

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: P246101

Luminaire Tested: **LSR8B50D010 EC8B509730 8LBDW0GPH**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P246101
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 8LBDW0GPH
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
97 CRI 3000 CCT WITH GRAPHITE TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4019.0 lumens
Efficiency: N/A
Efficacy: 75.8 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

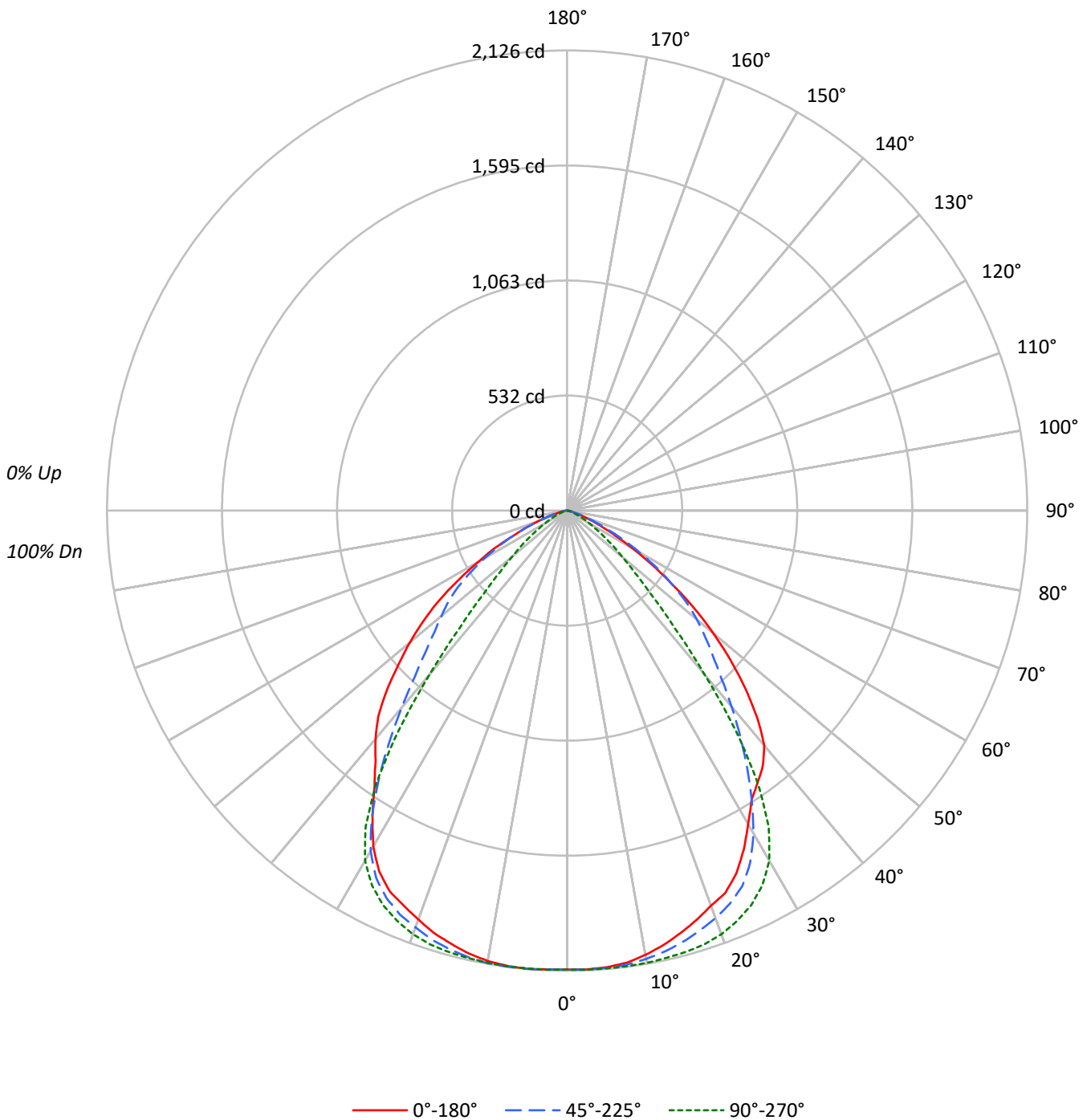
Input Watts (W): 53
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	202.4	5.0
10°-20°	587.7	14.6
20°-30°	892.0	22.2
30°-40°	936.9	23.3
40°-50°	702.4	17.5
50°-60°	450.7	11.2
60°-70°	192.8	4.8
70°-80°	45.6	1.1
80°-90°	8.5	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°	1682.1	41.9
0°-40°	2619.0	65.2
0°-60°	3772.2	93.9
0°-90°	4019.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4019.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2120	2120	2120	2120	2120	
5°	2117	2120	2123	2126	2125	201
15°	2022	2064	2111	2098	2072	570
25°	1850	1914	2011	1975	1941	845
35°	1534	1449	1536	1517	1551	963
45°	1166	953	548	925	1182	893
55°	590	590	204	615	718	535
65°	178	209	65	270	274	190
75°	27	32	9	55	54	40
85°	9	6	4	9	12	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°	2120.5	2120.5	2120.5	2120.5	2120.5	2120.5	2120.5	2120.5	2120.5	2120.5	2120.5
2.5°	2121.6	2123.9	2122.8	2122.8	2121.6	2122.8	2122.8	2125.1	2125.1	2122.8	2121.6
5°	2117.1	2119.4	2119.4	2117.1	2117.1	2122.8	2119.4	2121.6	2121.6	2120.5	2120.5
7.5°	2106.9	2106.9	2111.4	2108.0	2108.0	2111.4	2110.3	2112.5	2114.8	2116.0	2116.0
10°	2084.1	2086.4	2087.5	2087.5	2088.6	2092.0	2094.3	2098.9	2101.1	2103.4	2104.6
12.5°	2055.6	2059.0	2060.2	2059.0	2062.5	2067.0	2072.7	2078.4	2081.8	2086.4	2089.8
15°	2021.5	2021.5	2023.8	2027.2	2029.5	2036.3	2042.0	2048.8	2057.9	2063.6	2069.3
17.5°	1983.9	1986.2	1989.6	1989.6	1994.2	2005.5	2009.0	2019.2	2029.5	2035.1	2046.5
20°	1943.0	1945.2	1948.6	1950.9	1956.6	1965.7	1972.5	1981.6	1993.0	2003.3	2014.6
22.5°	1911.1	1906.5	1908.8	1911.1	1916.8	1924.7	1932.7	1944.1	1955.5	1965.7	1977.1
