

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: P24518

Luminaire Tested: **MPR3-G-LD3-UNV-XX/XX/STD-ED3C-S68I/OL**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P24518  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: MPR3-G-LD3-UNV-XX/XX/STD-ED3C-S68I/OL  
Description: METALUX MPR3 2X4 AMBIENT/EXAM/READING LIGHT  
Light Source: (4) 3500K LED LIGHT STRIPS  
1UT217049835  
Ballast/Driver: (2) 48W ADVANCE ELECTRONIC DRIVERS  
LEDINTA2000C24DOM

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3958.0 lumens  
Efficiency: N/A  
Efficacy: 57.7 lumens/watt  
Spacing Criteria (0/90/45): 1.15 / 1.14 / 1.22  
Luminous Opening: Rectangular w/ Sides (W: 1.88' x L: 1.35' x H: 0.1')  
CIE Type: Direct

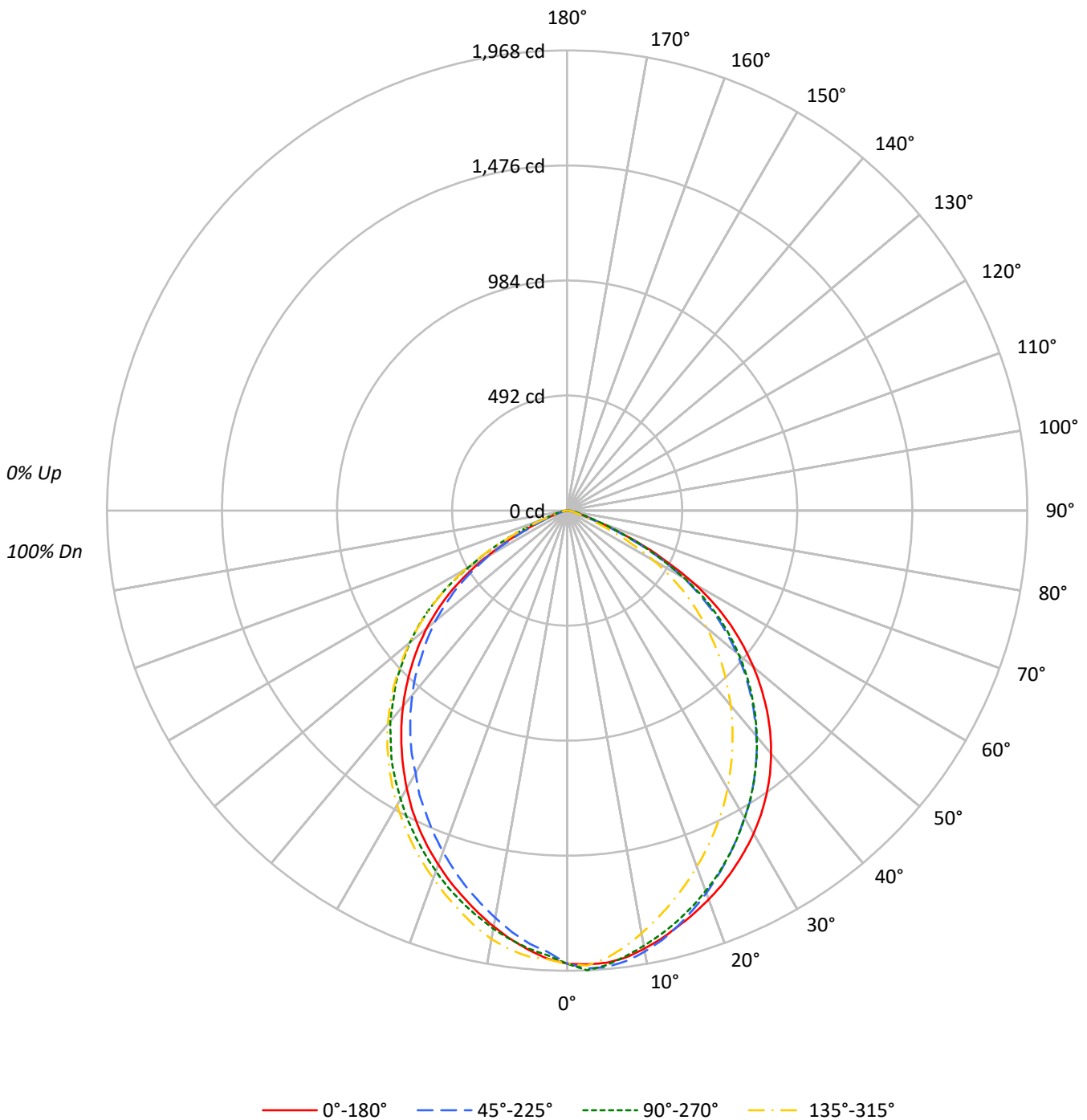
Input Watts (W): 68.6  
Input Voltage (V): 120.05  
Input Current (Ain): 0.573  
Voltage Rise (V): NR  
Power Factor: 0.9989  
Total Harmonic Distortion (THDi): 7.16%  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: 5 HR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88
2	103	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77
3	95	85	78	73	92	84	77	72	81	76	71	78	74	70	76	72	69	67
4	87	77	69	63	85	75	68	63	73	67	62	71	65	61	69	64	60	58
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51
6	75	63	55	49	73	62	54	49	60	53	48	58	52	48	57	52	47	45
7	70	57	49	43	68	56	49	43	55	48	43	54	47	43	52	47	42	41
8	65	52	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37
9	61	48	41	35	60	48	40	35	47	40	35	46	39	35	45	39	35	33
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	42	36	32	30

