

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: PORTFOLIO

Report Number: P246239

Luminaire Tested: **LSR8B50D010 EC8B509727 8LBDW0MW**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P246239  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P13957)  
Test Lab: INNOVATION CENTER-P1  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LSR8B50D010 EC8B509727 8LBDW0MW  
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
97 CRI 2700 CCT WITH MATTE WHITE TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3842.0 lumens  
Efficiency: N/A  
Efficacy: 72.5 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.26 / 1.18  
Luminous Opening: Point Source (0' x 0' x 0')  
CIE Type: Direct

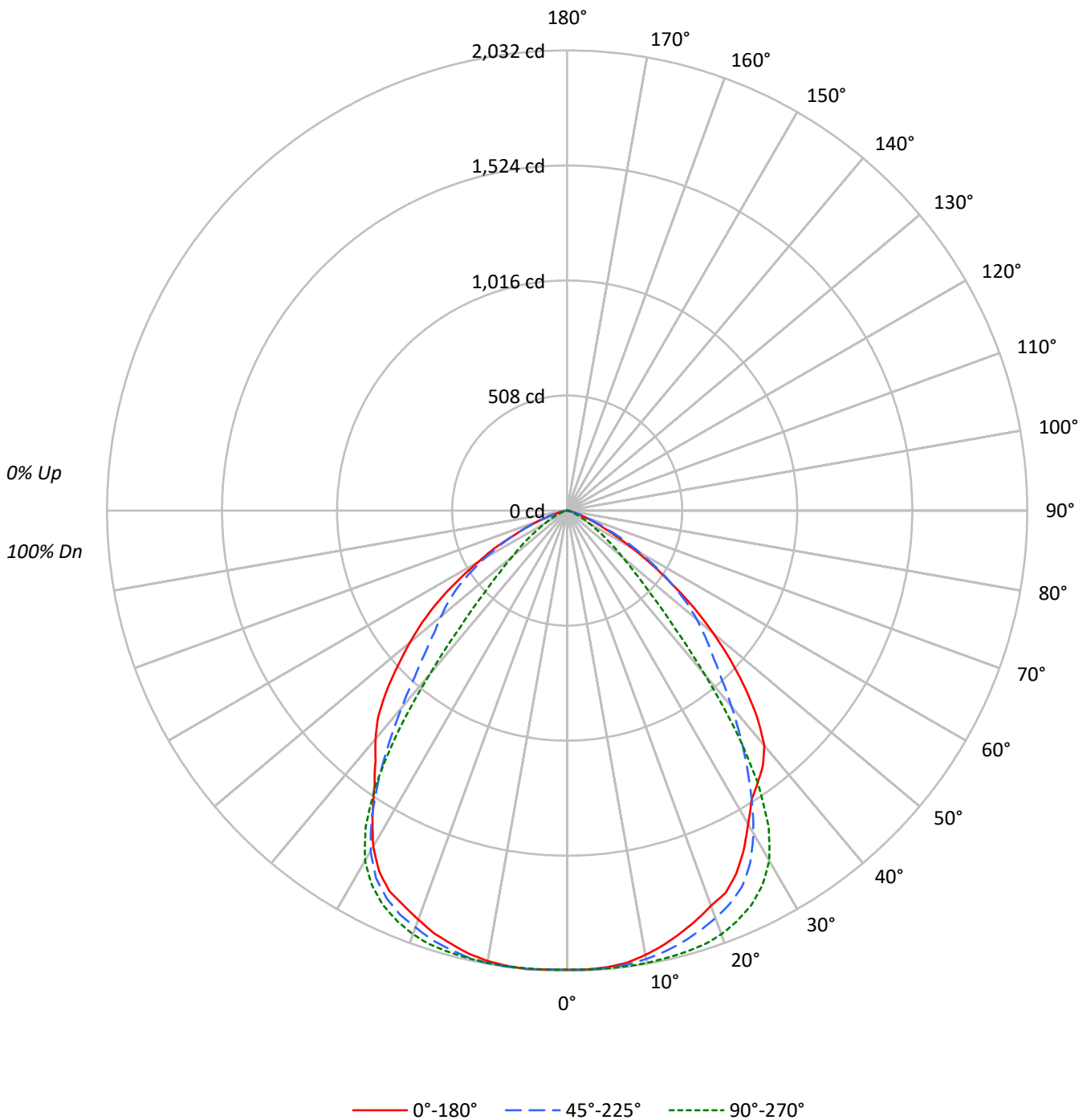
Input Watts (W): 53  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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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	112	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	90
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79
3	96	88	81	76	94	86	80	75	84	78	74	81	77	73	79	75	72	70
4	89	80	72	67	87	78	72	66	76	70	66	74	69	65	72	67	64	62
5	83	72	65	59	81	71	64	59	69	63	58	68	62	58	66	61	57	55
6	78	66	58	53	76	65	58	53	64	57	52	62	56	52	61	55	51	50
7	72	61	53	48	71	60	53	48	59	52	47	57	51	47	56	51	47	45
8	68	56	48	43	66	55	48	43	54	48	43	53	47	43	52	46	42	41
9	64	52	44	39	62	51	44	39	50	44	39	49	43	39	48	43	39	37
10	60	48	41	36	59	48	41	36	47	40	36	46	40	36	45	40	36	34

