

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: P24519

Luminaire Tested: **MPR3-G-LD3-UNV-XX/XX/STD-ED3C-S68I/OLK12**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P24519
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/OLK12
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: 4454.9 lumens
Efficiency: N/A
Efficacy: 64.8 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.12 / 1.24
Luminous Opening: Rectangular w/ Sides (W: 1.88' x L: 1.35' x H: 0.1')
CIE Type: Direct

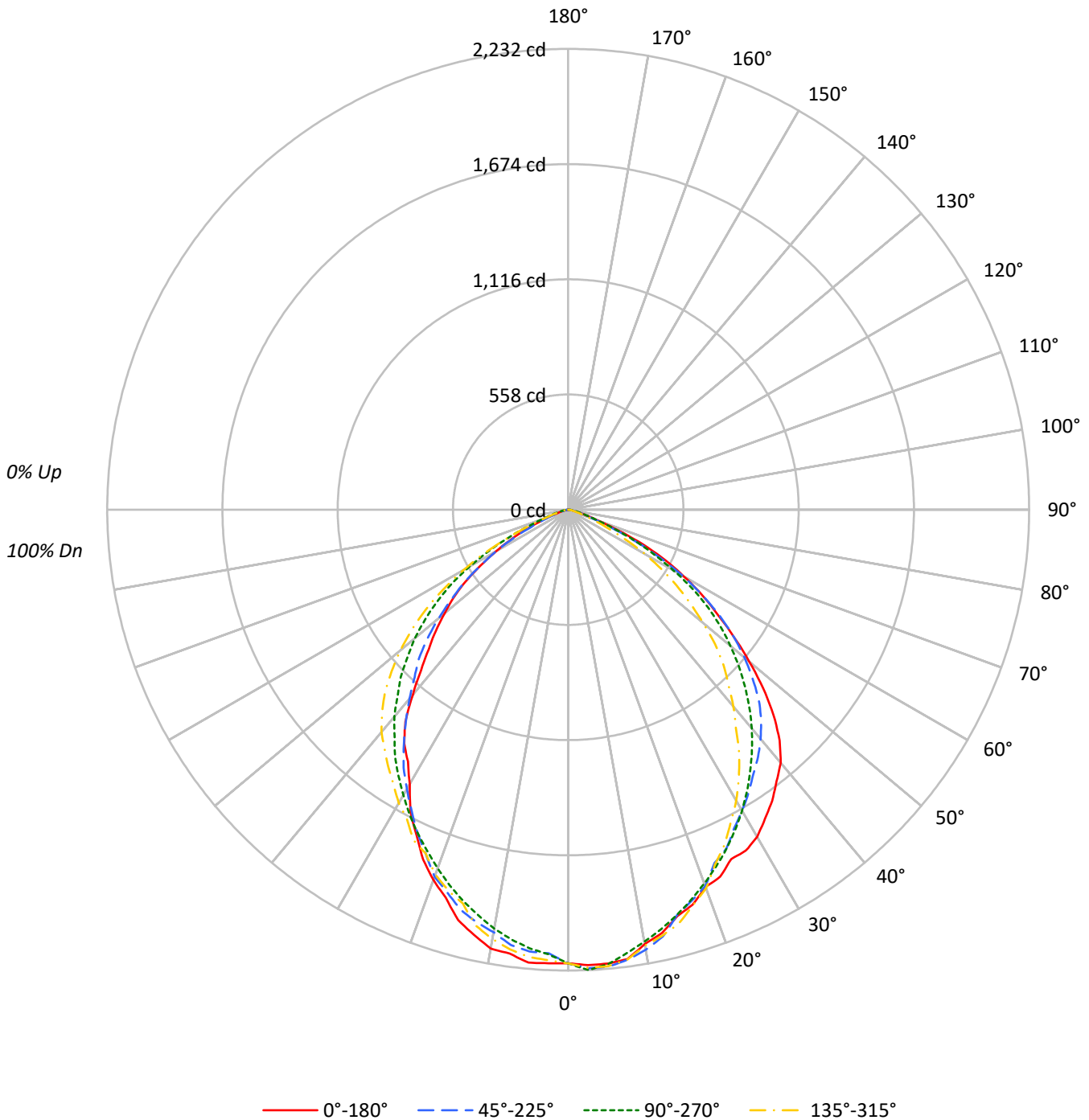
Input Watts (W): 68.8
Input Voltage (V): 120.05
Input Current (Ain): 0.574
Voltage Rise (V): NR
Power Factor: 0.9989
Total Harmonic Distortion (THDi): 7.18%
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: 3 HR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	94	92	90					89				
2	103	96	90	85	100	94	89	84	91	86	83	87	84	81	85	82	79					77				
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69					67				
4	88	77	69	64	85	76	69	63	73	67	62	71	66	61	69	65	61					59				
5	81	70	62	56	79	69	61	55	67	60	55	65	59	54	63	58	54					52				
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48					46				
7	70	58	50	44	68	57	49	44	55	49	44	54	48	43	53	47	43					41				
8	65	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39					37				
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35					34				
10	58	45	38	33	56	45	38	33	44	37	33	43	37	32	42	36	32					31				

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	9312	9312	9312	9312
5°	9330	9357	9311	9032
10°	9076	9060	9171	8787
15°	8775	8793	8857	8491
20°	8542	8525	8384	8177
25°	8441	8273	7861	7878
30°	8590	7993	7205	7576
35°	8471	7673	6809	7291
40°	8343	7324	6102	6936
45°	7851	6882	5330	6523
50°	6941	6354	4729	6005
55°	5894	5676	4065	5305
60°	4867	4579	3021	4282
65°	3480	3193	1930	2858
70°	1578	1595	870	1400
75°	709	892	420	799
80°	310	590	194	506
85°	90	408	90	305



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	206.9	4.6
10°-20°	570.7	12.8
20°-30°	820.7	18.4
30°-40°	937.8	21.1
40°-50°	892.5	20.0
50°-60°	664.2	14.9
60°-70°	294.9	6.6
70°-80°	57.4	1.3
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°	1598.3	35.9
0°-40°	2536.1	56.9
0°-60°	4092.8	91.9
0°-90°	4454.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4454.9	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2197	2197	2197	2197	2197	
5°	2207	2209	2202	2132	2207	209
15°	2039	2032	2058	1962	2039	577
25°	1867	1813	1738	1726	1867	871
35°	1722	1538	1384	1461	1722	1076
45°	1406	1209	955	1146	1406	1074
55°	882	826	608	772	882	793
65°	402	355	223	318	402	394
75°	55	65	33	58	55	69
85°	3	14	3	10	3	6