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°	270°
0°	8214	8214	8214	8214
5°	8207	8265	7974	7964
10°	8085	8062	7679	7745
15°	7918	7868	7370	7507
20°	7776	7663	7078	7264
25°	7632	7451	6781	7014
30°	7490	7213	6438	6763
35°	7307	6965	6078	6527
40°	7070	6685	5691	6232
45°	6745	6357	5255	5883
50°	6306	5948	4757	5446
55°	5706	5405	4095	4825
60°	4765	4492	3030	3792
65°	3217	3203	1755	2513
70°	1438	1606	836	1169
75°	709	907	462	661
80°	349	654	232	401
85°	119	477	90	205



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	180.7	4.6
10°-20°	497.2	12.6
20°-30°	718.0	18.1
30°-40°	820.0	20.7
40°-50°	788.3	19.9
50°-60°	611.1	15.4
60°-70°	277.5	7.0
70°-80°	55.4	1.4
80°-90°	9.8	0.2
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°	1396.0	35.3
0°-40°	2215.9	56.0
0°-60°	3615.4	91.3
0°-90°	3958.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3958.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	1938	1938	1938	1938	1938	
5°	1941	1951	1886	1880	1941	184
15°	1840	1818	1712	1735	1840	519
25°	1688	1632	1500	1537	1688	778
35°	1485	1396	1235	1308	1485	928
45°	1208	1117	941	1034	1208	930
55°	853	787	612	702	853	757
65°	372	356	203	279	372	368
75°	55	66	36	48	55	67
85°	4	16	3	7	4	7
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1937.6	1937.6	1937.6	1937.6	1937.6	1937.6	1937.6	1937.6	1937.6	1937.6	1937.6
2.5°	1942.1	1947.8	1950.0	1954.5	1959.0	1963.5	1965.8	1964.7	1960.2	1960.2	1963.5
5°	1941.0	1945.5	1948.9	1953.4	1957.9	1963.5	1965.8	1965.8	1960.2	1959.0	1962.4
7.5°	1927.5	1932.0	1935.4	1939.9	1947.8	1952.3	1953.4	1952.3	1946.6	1943.3	1946.6
10°	1902.7	1906.1	1910.6	1918.5	1921.9	1926.4	1927.5	1926.4	1918.5	1915.1	1918.5
12.5°	1873.5	1875.7	1880.2	1887.0	1889.2	1890.4	1894.9	1889.2	1883.6	1880.2	1884.7
15°	1839.7	1844.2	1847.6	1853.2	1853.2	1852.1	1853.2	1846.4	1839.7	1837.4	1841.9
17.5°	1805.9	1808.2	1813.8	1816.0	1812.7	1808.2	1809.3	1802.5	1793.5	1790.1	1794.7
20°	1769.9	1771.0	1774.4	1774.4	1768.8	1763.1	1762.0	1753.0	1744.0	1740.6	1745.1
22.5°	1731.6	1729.4	1732.7	1730.5	1721.5	1714.7	1712.5	1703.5	1694.4	1687.7	1692.2
25°	1687.7	1687.7	1688.8	1683.2	1673.1	1664.1	1660.7	1650.5	1639.3	1632.5	1637.0
27.5°	1642.7	1642.7	1640.4	1632.5	1620.1	1608.9	1605.5	1593.1	1581.9	1576.2	1579.6
30°	1595.4	1593.1	1589.7	1579.6	1563.8	1552.6	1548.1	1535.7	1523.3	1516.6	1521.1
32.5°	1542.5	1540.2	1534.6	1522.2	1504.2	1492.9	1487.3	1476.0	1461.4	1461.4	1459.1
35°	1485.0	1482.8	1474.9	1461.4	1442.3	1436.6	1425.4	1410.7	1397.2	1396.1	1392.7
37.5°	1424.2	1419.7	1409.6	1397.2	1383.7	1372.4	1360.1	1342.0	1330.8	1329.7	1325.2
40°	1356.7	1352.2	1340.9	1327.4	1313.9	1301.5	1288.0	1271.1	1261.0	1258.7	1256.5
42.5°	1285.8	1277.9	1265.5	1253.1	1238.5	1226.1	1212.6	1196.8	1187.8	1185.6	1183.3
45°	1208.1	1199.1	1187.8	1173.2	1159.7	1147.3	1133.8	1119.1	1111.2	1109.0	1106.7
47.5°	1125.9	1116.9	1104.5	1089.9	1076.3	1065.1	1052.7	1039.2	1031.3	1030.2	1027.9
50°	1040.3	1030.2	1015.5	1002.0	988.5	978.4	966.0	953.6	945.7	945.7	944.6
52.5°	949.1	936.7	923.2	909.7	897.3	887.2	874.8	864.7	856.8	859.0	856.8
55°	853.4	841.0	827.5	811.8	801.6	792.6	782.5	772.4	764.5	770.1	767.9
57.5°	749.8	735.2	725.1	709.3	700.3	692.4	683.4	676.7	667.6	673.3	673.3