25°	1849.6	1850.7	1854.2	1856.4	1863.3	1870.1	1879.2	1892.9	1903.1	1914.5	1927.0
27.5°	1766.5	1767.7	1773.3	1773.3	1779.0	1790.4	1796.1	1807.5	1821.2	1832.5	1847.3
30°	1672.1	1674.3	1674.3	1678.9	1682.3	1688.0	1693.7	1705.1	1711.9	1722.1	1742.6
32.5°	1585.6	1587.8	1586.7	1585.6	1582.1	1581.0	1579.8	1582.1	1584.4	1587.8	1595.8
35°	1534.3	1528.6	1524.1	1516.1	1507.0	1495.6	1485.4	1471.7	1459.2	1448.9	1437.6
37.5°	1485.4	1484.2	1477.4	1466.0	1447.8	1427.3	1403.4	1373.8	1344.2	1312.4	1281.6
40°	1417.1	1413.7	1408.0	1392.0	1371.6	1346.5	1314.7	1278.2	1230.4	1181.5	1131.4
42.5°	1301.0	1302.1	1295.3	1282.8	1263.4	1239.5	1206.5	1166.7	1115.5	1057.4	992.5
45°	1165.5	1165.5	1163.3	1153.0	1139.4	1120.0	1095.0	1062.0	1011.9	952.7	883.2
47.5°	1024.4	1025.5	1022.1	1019.9	1014.1	1001.6	983.4	958.4	923.1	866.2	796.7
50°	881.0	881.0	886.7	885.5	885.5	881.0	873.0	858.2	827.5	782.0	717.1
52.5°	737.6	739.8	743.3	747.8	753.5	762.6	753.5	746.7	727.3	692.0	636.3
55°	589.6	591.9	597.6	605.5	612.4	621.5	623.7	623.7	613.5	589.6	547.5
57.5°	463.3	459.8	464.4	471.2	480.3	489.4	496.3	504.2	503.1	487.2	453.0
60°	348.3	349.4	352.8	359.7	366.5	374.5	383.6	390.4	393.8	385.9	364.2
62.5°	253.8	253.8	258.4	265.2	268.6	280.0	285.7	289.1	292.5	291.4	277.7
65°	177.6	179.8	182.1	185.5	188.9	195.8	199.2	206.0	208.3	209.4	199.2
67.5°	125.2	121.8	124.1	126.3	129.8	134.3	141.1	141.1	144.5	144.5	137.7
70°	79.7	79.7	80.8	84.2	86.5	87.6	89.9	92.2	95.6	94.5	94.5
72.5°	53.5	52.4	53.5	54.6	55.8	59.2	59.2	60.3	62.6	63.7	59.2
75°	27.3	28.5	30.7	29.6	33.0	30.7	31.9	35.3	34.1	31.9	31.9
77.5°	22.8	22.8	22.8	21.6	23.9	23.9	22.8	25.0	23.9	23.9	22.8
80°	15.9	17.1	15.9	14.8	15.9	14.8	14.8	14.8	14.8	14.8	13.6
82.5°	12.5	10.2	11.4	10.2	11.4	11.4	10.2	9.1	9.1	10.2	9.1
85°	9.1	6.8	8.0	8.0	6.8	6.8	6.8	6.8	6.8	5.7	5.7
87.5°	5.7	3.4	3.4	3.4	4.5	4.5	4.5	3.4	4.5	4.5	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°	2120.5	2120.5	2120.5	2120.5	2120.5	2120.5	2120.5	2120.5	2120.5	2120.5	2120.5
2.5°	2123.9	2122.8	2125.1	2123.9	2123.9	2122.8	2123.9	2122.8	2125.1	2120.5	2121.6
5°	2123.9	2121.6	2122.8	2123.9	2125.1	2122.8	2122.8	2122.8	2125.1	2122.8	2123.9