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°	2196.6	2196.6	2196.6	2196.6	2196.6	2196.6	2196.6	2196.6	2196.6	2196.6	2196.6
2.5°	2207.9	2210.1	2215.7	2221.4	2228.1	2231.5	2233.7	2227.0	2222.5	2223.6	2229.2
5°	2206.7	2213.5	2216.9	2222.5	2229.2	2232.6	2232.6	2228.1	2221.4	2221.4	2224.7
7.5°	2195.5	2201.1	2202.2	2206.7	2215.7	2219.1	2220.2	2213.5	2203.3	2198.8	2200.0
10°	2135.8	2148.2	2144.8	2156.1	2179.7	2187.6	2185.3	2182.0	2170.7	2163.9	2161.7
12.5°	2099.8	2103.1	2103.1	2106.5	2107.6	2106.5	2105.4	2108.8	2115.5	2117.8	2116.7
15°	2039.0	2052.5	2052.5	2073.9	2081.8	2079.5	2071.6	2053.6	2036.7	2033.3	2050.2
17.5°	2005.2	2005.2	2004.1	2000.7	1993.9	1989.4	1996.2	2004.1	2001.8	1986.1	1974.8
20°	1944.4	1947.8	1946.6	1965.8	1970.3	1961.3	1945.5	1920.8	1916.2	1939.9	1934.3
22.5°	1924.1	1923.0	1917.4	1908.4	1894.9	1882.5	1889.2	1892.6	1869.0	1852.1	1871.2
25°	1866.7	1867.8	1857.7	1854.3	1857.7	1854.3	1834.1	1811.5	1816.0	1811.5	1791.3
27.5°	1862.2	1863.3	1855.5	1837.4	1814.9	1790.1	1778.9	1777.8	1748.5	1739.5	1750.7
30°	1829.6	1828.4	1814.9	1793.5	1774.4	1768.8	1742.9	1709.1	1699.0	1683.2	1677.6
32.5°	1774.4	1774.4	1768.8	1766.5	1749.6	1722.6	1694.4	1680.9	1635.9	1625.8	1615.6
35°	1721.5	1722.6	1711.3	1696.7	1678.7	1668.6	1661.8	1621.3	1592.0	1562.7	1557.1
37.5°	1657.3	1656.2	1639.3	1621.3	1611.1	1607.8	1589.7	1571.7	1535.7	1509.8	1482.8
40°	1601.0	1596.5	1576.2	1559.3	1545.8	1526.7	1506.4	1497.4	1474.9	1449.0	1426.5
42.5°	1515.4	1512.1	1497.4	1486.2	1472.7	1451.3	1437.7	1411.9	1404.0	1382.6	1351.1
45°	1406.2	1407.4	1392.7	1389.3	1378.1	1366.8	1354.4	1329.7	1312.8	1306.0	1283.5
47.5°	1280.1	1281.3	1273.4	1271.1	1261.0	1262.1	1254.2	1238.5	1222.7	1211.4	1199.1
50°	1145.0	1142.8	1137.1	1138.3	1133.8	1142.8	1134.9	1134.9	1122.5	1114.6	1104.5
52.5°	1009.9	1005.4	998.7	1000.9	997.5	1009.9	1008.8	1012.2	1014.4	1009.9	1004.3
55°	881.6	872.6	864.7	866.9	865.8	873.7	872.6	882.7	891.7	895.1	890.6
57.5°	767.9	757.7	740.8	734.1	737.5	738.6	739.7	747.6	760.0	769.0	760.0
60°	647.4	635.0	623.7	614.7	609.1	608.0	606.8	612.5	622.6	636.1	630.5
62.5°	533.7	517.9	501.0	488.6	481.9	480.8	472.9	471.7	481.9	494.3	492.0
65°	401.9	388.4	374.9	363.7	354.7	350.1	340.0	340.0	343.4	350.1	349.0
67.5°	263.5	254.4	247.7	243.2	237.6	234.2	222.9	217.3	216.2	221.8	231.9
70°	153.1	146.4	145.2	143.0	141.9	139.6	131.7	127.2	126.1	128.4	137.4
72.5°	90.1	87.8	85.6	84.4	82.2	81.1	77.7	76.6	77.7	78.8	83.3
75°	55.2	52.9	52.9	51.8	51.8	50.7	49.5	49.5	50.7	51.8	54.0
77.5°	31.5	31.5	31.5	31.5	31.5	31.5	32.7	32.7	33.8	34.9	37.2
80°	18.0	18.0	18.0	19.1	19.1	20.3	20.3	21.4	22.5	23.6	24.8
82.5°	9.0	9.0	9.0	10.1	11.3	12.4	12.4	13.5	14.6	15.8	16.9
85°	3.4	4.5	4.5	5.6	6.8	6.8	7.9	9.0	9.0	10.1	10.1
