

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: P246106

Luminaire Tested: **LSR8B40D010 EC8B40827 8LBDW0B**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P246106  
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 EC8B40827 8LBDW0B  
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
80 CRI 2700 CCT WITH SPECULAR BLACK TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3704.0 lumens  
Efficiency: N/A  
Efficacy: 90.6 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

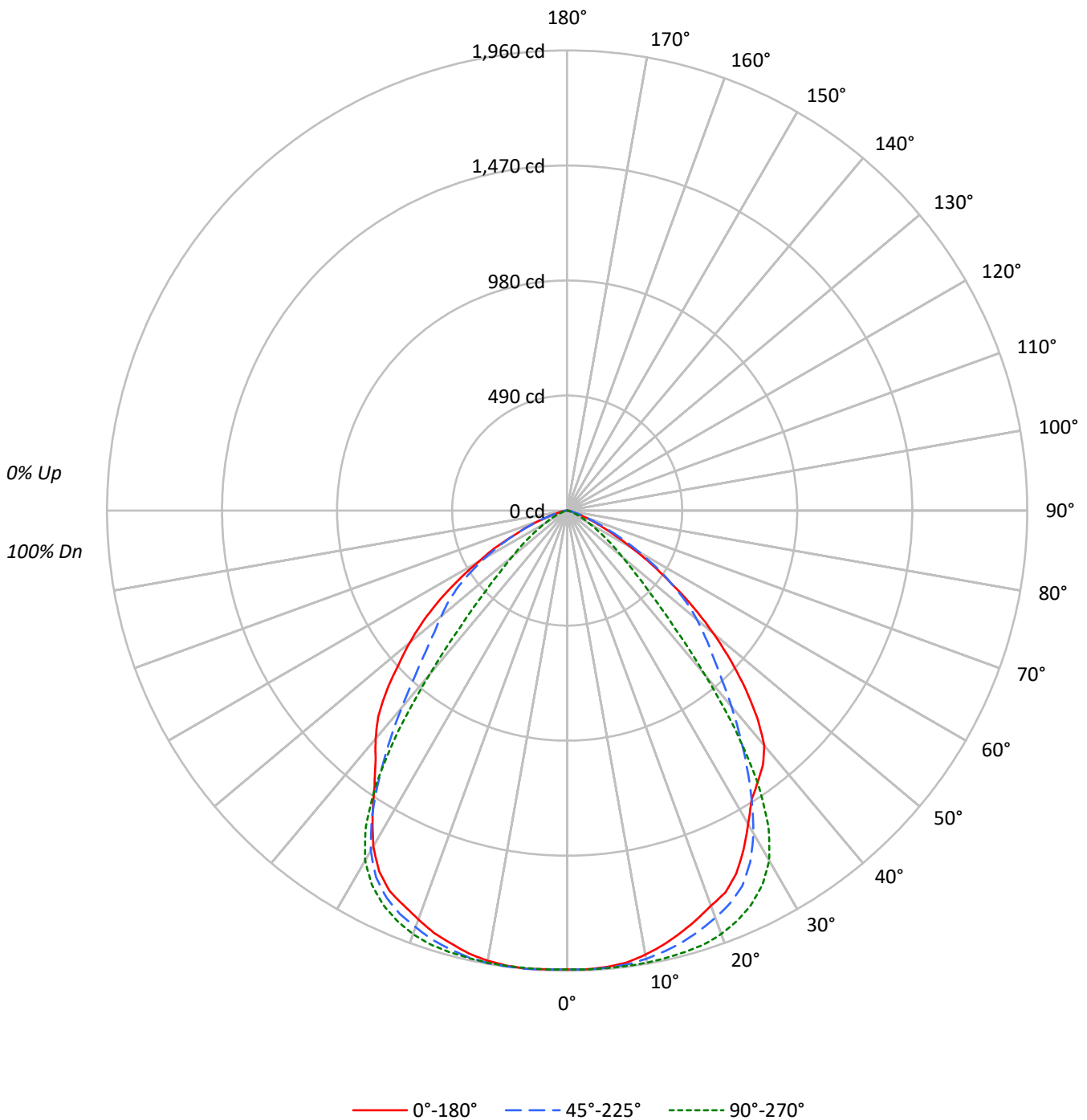
Input Watts (W): 40.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	60263	60263	60263
5°	60395	60559	60624
10°	60141	61228	60964
15°	59475	62121	60949
20°	58762	62996	60794
25°	57997	63067	60856
30°	54870	61293	58790
35°	53233	53270	53824
40°	52572	36651	51094
45°	46845	22005	47486
50°	38949	14646	41971
55°	29214	10096	35585
60°	19797	6728	26846
65°	11944	4363	18446
70°	6618	2362	11351
75°	3002	1001	5874
80°	2610	1119	4102
85°	2972	1486	4069



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	186.5	5.0
10°-20°	541.7	14.6
20°-30°	822.1	22.2
30°-40°	863.5	23.3
40°-50°	647.4	17.5
50°-60°	415.4	11.2
60°-70°	177.7	4.8
70°-80°	42.0	1.1
80°-90°	7.8	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°	1550.3	41.9
0°-40°	2413.8	65.2
0°-60°	3476.5	93.9
0°-90°	3704.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3704.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1954	1954	1954	1954	1954	
5°	1951	1954	1956	1960	1958	185
15°	1863	1902	1946	1933	1909	525
25°	1705	1764	1854	1820	1789	779
35°	1414	1335	1415	1398	1430	888
45°	1074	878	505	853	1089	823
55°	543	543	188	566	662	493
65°	164	193	60	249	253	175
75°	25	29	8	50	49	37
85°	8	5	4	8	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°	1954.3	1954.3	1954.3	1954.3	1954.3	1954.3	1954.3	1954.3	1954.3	1954.3	1954.3
2.5°	1955.4	1957.5	1956.4	1956.4	1955.4	1956.4	1956.4	1958.5	1958.5	1956.4	1955.4
5°	1951.1	1953.3	1953.3	1951.1	1951.1	1956.4	1953.3	1955.4	1955.4	1954.3	1954.3
7.5°	1941.7	1941.7	1945.9	1942.8	1942.8	1945.9	1944.9	1947.0	1949.1	1950.1	1950.1
10°	1920.7	1922.8	1923.9	1923.9	1924.9	1928.1	1930.2	1934.4	1936.5	1938.6	1939.6
12.5°	1894.5	1897.7	1898.7	1897.7	1900.8	1905.0	1910.3	1915.5	1918.7	1922.8	1926.0
