

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: P244655

Luminaire Tested: **LSR8B50D010 EC8B509727 8LBDW0H**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P244655
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 8LBDW0H
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
97 CRI 2700 CCT WITH SEMI-SPECULAR CLEAR TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3886.0 lumens
Efficiency: N/A
Efficacy: 73.3 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

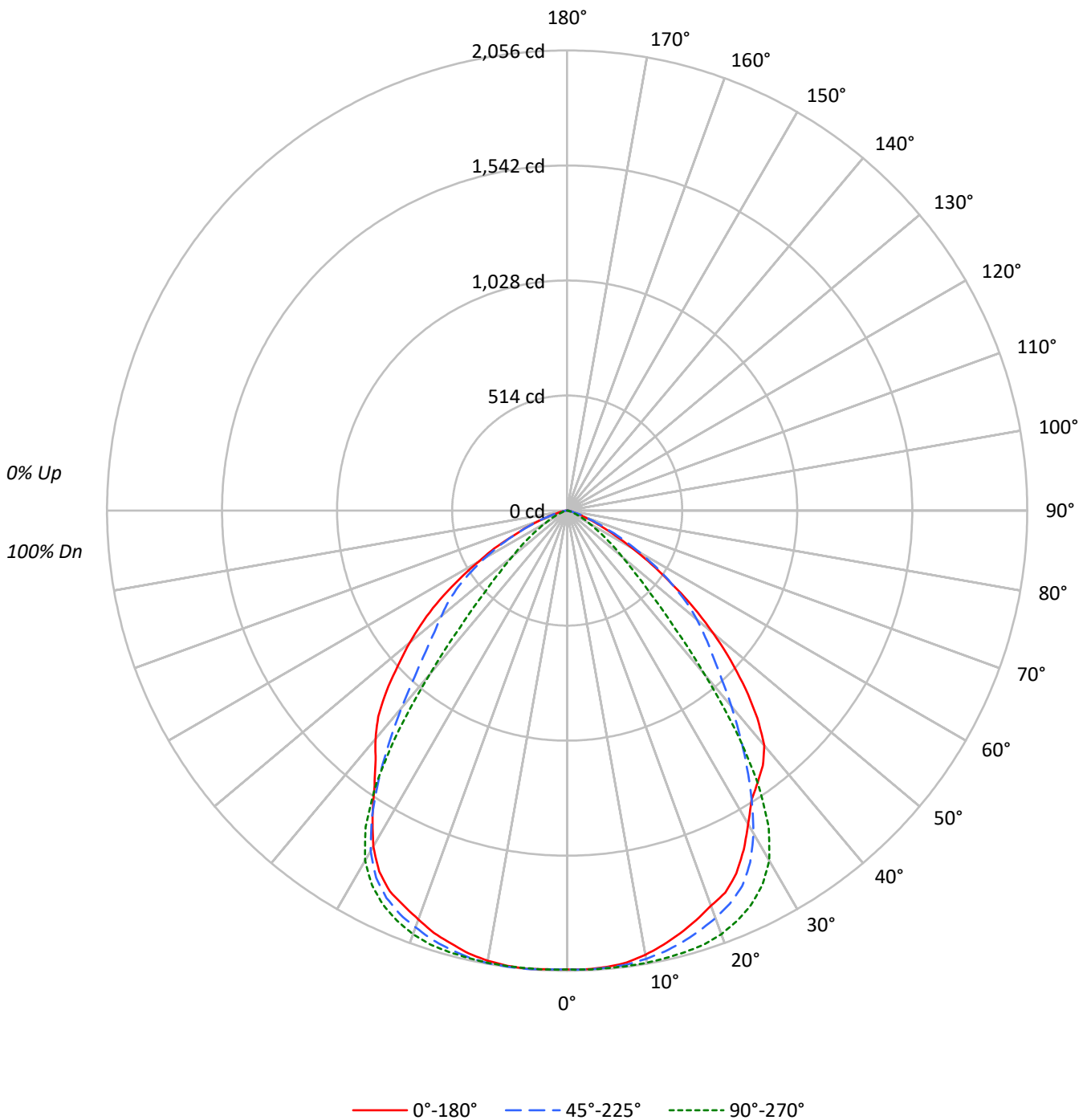
Input Watts (W): 53
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	195.7	5.0
10°-20°	568.3	14.6
20°-30°	862.5	22.2
30°-40°	905.9	23.3
40°-50°	679.2	17.5
50°-60°	435.8	11.2
60°-70°	186.4	4.8
70°-80°	44.0	1.1
80°-90°	8.2	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°	1626.5	41.9
0°-40°	2532.4	65.2
0°-60°	3647.3	93.9
0°-90°	3886.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3886.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2050	2050	2050	2050	2050	
5°	2047	2050	2052	2056	2055	194
15°	1955	1995	2042	2028	2003	551
25°	1788	1851	1945	1910	1876	817
35°	1484	1401	1485	1467	1500	931
45°	1127	921	529	895	1142	863
55°	570	570	197	594	694	517
65°	172	202	63	261	265	183
75°	26	31	9	53	52	38
85°	9	6	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°	2050.3	2050.3	2050.3	2050.3	2050.3	2050.3	2050.3	2050.3	2050.3	2050.3	2050.3
2.5°	2051.4	2053.6	2052.5	2052.5	2051.4	2052.5	2052.5	2054.7	2054.7	2052.5	2051.4
5°	2047.0	2049.2	2049.2	2047.0	2047.0	2052.5	2049.2	2051.4	2051.4	2050.3	2050.3
7.5°	2037.1	2037.1	2041.5	2038.2	2038.2	2041.5	2040.4	2042.6	2044.8	2045.9	2045.9
10°	2015.1	2017.3	2018.4	2018.4	2019.5	2022.8	2025.0	2029.4	2031.6	2033.8	2034.9
12.5°	1987.6	1990.9	1992.0	1990.9	1994.2	1998.6	2004.1	2009.6	2012.9	2017.3	2020.6
15°	1954.6	1954.6	1956.8	1960.1	1962.3	1968.9	1974.4	1981.0	1989.8	1995.3	2000.8
17.5°	1918.3	1920.5	1923.8	1923.8	1928.2	1939.2	1942.5	1952.4	1962.3	1967.8	1978.8
20°	1878.7	1880.8	1884.2	1886.4	1891.9	1900.7	1907.3	1916.1	1927.1	1937.0	1948.0
22.5°	1847.8	1843.4	1845.6	1847.8	1853.3	1861.0	1868.7	1879.7	1890.8	1900.7	1911.7
