

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: P246118

Luminaire Tested: **LSR8B40D010 EC8B40835 8LBDW0B**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P246118  
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: LSR8B40D010 EC8B40835 8LBDW0B  
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
80 CRI 3500 CCT WITH SPECULAR BLACK TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3948.0 lumens  
Efficiency: N/A  
Efficacy: 96.5 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.26 / 1.18  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

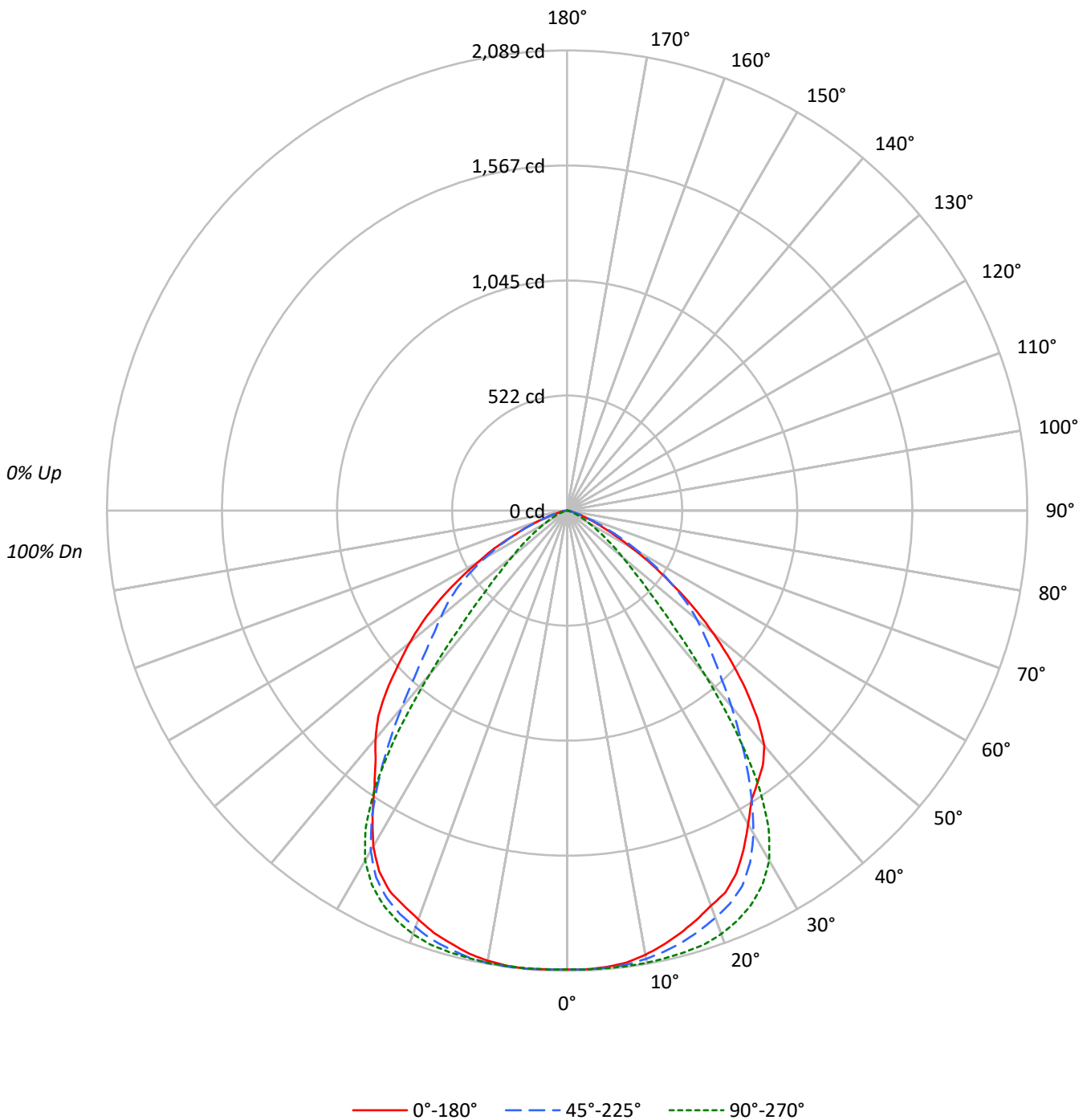
Input Watts (W): 40.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