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

	0°	90°	180°
0°	Luminaire represents a point source (luminous area is zero).		
5°	No luminance values can be calculated.		
10°			
15°			
20°			
25°			
30°			
35°			
40°			
45°			
50°			
55°			
60°			
65°			
70°			
75°			
80°			
85°			



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	193.5	5.0
10°-20°	561.8	14.6
20°-30°	852.8	22.2
30°-40°	895.6	23.3
40°-50°	671.5	17.5
50°-60°	430.8	11.2
60°-70°	184.3	4.8
70°-80°	43.5	1.1
80°-90°	8.1	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°	1608.0	41.9
0°-40°	2503.7	65.2
0°-60°	3606.0	93.9
0°-90°	3842.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3842.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2027	2027	2027	2027	2027	
5°	2024	2027	2029	2032	2032	192
15°	1932	1973	2018	2005	1980	545
25°	1768	1830	1923	1888	1855	808
35°	1467	1385	1468	1450	1483	921
45°	1114	911	523	885	1129	853
55°	564	564	195	588	687	511
65°	170	200	62	258	262	181
75°	26	30	9	52	51	38
85°	9	5	4	9	12	9
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°	2027.1	2027.1	2027.1	2027.1	2027.1	2027.1	2027.1	2027.1	2027.1	2027.1	2027.1
2.5°	2028.2	2030.4	2029.3	2029.3	2028.2	2029.3	2029.3	2031.5	2031.5	2029.3	2028.2
5°	2023.8	2026.0	2026.0	2023.8	2023.8	2029.3	2026.0	2028.2	2028.2	2027.1	2027.1
7.5°	2014.1	2014.1	2018.4	2015.2	2015.2	2018.4	2017.3	2019.5	2021.7	2022.8	2022.8
10°	1992.3	1994.5	1995.6	1995.6	1996.7	1999.9	2002.1	2006.5	2008.6	2010.8	2011.9
12.5°	1965.1	1968.4	1969.4	1968.4	1971.6	1976.0	1981.4	1986.9	1990.1	1994.5	1997.7
15°	1932.4	1932.4	1934.6	1937.9	1940.1	1946.6	1952.0	1958.6	1967.3	1972.7	1978.2
17.5°	1896.6	1898.7	1902.0	1902.0	1906.3	1917.2	1920.5	1930.3	1940.1	1945.5	1956.4
20°	1857.4	1859.5	1862.8	1865.0	1870.4	1879.1	1885.7	1894.4	1905.3	1915.1	1925.9
22.5°	1826.9	1822.6	1824.7	1826.9	1832.4	1840.0	1847.6	1858.5	1869.3	1879.1	1890.0
25°	1768.1	1769.2	1772.5	1774.7	1781.2	1787.7	1796.4	1809.5	1819.3	1830.2	1842.1
27.5°	1688.7	1689.8	1695.2	1695.2	1700.7	1711.6	1717.0	1727.9	1741.0	1751.8	1766.0
30°	1598.4	1600.6	1600.6	1604.9	1608.2	1613.6	1619.1	1630.0	1636.5	1646.3	1665.9
32.5°	1515.7	1517.9	1516.8	1515.7	1512.4	1511.4	1510.3	1512.4	1514.6	1517.9	1525.5
35°	1466.8	1461.3	1457.0	1449.3	1440.6	1429.8	1420.0	1406.9	1394.9	1385.1	1374.3
37.5°	1420.0	1418.9	1412.3	1401.5	1384.0	1364.5	1341.6	1313.3	1285.0	1254.6	1225.2
40°	1354.7	1351.4	1346.0	1330.7	1311.1	1287.2	1256.8	1221.9	1176.2	1129.4	1081.6
42.5°	1243.7	1244.8	1238.2	1226.3	1207.8	1184.9	1153.4	1115.3	1066.3	1010.8	948.8
45°	1114.2	1114.2	1112.0	1102.2	1089.2	1070.7	1046.7	1015.2	967.3	910.7	844.3
47.5°	979.3	980.4	977.1	974.9	969.5	957.5	940.1	916.2	882.4	828.0	761.7
50°	842.2	842.2	847.6	846.5	846.5	842.2	834.6	820.4	791.0	747.5	685.5
52.5°	705.1	707.3	710.5	714.9	720.3	729.0	720.3	713.8	695.3	661.6	608.2
55°	563.6	565.8	571.2	578.9	585.4	594.1	596.3	596.3	586.5	563.6	523.4
57.5°	442.9	439.6	444.0	450.5	459.2	467.9	474.4	482.0	480.9	465.7	433.1
60°	333.0	334.0	337.3	343.8	350.4	358.0	366.7	373.2	376.5	368.9	348.2