15°	1863.0	1863.0	1865.1	1868.3	1870.4	1876.7	1881.9	1888.2	1896.6	1901.9	1907.1
17.5°	1828.4	1830.5	1833.7	1833.7	1837.9	1848.3	1851.5	1860.9	1870.4	1875.6	1886.1
20°	1790.7	1792.8	1795.9	1798.0	1803.2	1811.6	1817.9	1826.3	1836.8	1846.3	1856.7
22.5°	1761.3	1757.1	1759.2	1761.3	1766.5	1773.9	1781.2	1791.7	1802.2	1811.6	1822.1
25°	1704.6	1705.7	1708.8	1710.9	1717.2	1723.5	1731.9	1744.5	1753.9	1764.4	1776.0
27.5°	1628.1	1629.1	1634.4	1634.4	1639.6	1650.1	1655.3	1665.8	1678.4	1688.9	1702.6
30°	1541.0	1543.1	1543.1	1547.3	1550.4	1555.7	1560.9	1571.4	1577.7	1587.2	1606.0
32.5°	1461.3	1463.4	1462.3	1461.3	1458.1	1457.1	1456.0	1458.1	1460.2	1463.4	1470.7
35°	1414.1	1408.8	1404.6	1397.3	1388.9	1378.4	1369.0	1356.4	1344.8	1335.4	1324.9
37.5°	1369.0	1367.9	1361.6	1351.1	1334.3	1315.5	1293.4	1266.2	1238.9	1209.5	1181.2
40°	1306.0	1302.9	1297.6	1282.9	1264.1	1241.0	1211.6	1178.0	1134.0	1088.9	1042.7
42.5°	1199.0	1200.1	1193.8	1182.2	1164.4	1142.4	1111.9	1075.2	1028.0	974.5	914.7
45°	1074.2	1074.2	1072.1	1062.6	1050.1	1032.2	1009.1	978.7	932.6	878.0	814.0
47.5°	944.1	945.2	942.0	939.9	934.7	923.1	906.3	883.3	850.8	798.3	734.3
50°	811.9	811.9	817.2	816.1	816.1	811.9	804.6	790.9	762.6	720.7	660.9
52.5°	679.8	681.9	685.0	689.2	694.4	702.8	694.4	688.1	670.3	637.8	586.4
55°	543.4	545.5	550.7	558.1	564.4	572.8	574.9	574.9	565.4	543.4	504.6
57.5°	427.0	423.8	428.0	434.3	442.7	451.1	457.4	464.7	463.7	449.0	417.5
60°	321.0	322.1	325.2	331.5	337.8	345.1	353.5	359.8	363.0	355.6	335.7
62.5°	233.9	233.9	238.1	244.4	247.6	258.1	263.3	266.5	269.6	268.5	256.0
65°	163.7	165.7	167.8	171.0	174.1	180.4	183.6	189.9	192.0	193.0	183.6
67.5°	115.4	112.2	114.3	116.4	119.6	123.8	130.1	130.1	133.2	133.2	126.9
70°	73.4	73.4	74.5	77.6	79.7	80.8	82.9	85.0	88.1	87.1	87.1
72.5°	49.3	48.3	49.3	50.4	51.4	54.5	54.5	55.6	57.7	58.8	54.5
75°	25.2	26.2	28.3	27.3	30.4	28.3	29.4	32.5	31.5	29.4	29.4
77.5°	21.0	21.0	21.0	19.9	22.0	22.0	21.0	23.1	22.0	22.0	21.0
80°	14.7	15.7	14.7	13.6	14.7	13.6	13.6	13.6	13.6	13.6	12.6
82.5°	11.5	9.4	10.5	9.4	10.5	10.5	9.4	8.4	8.4	9.4	8.4
85°	8.4	6.3	7.3	7.3	6.3	6.3	6.3	6.3	6.3	5.2	5.2
87.5°	5.2	3.2	3.2	3.2	4.2	4.2	4.2	3.2	4.2	4.2	2.1