87.5°	1.1	2.3	2.3	3.4	3.4	4.5	5.6	5.6	6.8	6.8	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°	2196.6	2196.6	2196.6	2196.6	2196.6	2196.6	2196.6	2196.6	2196.6	2196.6	2196.6
2.5°	2230.4	2230.4	2229.2	2229.2	2232.6	2233.7	2230.4	2231.5	2229.2	2231.5	2233.7
5°	2225.9	2222.5	2219.1	2215.7	2214.6	2213.5	2206.7	2209.0	2204.5	2207.9	2212.4
7.5°	2197.7	2194.3	2188.7	2185.3	2182.0	2177.5	2168.4	2167.3	2161.7	2168.4	2175.2
10°	2160.6	2156.1	2150.4	2148.2	2143.7	2138.0	2126.8	2124.5	2120.0	2125.7	2135.8
12.5°	2113.3	2109.9	2104.3	2103.1	2098.6	2091.9	2082.9	2080.6	2075.0	2084.0	2096.4
15°	2061.5	2058.1	2051.4	2052.5	2049.1	2042.3	2032.2	2032.2	2028.8	2040.1	2053.6
17.5°	1984.9	2004.1	1997.3	1999.6	1997.3	1990.6	1979.3	1980.4	1980.4	1996.2	2009.7
20°	1920.8	1930.9	1942.1	1943.3	1942.1	1935.4	1925.3	1926.4	1926.4	1947.8	1954.5
22.5°	1881.3	1862.2	1884.7	1885.8	1884.7	1879.1	1867.8	1871.2	1873.5	1894.9	1892.6
25°	1810.4	1811.5	1805.9	1826.2	1823.9	1820.5	1810.4	1812.7	1817.2	1838.6	1830.7
27.5°	1733.9	1754.1	1745.1	1759.8	1760.9	1758.6	1755.2	1749.6	1764.3	1774.4	1769.9
30°	1684.3	1666.3	1688.8	1680.9	1694.4	1689.9	1687.7	1683.2	1699.0	1703.5	1705.7
32.5°	1619.0	1608.9	1621.3	1607.8	1624.6	1619.0	1616.8	1612.3	1630.3	1628.0	1637.0
35°	1534.6	1548.1	1531.2	1540.2	1548.1	1544.7	1542.5	1538.0	1557.1	1550.3	1561.6
37.5°	1474.9	1461.4	1456.9	1467.0	1465.9	1468.1	1467.0	1461.4	1480.5	1471.5	1479.4
40°	1392.7	1386.0	1384.8	1382.6	1379.2	1387.1	1387.1	1382.6	1398.3	1390.5	1395.0
42.5°	1324.0	1313.9	1297.0	1290.3	1293.6	1303.8	1303.8	1298.1	1310.5	1303.8	1306.0
45°	1241.8	1225.0	1210.3	1203.6	1208.1	1217.1	1217.1	1209.2	1217.1	1212.6	1209.2
47.5°	1163.0	1143.9	1127.0	1115.7	1116.9	1124.8	1125.9	1119.1	1122.5	1114.6	1106.7
50°	1079.7	1050.4	1030.2	1016.7	1017.8	1027.9	1033.6	1024.6	1025.7	1015.5	1002.0
52.5°	985.1	958.1	936.7	922.1	919.8	937.9	937.9	928.9	926.6	915.3	897.3
55°	875.9	853.4	835.4	823.0	818.5	835.4	835.4	826.4	823.0	808.4	784.7
57.5°	761.1	744.2	728.4	714.9	711.6	726.2	726.2	714.9	710.4	693.5	667.6
60°	635.0	623.7	611.4	599.0	592.2	602.3	601.2	590.0	583.2	566.3	540.4
62.5°	498.8	492.0	483.0	471.7	468.4	476.2	476.2	468.4	460.5	440.2	415.4
65°	359.2	359.2	359.2	356.9	358.0	365.9	364.8	354.7	347.9	331.0	306.2
67.5°	236.4	246.6	252.2	251.1	248.8	252.2	247.7	238.7	235.3	221.8	204.9
70°	144.1	154.2	159.9	158.7	155.4	156.5	153.1	147.5	146.4	137.4	127.2
72.5°	86.7	92.3	96.8	99.1	99.1	101.3	99.1	95.7	94.6	90.1	82.2
75°	56.3	59.7	63.0	65.3	65.3	67.6	67.6	65.3	64.2	60.8	56.3
77.5°	38.3	40.5	42.8	43.9	45.0	47.3	46.2	45.0	45.0	41.7	38.3
80°	25.9	27.0	28.1	30.4	30.4	31.5	31.5	31.5	31.5	29.3	27.0
82.5°	16.9	18.0	19.1	20.3	20.3	21.4	21.4	21.4	21.4	19.1	18.0