62.5°	242.6	242.6	247.0	253.5	256.8	267.7	273.1	276.4	279.6	278.5	265.5
65°	169.8	171.9	174.1	177.4	180.6	187.1	190.4	196.9	199.1	200.2	190.4
67.5°	119.7	116.4	118.6	120.8	124.0	128.4	134.9	134.9	138.2	138.2	131.7
70°	76.2	76.2	77.3	80.5	82.7	83.8	86.0	88.1	91.4	90.3	90.3
72.5°	51.1	50.1	51.1	52.2	53.3	56.6	56.6	57.7	59.9	60.9	56.6
75°	26.1	27.2	29.4	28.3	31.5	29.4	30.5	33.7	32.6	30.5	30.5
77.5°	21.8	21.8	21.8	20.7	22.8	22.8	21.8	23.9	22.8	22.8	21.8
80°	15.2	16.3	15.2	14.1	15.2	14.1	14.1	14.1	14.1	14.1	13.0
82.5°	12.0	9.8	10.9	9.8	10.9	10.9	9.8	8.7	8.7	9.8	8.7
85°	8.7	6.5	7.6	7.6	6.5	6.5	6.5	6.5	6.5	5.4	5.4
87.5°	5.4	3.3	3.3	3.3	4.3	4.3	4.3	3.3	4.3	4.3	2.2
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):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2027.1	2027.1	2027.1	2027.1	2027.1	2027.1	2027.1	2027.1	2027.1	2027.1	2027.1
2.5°	2030.4	2029.3	2031.5	2030.4	2030.4	2029.3	2030.4	2029.3	2031.5	2027.1	2028.2
5°	2030.4	2028.2	2029.3	2030.4	2031.5	2029.3	2029.3	2029.3	2031.5	2029.3	2030.4
7.5°	2026.0	2024.9	2028.2	2030.4	2029.3	2028.2	2030.4	2029.3	2031.5	2030.4	2032.5
10°	2017.3	2018.4	2020.6	2023.8	2024.9	2026.0	2028.2	2028.2	2031.5	2027.1	2029.3
12.5°	2004.3	2008.6	2014.1	2016.2	2020.6	2020.6	2022.8	2023.8	2026.0	2024.9	2028.2
15°	1988.0	1993.4	1999.9	2005.4	2010.8	2014.1	2017.3	2018.4	2021.7	2018.4	2019.5
17.5°	1968.4	1974.9	1984.7	1991.2	1999.9	2003.2	2007.5	2009.7	2013.0	2010.8	2011.9
20°	1941.1	1948.8	1959.7	1969.4	1974.9	1982.5	1988.0	1991.2	1993.4	1991.2	1992.3
22.5°	1903.1	1914.0	1928.1	1935.7	1946.6	1953.1	1954.2	1961.8	1967.3	1961.8	1964.0
25°	1858.5	1869.3	1880.2	1896.6	1906.3	1914.0	1921.6	1922.7	1928.1	1927.0	1925.9
27.5°	1784.5	1798.6	1817.1	1830.2	1843.2	1855.2	1863.9	1866.1	1871.5	1869.3	1870.4
30°	1683.3	1698.5	1715.9	1736.6	1755.1	1767.1	1777.9	1785.6	1791.0	1787.7	1786.6
32.5°	1539.7	1554.9	1573.4	1594.1	1615.8	1633.2	1646.3	1656.1	1662.6	1660.4	1655.0
35°	1375.4	1379.7	1391.7	1408.0	1426.5	1445.0	1457.0	1467.8	1475.4	1477.6	1477.6
37.5°	1206.7	1192.6	1183.9	1183.9	1194.7	1202.3	1213.2	1219.7	1231.7	1236.1	1239.3
40°	1043.5	1010.8	980.4	957.5	942.3	941.2	941.2	944.5	955.3	969.5	982.6
42.5°	897.7	845.4	798.7	756.2	725.8	708.4	700.7	701.8	710.5	723.6	745.3
45°	781.3	716.0	657.2	606.1	564.7	537.5	524.5	523.4	529.9	545.1	569.1
47.5°	690.9	621.3	554.9	496.2	451.6	422.2	406.9	402.6	406.9	421.1	449.4
50°	615.9	544.1	475.5	414.6	366.7	336.2	322.1	316.6	322.1	334.0	362.3
52.5°	546.2	472.2	408.0	349.3	298.1	272.0	256.8	253.5	256.8	270.9	293.8
55°	465.7	402.6	339.5	280.7	236.1	210.0	198.0	194.8	198.0	211.1	235.0
57.5°	386.3	331.9	276.4	223.1	185.0	162.1	151.2	146.9	154.5	163.2	191.5
60°	312.3	268.8	222.0	175.2	143.6	122.9	114.2	113.2	115.3	126.2	145.8
62.5°	244.8	208.9	171.9	133.8	107.7	99.0	88.1	87.1	89.2	95.7	111.0
65°	176.3	153.4	125.1	97.9	77.3	65.3	60.9	62.0	64.2	68.6	82.7
67.5°	122.9	106.6	87.1	68.6	53.3	47.9	43.5	42.4	43.5	51.1	58.8
70°	82.7	72.9	58.8	52.2	37.0	29.4	30.5	27.2	31.5	31.5	38.1
72.5°	54.4	47.9	39.2	30.5	26.1	20.7	20.7	19.6	21.8	22.8	28.3