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°	1954.3	1954.3	1954.3	1954.3	1954.3	1954.3	1954.3	1954.3	1954.3	1954.3	1954.3
2.5°	1957.5	1956.4	1958.5	1957.5	1957.5	1956.4	1957.5	1956.4	1958.5	1954.3	1955.4
5°	1957.5	1955.4	1956.4	1957.5	1958.5	1956.4	1956.4	1956.4	1958.5	1956.4	1957.5
7.5°	1953.3	1952.2	1955.4	1957.5	1956.4	1955.4	1957.5	1956.4	1958.5	1957.5	1959.5
10°	1944.9	1945.9	1948.0	1951.1	1952.2	1953.3	1955.4	1955.4	1958.5	1954.3	1956.4
12.5°	1932.3	1936.5	1941.7	1943.8	1948.0	1948.0	1950.1	1951.1	1953.3	1952.2	1955.4
15°	1916.5	1921.8	1928.1	1933.3	1938.6	1941.7	1944.9	1945.9	1949.1	1945.9	1947.0
17.5°	1897.7	1903.9	1913.4	1919.7	1928.1	1931.2	1935.4	1937.5	1940.7	1938.6	1939.6
20°	1871.4	1878.8	1889.3	1898.7	1903.9	1911.3	1916.5	1919.7	1921.8	1919.7	1920.7
22.5°	1834.7	1845.2	1858.8	1866.2	1876.7	1883.0	1884.0	1891.4	1896.6	1891.4	1893.5
25°	1791.7	1802.2	1812.7	1828.4	1837.9	1845.2	1852.6	1853.6	1858.8	1857.8	1856.7
27.5°	1720.4	1734.0	1751.8	1764.4	1777.0	1788.6	1797.0	1799.0	1804.3	1802.2	1803.2
30°	1622.8	1637.5	1654.3	1674.2	1692.1	1703.6	1714.1	1721.4	1726.7	1723.5	1722.5
32.5°	1484.4	1499.0	1516.9	1536.8	1557.8	1574.6	1587.2	1596.6	1602.9	1600.8	1595.5
35°	1326.0	1330.1	1341.7	1357.4	1375.2	1393.1	1404.6	1415.1	1422.4	1424.6	1424.6
37.5°	1163.4	1149.7	1141.3	1141.3	1151.8	1159.1	1169.6	1175.9	1187.5	1191.7	1194.8
40°	1006.0	974.5	945.2	923.1	908.5	907.4	907.4	910.5	921.0	934.7	947.3
42.5°	865.4	815.1	770.0	729.1	699.7	682.9	675.6	676.6	685.0	697.6	718.6
45°	753.2	690.3	633.6	584.3	544.4	518.2	505.6	504.6	510.9	525.5	548.6
47.5°	666.1	599.0	535.0	478.3	435.3	407.0	392.3	388.1	392.3	406.0	433.2
50°	593.7	524.5	458.4	399.7	353.5	324.2	310.5	305.3	310.5	322.1	349.3
52.5°	526.6	455.3	393.4	336.7	287.4	262.2	247.6	244.4	247.6	261.2	283.2
55°	449.0	388.1	327.3	270.6	227.6	202.5	190.9	187.8	190.9	203.5	226.6
57.5°	372.4	319.9	266.5	215.0	178.3	156.3	145.8	141.6	148.9	157.3	184.6
60°	301.1	259.1	214.0	168.9	138.5	118.5	110.1	109.1	111.2	121.7	140.6
62.5°	236.0	201.4	165.7	129.0	103.9	95.5	85.0	83.9	86.0	92.3	107.0
65°	169.9	147.9	120.6	94.4	74.5	62.9	58.8	59.8	61.9	66.1	79.7
67.5°	118.5	102.8	83.9	66.1	51.4	46.2	42.0	40.9	42.0	49.3	56.6
70°	79.7	70.3	56.6	50.4	35.7	28.3	29.4	26.2	30.4	30.4	36.7
