

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: P246226

Luminaire Tested: **LSR8B40D010 EC8B40940 8LBDW0MW**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P246226  
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 EC8B40940 8LBDW0MW  
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
90 CRI 4000 CCT WITH MATTE WHITE TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3929.0 lumens  
Efficiency: N/A  
Efficacy: 96.1 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

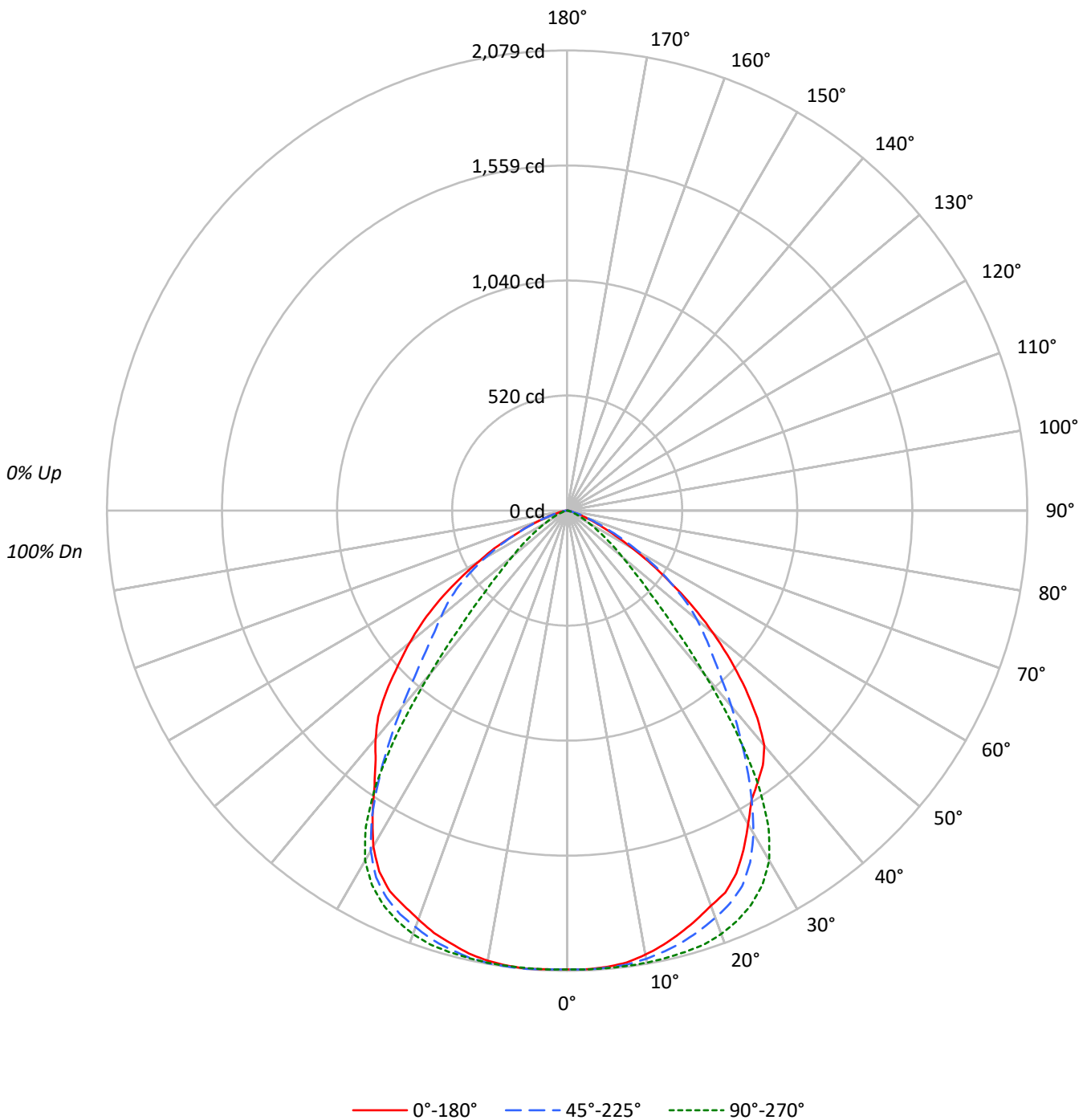
Input Watts (W): 40.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	63924	63924	63924
5°	64066	64236	64307
10°	63795	64944	64666
15°	63088	65895	64653
20°	62329	66822	64485
25°	61522	66898	64551
30°	58203	65018	62362
35°	56466	56508	57095
40°	55768	38877	54198
45°	49688	23340	50369
50°	41319	15534	44519
55°	30988	10709	37746
60°	21000	7136	28480
65°	12667	4626	19569
70°	7023	2506	12036
75°	3181	1060	6231
80°	2770	1190	4351
85°	3149	1557	4352