75°	28.3	21.8	21.8	15.2	10.9	5.4	9.8	8.7	7.6	8.7	10.9
77.5°	19.6	16.3	15.2	12.0	10.9	8.7	8.7	8.7	8.7	9.8	10.9
80°	12.0	12.0	8.7	7.6	6.5	5.4	6.5	6.5	6.5	6.5	7.6
82.5°	7.6	6.5	6.5	5.4	5.4	4.3	4.3	4.3	4.3	4.3	6.5
85°	6.5	4.3	4.3	3.3	4.3	7.6	3.3	4.3	4.3	4.3	3.3
87.5°	2.2	3.3	3.3	3.3	2.2	1.1	2.2	3.3	3.3	5.4	4.3
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°	2027.1	2027.1	2027.1	2027.1	2027.1	2027.1	2027.1	2027.1	2027.1	2027.1	2027.1
2.5°	2030.4	2031.5	2031.5	2030.4	2030.4	2028.2	2032.5	2029.3	2030.4	2034.7	2031.5
5°	2032.5	2033.6	2033.6	2032.5	2032.5	2032.5	2033.6	2033.6	2032.5	2031.5	2033.6
7.5°	2036.9	2035.8	2035.8	2033.6	2033.6	2031.5	2033.6	2030.4	2032.5	2030.4	2033.6
10°	2031.5	2032.5	2031.5	2030.4	2030.4	2029.3	2029.3	2026.0	2027.1	2023.8	2026.0
12.5°	2028.2	2027.1	2027.1	2024.9	2022.8	2020.6	2019.5	2016.2	2016.2	2008.6	2011.9
15°	2019.5	2020.6	2017.3	2013.0	2010.8	2005.4	2003.2	1998.8	1994.5	1989.0	1990.1
17.5°	2011.9	2008.6	2004.3	1999.9	1991.2	1986.9	1982.5	1976.0	1973.8	1967.3	1965.1
20°	1989.0	1986.9	1981.4	1973.8	1968.4	1958.6	1954.2	1947.7	1942.2	1935.7	1932.4
22.5°	1959.7	1957.5	1950.9	1943.3	1934.6	1930.3	1925.9	1914.0	1908.5	1902.0	1900.9
25°	1922.7	1919.4	1912.9	1904.2	1899.8	1887.8	1883.5	1874.8	1872.6	1866.1	1865.0
27.5°	1866.1	1861.7	1854.1	1843.2	1835.6	1828.0	1823.7	1817.1	1814.9	1808.4	1807.3
30°	1781.2	1775.8	1760.5	1756.2	1743.1	1735.5	1735.5	1726.8	1727.9	1723.5	1723.5
32.5°	1647.4	1638.7	1626.7	1618.0	1609.3	1604.9	1604.9	1601.7	1603.8	1603.8	1606.0
35°	1470.0	1458.1	1451.5	1446.1	1446.1	1450.4	1463.5	1466.8	1473.3	1478.7	1483.1
37.5°	1242.6	1241.5	1249.1	1255.7	1272.0	1290.5	1313.3	1332.9	1351.4	1364.5	1377.5
40°	996.7	1023.9	1045.7	1076.1	1101.1	1137.1	1178.4	1212.1	1243.7	1266.6	1290.5
42.5°	778.0	812.8	858.5	903.1	947.7	996.7	1051.1	1097.9	1139.2	1170.8	1195.8
45°	606.1	653.9	709.4	766.0	823.7	884.6	941.2	989.1	1032.6	1065.2	1090.3
47.5°	488.5	540.8	603.9	665.9	731.2	795.4	858.5	899.9	935.7	961.9	984.7
50°	403.7	459.2	525.6	596.3	661.6	725.8	780.2	820.4	849.8	872.7	886.8
52.5°	337.3	396.1	466.8	537.5	602.8	661.6	710.5	741.0	764.9	781.3	794.3
55°	278.5	335.1	401.5	467.9	532.1	587.6	627.8	650.7	669.2	679.0	686.6
57.5°	227.4	279.6	340.6	401.5	457.0	502.7	534.3	557.1	565.8	573.4	572.3
60°	178.5	227.4	282.9	335.1	383.0	420.0	442.9	455.9	462.4	465.7	463.5
62.5°	140.4	185.0	227.4	273.1	307.9	339.5	361.3	361.3	364.5	365.6	368.9
65°	104.4	138.2	175.2	208.9	237.2	257.9	269.9	273.1	277.5	276.4	274.2
67.5°	77.3	102.3	129.5	154.5	174.1	187.1	195.8	203.5	202.4	200.2	199.1
70°	53.3	69.6	93.6	108.8	122.9	136.0	138.2	139.3	140.4	141.5	139.3
72.5°	37.0	49.0	62.0	75.1	83.8	89.2	94.7	95.7	95.7	95.7	94.7
75°	18.5	25.0	37.0	42.4	50.1	52.2	56.6	56.6	59.9	55.5	54.4
77.5°	16.3	19.6	26.1	30.5	33.7	37.0	38.1	41.3	40.3	38.1	39.2
80°	9.8	12.0	16.3	18.5	22.8	23.9	25.0	26.1	25.0	26.1	26.1
82.5°	7.6	8.7	10.9	10.9	14.1	14.1	15.2	15.2	16.3	16.3	16.3
85°	4.3	7.6	6.5	13.0	8.7	8.7	10.9	13.0	10.9	10.9	13.0
87.5°	4.3	4.3	3.3	4.3	4.3	4.3	5.4	6.5	6.5	7.6	6.5
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: P246239