72.5°	52.4	46.2	37.8	29.4	25.2	19.9	19.9	18.9	21.0	22.0	27.3
75°	27.3	21.0	21.0	14.7	10.5	5.2	9.4	8.4	7.3	8.4	10.5
77.5°	18.9	15.7	14.7	11.5	10.5	8.4	8.4	8.4	8.4	9.4	10.5
80°	11.5	11.5	8.4	7.3	6.3	5.2	6.3	6.3	6.3	6.3	7.3
82.5°	7.3	6.3	6.3	5.2	5.2	4.2	4.2	4.2	4.2	4.2	6.3
85°	6.3	4.2	4.2	3.2	4.2	7.3	3.2	4.2	4.2	4.2	3.2
87.5°	2.1	3.2	3.2	3.2	2.1	1.1	2.1	3.2	3.2	5.2	4.2
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):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1954.3	1954.3	1954.3	1954.3	1954.3	1954.3	1954.3	1954.3	1954.3	1954.3	1954.3
2.5°	1957.5	1958.5	1958.5	1957.5	1957.5	1955.4	1959.5	1956.4	1957.5	1961.6	1958.5
5°	1959.5	1960.6	1960.6	1959.5	1959.5	1959.5	1960.6	1960.6	1959.5	1958.5	1960.6
7.5°	1963.7	1962.7	1962.7	1960.6	1960.6	1958.5	1960.6	1957.5	1959.5	1957.5	1960.6
10°	1958.5	1959.5	1958.5	1957.5	1957.5	1956.4	1956.4	1953.3	1954.3	1951.1	1953.3
12.5°	1955.4	1954.3	1954.3	1952.2	1950.1	1948.0	1947.0	1943.8	1943.8	1936.5	1939.6
15°	1947.0	1948.0	1944.9	1940.7	1938.6	1933.3	1931.2	1927.0	1922.8	1917.6	1918.7
17.5°	1939.6	1936.5	1932.3	1928.1	1919.7	1915.5	1911.3	1905.0	1902.9	1896.6	1894.5
20°	1917.6	1915.5	1910.3	1902.9	1897.7	1888.2	1884.0	1877.7	1872.5	1866.2	1863.0
22.5°	1889.3	1887.2	1880.9	1873.5	1865.1	1860.9	1856.7	1845.2	1840.0	1833.7	1832.6
25°	1853.6	1850.5	1844.2	1835.8	1831.6	1820.0	1815.8	1807.4	1805.4	1799.0	1798.0
27.5°	1799.0	1794.9	1787.5	1777.0	1769.7	1762.3	1758.2	1751.8	1749.8	1743.4	1742.4
30°	1717.2	1712.0	1697.3	1693.1	1680.5	1673.2	1673.2	1664.8	1665.8	1661.6	1661.6
32.5°	1588.2	1579.8	1568.3	1559.9	1551.5	1547.3	1547.3	1544.1	1546.2	1546.2	1548.3
35°	1417.2	1405.7	1399.4	1394.1	1394.1	1398.3	1410.9	1414.1	1420.4	1425.6	1429.8
37.5°	1198.0	1196.9	1204.3	1210.6	1226.3	1244.1	1266.2	1285.0	1302.9	1315.5	1328.0
40°	960.9	987.1	1008.1	1037.5	1061.6	1096.2	1136.1	1168.6	1199.0	1221.1	1244.1
42.5°	750.0	783.6	827.7	870.7	913.7	960.9	1013.4	1058.5	1098.3	1128.7	1152.9
45°	584.3	630.4	684.0	738.5	794.1	852.9	907.4	953.6	995.5	1027.0	1051.1
47.5°	471.0	521.4	582.2	642.0	704.9	766.8	827.7	867.5	902.1	927.3	949.4
50°	389.2	442.7	506.7	574.9	637.8	699.7	752.1	790.9	819.3	841.3	854.9
52.5°	325.2	381.8	450.0	518.2	581.1	637.8	685.0	714.4	737.5	753.2	765.8
