

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: P246245

Luminaire Tested: **LSR8B50D010 EC8B509730 8LBDW0MW**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P246245
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 EC8B509730 8LBDW0MW
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
97 CRI 3000 CCT WITH MATTE WHITE TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4065.0 lumens
Efficiency: N/A
Efficacy: 76.7 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

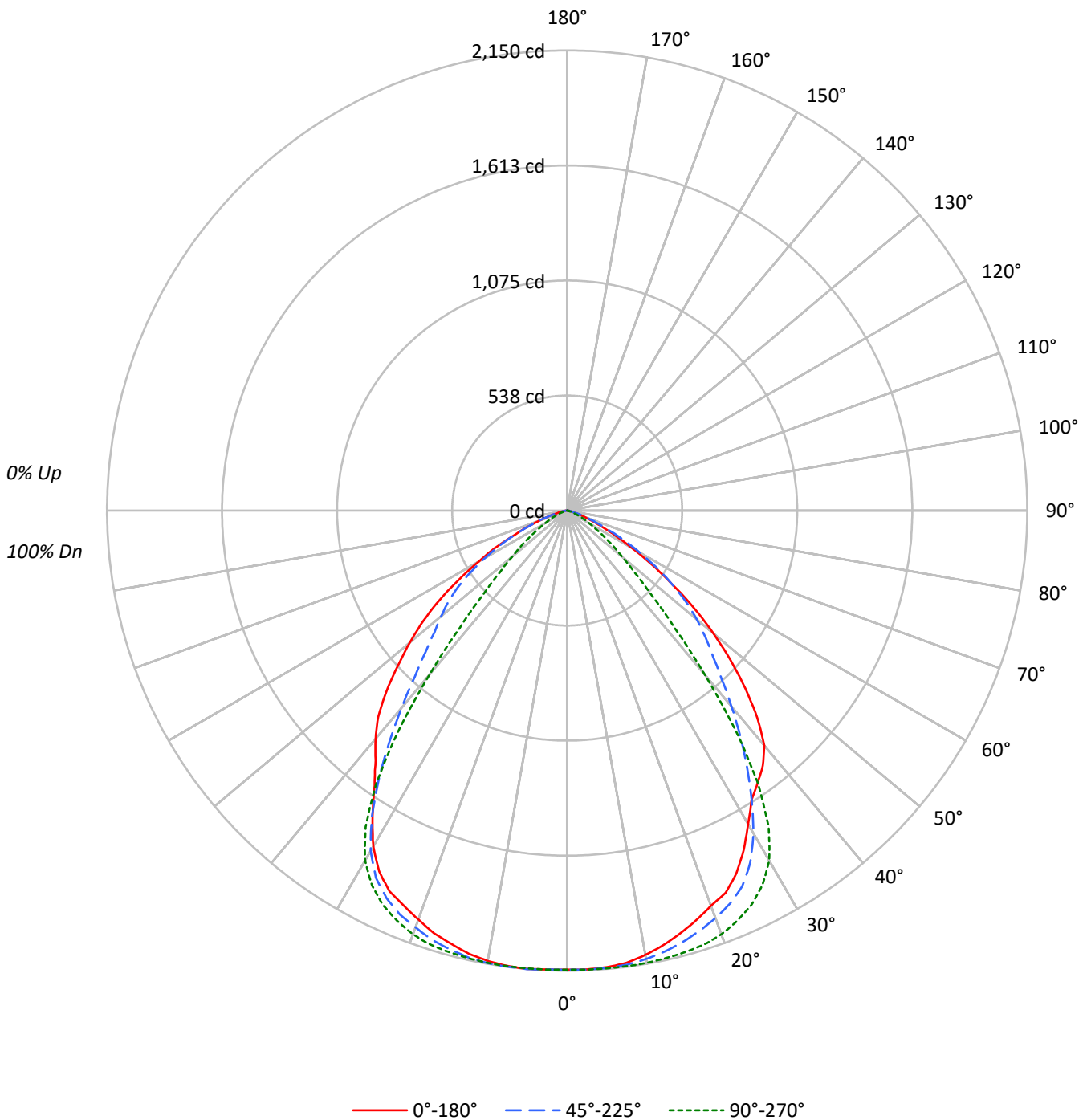
Input Watts (W): 53
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	100
1	112	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	90	90	90	90
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79	79	79	79
3	96	88	81	76	94	86	80	75	84	78	74	81	77	73	79	75	72	70	70	70	70
4	89	80	72	67	87	78	72	66	76	70	66	74	69	65	72	67	64	62	62	62	62
5	83	72	65	59	81	71	64	59	69	63	58	68	62	58	66	61	57	55	55	55	55
6	78	66	58	53	76	65	58	53	64	57	52	62	56	52	61	55	51	50	50	50	50
7	72	61	53	48	71	60	53	48	59	52	47	57	51	47	56	51	47	45	45	45	45
8	68	56	48	43	66	55	48	43	54	48	43	53	47	43	52	46	42	41	41	41	41
9	64	52	44	39	62	51	44	39	50	44	39	49	43	39	48	43	39	37	37	37	37
10	60	48	41	36	59	48	41	36	47	40	36	46	40	36	45	40	36	34	34	34	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°	204.7	5.0
10°-20°	594.4	14.6
20°-30°	902.3	22.2
30°-40°	947.6	23.3
40°-50°	710.5	17.5
50°-60°	455.9	11.2
60°-70°	195.0	4.8
70°-80°	46.1	1.1
80°-90°	8.6	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°	1701.4	41.9
0°-40°	2649.0	65.2
0°-60°	3815.3	93.9
0°-90°	4065.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4065.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2145	2145	2145	2145	2145	
5°	2141	2145	2147	2150	2149	203
15°	2045	2087	2136	2122	2095	577
25°	1871	1936	2034	1997	1963	855
35°	1552	1466	1553	1535	1569	974
45°	1179	964	554	936	1195	903
55°	596	596	206	622	726	541
65°	180	212	66	273	277	192
75°	28	32	9	55	54	40
85°	9	6	5	9	13	10
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°	2144.8	2144.8	2144.8	2144.8	2144.8	2144.8	2144.8	2144.8	2144.8	2144.8	2144.8
2.5°	2145.9	2148.2	2147.1	2147.1	2145.9	2147.1	2147.1	2149.4	2149.4	2147.1	2145.9
5°	2141.3	2143.6	2143.6	2141.3	2141.3	2147.1	2143.6	2145.9	2145.9	2144.8	2144.8