7.5°	2119.4	2118.2	2121.6	2123.9	2122.8	2121.6	2123.9	2122.8	2125.1	2123.9	2126.2
10°	2110.3	2111.4	2113.7	2117.1	2118.2	2119.4	2121.6	2121.6	2125.1	2120.5	2122.8
12.5°	2096.6	2101.1	2106.9	2109.1	2113.7	2113.7	2116.0	2117.1	2119.4	2118.2	2121.6
15°	2079.5	2085.2	2092.0	2097.7	2103.4	2106.9	2110.3	2111.4	2114.8	2111.4	2112.5
17.5°	2059.0	2065.9	2076.1	2082.9	2092.0	2095.5	2100.0	2102.3	2105.7	2103.4	2104.6
20°	2030.6	2038.6	2049.9	2060.2	2065.9	2073.8	2079.5	2082.9	2085.2	2082.9	2084.1
22.5°	1990.7	2002.1	2016.9	2024.9	2036.3	2043.1	2044.2	2052.2	2057.9	2052.2	2054.5
25°	1944.1	1955.5	1966.9	1983.9	1994.2	2002.1	2010.1	2011.2	2016.9	2015.8	2014.6
27.5°	1866.7	1881.5	1900.8	1914.5	1928.1	1940.7	1949.8	1952.0	1957.7	1955.5	1956.6
30°	1760.8	1776.8	1795.0	1816.6	1836.0	1848.5	1859.9	1867.8	1873.5	1870.1	1869.0
32.5°	1610.6	1626.5	1645.9	1667.5	1690.3	1708.5	1722.1	1732.4	1739.2	1736.9	1731.2
35°	1438.7	1443.3	1455.8	1472.9	1492.2	1511.6	1524.1	1535.5	1543.4	1545.7	1545.7
37.5°	1262.3	1247.5	1238.4	1238.4	1249.8	1257.7	1269.1	1275.9	1288.5	1293.0	1296.4
40°	1091.5	1057.4	1025.5	1001.6	985.7	984.6	984.6	988.0	999.4	1014.1	1027.8
42.5°	939.0	884.4	835.5	791.1	759.2	741.0	733.0	734.2	743.3	756.9	779.7
45°	817.2	749.0	687.5	634.0	590.7	562.3	548.6	547.5	554.3	570.2	595.3
47.5°	722.8	649.9	580.5	519.0	472.4	441.6	425.7	421.2	425.7	440.5	470.1
50°	644.2	569.1	497.4	433.7	383.6	351.7	336.9	331.2	336.9	349.4	379.0
52.5°	571.4	494.0	426.8	365.4	311.9	284.5	268.6	265.2	268.6	283.4	307.3
55°	487.2	421.2	355.1	293.7	247.0	219.7	207.2	203.8	207.2	220.8	245.9
57.5°	404.1	347.2	289.1	233.3	193.5	169.6	158.2	153.7	161.6	170.7	200.3
60°	326.7	281.1	232.2	183.3	150.3	128.6	119.5	118.4	120.6	132.0	152.5
62.5°	256.1	218.5	179.8	140.0	112.7	103.6	92.2	91.1	93.3	100.2	116.1
65°	184.4	160.5	130.9	102.4	80.8	68.3	63.7	64.9	67.1	71.7	86.5
67.5°	128.6	111.5	91.1	71.7	55.8	50.1	45.5	44.4	45.5	53.5	61.5
70°	86.5	76.3	61.5	54.6	38.7	30.7	31.9	28.5	33.0	33.0	39.8
72.5°	56.9	50.1	41.0	31.9	27.3	21.6	21.6	20.5	22.8	23.9	29.6
75°	29.6	22.8	22.8	15.9	11.4	5.7	10.2	9.1	8.0	9.1	11.4
77.5°	20.5	17.1	15.9	12.5	11.4	9.1	9.1	9.1	9.1	10.2	11.4