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

	0°	90°	180°
0°	64232	64232	64232
5°	64375	64549	64617
10°	64105	65260	64979
15°	63395	66214	64966
20°	62631	67143	64797
25°	61818	67221	64864
30°	58484	65331	62664
35°	56737	56779	57370
40°	56038	39066	54460
45°	49928	23453	50613
50°	41516	15610	44735
55°	31139	10763	37929
60°	21098	7173	28616
65°	12725	4648	19664
70°	7059	2524	12099
75°	3193	1060	6267
80°	2770	1190	4368
85°	3149	1592	4352



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	198.8	5.0
10°-20°	577.3	14.6
20°-30°	876.3	22.2
30°-40°	920.4	23.3
40°-50°	690.0	17.5
50°-60°	442.7	11.2
60°-70°	189.4	4.8
70°-80°	44.7	1.1
80°-90°	8.3	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°	1652.4	41.9
0°-40°	2572.8	65.2
0°-60°	3705.5	93.9
0°-90°	3948.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3948.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2083	2083	2083	2083	2083	
5°	2080	2083	2085	2089	2088	198
15°	1986	2027	2074	2061	2035	560
25°	1817	1881	1976	1940	1906	830
35°	1507	1423	1508	1490	1524	946
45°	1145	936	538	909	1161	877
55°	579	579	200	604	706	525
65°	174	206	64	265	270	186
75°	27	31	9	54	53	39
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°	2083.0	2083.0	2083.0	2083.0	2083.0	2083.0	2083.0	2083.0	2083.0	2083.0	2083.0
2.5°	2084.2	2086.4	2085.3	2085.3	2084.2	2085.3	2085.3	2087.5	2087.5	2085.3	2084.2
5°	2079.7	2081.9	2081.9	2079.7	2079.7	2085.3	2081.9	2084.2	2084.2	2083.0	2083.0
7.5°	2069.6	2069.6	2074.1	2070.8	2070.8	2074.1	2073.0	2075.2	2077.5	2078.6	2078.6
10°	2047.3	2049.5	2050.6	2050.6	2051.7	2055.1	2057.3	2061.8	2064.0	2066.3	2067.4
12.5°	2019.3	2022.7	2023.8	2022.7	2026.0	2030.5	2036.1	2041.7	2045.0	2049.5	2052.9
15°	1985.8	1985.8	1988.0	1991.4	1993.6	2000.3	2005.9	2012.6	2021.5	2027.1	2032.7
17.5°	1948.9	1951.1	1954.5	1954.5	1958.9	1970.1	1973.5	1983.5	1993.6	1999.2	2010.4
20°	1908.6	1910.8	1914.2	1916.5	1922.0	1931.0	1937.7	1946.6	1957.8	1967.9	1979.1
22.5°	1877.3	1872.8	1875.1	1877.3	1882.9	1890.7	1898.6	1909.7	1920.9	1931.0	1942.2
25°	1816.9	1818.0	1821.4	1823.6	1830.4	1837.1	1846.0	1859.4	1869.5	1880.7	1893.0
27.5°	1735.3	1736.4	1742.0	1742.0	1747.6	1758.8	1764.4	1775.6	1789.0	1800.2	1814.7
30°	1642.5	1644.7	1644.7	1649.2	1652.6	1658.2	1663.7	1674.9	1681.6	1691.7	1711.8
32.5°	1557.5	1559.8	1558.6	1557.5	1554.2	1553.1	1551.9	1554.2	1556.4	1559.8	1567.6
35°	1507.2	1501.6	1497.2	1489.3	1480.4	1469.2	1459.1	1445.7	1433.4	1423.3	1412.2
37.5°	1459.1	1458.0	1451.3	1440.1	1422.2	1402.1	1378.6	1349.6	1320.5	1289.2	1259.0
40°	1392.1	1388.7	1383.1	1367.5	1347.3	1322.7	1291.4	1255.6	1208.7	1160.6	1111.4
42.5°	1278.0	1279.1	1272.4	1260.1	1241.1	1217.6	1185.2	1146.1	1095.8	1038.7	975.0
45°	1144.9	1144.9	1142.7	1132.6	1119.2	1100.2	1075.6	1043.2	994.0	935.8	867.6
47.5°	1006.3	1007.4	1004.1	1001.8	996.2	983.9	966.1	941.5	906.8	850.9	782.7
50°	865.4	865.4	871.0	869.9	869.9	865.4	857.6	843.0	812.9	768.1	704.4
52.5°	724.5	726.8	730.1	734.6	740.2	749.1	740.2	733.5	714.5	679.8	625.0
55°	579.2	581.4	587.0	594.8	601.6	610.5	612.7	612.7	602.7	579.2	537.8
57.5°	455.1	451.7	456.2	462.9	471.9	480.8	487.5	495.3	494.2	478.6	445.0