85°	11.3	11.3	12.4	13.5	13.5	13.5	13.5	13.5	13.5	12.4	12.4
87.5°	7.9	7.9	7.9	9.0	9.0	9.0	9.0	9.0	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°	2196.6	2196.6	2196.6	2196.6	2196.6	2196.6	2196.6	2196.6	2196.6	2196.6	2196.6
2.5°	2230.4	2228.1	2227.0	2225.9	2223.6	2221.4	2215.7	2213.5	2213.5	2219.1	2218.0
5°	2210.1	2210.1	2211.2	2215.7	2218.0	2219.1	2218.0	2216.9	2220.2	2224.7	2223.6
7.5°	2178.6	2182.0	2187.6	2193.2	2196.6	2196.6	2192.1	2186.5	2187.6	2188.7	2186.5
10°	2143.7	2149.3	2150.4	2149.3	2145.9	2143.7	2144.8	2149.3	2160.6	2170.7	2172.9
12.5°	2104.3	2103.1	2097.5	2094.1	2100.9	2112.2	2117.8	2120.0	2125.7	2124.5	2123.4
15°	2058.1	2048.0	2045.7	2057.0	2068.2	2073.9	2062.6	2057.0	2063.7	2070.5	2076.1
17.5°	2005.2	1995.1	2008.6	2015.3	2011.9	2008.6	2009.7	2006.3	2001.8	1982.7	1981.5
20°	1945.5	1953.4	1962.4	1953.4	1951.2	1951.2	1930.9	1910.6	1912.9	1915.1	1923.0
22.5°	1892.6	1905.0	1899.4	1894.9	1885.8	1858.8	1847.6	1844.2	1840.8	1831.8	1829.6
25°	1840.8	1843.1	1837.4	1825.1	1795.8	1790.1	1773.3	1751.9	1755.2	1760.9	1755.2
27.5°	1783.4	1774.4	1767.6	1736.1	1728.2	1705.7	1691.1	1685.4	1674.2	1656.2	1651.7
30°	1712.5	1705.7	1676.4	1664.1	1637.0	1626.9	1612.3	1581.9	1577.4	1568.4	1527.8
32.5°	1633.7	1622.4	1596.5	1574.0	1559.3	1538.0	1510.9	1490.7	1450.1	1447.9	1454.6
35°	1558.2	1528.9	1512.1	1487.3	1471.5	1443.4	1405.1	1375.8	1372.4	1349.9	1363.4
37.5°	1472.7	1445.6	1416.4	1402.8	1378.1	1334.2	1311.7	1285.8	1284.6	1285.8	1288.0
40°	1377.0	1353.3	1333.0	1304.9	1274.5	1244.1	1216.0	1212.6	1201.3	1193.4	1193.4
42.5°	1282.4	1256.5	1234.0	1209.2	1179.9	1147.3	1137.1	1122.5	1105.6	1074.1	1075.2
45°	1186.7	1163.0	1139.4	1106.7	1076.3	1064.0	1045.9	1012.2	993.0	964.9	961.5
47.5°	1079.7	1057.2	1029.1	1004.3	990.8	963.8	931.1	906.3	882.7	872.6	862.4
50°	977.3	954.7	932.2	905.2	883.8	852.3	821.9	805.0	784.7	774.6	767.9
52.5°	870.3	847.8	818.5	799.4	773.5	742.0	723.9	704.8	690.2	678.9	676.7
55°	762.2	736.3	711.6	687.9	659.8	640.6	621.5	606.8	594.5	586.6	586.6
57.5°	646.3	620.4	596.7	575.3	555.1	533.7	520.2	504.4	499.9	494.3	492.0
60°	520.2	501.0	480.8	462.7	443.6	429.0	414.3	406.4	399.7	386.2	381.7
62.5°	391.8	376.0	360.3	349.0	329.9	317.5	308.5	298.4	293.9	288.2	291.6
65°	284.8	268.0	249.9	239.8	221.8	212.8	206.0	207.2	210.5	206.0	209.4
67.5°	191.4	177.9	163.3	150.9	138.5	136.2	135.1	132.9	138.5	136.2	136.2
70°	118.2	110.3	100.2	94.6	87.8	86.7	85.6	85.6	84.4	82.2	82.2
72.5°	76.6	70.9	65.3	60.8	57.4	55.2	54.0	51.8	51.8	51.8	51.8
75°	51.8	48.4	45.0	42.8	39.4	37.2	36.0	34.9	36.0	36.0	36.0
77.5°	36.0	33.8	31.5	29.3	28.1	25.9	24.8	23.6	22.5	21.4	22.5
80°	24.8	23.6	21.4	20.3	19.1	18.0	16.9	15.8	14.6	14.6	13.5