25°	1788.4	1789.5	1792.8	1795.0	1801.6	1808.2	1817.0	1830.2	1840.1	1851.1	1863.2
27.5°	1708.1	1709.2	1714.7	1714.7	1720.2	1731.2	1736.7	1747.7	1760.9	1771.9	1786.2
30°	1616.7	1618.9	1618.9	1623.3	1626.6	1632.1	1637.6	1648.6	1655.2	1665.1	1685.0
32.5°	1533.1	1535.3	1534.2	1533.1	1529.8	1528.7	1527.6	1529.8	1532.0	1535.3	1543.0
35°	1483.6	1478.0	1473.6	1465.9	1457.1	1446.1	1436.2	1423.0	1410.9	1401.0	1390.0
37.5°	1436.2	1435.1	1428.5	1417.5	1399.9	1380.1	1357.0	1328.4	1299.7	1268.9	1239.2
40°	1370.2	1366.9	1361.4	1346.0	1326.2	1302.0	1271.1	1235.9	1189.7	1142.4	1094.0
42.5°	1257.9	1259.0	1252.4	1240.3	1221.6	1198.5	1166.6	1128.1	1078.6	1022.4	959.7
45°	1127.0	1127.0	1124.8	1114.9	1101.7	1082.9	1058.7	1026.8	978.4	921.2	854.0
47.5°	990.5	991.6	988.3	986.1	980.6	968.5	950.9	926.7	892.6	837.5	770.4
50°	851.8	851.8	857.3	856.2	856.2	851.8	844.1	829.8	800.1	756.1	693.4
52.5°	713.2	715.4	718.7	723.1	728.6	737.4	728.6	722.0	703.2	669.1	615.2
55°	570.1	572.3	577.8	585.5	592.1	600.9	603.1	603.1	593.2	570.1	529.4
57.5°	447.9	444.6	449.0	455.6	464.4	473.2	479.8	487.5	486.4	471.0	438.0
60°	336.8	337.9	341.2	347.8	354.4	362.1	370.9	377.5	380.8	373.1	352.2
62.5°	245.4	245.4	249.8	256.4	259.7	270.7	276.2	279.5	282.8	281.7	268.5
65°	171.7	173.9	176.1	179.4	182.7	189.3	192.6	199.2	201.4	202.5	192.6
67.5°	121.1	117.8	120.0	122.1	125.5	129.9	136.5	136.5	139.8	139.8	133.2
70°	77.0	77.0	78.1	81.4	83.6	84.7	87.0	89.1	92.4	91.3	91.3
72.5°	51.7	50.6	51.7	52.8	53.9	57.2	57.2	58.3	60.5	61.6	57.2
75°	26.4	27.5	29.7	28.6	31.9	29.7	30.8	34.1	33.0	30.8	30.8
77.5°	22.0	22.0	22.0	20.9	23.1	23.1	22.0	24.2	23.1	23.1	22.0
80°	15.4	16.5	15.4	14.3	15.4	14.3	14.3	14.3	14.3	14.3	13.2
82.5°	12.1	9.9	11.0	9.9	11.0	11.0	9.9	8.8	8.8	9.9	8.8
85°	8.8	6.6	7.7	7.7	6.6	6.6	6.6	6.6	6.6	5.5	5.5
87.5°	5.5	3.3	3.3	3.3	4.4	4.4	4.4	3.3	4.4	4.4	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°	2050.3	2050.3	2050.3	2050.3	2050.3	2050.3	2050.3	2050.3	2050.3	2050.3	2050.3
2.5°	2053.6	2052.5	2054.7	2053.6	2053.6	2052.5	2053.6	2052.5	2054.7	2050.3	2051.4
5°	2053.6	2051.4	2052.5	2053.6	2054.7	2052.5	2052.5	2052.5	2054.7	2052.5	2053.6