CATALOG NUMBER: LSR8B50D010 EC8B509727 8LBDW0MW

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	2027.1	2027.1	2027.1	2027.1
2.5°	2030.4	2032.5	2029.3	2028.2
5°	2033.6	2033.6	2031.5	2031.5
7.5°	2033.6	2033.6	2030.4	2028.2
10°	2024.9	2024.9	2021.7	2019.5
12.5°	2008.6	2008.6	2007.5	2004.3
15°	1988.0	1988.0	1983.6	1980.3
17.5°	1959.7	1961.8	1956.4	1956.4
20°	1929.2	1928.1	1923.8	1921.6
22.5°	1897.6	1895.5	1894.4	1887.8
25°	1863.9	1861.7	1858.5	1855.2
27.5°	1806.2	1805.2	1801.9	1797.5
30°	1718.1	1717.0	1712.7	1712.7
32.5°	1603.8	1602.8	1598.4	1599.5
35°	1485.2	1489.6	1487.4	1483.1
37.5°	1386.2	1389.5	1391.7	1389.5
40°	1303.5	1313.3	1314.4	1316.6
42.5°	1215.4	1228.5	1232.8	1235.0
45°	1109.8	1121.8	1131.6	1129.4
47.5°	1002.1	1010.8	1019.5	1013.0
50°	898.8	904.2	907.5	907.5
52.5°	800.8	800.8	799.8	800.8
55°	688.8	688.8	684.4	686.6
57.5°	571.2	573.4	570.2	564.7
60°	462.4	457.0	454.8	451.6
62.5°	360.2	360.2	352.6	362.3
65°	269.9	266.6	263.3	262.2
67.5°	195.8	194.8	191.5	190.4
70°	138.2	133.8	132.7	130.6
72.5°	92.5	92.5	90.3	90.3
75°	56.6	51.1	50.1	51.1
77.5°	39.2	38.1	38.1	37.0
80°	26.1	25.0	27.2	23.9
82.5°	16.3	17.4	16.3	17.4
85°	10.9	13.0	12.0	12.0
87.5°	6.5	6.5	6.5	6.5
90°	0.0	0.0	0.0	0.0

(END OF REPORT)