60°	633.9	619.2	612.5	599.0	591.1	586.6	578.7	573.1	565.2	573.1	571.9
62.5°	498.8	484.1	477.4	467.2	467.2	467.2	462.7	460.5	465.0	462.7	460.5
65°	371.5	358.0	354.7	344.5	341.1	337.8	336.6	336.6	344.5	341.1	341.1
67.5°	239.8	230.8	231.9	227.4	227.4	226.3	220.7	216.2	210.5	221.8	222.9
70°	139.6	134.0	135.1	132.9	136.2	135.1	131.7	127.2	129.5	129.5	134.0
72.5°	86.7	82.2	83.3	82.2	82.2	82.2	79.9	78.8	81.1	81.1	83.3
75°	55.2	52.9	52.9	52.9	54.0	54.0	52.9	52.9	55.2	55.2	56.3
77.5°	34.9	33.8	33.8	33.8	34.9	36.0	36.0	36.0	38.3	38.3	39.4
80°	20.3	20.3	20.3	21.4	22.5	23.6	24.8	24.8	25.9	27.0	28.1
82.5°	10.1	10.1	11.3	12.4	13.5	14.6	15.8	16.9	18.0	19.1	19.1
85°	4.5	4.5	5.6	6.8	7.9	9.0	10.1	10.1	11.3	12.4	12.4
87.5°	1.1	2.3	3.4	4.5	4.5	5.6	6.8	6.8	7.9	7.9	7.9
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):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1937.6	1937.6	1937.6	1937.6	1937.6	1937.6	1937.6	1937.6	1937.6	1937.6	1937.6
2.5°	1965.8	1968.0	1969.2	1968.0	1970.3	1971.4	1969.2	1968.0	1968.0	1968.0	1966.9
5°	1963.5	1963.5	1961.3	1959.0	1957.9	1956.8	1953.4	1951.2	1950.0	1947.8	1946.6
7.5°	1946.6	1945.5	1943.3	1939.9	1936.5	1932.0	1926.4	1921.9	1920.8	1916.2	1914.0
10°	1918.5	1917.4	1915.1	1911.7	1908.4	1903.9	1897.1	1890.4	1885.8	1879.1	1874.6
12.5°	1883.6	1883.6	1881.3	1879.1	1874.6	1871.2	1863.3	1855.5	1849.8	1844.2	1836.3
15°	1843.1	1843.1	1841.9	1839.7	1836.3	1832.9	1825.1	1818.3	1810.4	1802.5	1792.4
17.5°	1796.9	1800.3	1800.3	1799.2	1795.8	1791.3	1784.5	1776.6	1768.8	1758.6	1745.1
20°	1747.4	1750.7	1754.1	1755.2	1751.9	1747.4	1739.5	1731.6	1722.6	1709.1	1695.6
22.5°	1694.4	1699.0	1703.5	1705.7	1704.6	1700.1	1692.2	1684.3	1673.1	1658.4	1642.7
25°	1638.2	1642.7	1648.3	1651.7	1652.8	1650.5	1641.5	1632.5	1621.3	1603.3	1586.4
27.5°	1580.7	1585.2	1588.6	1594.2	1596.5	1594.2	1587.5	1577.4	1565.0	1545.8	1526.7
30°	1519.9	1524.4	1527.8	1533.4	1538.0	1535.7	1530.1	1518.8	1504.2	1483.9	1464.8
32.5°	1458.0	1461.4	1464.8	1469.3	1474.9	1474.9	1469.3	1459.1	1442.3	1420.9	1400.6
35°	1393.8	1396.1	1400.6	1402.8	1409.6	1411.9	1406.2	1396.1	1377.0	1354.4	1333.0
37.5°	1326.3	1328.5	1333.0	1335.3	1340.9	1345.4	1340.9	1330.8	1310.5	1285.8	1264.4
40°	1255.4	1257.6	1262.1	1263.2	1270.0	1275.6	1272.2	1262.1	1239.6	1216.0	1193.4
42.5°	1182.2	1184.4	1187.8	1190.1	1195.7	1203.6	1201.3	1191.2	1166.4	1142.8	1119.1
45°	1106.7	1107.9	1111.2	1112.4	1119.1	1127.0	1127.0	1116.9	1091.0	1067.3	1042.6
47.5°	1026.8	1029.1	1031.3	1032.4	1040.3	1049.3	1050.4	1040.3	1012.2	988.5	964.9
50°	944.6	944.6	948.0	950.2	957.0	968.3	970.5	959.2	932.2	908.6	882.7
52.5°	856.8	857.9	860.2	862.4	871.4	882.7	887.2	874.8	848.9	825.3	799.4
55°	766.7	769.0	770.1	773.5	782.5	794.9	799.4	787.0	761.1	737.5	713.8
57.5°	671.0	675.5	674.4	677.8	685.7	696.9	703.7	690.2	665.4	642.9	620.4
60°	570.8	573.1	570.8	573.1	579.8	587.7	593.3	578.7	555.1	535.9	516.8
62.5°	458.2	459.4	453.7	465.0	459.4	467.2	474.0	461.6	441.3	422.2	403.1
65°	337.8	340.0	340.0	346.8	354.7	362.5	368.2	355.8	338.9	324.3	306.2
67.5°	227.4	237.6	239.8	243.2	246.6	247.7	249.9	239.8	228.6	220.7	209.4
70°	139.6	147.5	149.7	152.0	154.2	154.2	155.4	148.6	143.0	138.5	131.7
72.5°	85.6	90.1	93.4	100.2	99.1	100.2	100.2	96.8	93.4	90.1	85.6