7.5°	2049.2	2048.1	2051.4	2053.6	2052.5	2051.4	2053.6	2052.5	2054.7	2053.6	2055.8
10°	2040.4	2041.5	2043.7	2047.0	2048.1	2049.2	2051.4	2051.4	2054.7	2050.3	2052.5
12.5°	2027.2	2031.6	2037.1	2039.3	2043.7	2043.7	2045.9	2047.0	2049.2	2048.1	2051.4
15°	2010.7	2016.2	2022.8	2028.3	2033.8	2037.1	2040.4	2041.5	2044.8	2041.5	2042.6
17.5°	1990.9	1997.5	2007.4	2014.0	2022.8	2026.1	2030.5	2032.7	2036.0	2033.8	2034.9
20°	1963.4	1971.1	1982.1	1992.0	1997.5	2005.2	2010.7	2014.0	2016.2	2014.0	2015.1
22.5°	1924.9	1935.9	1950.2	1957.9	1968.9	1975.5	1976.6	1984.3	1989.8	1984.3	1986.5
25°	1879.7	1890.8	1901.8	1918.3	1928.2	1935.9	1943.6	1944.7	1950.2	1949.1	1948.0
27.5°	1804.9	1819.2	1837.9	1851.1	1864.3	1876.5	1885.3	1887.4	1893.0	1890.8	1891.9
30°	1702.5	1718.0	1735.6	1756.5	1775.2	1787.3	1798.3	1806.0	1811.5	1808.2	1807.1
32.5°	1557.3	1572.7	1591.4	1612.3	1634.3	1651.9	1665.1	1675.1	1681.6	1679.4	1673.9
35°	1391.1	1395.5	1407.6	1424.1	1442.8	1461.5	1473.6	1484.6	1492.3	1494.5	1494.5
37.5°	1220.5	1206.2	1197.4	1197.4	1208.4	1216.1	1227.1	1233.7	1245.8	1250.2	1253.5
40°	1055.4	1022.4	991.6	968.5	953.1	952.0	952.0	955.3	966.3	980.6	993.8
42.5°	908.0	855.1	807.8	764.9	734.1	716.5	708.8	709.9	718.7	731.9	753.9
45°	790.2	724.2	664.7	613.0	571.2	543.7	530.5	529.4	536.0	551.4	575.6
47.5°	698.9	628.4	561.3	501.8	456.7	427.0	411.6	407.2	411.6	425.9	454.5
50°	622.9	550.3	480.9	419.3	370.9	340.1	325.8	320.3	325.8	337.9	366.5
52.5°	552.5	477.6	412.7	353.3	301.5	275.1	259.7	256.4	259.7	274.0	297.2
55°	471.0	407.2	343.4	283.9	238.8	212.4	200.3	197.0	200.3	213.5	237.7
57.5°	390.7	335.7	279.5	225.6	187.1	164.0	153.0	148.6	156.3	165.1	193.7
60°	315.8	271.8	224.5	177.2	145.3	124.4	115.6	114.4	116.7	127.7	147.5
62.5°	247.6	211.3	173.9	135.4	109.0	100.1	89.1	88.1	90.2	96.8	112.3
65°	178.3	155.2	126.6	99.0	78.1	66.0	61.6	62.7	64.9	69.3	83.6
67.5°	124.4	107.8	88.1	69.3	53.9	48.4	44.0	42.9	44.0	51.7	59.4
70°	83.6	73.7	59.4	52.8	37.4	29.7	30.8	27.5	31.9	31.9	38.5
72.5°	55.0	48.4	39.6	30.8	26.4	20.9	20.9	19.8	22.0	23.1	28.6
75°	28.6	22.0	22.0	15.4	11.0	5.5	9.9	8.8	7.7	8.8	11.0