7.5°	2131.0	2131.0	2135.6	2132.1	2132.1	2135.6	2134.4	2136.7	2139.0	2140.2	2140.2
10°	2107.9	2110.2	2111.4	2111.4	2112.5	2116.0	2118.3	2122.9	2125.2	2127.5	2128.7
12.5°	2079.2	2082.6	2083.8	2082.6	2086.1	2090.7	2096.4	2102.2	2105.6	2110.2	2113.7
15°	2044.6	2044.6	2046.9	2050.4	2052.7	2059.6	2065.3	2072.2	2081.4	2087.2	2093.0
17.5°	2006.6	2008.9	2012.4	2012.4	2017.0	2028.5	2032.0	2042.3	2052.7	2058.4	2070.0
20°	1965.2	1967.5	1970.9	1973.3	1979.0	1988.2	1995.1	2004.3	2015.8	2026.2	2037.7
22.5°	1932.9	1928.3	1930.6	1932.9	1938.7	1946.8	1954.8	1966.3	1977.8	1988.2	1999.7
25°	1870.8	1871.9	1875.4	1877.7	1884.6	1891.5	1900.7	1914.5	1924.9	1936.4	1949.1
27.5°	1786.7	1787.9	1793.6	1793.6	1799.4	1810.9	1816.7	1828.2	1842.0	1853.5	1868.5
30°	1691.2	1693.5	1693.5	1698.1	1701.5	1707.3	1713.1	1724.6	1731.5	1741.8	1762.6
32.5°	1603.7	1606.0	1604.8	1603.7	1600.2	1599.1	1597.9	1600.2	1602.5	1606.0	1614.0
35°	1551.9	1546.1	1541.5	1533.5	1524.3	1512.7	1502.4	1488.6	1475.9	1465.5	1454.0
37.5°	1502.4	1501.2	1494.3	1482.8	1464.4	1443.7	1419.5	1389.6	1359.6	1327.4	1296.3
40°	1433.3	1429.8	1424.1	1408.0	1387.2	1361.9	1329.7	1292.9	1244.5	1195.0	1144.3
42.5°	1315.9	1317.0	1310.1	1297.4	1277.9	1253.7	1220.3	1180.0	1128.2	1069.5	1003.9
45°	1178.9	1178.9	1176.6	1166.2	1152.4	1132.8	1107.5	1074.1	1023.5	963.6	893.4
47.5°	1036.1	1037.3	1033.8	1031.5	1025.8	1013.1	994.7	969.4	933.7	876.1	805.9
50°	891.1	891.1	896.8	895.7	895.7	891.1	883.0	868.0	837.0	790.9	725.3
52.5°	746.0	748.3	751.8	756.4	762.1	771.3	762.1	755.2	735.6	699.9	643.6
55°	596.3	598.7	604.4	612.5	619.4	628.6	630.9	630.9	620.5	596.3	553.7
57.5°	468.6	465.1	469.7	476.6	485.8	495.0	501.9	510.0	508.8	492.7	458.2
60°	352.3	353.4	356.9	363.8	370.7	378.8	388.0	394.9	398.3	390.3	368.4
62.5°	256.7	256.7	261.3	268.2	271.7	283.2	289.0	292.4	295.9	294.7	280.9
65°	179.6	181.9	184.2	187.7	191.1	198.0	201.5	208.4	210.7	211.8	201.5
67.5°	126.6	123.2	125.5	127.8	131.2	135.9	142.8	142.8	146.2	146.2	139.3
70°	80.6	80.6	81.7	85.2	87.5	88.6	91.0	93.2	96.7	95.6	95.6
72.5°	54.1	53.0	54.1	55.3	56.4	59.9	59.9	61.0	63.3	64.5	59.9
75°	27.6	28.8	31.1	29.9	33.4	31.1	32.2	35.7	34.5	32.2	32.2
77.5°	23.0	23.0	23.0	21.9	24.2	24.2	23.0	25.3	24.2	24.2	23.0
80°	16.1	17.3	16.1	15.0	16.1	15.0	15.0	15.0	15.0	15.0	13.8