75°	57.4	59.7	61.9	67.6	67.6	68.7	68.7	66.4	64.2	61.9	58.5
77.5°	40.5	41.7	45.0	46.2	47.3	48.4	48.4	48.4	46.2	43.9	41.7
80°	29.3	30.4	31.5	33.8	32.7	33.8	33.8	34.9	32.7	31.5	30.4
82.5°	20.3	21.4	22.5	22.5	22.5	23.6	24.8	23.6	22.5	22.5	21.4
85°	13.5	14.6	14.6	14.6	14.6	15.8	15.8	15.8	14.6	14.6	13.5
87.5°	9.0	9.0	9.0	10.1	10.1	9.0	10.1	10.1	9.0	9.0	9.0
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°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1937.6	1937.6	1937.6	1937.6	1937.6	1937.6	1937.6	1937.6	1937.6	1937.6	1937.6
2.5°	1963.5	1961.3	1959.0	1955.7	1952.3	1947.8	1942.1	1936.5	1934.3	1937.6	1934.3
5°	1942.1	1939.9	1935.4	1930.9	1926.4	1921.9	1916.2	1908.4	1905.0	1906.1	1901.6
7.5°	1911.7	1905.0	1898.2	1892.6	1887.0	1882.5	1876.8	1871.2	1867.8	1871.2	1865.6
10°	1865.6	1862.2	1854.3	1845.3	1839.7	1835.2	1830.7	1823.9	1826.2	1826.2	1822.8
12.5°	1826.2	1816.0	1808.2	1798.0	1790.1	1785.6	1778.9	1773.3	1776.6	1776.6	1774.4
15°	1778.9	1766.5	1756.4	1746.2	1738.4	1732.7	1727.1	1720.3	1722.6	1723.7	1723.7
17.5°	1730.5	1717.0	1705.7	1693.3	1684.3	1678.7	1671.9	1667.4	1668.6	1670.8	1671.9
20°	1679.8	1664.1	1651.7	1637.0	1628.0	1621.3	1614.5	1610.0	1612.3	1614.5	1616.8
22.5°	1624.6	1608.9	1594.2	1580.7	1569.5	1562.7	1556.0	1548.1	1551.5	1553.7	1556.0
25°	1568.4	1550.3	1535.7	1521.1	1509.8	1501.9	1495.2	1487.3	1488.4	1491.8	1495.2
27.5°	1507.6	1489.5	1473.8	1459.1	1446.8	1438.9	1431.0	1424.2	1424.2	1427.6	1429.9
30°	1444.5	1424.2	1408.5	1392.7	1381.5	1372.4	1363.4	1355.6	1356.7	1357.8	1361.2
32.5°	1379.2	1358.9	1338.7	1324.0	1312.8	1302.6	1294.8	1283.5	1285.8	1285.8	1288.0
35°	1310.5	1290.3	1270.0	1253.1	1241.8	1231.7	1223.8	1219.3	1212.6	1212.6	1214.8
37.5°	1240.7	1221.6	1199.1	1182.2	1170.9	1160.8	1152.9	1147.3	1140.5	1139.4	1143.9
40°	1169.8	1149.5	1127.0	1110.1	1098.9	1087.6	1078.6	1074.1	1066.2	1065.1	1067.3
42.5°	1095.5	1074.1	1051.6	1035.8	1027.9	1013.3	1004.3	998.7	990.8	988.5	990.8
45°	1018.9	998.7	976.1	962.6	946.9	940.1	927.7	921.0	913.1	910.8	913.1
47.5°	940.1	919.8	897.3	883.8	874.8	859.0	848.9	843.3	834.3	832.0	833.2
50°	859.0	838.8	823.0	803.9	789.2	779.1	767.9	766.7	754.3	752.1	752.1
52.5°	775.7	760.0	736.3	720.6	707.1	696.9	689.0	681.2	672.2	668.8	669.9
55°	692.4	668.8	650.8	633.9	621.5	614.7	600.1	596.7	588.8	583.2	583.2
57.5°	601.2	577.6	557.3	543.8	534.8	522.4	510.0	506.6	496.5	492.0	492.0
60°	499.9	480.8	461.6	448.1	438.0	430.1	412.1	409.8	399.7	391.8	386.2
62.5°	388.4	368.2	354.7	345.6	331.0	323.1	308.5	305.1	292.7	288.2	288.2
65°	289.4	266.8	248.8	239.8	225.2	218.4	204.9	210.5	207.2	199.3	198.2
67.5°	198.2	180.1	163.3	148.6	138.5	134.0	130.6	130.6	132.9	128.4	126.1
70°	123.8	111.5	101.3	92.3	86.7	84.4	83.3	85.6	83.3	79.9	79.9
72.5°	79.9	72.1	66.4	61.9	58.5	57.4	56.3	55.2	54.0	54.0	54.0
75°	55.2	50.7	47.3	43.9	41.7	40.5	39.4	38.3	38.3	39.4	39.4
77.5°	39.4	36.0	33.8	32.7	30.4	29.3	28.1	27.0	25.9	24.8	25.9
80°	28.1	25.9	24.8	23.6	22.5	21.4	20.3	19.1	18.0	16.9	16.9
82.5°	20.3	19.1	18.0	16.9	15.8	14.6	14.6	13.5	12.4	11.3	10.1
85°	13.5	12.4	12.4	11.3	11.3	10.1	10.1	9.0	7.9	7.9	6.8
87.5°	9.0	9.0	7.9	7.9	7.9	6.8	6.8	5.6	5.6	4.5	4.5
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: P24518