77.5°	19.8	16.5	15.4	12.1	11.0	8.8	8.8	8.8	8.8	9.9	11.0
80°	12.1	12.1	8.8	7.7	6.6	5.5	6.6	6.6	6.6	6.6	7.7
82.5°	7.7	6.6	6.6	5.5	5.5	4.4	4.4	4.4	4.4	4.4	6.6
85°	6.6	4.4	4.4	3.3	4.4	7.7	3.3	4.4	4.4	4.4	3.3
87.5°	2.2	3.3	3.3	3.3	2.2	1.1	2.2	3.3	3.3	5.5	4.4
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2050.3	2050.3	2050.3	2050.3	2050.3	2050.3	2050.3	2050.3	2050.3	2050.3	2050.3
2.5°	2053.6	2054.7	2054.7	2053.6	2053.6	2051.4	2055.8	2052.5	2053.6	2058.0	2054.7
5°	2055.8	2056.9	2056.9	2055.8	2055.8	2055.8	2056.9	2056.9	2055.8	2054.7	2056.9
7.5°	2060.2	2059.1	2059.1	2056.9	2056.9	2054.7	2056.9	2053.6	2055.8	2053.6	2056.9
10°	2054.7	2055.8	2054.7	2053.6	2053.6	2052.5	2052.5	2049.2	2050.3	2047.0	2049.2
12.5°	2051.4	2050.3	2050.3	2048.1	2045.9	2043.7	2042.6	2039.3	2039.3	2031.6	2034.9
15°	2042.6	2043.7	2040.4	2036.0	2033.8	2028.3	2026.1	2021.7	2017.3	2011.8	2012.9
17.5°	2034.9	2031.6	2027.2	2022.8	2014.0	2009.6	2005.2	1998.6	1996.4	1989.8	1987.6
20°	2011.8	2009.6	2004.1	1996.4	1990.9	1981.0	1976.6	1970.0	1964.5	1957.9	1954.6
22.5°	1982.1	1979.9	1973.3	1965.6	1956.8	1952.4	1948.0	1935.9	1930.4	1923.8	1922.7
25°	1944.7	1941.4	1934.8	1926.0	1921.6	1909.5	1905.0	1896.2	1894.1	1887.4	1886.4
27.5°	1887.4	1883.0	1875.3	1864.3	1856.6	1848.9	1844.5	1837.9	1835.7	1829.1	1828.0
30°	1801.6	1796.1	1780.7	1776.3	1763.1	1755.4	1755.4	1746.6	1747.7	1743.3	1743.3
32.5°	1666.2	1657.4	1645.3	1636.5	1627.7	1623.3	1623.3	1620.0	1622.2	1622.2	1624.4
35°	1486.8	1474.8	1468.1	1462.6	1462.6	1467.0	1480.2	1483.6	1490.2	1495.7	1500.1
37.5°	1256.8	1255.7	1263.4	1270.0	1286.5	1305.3	1328.4	1348.2	1366.9	1380.1	1393.3
40°	1008.1	1035.6	1057.6	1088.5	1113.7	1150.1	1191.9	1226.0	1257.9	1281.1	1305.3
42.5°	786.9	822.1	868.3	913.5	958.6	1008.1	1063.1	1110.5	1152.3	1184.2	1209.5
45°	613.0	661.4	717.6	774.8	833.1	894.8	952.0	1000.4	1044.4	1077.4	1102.8
47.5°	494.1	547.0	610.8	673.5	739.6	804.5	868.3	910.2	946.5	972.9	996.0
50°	408.3	464.4	531.6	603.1	669.1	734.1	789.1	829.8	859.5	882.6	896.9
52.5°	341.2	400.6	472.1	543.7	609.7	669.1	718.7	749.5	773.7	790.2	803.4
55°	281.7	339.0	406.1	473.2	538.2	594.3	635.0	658.1	676.8	686.7	694.4