80°	12.5	12.5	9.1	8.0	6.8	5.7	6.8	6.8	6.8	6.8	8.0
82.5°	8.0	6.8	6.8	5.7	5.7	4.5	4.5	4.5	4.5	4.5	6.8
85°	6.8	4.5	4.5	3.4	4.5	8.0	3.4	4.5	4.5	4.5	3.4
87.5°	2.3	3.4	3.4	3.4	2.3	1.1	2.3	3.4	3.4	5.7	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



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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2120.5	2120.5	2120.5	2120.5	2120.5	2120.5	2120.5	2120.5	2120.5	2120.5	2120.5
2.5°	2123.9	2125.1	2125.1	2123.9	2123.9	2121.6	2126.2	2122.8	2123.9	2128.5	2125.1
5°	2126.2	2127.3	2127.3	2126.2	2126.2	2126.2	2127.3	2127.3	2126.2	2125.1	2127.3
7.5°	2130.8	2129.6	2129.6	2127.3	2127.3	2125.1	2127.3	2123.9	2126.2	2123.9	2127.3
10°	2125.1	2126.2	2125.1	2123.9	2123.9	2122.8	2122.8	2119.4	2120.5	2117.1	2119.4
12.5°	2121.6	2120.5	2120.5	2118.2	2116.0	2113.7	2112.5	2109.1	2109.1	2101.1	2104.6
15°	2112.5	2113.7	2110.3	2105.7	2103.4	2097.7	2095.5	2090.9	2086.4	2080.7	2081.8
17.5°	2104.6	2101.1	2096.6	2092.0	2082.9	2078.4	2073.8	2067.0	2064.7	2057.9	2055.6
20°	2080.7	2078.4	2072.7	2064.7	2059.0	2048.8	2044.2	2037.4	2031.7	2024.9	2021.5
22.5°	2049.9	2047.6	2040.8	2032.9	2023.8	2019.2	2014.6	2002.1	1996.4	1989.6	1988.5
25°	2011.2	2007.8	2001.0	1991.9	1987.3	1974.8	1970.3	1961.1	1958.9	1952.0	1950.9
27.5°	1952.0	1947.5	1939.5	1928.1	1920.2	1912.2	1907.7	1900.8	1898.6	1891.7	1890.6
30°	1863.3	1857.6	1841.6	1837.1	1823.4	1815.5	1815.5	1806.4	1807.5	1803.0	1803.0
32.5°	1723.3	1714.2	1701.6	1692.5	1683.4	1678.9	1678.9	1675.5	1677.7	1677.7	1680.0
35°	1537.7	1525.2	1518.4	1512.7	1512.7	1517.2	1530.9	1534.3	1541.2	1546.8	1551.4
37.5°	1299.8	1298.7	1306.7	1313.5	1330.6	1349.9	1373.8	1394.3	1413.7	1427.3	1441.0
40°	1042.6	1071.1	1093.8	1125.7	1151.9	1189.4	1232.7	1268.0	1301.0	1324.9	1349.9
42.5°	813.8	850.2	898.1	944.7	991.4	1042.6	1099.5	1148.5	1191.7	1224.7	1250.9
45°	634.0	684.1	742.1	801.3	861.6	925.4	984.6	1034.6	1080.2	1114.3	1140.5
47.5°	511.1	565.7	631.7	696.6	764.9	832.0	898.1	941.3	978.9	1006.2	1030.1
50°	422.3	480.3	549.8	623.7	692.0	759.2	816.1	858.2	889.0	912.9	927.6
52.5°	352.8	414.3	488.3	562.3	630.6	692.0	743.3	775.1	800.2	817.2	830.9
55°	291.4	350.6	420.0	489.4	556.6	614.6	656.7	680.7	700.0	710.2	718.2