CATALOG NUMBER: MPR3-G-LD3-UNV-XX/XX/STD-ED3C-S68I/OL

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1937.6	1937.6	1937.6	1937.6	1937.6	1937.6	1937.6	1937.6	1937.6	1937.6	1937.6
2.5°	1930.9	1928.6	1926.4	1918.5	1907.2	1899.4	1894.9	1896.0	1897.1	1894.9	1896.0
5°	1898.2	1894.9	1893.7	1885.8	1873.5	1866.7	1861.1	1863.3	1865.6	1863.3	1865.6
7.5°	1861.1	1857.7	1855.5	1848.7	1835.2	1827.3	1822.8	1825.1	1827.3	1822.8	1823.9
10°	1819.4	1814.9	1811.5	1807.0	1792.4	1784.5	1778.9	1784.5	1781.1	1776.6	1776.6
12.5°	1773.3	1769.9	1766.5	1760.9	1750.7	1738.4	1733.9	1737.2	1731.6	1726.0	1726.0
15°	1723.7	1722.6	1718.1	1712.5	1697.8	1691.1	1684.3	1685.4	1679.8	1673.1	1673.1
17.5°	1674.2	1674.2	1668.6	1664.1	1649.4	1641.5	1633.7	1633.7	1625.8	1619.0	1619.0
20°	1619.0	1621.3	1616.8	1611.1	1596.5	1587.5	1578.5	1577.4	1569.5	1561.6	1560.5
22.5°	1560.5	1563.8	1560.5	1557.1	1547.0	1532.3	1521.1	1518.8	1509.8	1500.8	1499.7
25°	1499.7	1505.3	1503.0	1499.7	1489.5	1472.7	1460.3	1456.9	1446.8	1437.7	1436.6
27.5°	1435.5	1442.3	1441.1	1437.7	1427.6	1407.4	1393.8	1390.5	1380.3	1370.2	1369.1
30°	1365.7	1372.4	1374.7	1371.3	1361.2	1339.8	1325.2	1321.8	1310.5	1301.5	1301.5
32.5°	1295.9	1301.5	1307.1	1303.8	1293.6	1270.0	1262.1	1252.0	1240.7	1232.8	1234.0
35°	1222.7	1230.6	1236.2	1235.1	1223.8	1201.3	1192.3	1181.0	1172.0	1169.8	1165.3
37.5°	1150.6	1157.4	1165.3	1164.2	1154.0	1130.4	1121.4	1109.0	1098.9	1098.9	1096.6
40°	1075.2	1082.0	1092.1	1092.1	1080.8	1057.2	1048.2	1035.8	1026.8	1026.8	1024.6
42.5°	997.5	1005.4	1016.7	1016.7	1006.5	982.9	972.8	960.4	951.4	952.5	951.4
45°	919.8	927.7	940.1	941.2	931.1	906.3	897.3	884.9	875.9	878.2	880.4
47.5°	841.0	850.0	862.4	864.7	854.5	829.8	819.6	808.4	800.5	803.9	802.8
50°	760.0	769.0	780.2	784.7	774.6	749.8	740.8	728.4	720.6	725.1	731.8
52.5°	675.5	684.5	696.9	700.3	690.2	665.4	656.4	645.1	640.6	644.0	642.9
55°	588.8	596.7	609.1	612.5	603.5	586.6	570.8	559.6	552.8	564.1	557.3
57.5°	492.0	497.6	508.9	511.1	504.4	488.6	476.2	468.4	462.7	459.4	468.4
60°	382.8	389.6	399.7	403.1	388.4	381.7	369.3	363.7	362.5	364.8	369.3
62.5°	287.1	291.6	300.6	301.7	288.2	284.8	274.7	268.0	260.1	265.7	264.6
65°	194.8	197.0	201.5	202.7	200.4	192.5	186.9	184.6	176.8	173.4	175.6
67.5°	122.7	123.8	126.1	126.1	125.0	119.3	116.0	113.7	113.7	113.7	110.3
70°	78.8	78.8	81.1	81.1	79.9	76.6	76.6	73.2	69.8	74.3	74.3
72.5°	54.0	52.9	52.9	54.0	52.9	50.7	49.5	49.5	47.3	49.5	45.0
75°	39.4	34.9	34.9	36.0	34.9	33.8	36.0	37.2	36.0	30.4	30.4
77.5°	24.8	23.6	22.5	22.5	21.4	22.5	21.4	20.3	20.3	19.1	19.1
80°	15.8	14.6	13.5	13.5	13.5	13.5	12.4	12.4	12.4	12.4	12.4
82.5°	10.1	9.0	7.9	7.9	6.8	6.8	7.9	6.8	6.8	7.9	7.9
85°	5.6	5.6	4.5	3.4	3.4	3.4	3.4	3.4	3.4	4.5	4.5
87.5°	3.4	3.4	2.3	2.3	1.1	2.3	2.3	2.3	2.3	2.3	2.3
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: P24518