60°	342.1	343.3	346.6	353.3	360.0	367.9	376.8	383.5	386.9	379.1	357.8
62.5°	249.3	249.3	253.8	260.5	263.9	275.1	280.6	284.0	287.3	286.2	272.8
65°	174.4	176.7	178.9	182.3	185.6	192.3	195.7	202.4	204.6	205.7	195.7
67.5°	123.0	119.6	121.9	124.1	127.5	131.9	138.7	138.7	142.0	142.0	135.3
70°	78.3	78.3	79.4	82.7	85.0	86.1	88.3	90.6	93.9	92.8	92.8
72.5°	52.6	51.4	52.6	53.7	54.8	58.1	58.1	59.3	61.5	62.6	58.1
75°	26.8	28.0	30.2	29.1	32.4	30.2	31.3	34.7	33.5	31.3	31.3
77.5°	22.4	22.4	22.4	21.3	23.5	23.5	22.4	24.6	23.5	23.5	22.4
80°	15.6	16.8	15.6	14.5	15.6	14.5	14.5	14.5	14.5	14.5	13.4
82.5°	12.3	10.1	11.2	10.1	11.2	11.2	10.1	8.9	8.9	10.1	8.9
85°	8.9	6.7	7.8	7.8	6.7	6.7	6.7	6.7	6.7	5.6	5.6
87.5°	5.6	3.4	3.4	3.4	4.5	4.5	4.5	3.4	4.5	4.5	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°	2083.0	2083.0	2083.0	2083.0	2083.0	2083.0	2083.0	2083.0	2083.0	2083.0	2083.0
2.5°	2086.4	2085.3	2087.5	2086.4	2086.4	2085.3	2086.4	2085.3	2087.5	2083.0	2084.2
5°	2086.4	2084.2	2085.3	2086.4	2087.5	2085.3	2085.3	2085.3	2087.5	2085.3	2086.4
7.5°	2081.9	2080.8	2084.2	2086.4	2085.3	2084.2	2086.4	2085.3	2087.5	2086.4	2088.6
10°	2073.0	2074.1	2076.3	2079.7	2080.8	2081.9	2084.2	2084.2	2087.5	2083.0	2085.3
12.5°	2059.6	2064.0	2069.6	2071.9	2076.3	2076.3	2078.6	2079.7	2081.9	2080.8	2084.2
15°	2042.8	2048.4	2055.1	2060.7	2066.3	2069.6	2073.0	2074.1	2077.5	2074.1	2075.2
17.5°	2022.7	2029.4	2039.4	2046.1	2055.1	2058.4	2062.9	2065.2	2068.5	2066.3	2067.4
20°	1994.7	2002.6	2013.7	2023.8	2029.4	2037.2	2042.8	2046.1	2048.4	2046.1	2047.3
22.5°	1955.6	1966.8	1981.3	1989.1	2000.3	2007.0	2008.1	2016.0	2021.5	2016.0	2018.2
25°	1909.7	1920.9	1932.1	1948.9	1958.9	1966.8	1974.6	1975.7	1981.3	1980.2	1979.1
27.5°	1833.7	1848.3	1867.2	1880.7	1894.1	1906.4	1915.3	1917.6	1923.2	1920.9	1922.0
30°	1729.7	1745.4	1763.3	1784.5	1803.5	1815.8	1827.0	1834.8	1840.4	1837.1	1835.9
32.5°	1582.1	1597.8	1616.8	1638.0	1660.4	1678.3	1691.7	1701.8	1708.5	1706.2	1700.7
35°	1413.3	1417.8	1430.1	1446.8	1465.8	1484.9	1497.2	1508.3	1516.1	1518.4	1518.4
37.5°	1240.0	1225.5	1216.5	1216.5	1227.7	1235.5	1246.7	1253.4	1265.7	1270.2	1273.5
40°	1072.3	1038.7	1007.4	983.9	968.3	967.2	967.2	970.5	981.7	996.2	1009.7
42.5°	922.4	868.8	820.7	777.1	745.8	727.9	720.1	721.2	730.1	743.5	765.9
45°	802.8	735.7	675.3	622.8	580.3	552.3	538.9	537.8	544.5	560.2	584.8
47.5°	710.0	638.4	570.2	509.9	464.0	433.8	418.2	413.7	418.2	432.7	461.8
50°	632.9	559.1	488.6	426.0	376.8	345.5	331.0	325.4	331.0	343.3	372.3
52.5°	561.3	485.3	419.3	358.9	306.4	279.5	263.9	260.5	263.9	278.4	301.9
55°	478.6	413.7	348.8	288.5	242.6	215.8	203.5	200.2	203.5	216.9	241.5
57.5°	396.9	341.0	284.0	229.2	190.1	166.6	155.4	150.9	158.8	167.7	196.8
60°	320.9	276.2	228.1	180.0	147.6	126.3	117.4	116.3	118.5	129.7	149.8
62.5°	251.6	214.7	176.7	137.5	110.7	101.7	90.6	89.5	91.7	98.4	114.1
65°	181.1	157.7	128.6	100.6	79.4	67.1	62.6	63.7	66.0	70.4	85.0
67.5°	126.3	109.6	89.5	70.4	54.8	49.2	44.7	43.6	44.7	52.6	60.4
70°	85.0	74.9	60.4	53.7	38.0	30.2	31.3	28.0	32.4	32.4	39.1
72.5°	55.9	49.2	40.2	31.3	26.8	21.3	21.3	20.1	22.4	23.5	29.1