57.5°	230.0	282.8	344.5	406.1	462.2	508.5	540.4	563.5	572.3	580.0	578.9
60°	180.5	230.0	286.1	339.0	387.4	424.8	447.9	461.1	467.7	471.0	468.8
62.5°	142.0	187.1	230.0	276.2	311.5	343.4	365.4	365.4	368.7	369.8	373.1
65°	105.6	139.8	177.2	211.3	239.9	260.8	272.9	276.2	280.7	279.5	277.3
67.5°	78.1	103.5	131.0	156.3	176.1	189.3	198.1	205.8	204.7	202.5	201.4
70°	53.9	70.4	94.7	110.1	124.4	137.6	139.8	140.9	142.0	143.1	140.9
72.5°	37.4	49.5	62.7	75.9	84.7	90.2	95.8	96.8	96.8	96.8	95.8
75°	18.7	25.3	37.4	42.9	50.6	52.8	57.2	57.2	60.5	56.1	55.0
77.5°	16.5	19.8	26.4	30.8	34.1	37.4	38.5	41.8	40.7	38.5	39.6
80°	9.9	12.1	16.5	18.7	23.1	24.2	25.3	26.4	25.3	26.4	26.4
82.5°	7.7	8.8	11.0	11.0	14.3	14.3	15.4	15.4	16.5	16.5	16.5
85°	4.4	7.7	6.6	13.2	8.8	8.8	11.0	13.2	11.0	11.0	13.2
87.5°	4.4	4.4	3.3	4.4	4.4	4.4	5.5	6.6	6.6	7.7	6.6
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: P244655

CATALOG NUMBER: LSR8B50D010 EC8B509727 8LBDW0H

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	2050.3	2050.3	2050.3	2050.3
2.5°	2053.6	2055.8	2052.5	2051.4
5°	2056.9	2056.9	2054.7	2054.7
7.5°	2056.9	2056.9	2053.6	2051.4
10°	2048.1	2048.1	2044.8	2042.6
12.5°	2031.6	2031.6	2030.5	2027.2
15°	2010.7	2010.7	2006.3	2003.0
17.5°	1982.1	1984.3	1978.8	1978.8
20°	1951.3	1950.2	1945.8	1943.6
22.5°	1919.4	1917.2	1916.1	1909.5
25°	1885.3	1883.0	1879.7	1876.5
27.5°	1826.9	1825.8	1822.5	1818.1
30°	1737.8	1736.7	1732.3	1732.3
32.5°	1622.2	1621.1	1616.7	1617.8
35°	1502.2	1506.7	1504.5	1500.1
37.5°	1402.1	1405.4	1407.6	1405.4
40°	1318.5	1328.4	1329.5	1331.7
42.5°	1229.3	1242.5	1246.9	1249.1
45°	1122.6	1134.7	1144.6	1142.4
47.5°	1013.6	1022.4	1031.2	1024.6
50°	909.1	914.6	917.9	917.9
52.5°	810.0	810.0	808.9	810.0
55°	696.6	696.6	692.3	694.4
57.5°	577.8	580.0	576.7	571.2
60°	467.7	462.2	460.0	456.7
62.5°	364.3	364.3	356.6	366.5
65°	272.9	269.6	266.3	265.2
67.5°	198.1	197.0	193.7	192.6
70°	139.8	135.4	134.3	132.1
72.5°	93.6	93.6	91.3	91.3
75°	57.2	51.7	50.6	51.7
77.5°	39.6	38.5	38.5	37.4
80°	26.4	25.3	27.5	24.2
82.5°	16.5	17.6	16.5	17.6
85°	11.0	13.2	12.1	12.1
87.5°	6.6	6.6	6.6	6.6
90°	0.0	0.0	0.0	0.0

(END OF REPORT)