57.5°	237.9	292.5	356.3	420.0	478.1	525.9	558.9	582.8	591.9	599.8	598.7
60°	186.7	237.9	295.9	350.6	400.7	439.3	463.3	476.9	483.7	487.2	484.9
62.5°	146.8	193.5	237.9	285.7	322.1	355.1	377.9	377.9	381.3	382.4	385.9
65°	109.3	144.5	183.3	218.5	248.1	269.8	282.3	285.7	290.3	289.1	286.8
67.5°	80.8	107.0	135.4	161.6	182.1	195.8	204.9	212.9	211.7	209.4	208.3
70°	55.8	72.9	97.9	113.8	128.6	142.3	144.5	145.7	146.8	148.0	145.7
72.5°	38.7	51.2	64.9	78.5	87.6	93.3	99.0	100.2	100.2	100.2	99.0
75°	19.4	26.2	38.7	44.4	52.4	54.6	59.2	59.2	62.6	58.0	56.9
77.5°	17.1	20.5	27.3	31.9	35.3	38.7	39.8	43.3	42.1	39.8	41.0
80°	10.2	12.5	17.1	19.4	23.9	25.0	26.2	27.3	26.2	27.3	27.3
82.5°	8.0	9.1	11.4	11.4	14.8	14.8	15.9	15.9	17.1	17.1	17.1
85°	4.5	8.0	6.8	13.6	9.1	9.1	11.4	13.6	11.4	11.4	13.6
87.5°	4.5	4.5	3.4	4.5	4.5	4.5	5.7	6.8	6.8	8.0	6.8
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: P246101

CATALOG NUMBER: LSR8B50D010 EC8B509730 8LBDW0GPH

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	2120.5	2120.5	2120.5	2120.5
2.5°	2123.9	2126.2	2122.8	2121.6
5°	2127.3	2127.3	2125.1	2125.1
7.5°	2127.3	2127.3	2123.9	2121.6
10°	2118.2	2118.2	2114.8	2112.5
12.5°	2101.1	2101.1	2100.0	2096.6
15°	2079.5	2079.5	2075.0	2071.6
17.5°	2049.9	2052.2	2046.5	2046.5
20°	2018.1	2016.9	2012.4	2010.1
22.5°	1985.1	1982.8	1981.6	1974.8
25°	1949.8	1947.5	1944.1	1940.7
27.5°	1889.5	1888.3	1884.9	1880.3
30°	1797.2	1796.1	1791.6	1791.6
32.5°	1677.7	1676.6	1672.1	1673.2
35°	1553.7	1558.2	1555.9	1551.4
37.5°	1450.1	1453.5	1455.8	1453.5
40°	1363.6	1373.8	1375.0	1377.3
42.5°	1271.4	1285.0	1289.6	1291.9
45°	1161.0	1173.5	1183.8	1181.5
47.5°	1048.3	1057.4	1066.5	1059.7
50°	940.2	945.9	949.3	949.3
52.5°	837.7	837.7	836.6	837.7
55°	720.5	720.5	716.0	718.2
57.5°	597.6	599.8	596.4	590.7
60°	483.7	478.1	475.8	472.4
62.5°	376.8	376.8	368.8	379.0
65°	282.3	278.9	275.4	274.3
67.5°	204.9	203.8	200.3	199.2
70°	144.5	140.0	138.9	136.6
72.5°	96.8	96.8	94.5	94.5
75°	59.2	53.5	52.4	53.5
77.5°	41.0	39.8	39.8	38.7
80°	27.3	26.2	28.5	25.0
82.5°	17.1	18.2	17.1	18.2
85°	11.4	13.6	12.5	12.5
87.5°	6.8	6.8	6.8	6.8
90°	0.0	0.0	0.0	0.0

(END OF REPORT)