82.5°	12.7	10.4	11.5	10.4	11.5	11.5	10.4	9.2	9.2	10.4	9.2
85°	9.2	6.9	8.1	8.1	6.9	6.9	6.9	6.9	6.9	5.7	5.7
87.5°	5.7	3.5	3.5	3.5	4.6	4.6	4.6	3.5	4.6	4.6	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



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2144.8	2144.8	2144.8	2144.8	2144.8	2144.8	2144.8	2144.8	2144.8	2144.8	2144.8
2.5°	2148.2	2147.1	2149.4	2148.2	2148.2	2147.1	2148.2	2147.1	2149.4	2144.8	2145.9
5°	2148.2	2145.9	2147.1	2148.2	2149.4	2147.1	2147.1	2147.1	2149.4	2147.1	2148.2
7.5°	2143.6	2142.5	2145.9	2148.2	2147.1	2145.9	2148.2	2147.1	2149.4	2148.2	2150.5
10°	2134.4	2135.6	2137.9	2141.3	2142.5	2143.6	2145.9	2145.9	2149.4	2144.8	2147.1
12.5°	2120.6	2125.2	2131.0	2133.3	2137.9	2137.9	2140.2	2141.3	2143.6	2142.5	2145.9
15°	2103.3	2109.1	2116.0	2121.8	2127.5	2131.0	2134.4	2135.6	2139.0	2135.6	2136.7
17.5°	2082.6	2089.5	2099.9	2106.8	2116.0	2119.4	2124.0	2126.4	2129.8	2127.5	2128.7
20°	2053.8	2061.9	2073.4	2083.8	2089.5	2097.6	2103.3	2106.8	2109.1	2106.8	2107.9
22.5°	2013.5	2025.1	2040.0	2048.1	2059.6	2066.5	2067.6	2075.7	2081.4	2075.7	2078.0
25°	1966.3	1977.8	1989.4	2006.6	2017.0	2025.1	2033.1	2034.3	2040.0	2038.9	2037.7
27.5°	1888.0	1903.0	1922.6	1936.4	1950.2	1962.9	1972.1	1974.4	1980.2	1977.8	1979.0
30°	1781.0	1797.1	1815.5	1837.4	1857.0	1869.6	1881.1	1889.2	1894.9	1891.5	1890.3
32.5°	1629.0	1645.1	1664.7	1686.6	1709.6	1728.0	1741.8	1752.2	1759.1	1756.8	1751.1
35°	1455.2	1459.8	1472.5	1489.7	1509.3	1528.9	1541.5	1553.0	1561.1	1563.4	1563.4
37.5°	1276.7	1261.8	1252.6	1252.6	1264.1	1272.1	1283.6	1290.5	1303.2	1307.8	1311.3
40°	1104.0	1069.5	1037.3	1013.1	997.0	995.8	995.8	999.3	1010.8	1025.8	1039.6
42.5°	949.8	894.5	845.0	800.1	767.9	749.5	741.4	742.6	751.8	765.6	788.6
45°	826.6	757.5	695.4	641.2	597.5	568.7	554.9	553.7	560.7	576.8	602.1
47.5°	731.0	657.4	587.1	525.0	477.8	446.7	430.6	426.0	430.6	445.5	475.5
50°	651.6	575.6	503.1	438.6	388.0	355.7	340.8	335.0	340.8	353.4	383.4
52.5°	577.9	499.6	431.7	369.6	315.4	287.8	271.7	268.2	271.7	286.7	310.8
55°	492.7	426.0	359.2	297.0	249.8	222.2	209.5	206.1	209.5	223.4	248.7
57.5°	408.7	351.1	292.4	236.0	195.7	171.5	160.0	155.4	163.5	172.7	202.6
60°	330.4	284.4	234.8	185.4	152.0	130.1	120.9	119.7	122.0	133.5	154.3
62.5°	259.0	221.0	181.9	141.6	114.0	104.8	93.2	92.1	94.4	101.3	117.4