75°	29.1	22.4	22.4	15.6	11.2	5.6	10.1	8.9	7.8	8.9	11.2
77.5°	20.1	16.8	15.6	12.3	11.2	8.9	8.9	8.9	8.9	10.1	11.2
80°	12.3	12.3	8.9	7.8	6.7	5.6	6.7	6.7	6.7	6.7	7.8
82.5°	7.8	6.7	6.7	5.6	5.6	4.5	4.5	4.5	4.5	4.5	6.7
85°	6.7	4.5	4.5	3.4	4.5	7.8	3.4	4.5	4.5	4.5	3.4
87.5°	2.2	3.4	3.4	3.4	2.2	1.1	2.2	3.4	3.4	5.6	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°	2083.0	2083.0	2083.0	2083.0	2083.0	2083.0	2083.0	2083.0	2083.0	2083.0	2083.0
2.5°	2086.4	2087.5	2087.5	2086.4	2086.4	2084.2	2088.6	2085.3	2086.4	2090.9	2087.5
5°	2088.6	2089.7	2089.7	2088.6	2088.6	2088.6	2089.7	2089.7	2088.6	2087.5	2089.7
7.5°	2093.1	2092.0	2092.0	2089.7	2089.7	2087.5	2089.7	2086.4	2088.6	2086.4	2089.7
10°	2087.5	2088.6	2087.5	2086.4	2086.4	2085.3	2085.3	2081.9	2083.0	2079.7	2081.9
12.5°	2084.2	2083.0	2083.0	2080.8	2078.6	2076.3	2075.2	2071.9	2071.9	2064.0	2067.4
15°	2075.2	2076.3	2073.0	2068.5	2066.3	2060.7	2058.4	2054.0	2049.5	2043.9	2045.0
17.5°	2067.4	2064.0	2059.6	2055.1	2046.1	2041.7	2037.2	2030.5	2028.2	2021.5	2019.3
20°	2043.9	2041.7	2036.1	2028.2	2022.7	2012.6	2008.1	2001.4	1995.8	1989.1	1985.8
22.5°	2013.7	2011.5	2004.8	1996.9	1988.0	1983.5	1979.1	1966.8	1961.2	1954.5	1953.3
25°	1975.7	1972.4	1965.6	1956.7	1952.2	1939.9	1935.4	1926.5	1924.3	1917.6	1916.5
27.5°	1917.6	1913.1	1905.3	1894.1	1886.3	1878.4	1874.0	1867.2	1865.0	1858.3	1857.2
30°	1830.4	1824.8	1809.1	1804.6	1791.2	1783.4	1783.4	1774.4	1775.6	1771.1	1771.1
32.5°	1692.8	1683.9	1671.6	1662.6	1653.7	1649.2	1649.2	1645.9	1648.1	1648.1	1650.3
35°	1510.6	1498.3	1491.6	1486.0	1486.0	1490.4	1503.9	1507.2	1513.9	1519.5	1524.0
37.5°	1276.9	1275.8	1283.6	1290.3	1307.1	1326.1	1349.6	1369.7	1388.7	1402.1	1415.5
40°	1024.2	1052.1	1074.5	1105.8	1131.5	1168.4	1210.9	1245.6	1278.0	1301.5	1326.1
42.5°	799.4	835.2	882.2	928.0	973.9	1024.2	1080.1	1128.2	1170.7	1203.1	1228.8
45°	622.8	672.0	729.0	787.2	846.4	909.0	967.2	1016.4	1061.1	1094.6	1120.4
47.5°	502.0	555.7	620.5	684.3	751.4	817.3	882.2	924.7	961.6	988.4	1011.9
50°	414.8	471.9	540.1	612.7	679.8	745.8	801.7	843.0	873.3	896.7	911.3
52.5°	346.6	407.0	479.7	552.3	619.4	679.8	730.1	761.4	786.0	802.8	816.2
55°	286.2	344.4	412.6	480.8	546.8	603.8	645.1	668.6	687.6	697.7	705.5
57.5°	233.7	287.3	350.0	412.6	469.6	516.6	549.0	572.5	581.4	589.2	588.1
60°	183.4	233.7	290.7	344.4	393.6	431.6	455.1	468.5	475.2	478.6	476.3
62.5°	144.2	190.1	233.7	280.6	316.4	348.8	371.2	371.2	374.6	375.7	379.1
65°	107.3	142.0	180.0	214.7	243.7	265.0	277.3	280.6	285.1	284.0	281.8
67.5°	79.4	105.1	133.0	158.8	178.9	192.3	201.2	209.1	208.0	205.7	204.6
70°	54.8	71.6	96.2	111.8	126.3	139.8	142.0	143.1	144.2	145.4	143.1
72.5°	38.0	50.3	63.7	77.2	86.1	91.7	97.3	98.4	98.4	98.4	97.3
75°	19.0	25.7	38.0	43.6	51.4	53.7	58.1	58.1	61.5	57.0	55.9
77.5°	16.8	20.1	26.8	31.3	34.7	38.0	39.1	42.5	41.4	39.1	40.2
80°	10.1	12.3	16.8	19.0	23.5	24.6	25.7	26.8	25.7	26.8	26.8
82.5°	7.8	8.9	11.2	11.2	14.5	14.5	15.6	15.6	16.8	16.8	16.8
85°	4.5	7.8	6.7	13.4	8.9	8.9	11.2	13.4	11.2	11.2	13.4
87.5°	4.5	4.5	3.4	4.5	4.5	4.5	5.6	6.7	6.7	7.8	6.7
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: P246118