82.5°	16.9	15.8	15.8	14.6	13.5	12.4	11.3	11.3	10.1	9.0	9.0
85°	11.3	11.3	10.1	10.1	10.1	9.0	7.9	7.9	6.8	5.6	5.6
87.5°	7.9	7.9	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: P24519

CATALOG NUMBER: MPR3-G-LD3-UNV-XX/XX/STD-ED3C-S68I/OLK12

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	2196.6	2196.6	2196.6	2196.6	2196.6	2196.6	2196.6	2196.6	2196.6	2196.6	2196.6
2.5°	2214.6	2210.1	2207.9	2198.8	2186.5	2175.2	2169.6	2170.7	2172.9	2169.6	2162.8
5°	2220.2	2215.7	2213.5	2202.2	2189.8	2179.7	2172.9	2178.6	2178.6	2174.1	2167.3
7.5°	2180.8	2178.6	2178.6	2168.4	2152.7	2142.5	2136.9	2142.5	2142.5	2135.8	2134.7
10°	2170.7	2168.4	2170.7	2158.3	2145.9	2132.4	2125.7	2129.0	2122.3	2109.9	2097.5
12.5°	2118.9	2117.8	2118.9	2108.8	2097.5	2084.0	2080.6	2086.3	2084.0	2076.1	2071.6
15°	2076.1	2072.7	2072.7	2058.1	2049.1	2040.1	2033.3	2042.3	2034.5	2021.0	2010.8
17.5°	1982.7	1981.5	1982.7	1970.3	1957.9	1947.8	1946.6	1950.0	1953.4	1959.0	1963.5
20°	1923.0	1919.6	1917.4	1908.4	1891.5	1883.6	1887.0	1888.1	1879.1	1869.0	1866.7
22.5°	1834.1	1838.6	1839.7	1834.1	1818.3	1804.8	1799.2	1800.3	1793.5	1796.9	1801.4
25°	1746.2	1742.9	1741.7	1738.4	1718.1	1711.3	1722.6	1728.2	1721.5	1712.5	1709.1
27.5°	1652.8	1657.3	1658.4	1652.8	1634.8	1624.6	1626.9	1622.4	1614.5	1626.9	1638.2
30°	1522.2	1532.3	1539.1	1534.6	1514.3	1498.5	1497.4	1507.6	1524.4	1538.0	1534.6
32.5°	1442.3	1443.4	1450.1	1444.5	1424.2	1414.1	1423.1	1420.9	1410.7	1418.6	1449.0
35°	1372.4	1384.8	1395.0	1383.7	1369.1	1355.6	1345.4	1330.8	1322.9	1339.8	1333.0
37.5°	1282.4	1292.5	1303.8	1294.8	1281.3	1265.5	1262.1	1256.5	1258.7	1248.6	1248.6
40°	1166.4	1170.9	1179.9	1170.9	1158.5	1147.3	1156.3	1167.5	1167.5	1169.8	1174.3
42.5°	1057.2	1059.5	1065.1	1054.9	1056.1	1036.9	1048.2	1050.4	1053.8	1080.8	1085.3
45°	951.4	954.7	964.9	954.7	944.6	935.6	941.2	937.9	948.0	969.4	982.9
47.5°	854.5	859.0	868.1	870.3	862.4	842.2	846.7	839.9	843.3	861.3	879.3
50°	760.0	766.7	778.0	780.2	770.1	751.0	754.3	747.6	747.6	762.2	783.6
52.5°	669.9	682.3	695.8	699.2	690.2	668.8	662.0	659.8	657.5	669.9	676.7
55°	585.5	594.5	605.7	608.0	602.3	582.1	578.7	570.8	565.2	579.8	581.0
57.5°	479.6	486.4	498.8	501.0	494.3	484.1	479.6	478.5	484.1	478.5	481.9
60°	379.4	387.3	399.7	401.9	396.3	377.2	376.0	370.4	379.4	383.9	382.8
62.5°	298.4	299.5	311.9	313.0	308.5	299.5	289.4	282.6	280.3	275.8	278.1
65°	212.8	211.7	221.8	222.9	220.7	215.0	208.3	207.2	200.4	193.7	191.4
67.5°	131.7	135.1	140.7	141.9	140.7	138.5	134.0	131.7	135.1	134.0	126.1
70°	83.3	81.1	84.4	84.4	84.4	82.2	83.3	81.1	78.8	82.2	82.2
72.5°	51.8	50.7	51.8	52.9	51.8	51.8	50.7	49.5	49.5	51.8	47.3
75°	34.9	32.7	32.7	32.7	32.7	31.5	34.9	37.2	38.3	30.4	31.5