65°	186.5	162.3	132.4	103.6	81.7	69.1	64.5	65.6	67.9	72.5	87.5
67.5°	130.1	112.8	92.1	72.5	56.4	50.6	46.1	44.9	46.1	54.1	62.2
70°	87.5	77.1	62.2	55.3	39.2	31.1	32.2	28.8	33.4	33.4	40.3
72.5°	57.6	50.6	41.4	32.2	27.6	21.9	21.9	20.7	23.0	24.2	29.9
75°	29.9	23.0	23.0	16.1	11.5	5.7	10.4	9.2	8.1	9.2	11.5
77.5°	20.7	17.3	16.1	12.7	11.5	9.2	9.2	9.2	9.2	10.4	11.5
80°	12.7	12.7	9.2	8.1	6.9	5.7	6.9	6.9	6.9	6.9	8.1
82.5°	8.1	6.9	6.9	5.7	5.7	4.6	4.6	4.6	4.6	4.6	6.9
85°	6.9	4.6	4.6	3.5	4.6	8.1	3.5	4.6	4.6	4.6	3.5
87.5°	2.3	3.5	3.5	3.5	2.3	1.2	2.3	3.5	3.5	5.7	4.6
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°	2144.8	2144.8	2144.8	2144.8	2144.8	2144.8	2144.8	2144.8	2144.8	2144.8	2144.8
2.5°	2148.2	2149.4	2149.4	2148.2	2148.2	2145.9	2150.5	2147.1	2148.2	2152.8	2149.4
5°	2150.5	2151.7	2151.7	2150.5	2150.5	2150.5	2151.7	2151.7	2150.5	2149.4	2151.7
7.5°	2155.1	2154.0	2154.0	2151.7	2151.7	2149.4	2151.7	2148.2	2150.5	2148.2	2151.7
10°	2149.4	2150.5	2149.4	2148.2	2148.2	2147.1	2147.1	2143.6	2144.8	2141.3	2143.6
12.5°	2145.9	2144.8	2144.8	2142.5	2140.2	2137.9	2136.7	2133.3	2133.3	2125.2	2128.7
15°	2136.7	2137.9	2134.4	2129.8	2127.5	2121.8	2119.4	2114.8	2110.2	2104.5	2105.6
17.5°	2128.7	2125.2	2120.6	2116.0	2106.8	2102.2	2097.6	2090.7	2088.4	2081.4	2079.2
20°	2104.5	2102.2	2096.4	2088.4	2082.6	2072.2	2067.6	2060.7	2055.0	2048.1	2044.6
22.5°	2073.4	2071.1	2064.2	2056.1	2046.9	2042.3	2037.7	2025.1	2019.3	2012.4	2011.2
25°	2034.3	2030.8	2023.9	2014.7	2010.1	1997.4	1992.8	1983.6	1981.3	1974.4	1973.3
27.5°	1974.4	1969.8	1961.7	1950.2	1942.2	1934.1	1929.5	1922.6	1920.3	1913.4	1912.2
30°	1884.6	1878.8	1862.7	1858.1	1844.3	1836.2	1836.2	1827.0	1828.2	1823.6	1823.6
32.5°	1743.0	1733.8	1721.1	1711.9	1702.7	1698.1	1698.1	1694.6	1696.9	1696.9	1699.2
35°	1555.3	1542.7	1535.8	1530.0	1530.0	1534.6	1548.4	1551.9	1558.8	1564.5	1569.2
37.5°	1314.7	1313.6	1321.6	1328.5	1345.8	1365.4	1389.6	1410.3	1429.8	1443.7	1457.5
40°	1054.5	1083.3	1106.3	1138.6	1165.1	1203.0	1246.8	1282.5	1315.9	1340.1	1365.4
42.5°	823.1	860.0	908.3	955.5	1002.7	1054.5	1112.1	1161.6	1205.4	1238.7	1265.2
45°	641.2	691.9	750.6	810.5	871.5	936.0	995.8	1046.5	1092.5	1127.1	1153.6
47.5°	516.9	572.2	638.9	704.6	773.6	841.6	908.3	952.1	990.1	1017.7	1041.9
50°	427.1	485.8	556.1	630.9	699.9	767.9	825.4	868.0	899.1	923.3	938.3