CATALOG NUMBER: MPR3-G-LD3-UNV-XX/XX/STD-ED3C-S68I/OL

**CANDELA DISTRIBUTION (continued):**

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1937.6	1937.6	1937.6	1937.6	1937.6	1937.6	1937.6	1937.6	1937.6	1937.6	1937.6
2.5°	1892.6	1889.2	1885.8	1884.7	1885.8	1888.1	1893.7	1899.4	1902.7	1902.7	1903.9
5°	1862.2	1858.8	1855.5	1857.7	1858.8	1863.3	1869.0	1874.6	1876.8	1878.0	1880.2
7.5°	1820.5	1817.2	1813.8	1816.0	1819.4	1825.1	1831.8	1839.7	1843.1	1846.4	1850.9
10°	1772.1	1768.8	1766.5	1769.9	1773.3	1781.1	1791.3	1800.3	1807.0	1810.4	1816.0
12.5°	1721.5	1718.1	1721.5	1721.5	1727.1	1737.2	1747.4	1758.6	1765.4	1771.0	1776.6
15°	1668.6	1666.3	1670.8	1671.9	1677.6	1682.1	1699.0	1709.1	1719.2	1726.0	1735.0
17.5°	1615.6	1611.1	1615.6	1617.9	1625.8	1637.0	1650.5	1659.5	1671.9	1679.8	1691.1
20°	1556.0	1552.6	1558.2	1559.3	1566.1	1579.6	1593.1	1605.5	1619.0	1629.1	1641.5
22.5°	1496.3	1492.9	1498.5	1500.8	1508.7	1521.1	1534.6	1550.3	1563.8	1575.1	1589.7
25°	1432.1	1428.7	1435.5	1438.9	1445.6	1459.1	1473.8	1488.4	1506.4	1519.9	1536.8
27.5°	1366.8	1369.1	1369.1	1373.6	1382.6	1398.3	1411.9	1427.6	1447.9	1464.8	1482.8
30°	1298.1	1295.9	1304.9	1309.4	1319.5	1336.4	1351.1	1366.8	1388.2	1405.1	1424.2
32.5°	1230.6	1236.2	1239.6	1245.2	1257.6	1271.1	1285.8	1303.8	1326.3	1346.6	1366.8
35°	1161.9	1168.7	1173.2	1178.8	1191.2	1205.8	1223.8	1244.1	1266.6	1286.9	1308.3
37.5°	1092.1	1101.1	1103.4	1111.2	1129.3	1141.6	1152.9	1170.9	1194.6	1217.1	1238.5
40°	1022.3	1030.2	1035.8	1045.9	1056.1	1067.3	1082.0	1104.5	1129.3	1154.0	1176.5
42.5°	949.1	960.4	966.0	969.4	982.9	999.8	1014.4	1032.4	1053.8	1076.3	1100.0
45°	878.2	880.4	889.4	899.6	913.1	921.0	935.6	958.1	984.0	1008.8	1033.6
47.5°	806.1	809.5	819.6	823.0	833.2	848.9	865.8	882.7	905.2	926.6	951.4
50°	721.7	736.3	738.6	746.5	758.8	765.6	783.6	806.1	830.9	853.4	878.2
52.5°	645.1	651.9	658.6	664.3	673.3	689.0	701.4	719.4	745.3	767.9	793.7
55°	555.1	573.1	573.1	582.1	587.7	601.2	619.2	636.1	658.6	685.7	702.5
57.5°	469.5	477.4	490.9	488.6	505.5	507.8	524.7	543.8	566.3	590.0	604.6
60°	367.0	388.4	390.7	397.4	403.1	410.9	421.1	436.8	457.1	477.4	488.6
62.5°	266.8	282.6	286.0	297.2	299.5	307.4	314.1	333.3	355.8	374.9	385.1
65°	180.1	183.5	185.8	195.9	203.8	213.9	226.3	242.1	259.0	272.5	279.2
67.5°	105.8	110.3	110.3	116.0	125.0	134.0	144.1	153.1	164.4	173.4	175.6
70°	74.3	70.9	69.8	70.9	74.3	79.9	86.7	93.4	101.3	107.0	108.1
72.5°	45.0	45.0	45.0	46.2	48.4	51.8	56.3	60.8	66.4	69.8	70.9
75°	30.4	30.4	31.5	31.5	33.8	36.0	38.3	40.5	43.9	47.3	48.4
77.5°	20.3	20.3	21.4	21.4	22.5	23.6	25.9	28.1	29.3	31.5	32.7
80°	13.5	13.5	14.6	14.6	14.6	15.8	16.9	18.0	19.1	21.4	21.4
82.5°	7.9	7.9	9.0	9.0	9.0	10.1	10.1	11.3	12.4	12.4	12.4
85°	4.5	4.5	4.5	4.5	5.6	5.6	5.6	5.6	6.8	6.8	6.8
87.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
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: P24518