77.5°	22.5	20.3	20.3	20.3	20.3	21.4	21.4	19.1	20.3	20.3	20.3
80°	12.4	12.4	11.3	11.3	11.3	11.3	11.3	11.3	12.4	12.4	13.5
82.5°	7.9	6.8	6.8	5.6	5.6	6.8	6.8	6.8	7.9	7.9	9.0
85°	4.5	4.5	3.4	3.4	3.4	3.4	4.5	4.5	4.5	5.6	5.6
87.5°	3.4	2.3	2.3	1.1	2.3	2.3	2.3	2.3	3.4	3.4	3.4
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: P24519

CATALOG NUMBER: MPR3-G-LD3-UNV-XX/XX/STD-ED3C-S68I/OLK12

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	2196.6	2196.6	2196.6	2196.6	2196.6	2196.6	2196.6	2196.6	2196.6	2196.6	2196.6
2.5°	2156.1	2150.4	2144.8	2141.4	2141.4	2143.7	2144.8	2152.7	2154.9	2157.2	2156.1
5°	2157.2	2148.2	2139.2	2132.4	2129.0	2129.0	2125.7	2129.0	2129.0	2130.2	2132.4
7.5°	2127.9	2126.8	2120.0	2112.2	2106.5	2105.4	2097.5	2096.4	2095.3	2096.4	2099.8
10°	2082.9	2078.4	2073.9	2071.6	2076.1	2076.1	2069.4	2064.9	2058.1	2058.1	2060.4
12.5°	2058.1	2046.8	2030.0	2018.7	2026.6	2037.8	2035.6	2027.7	2016.5	2010.8	2011.9
15°	2002.9	2007.4	1997.3	1982.7	1972.5	1981.5	1987.2	1983.8	1970.3	1961.3	1962.4
17.5°	1952.3	1944.4	1942.1	1939.9	1929.8	1924.1	1929.8	1934.3	1921.9	1909.5	1907.2
20°	1876.8	1891.5	1881.3	1873.5	1880.2	1876.8	1867.8	1874.6	1867.8	1852.1	1847.6
22.5°	1793.5	1803.7	1820.5	1813.8	1811.5	1822.8	1809.3	1808.2	1808.2	1791.3	1786.8
25°	1719.2	1727.1	1723.7	1742.9	1742.9	1755.2	1750.7	1739.5	1747.4	1731.6	1726.0
27.5°	1632.5	1642.7	1647.2	1648.3	1676.4	1678.7	1694.4	1673.1	1684.3	1671.9	1664.1
30°	1553.7	1561.6	1561.6	1574.0	1593.1	1614.5	1617.9	1607.8	1610.0	1603.3	1595.4
32.5°	1454.6	1482.8	1486.2	1500.8	1512.1	1538.0	1542.5	1539.1	1534.6	1538.0	1528.9
35°	1358.9	1387.1	1407.4	1414.1	1435.5	1451.3	1471.5	1471.5	1461.4	1469.3	1461.4
37.5°	1267.7	1291.4	1312.8	1338.7	1347.7	1371.3	1390.5	1384.8	1375.8	1387.1	1381.5
40°	1169.8	1194.6	1221.6	1245.2	1264.4	1281.3	1297.0	1302.6	1300.4	1311.7	1309.4
42.5°	1094.4	1101.1	1123.6	1152.9	1170.9	1188.9	1208.1	1217.1	1212.6	1222.7	1222.7
45°	1012.2	1022.3	1023.4	1051.6	1079.7	1095.5	1114.6	1129.3	1130.4	1141.6	1146.1
47.5°	899.6	925.5	941.2	957.0	977.3	1002.0	1022.3	1032.4	1034.7	1045.9	1053.8
50°	799.4	819.6	836.5	857.9	879.3	899.6	918.7	933.4	943.5	958.1	968.3
52.5°	701.4	709.3	731.8	754.3	771.2	799.4	819.6	828.6	843.3	859.0	872.6
55°	597.8	613.6	619.2	650.8	666.5	690.2	714.9	723.9	739.7	756.6	772.4
57.5°	499.9	503.3	519.0	539.3	564.1	575.3	595.6	626.0	632.7	650.8	668.8
60°	391.8	405.3	409.8	427.8	447.0	462.7	472.9	504.4	511.1	532.5	551.7
62.5°	293.9	297.2	298.4	316.4	328.8	346.8	352.4	381.7	394.1	414.3	432.3
65°	195.9	199.3	193.7	212.8	220.7	238.7	249.9	275.8	283.7	301.7	317.5
67.5°	125.0	121.6	119.3	129.5	139.6	153.1	170.0	180.1	183.5	197.0	207.2