55°	268.5	323.1	387.1	451.1	513.0	566.5	605.3	627.3	645.1	654.6	661.9
57.5°	219.3	269.6	328.3	387.1	440.6	484.7	515.1	537.1	545.5	552.8	551.8
60°	172.0	219.3	272.7	323.1	369.3	404.9	427.0	439.5	445.8	449.0	446.9
62.5°	135.3	178.3	219.3	263.3	296.9	327.3	348.3	348.3	351.4	352.5	355.6
65°	100.7	133.2	168.9	201.4	228.7	248.6	260.2	263.3	267.5	266.5	264.4
67.5°	74.5	98.6	124.8	148.9	167.8	180.4	188.8	196.2	195.1	193.0	192.0
70°	51.4	67.1	90.2	104.9	118.5	131.1	133.2	134.3	135.3	136.4	134.3
72.5°	35.7	47.2	59.8	72.4	80.8	86.0	91.3	92.3	92.3	92.3	91.3
75°	17.8	24.1	35.7	40.9	48.3	50.4	54.5	54.5	57.7	53.5	52.4
77.5°	15.7	18.9	25.2	29.4	32.5	35.7	36.7	39.9	38.8	36.7	37.8
80°	9.4	11.5	15.7	17.8	22.0	23.1	24.1	25.2	24.1	25.2	25.2
82.5°	7.3	8.4	10.5	10.5	13.6	13.6	14.7	14.7	15.7	15.7	15.7
85°	4.2	7.3	6.3	12.6	8.4	8.4	10.5	12.6	10.5	10.5	12.6
87.5°	4.2	4.2	3.2	4.2	4.2	4.2	5.2	6.3	6.3	7.3	6.3
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: P246106

CATALOG NUMBER: LSR8B40D010 EC8B40827 8LBDW0B

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	1954.3	1954.3	1954.3	1954.3
2.5°	1957.5	1959.5	1956.4	1955.4
5°	1960.6	1960.6	1958.5	1958.5
7.5°	1960.6	1960.6	1957.5	1955.4
10°	1952.2	1952.2	1949.1	1947.0
12.5°	1936.5	1936.5	1935.4	1932.3
15°	1916.5	1916.5	1912.3	1909.2
17.5°	1889.3	1891.4	1886.1	1886.1
20°	1859.9	1858.8	1854.7	1852.6
22.5°	1829.5	1827.4	1826.3	1820.0
25°	1797.0	1794.9	1791.7	1788.6
27.5°	1741.4	1740.3	1737.2	1733.0
30°	1656.4	1655.3	1651.1	1651.1
32.5°	1546.2	1545.2	1541.0	1542.1
35°	1431.9	1436.1	1434.0	1429.8
37.5°	1336.4	1339.6	1341.7	1339.6
40°	1256.7	1266.2	1267.2	1269.3
42.5°	1171.7	1184.3	1188.5	1190.6
45°	1070.0	1081.5	1091.0	1088.9
47.5°	966.1	974.5	982.9	976.6
50°	866.5	871.7	874.9	874.9
52.5°	772.1	772.1	771.0	772.1
55°	664.0	664.0	659.8	661.9
57.5°	550.7	552.8	549.7	544.4
60°	445.8	440.6	438.5	435.3
62.5°	347.2	347.2	339.9	349.3
65°	260.2	257.0	253.9	252.8
67.5°	188.8	187.8	184.6	183.6
70°	133.2	129.0	128.0	125.9
72.5°	89.2	89.2	87.1	87.1
75°	54.5	49.3	48.3	49.3
77.5°	37.8	36.7	36.7	35.7
80°	25.2	24.1	26.2	23.1
82.5°	15.7	16.8	15.7	16.8
85°	10.5	12.6	11.5	11.5
87.5°	6.3	6.3	6.3	6.3
90°	0.0	0.0	0.0	0.0

(END OF REPORT)