.8	660.1	649.4
67.5°	591.2	587.6	577.0	567.5
70°	510.5	504.5	496.2	487.9
72.5°	428.5	426.1	419.0	411.9
75°	350.2	347.9	340.7	334.8
77.5°	276.6	274.2	268.3	262.4
80°	204.2	203.0	198.2	193.5
82.5°	140.1	138.9	135.3	130.6
85°	84.3	81.9	78.4	74.8
87.5°	36.8	35.6	32.1	29.7
90°	0.0	0.0	0.0	0.0

(END OF REPORT)