70°	82.2	76.6	74.3	79.9	85.6	93.4	104.7	111.5	114.8	122.7	129.5
72.5°	48.4	48.4	51.8	52.9	56.3	60.8	67.6	73.2	75.4	81.1	84.4
75°	32.7	32.7	34.9	37.2	38.3	41.7	46.2	49.5	51.8	55.2	58.5
77.5°	21.4	22.5	23.6	24.8	27.0	29.3	31.5	33.8	37.2	38.3	40.5
80°	14.6	14.6	15.8	16.9	18.0	19.1	21.4	22.5	24.8	25.9	27.0
82.5°	9.0	10.1	10.1	11.3	12.4	12.4	13.5	14.6	15.8	16.9	18.0
85°	5.6	6.8	6.8	7.9	7.9	7.9	7.9	9.0	10.1	10.1	10.1
87.5°	4.5	4.5	4.5	4.5	4.5	5.6	5.6	5.6	5.6	5.6	5.6
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: P24519

CATALOG NUMBER: MPR3-G-LD3-UNV-XX/XX/STD-ED3C-S68I/OLK12

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	2196.6	2196.6	2196.6	2196.6	2196.6	2196.6	2196.6	2196.6	2196.6	2196.6	2196.6
2.5°	2156.1	2158.3	2158.3	2159.4	2160.6	2169.6	2178.6	2184.2	2184.2	2185.3	2187.6
5°	2132.4	2139.2	2142.5	2145.9	2149.3	2158.3	2167.3	2172.9	2175.2	2177.5	2182.0
7.5°	2103.1	2109.9	2113.3	2115.5	2117.8	2126.8	2136.9	2143.7	2148.2	2153.8	2160.6
10°	2061.5	2068.2	2071.6	2076.1	2079.5	2087.4	2099.8	2107.6	2112.2	2118.9	2127.9
12.5°	2013.1	2021.0	2025.5	2028.8	2033.3	2042.3	2052.5	2061.5	2063.7	2054.7	2046.8
15°	1962.4	1971.4	1973.7	1978.2	1981.5	1989.4	1997.3	1988.3	1973.7	1983.8	2002.9
17.5°	1907.2	1915.1	1920.8	1924.1	1926.4	1933.1	1915.1	1917.4	1933.1	1952.3	1956.8
20°	1847.6	1857.7	1863.3	1867.8	1870.1	1852.1	1855.5	1876.8	1880.2	1865.6	1881.3
22.5°	1786.8	1798.0	1802.5	1807.0	1796.9	1789.0	1811.5	1805.9	1802.5	1828.4	1847.6
25°	1727.1	1737.2	1739.5	1744.0	1721.5	1739.5	1737.2	1739.5	1768.8	1760.9	1769.9
27.5°	1664.1	1674.2	1676.4	1671.9	1665.2	1676.4	1666.3	1695.6	1689.9	1706.8	1733.9
30°	1597.6	1608.9	1611.1	1597.6	1608.9	1593.1	1616.8	1610.0	1640.4	1650.5	1669.7
32.5°	1531.2	1539.1	1545.8	1526.7	1531.2	1536.8	1539.1	1561.6	1575.1	1597.6	1637.0
35°	1462.5	1472.7	1470.4	1462.5	1449.0	1467.0	1471.5	1495.2	1518.8	1543.6	1584.1
37.5°	1381.5	1391.6	1381.5	1384.8	1386.0	1384.8	1405.1	1428.7	1460.3	1498.5	1524.4
40°	1309.4	1318.4	1302.6	1290.3	1306.0	1316.2	1326.3	1366.8	1406.2	1427.6	1454.6
42.5°	1222.7	1235.1	1223.8	1213.7	1222.7	1232.8	1259.9	1298.1	1333.0	1355.6	1369.1
45°	1146.1	1152.9	1138.3	1128.1	1140.5	1152.9	1178.8	1222.7	1255.4	1264.4	1288.0
47.5°	1052.7	1060.6	1049.3	1044.8	1050.4	1070.7	1101.1	1139.4	1159.7	1173.2	1196.8
50°	968.3	971.6	954.7	945.7	957.0	980.6	1017.8	1040.3	1060.6	1071.8	1091.0
52.5°	872.6	869.2	857.9	856.8	865.8	887.2	921.0	937.9	953.6	960.4	970.5
55°	772.4	770.1	764.5	752.1	764.5	784.7	812.9	823.0	838.8	837.7	842.2
57.5°	669.9	666.5	659.8	649.6	659.8	674.4	696.9	705.9	716.1	708.2	711.6
60°	551.7	547.2	541.5	535.9	547.2	558.4	575.3	582.1	587.7	576.5	578.7