CATALOG NUMBER: MPR3-G-LD3-UNV-XX/XX/STD-ED3C-S68I/OL

**CANDELA DISTRIBUTION (continued):**

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	1937.6	1937.6	1937.6	1937.6	1937.6	1937.6	1937.6	1937.6	1937.6	1937.6	1937.6
2.5°	1901.6	1902.7	1905.0	1906.1	1907.2	1910.6	1915.1	1917.4	1920.8	1924.1	1927.5
5°	1880.2	1883.6	1889.2	1892.6	1896.0	1900.5	1905.0	1909.5	1914.0	1918.5	1924.1
7.5°	1853.2	1857.7	1863.3	1867.8	1871.2	1876.8	1881.3	1887.0	1892.6	1899.4	1905.0
10°	1818.3	1822.8	1829.6	1834.1	1835.2	1844.2	1849.8	1854.3	1861.1	1865.6	1871.2
12.5°	1780.0	1785.6	1792.4	1798.0	1802.5	1805.9	1810.4	1813.8	1820.5	1825.1	1830.7
15°	1739.5	1745.1	1751.9	1755.2	1755.2	1762.0	1764.3	1768.8	1772.1	1780.0	1785.6
17.5°	1694.4	1700.1	1705.7	1710.2	1709.1	1713.6	1715.8	1718.1	1724.8	1732.7	1739.5
20°	1644.9	1651.7	1658.4	1662.9	1659.5	1662.9	1664.1	1668.6	1674.2	1683.2	1691.1
22.5°	1595.4	1602.1	1608.9	1612.3	1611.1	1608.9	1611.1	1616.8	1623.5	1632.5	1640.4
25°	1543.6	1550.3	1556.0	1558.2	1556.0	1554.8	1557.1	1562.7	1569.5	1578.5	1593.1
27.5°	1490.7	1496.3	1500.8	1500.8	1499.7	1497.4	1500.8	1506.4	1513.2	1523.3	1539.1
30°	1434.4	1440.0	1445.6	1444.5	1441.1	1437.7	1441.1	1446.8	1454.6	1463.6	1481.7
32.5°	1377.0	1381.5	1382.6	1381.5	1378.1	1378.1	1380.3	1384.8	1392.7	1402.8	1420.9
35°	1319.5	1324.0	1324.0	1319.5	1312.8	1311.7	1316.2	1319.5	1328.5	1337.5	1356.7
37.5°	1249.7	1252.0	1249.7	1252.0	1250.9	1248.6	1247.5	1252.0	1263.2	1270.0	1290.3
40°	1188.9	1188.9	1182.2	1177.7	1175.4	1178.8	1177.7	1183.3	1192.3	1200.2	1219.3
42.5°	1112.4	1114.6	1110.1	1110.1	1107.9	1102.2	1104.5	1109.0	1119.1	1127.0	1146.1
45°	1045.9	1043.7	1033.6	1029.1	1029.1	1026.8	1027.9	1033.6	1043.7	1049.3	1069.6
47.5°	964.9	964.9	957.0	957.0	946.9	948.0	949.1	953.6	962.6	977.3	988.5
50°	890.6	888.3	877.1	870.3	864.7	865.8	866.9	870.3	878.2	884.9	904.1
52.5°	805.0	800.5	791.5	788.1	780.2	779.1	780.2	783.6	790.4	806.1	815.1
55°	714.9	712.7	707.1	694.7	691.3	690.2	691.3	694.7	700.3	705.9	723.9
57.5°	615.9	614.7	610.2	597.8	595.6	594.5	595.6	601.2	604.6	619.2	627.1
60°	499.9	498.8	497.6	489.8	490.9	492.0	494.3	501.0	502.1	517.9	524.7
62.5°	395.2	392.9	385.1	376.0	376.0	379.4	382.8	390.7	391.8	407.6	413.2
65°	287.1	288.2	287.1	281.5	278.1	272.5	269.1	274.7	274.7	289.4	293.9
67.5°	181.3	182.4	185.8	184.6	184.6	181.3	174.5	171.1	175.6	176.8	182.4
70°	111.5	111.5	112.6	110.3	110.3	108.1	103.6	100.2	102.5	102.5	105.8
72.5°	72.1	72.1	72.1	69.8	68.7	65.3	63.0	61.9	63.0	63.0	65.3
75°	48.4	48.4	47.3	46.2	45.0	42.8	41.7	40.5	41.7	41.7	41.7
77.5°	32.7	32.7	31.5	30.4	29.3	28.1	27.0	25.9	27.0	27.0	27.0
80°	21.4	21.4	20.3	20.3	19.1	18.0	18.0	18.0	16.9	16.9	16.9
82.5°	12.4	12.4	12.4	12.4	11.3	11.3	10.1	10.1	10.1	10.1	10.1
85°	6.8	6.8	6.8	5.6	5.6	5.6	5.6	4.5	4.5	4.5	4.5
87.5°	3.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
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: P24518