52.5°	356.9	419.0	493.9	568.7	637.8	699.9	751.8	784.0	809.3	826.6	840.4
55°	294.7	354.6	424.8	495.0	563.0	621.7	664.3	688.5	708.0	718.4	726.4
57.5°	240.6	295.9	360.3	424.8	483.5	531.9	565.3	589.4	598.7	606.7	605.6
60°	188.8	240.6	299.3	354.6	405.2	444.4	468.6	482.4	489.3	492.7	490.4
62.5°	148.5	195.7	240.6	289.0	325.8	359.2	382.2	382.2	385.7	386.8	390.3
65°	110.5	146.2	185.4	221.0	251.0	272.8	285.5	289.0	293.6	292.4	290.1
67.5°	81.7	108.2	137.0	163.5	184.2	198.0	207.2	215.3	214.1	211.8	210.7
70°	56.4	73.7	99.0	115.1	130.1	143.9	146.2	147.4	148.5	149.7	147.4
72.5°	39.2	51.8	65.6	79.4	88.6	94.4	100.2	101.3	101.3	101.3	100.2
75°	19.6	26.5	39.2	44.9	53.0	55.3	59.9	59.9	63.3	58.7	57.6
77.5°	17.3	20.7	27.6	32.2	35.7	39.2	40.3	43.7	42.6	40.3	41.4
80°	10.4	12.7	17.3	19.6	24.2	25.3	26.5	27.6	26.5	27.6	27.6
82.5°	8.1	9.2	11.5	11.5	15.0	15.0	16.1	16.1	17.3	17.3	17.3
85°	4.6	8.1	6.9	13.8	9.2	9.2	11.5	13.8	11.5	11.5	13.8
87.5°	4.6	4.6	3.5	4.6	4.6	4.6	5.7	6.9	6.9	8.1	6.9
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: P246245

CATALOG NUMBER: LSR8B50D010 EC8B509730 8LBDW0MW

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	2144.8	2144.8	2144.8	2144.8
2.5°	2148.2	2150.5	2147.1	2145.9
5°	2151.7	2151.7	2149.4	2149.4
7.5°	2151.7	2151.7	2148.2	2145.9
10°	2142.5	2142.5	2139.0	2136.7
12.5°	2125.2	2125.2	2124.0	2120.6
15°	2103.3	2103.3	2098.7	2095.3
17.5°	2073.4	2075.7	2070.0	2070.0
20°	2041.2	2040.0	2035.4	2033.1
22.5°	2007.8	2005.5	2004.3	1997.4
25°	1972.1	1969.8	1966.3	1962.9
27.5°	1911.1	1909.9	1906.5	1901.9
30°	1817.8	1816.7	1812.1	1812.1
32.5°	1696.9	1695.8	1691.2	1692.3
35°	1571.4	1576.1	1573.8	1569.2
37.5°	1466.7	1470.1	1472.5	1470.1
40°	1379.2	1389.6	1390.7	1393.0
42.5°	1286.0	1299.8	1304.4	1306.7
45°	1174.3	1186.9	1197.3	1195.0
47.5°	1060.3	1069.5	1078.7	1071.8
50°	950.9	956.7	960.1	960.1
52.5°	847.3	847.3	846.2	847.3
55°	728.7	728.7	724.1	726.4
57.5°	604.4	606.7	603.2	597.5
60°	489.3	483.5	481.2	477.8
62.5°	381.1	381.1	373.0	383.4
65°	285.5	282.1	278.6	277.4
67.5°	207.2	206.1	202.6	201.5
70°	146.2	141.6	140.5	138.1
72.5°	97.9	97.9	95.6	95.6
75°	59.9	54.1	53.0	54.1
77.5°	41.4	40.3	40.3	39.2
80°	27.6	26.5	28.8	25.3
82.5°	17.3	18.4	17.3	18.4
85°	11.5	13.8	12.7	12.7
87.5°	6.9	6.9	6.9	6.9
90°	0.0	0.0	0.0	0.0

(END OF REPORT)