62.5°	431.2	424.5	420.0	415.4	423.3	432.3	447.0	449.2	454.9	444.7	448.1
65°	315.2	313.0	311.9	305.1	307.4	307.4	314.1	316.4	320.9	313.0	319.7
67.5°	204.9	204.9	207.2	203.8	206.0	202.7	202.7	197.0	199.3	193.7	201.5
70°	128.4	127.2	128.4	126.1	126.1	123.8	121.6	117.1	116.0	112.6	117.1
72.5°	84.4	83.3	83.3	79.9	78.8	76.6	75.4	72.1	72.1	69.8	70.9
75°	57.4	57.4	56.3	54.0	51.8	49.5	49.5	47.3	47.3	45.0	45.0
77.5°	40.5	39.4	38.3	37.2	34.9	34.9	32.7	31.5	31.5	29.3	29.3
80°	27.0	27.0	25.9	24.8	23.6	22.5	21.4	21.4	20.3	19.1	18.0
82.5°	18.0	16.9	16.9	15.8	15.8	14.6	13.5	12.4	12.4	11.3	11.3
85°	10.1	10.1	10.1	10.1	9.0	9.0	7.9	7.9	6.8	6.8	5.6
87.5°	5.6	5.6	5.6	5.6	5.6	5.6	4.5	4.5	4.5	3.4	3.4
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: P24519

CATALOG NUMBER: MPR3-G-LD3-UNV-XX/XX/STD-ED3C-S68I/OLK12

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	2196.6	2196.6	2196.6	2196.6	2196.6	2196.6	2196.6
2.5°	2192.1	2197.7	2205.6	2200.0	2202.2	2203.3	2207.9
5°	2187.6	2195.5	2202.2	2197.7	2201.1	2203.3	2206.7
7.5°	2170.7	2182.0	2187.6	2183.1	2187.6	2192.1	2195.5
10°	2138.0	2142.5	2142.5	2132.4	2133.5	2135.8	2135.8
12.5°	2053.6	2068.2	2078.4	2079.5	2087.4	2094.1	2099.8
15°	2026.6	2039.0	2044.6	2036.7	2037.8	2040.1	2039.0
17.5°	1948.9	1951.2	1970.3	1977.0	1989.4	1999.6	2005.2
20°	1907.2	1927.5	1945.5	1930.9	1933.1	1937.6	1944.4
22.5°	1845.3	1853.2	1873.5	1885.8	1902.7	1916.2	1924.1
25°	1801.4	1826.2	1834.1	1829.6	1845.3	1861.1	1866.7
27.5°	1739.5	1763.1	1794.7	1818.3	1840.8	1853.2	1862.2
30°	1711.3	1738.4	1753.0	1773.3	1799.2	1819.4	1829.6
32.5°	1658.4	1695.6	1729.4	1736.1	1747.4	1764.3	1774.4
35°	1623.5	1632.5	1655.0	1669.7	1691.1	1711.3	1721.5
37.5°	1547.0	1570.6	1583.0	1595.4	1619.0	1644.9	1657.3
40°	1470.4	1490.7	1518.8	1531.2	1556.0	1585.2	1601.0
42.5°	1396.1	1416.4	1444.5	1456.9	1473.8	1499.7	1515.4
45°	1313.9	1328.5	1352.2	1358.9	1371.3	1392.7	1406.2
47.5°	1217.1	1222.7	1235.1	1243.0	1250.9	1266.6	1280.1
50°	1098.9	1104.5	1109.0	1110.1	1114.6	1129.3	1145.0
52.5°	971.6	973.9	975.0	975.0	979.5	994.2	1009.9
55°	838.8	838.8	844.4	841.0	848.9	865.8	881.6
57.5°	707.1	704.8	716.1	710.4	730.7	749.8	767.9
60°	575.3	582.1	591.1	596.7	614.7	629.4	647.4
62.5°	447.0	454.9	470.6	472.9	496.5	515.7	533.7
65°	319.7	333.3	346.8	351.3	371.5	385.1	401.9
67.5°	207.2	219.5	231.9	231.9	244.3	249.9	263.5
70°	121.6	129.5	137.4	136.2	143.0	144.1	153.1
72.5°	72.1	76.6	81.1	84.4	84.4	90.1	90.1
75°	46.2	47.3	49.5	51.8	50.7	51.8	55.2
77.5°	28.1	29.3	30.4	29.3	30.4	32.7	31.5
80°	16.9	16.9	16.9	16.9	16.9	18.0	18.0
82.5°	10.1	10.1	9.0	9.0	9.0	9.0	9.0
85°	5.6	5.6	4.5	4.5	4.5	3.4	3.4
87.5°	3.4	3.4	2.3	2.3	2.3	1.1	1.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)