CATALOG NUMBER: LSR8B40D010 EC8B40835 8LBDW0B

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	2083.0	2083.0	2083.0	2083.0
2.5°	2086.4	2088.6	2085.3	2084.2
5°	2089.7	2089.7	2087.5	2087.5
7.5°	2089.7	2089.7	2086.4	2084.2
10°	2080.8	2080.8	2077.5	2075.2
12.5°	2064.0	2064.0	2062.9	2059.6
15°	2042.8	2042.8	2038.3	2035.0
17.5°	2013.7	2016.0	2010.4	2010.4
20°	1982.4	1981.3	1976.8	1974.6
22.5°	1950.0	1947.8	1946.6	1939.9
25°	1915.3	1913.1	1909.7	1906.4
27.5°	1856.1	1855.0	1851.6	1847.1
30°	1765.5	1764.4	1759.9	1759.9
32.5°	1648.1	1647.0	1642.5	1643.6
35°	1526.2	1530.7	1528.5	1524.0
37.5°	1424.5	1427.8	1430.1	1427.8
40°	1339.5	1349.6	1350.7	1352.9
42.5°	1248.9	1262.3	1266.8	1269.0
45°	1140.5	1152.8	1162.8	1160.6
47.5°	1029.8	1038.7	1047.7	1041.0
50°	923.6	929.1	932.5	932.5
52.5°	822.9	822.9	821.8	822.9
55°	707.8	707.8	703.3	705.5
57.5°	587.0	589.2	585.9	580.3
60°	475.2	469.6	467.4	464.0
62.5°	370.1	370.1	362.3	372.3
65°	277.3	273.9	270.6	269.5
67.5°	201.2	200.2	196.8	195.7
70°	142.0	137.5	136.4	134.2
72.5°	95.0	95.0	92.8	92.8
75°	58.1	52.6	51.4	52.6
77.5°	40.2	39.1	39.1	38.0
80°	26.8	25.7	28.0	24.6
82.5°	16.8	17.9	16.8	17.9
85°	11.2	13.4	12.3	12.3
87.5°	6.7	6.7	6.7	6.7
90°	0.0	0.0	0.0	0.0

(END OF REPORT)