CATALOG NUMBER: MPR3-G-LD3-UNV-XX/XX/STD-ED3C-S68I/OL

**CANDELA DISTRIBUTION (continued):**

	330°	335°	340°	345°	350°	355°	360°
0°	1937.6	1937.6	1937.6	1937.6	1937.6	1937.6	1937.6
2.5°	1932.0	1934.3	1937.6	1934.3	1937.6	1939.9	1942.1
5°	1928.6	1932.0	1934.3	1932.0	1934.3	1937.6	1941.0
7.5°	1910.6	1916.2	1920.8	1916.2	1919.6	1924.1	1927.5
10°	1882.5	1887.0	1892.6	1889.2	1892.6	1897.1	1902.7
12.5°	1843.1	1849.8	1856.6	1856.6	1861.1	1865.6	1873.5
15°	1800.3	1807.0	1817.2	1819.4	1827.3	1832.9	1839.7
17.5°	1755.2	1764.3	1776.6	1781.1	1792.4	1798.0	1805.9
20°	1708.0	1719.2	1731.6	1739.5	1751.9	1760.9	1769.9
22.5°	1658.4	1670.8	1685.4	1693.3	1709.1	1719.2	1731.6
25°	1607.8	1621.3	1637.0	1646.0	1662.9	1676.4	1687.7
27.5°	1553.7	1567.2	1584.1	1595.4	1617.9	1633.7	1642.7
30°	1497.4	1512.1	1530.1	1547.0	1566.1	1579.6	1595.4
32.5°	1437.7	1453.5	1471.5	1489.5	1510.9	1525.6	1542.5
35°	1373.6	1390.5	1410.7	1428.7	1451.3	1468.1	1485.0
37.5°	1307.1	1325.2	1345.4	1364.6	1387.1	1411.9	1424.2
40°	1237.3	1254.2	1274.5	1293.6	1317.3	1336.4	1356.7
42.5°	1163.0	1179.9	1200.2	1220.5	1243.0	1263.2	1285.8
45°	1085.3	1102.2	1121.4	1141.6	1166.4	1185.6	1208.1
47.5°	1004.3	1021.2	1039.2	1059.5	1083.1	1103.4	1125.9
50°	917.6	934.5	952.5	972.8	996.4	1016.7	1040.3
52.5°	828.6	844.4	860.2	881.6	906.3	933.4	949.1
55°	736.3	751.0	764.5	785.9	810.6	827.5	853.4
57.5°	638.4	651.9	664.3	684.5	708.2	735.2	749.8
60°	533.7	547.2	556.2	574.2	596.7	609.1	633.9
62.5°	418.8	429.0	431.2	445.8	466.1	487.5	498.8
65°	296.1	306.2	313.0	327.6	345.6	363.7	371.5
67.5°	190.3	200.4	203.8	213.9	225.2	235.3	239.8
70°	111.5	117.1	118.2	125.0	130.6	136.2	139.6
72.5°	66.4	69.8	72.1	76.6	79.9	84.4	86.7
75°	42.8	43.9	46.2	48.4	51.8	54.0	55.2
77.5°	27.0	28.1	28.1	30.4	31.5	33.8	34.9
80°	16.9	16.9	16.9	18.0	19.1	19.1	20.3
82.5°	9.0	9.0	9.0	9.0	10.1	10.1	10.1
85°	4.5	4.5	4.5	4.5	4.5	4.5	4.5
87.5°	2.3	1.1	1.1	1.1	1.1	1.1	1.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)