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	197.8	5.0
10°-20°	574.6	14.6
20°-30°	872.1	22.2
30°-40°	915.9	23.3
40°-50°	686.7	17.5
50°-60°	440.6	11.2
60°-70°	188.5	4.8
70°-80°	44.5	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°	1644.5	41.9
0°-40°	2560.4	65.2
0°-60°	3687.7	93.9
0°-90°	3929.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3929.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2073	2073	2073	2073	2073	
5°	2070	2073	2075	2079	2078	197
15°	1976	2017	2064	2051	2025	557
25°	1808	1872	1966	1931	1897	826
35°	1500	1416	1501	1483	1517	941
45°	1139	931	535	905	1155	873
55°	576	576	199	601	702	523
65°	174	205	63	264	268	185
75°	27	31	9	53	52	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°	2073.0	2073.0	2073.0	2073.0	2073.0	2073.0	2073.0	2073.0	2073.0	2073.0	2073.0
2.5°	2074.1	2076.4	2075.2	2075.2	2074.1	2075.2	2075.2	2077.5	2077.5	2075.2	2074.1
5°	2069.7	2071.9	2071.9	2069.7	2069.7	2075.2	2071.9	2074.1	2074.1	2073.0	2073.0
7.5°	2059.7	2059.7	2064.1	2060.8	2060.8	2064.1	2063.0	2065.2	2067.5	2068.6	2068.6
10°	2037.4	2039.6	2040.8	2040.8	2041.9	2045.2	2047.4	2051.9	2054.1	2056.3	2057.4
12.5°	2009.6	2012.9	2014.0	2012.9	2016.3	2020.7	2026.3	2031.9	2035.2	2039.6	2043.0
15°	1976.2	1976.2	1978.4	1981.8	1984.0	1990.7	1996.2	2002.9	2011.8	2017.4	2022.9
17.5°	1939.5	1941.7	1945.1	1945.1	1949.5	1960.6	1964.0	1974.0	1984.0	1989.6	2000.7
20°	1899.4	1901.7	1905.0	1907.2	1912.8	1921.7	1928.4	1937.3	1948.4	1958.4	1969.5
22.5°	1868.3	1863.8	1866.0	1868.3	1873.9	1881.6	1889.4	1900.5	1911.7	1921.7	1932.8
25°	1808.2	1809.3	1812.6	1814.9	1821.6	1828.2	1837.1	1850.5	1860.5	1871.6	1883.8
27.5°	1727.0	1728.1	1733.6	1733.6	1739.2	1750.3	1755.9	1767.0	1780.4	1791.5	1806.0
30°	1634.6	1636.8	1636.8	1641.3	1644.6	1650.2	1655.7	1666.9	1673.5	1683.6	1703.6
32.5°	1550.0	1552.3	1551.1	1550.0	1546.7	1545.6	1544.5	1546.7	1548.9	1552.3	1560.0
35°	1500.0	1494.4	1490.0	1482.2	1473.3	1462.1	1452.1	1438.8	1426.5	1416.5	1405.4
37.5°	1452.1	1451.0	1444.3	1433.2	1415.4	1395.4	1372.0	1343.1	1314.1	1283.0	1252.9
40°	1385.4	1382.0	1376.4	1360.9	1340.8	1316.4	1285.2	1249.6	1202.9	1155.0	1106.1
42.5°	1271.8	1273.0	1266.3	1254.0	1235.1	1211.8	1179.5	1140.6	1090.5	1033.7	970.3
45°	1139.4	1139.4	1137.2	1127.2	1113.8	1094.9	1070.4	1038.2	989.2	931.3	863.5
47.5°	1001.5	1002.6	999.2	997.0	991.4	979.2	961.4	936.9	902.4	846.8	778.9
50°	861.3	861.3	866.8	865.7	865.7	861.3	853.5	839.0	809.0	764.4	701.0
52.5°	721.0	723.3	726.6	731.1	736.6	745.5	736.6	729.9	711.0	676.5	622.0
55°	576.4	578.6	584.2	592.0	598.7	607.6	609.8	609.8	599.8	576.4	535.2
57.5°	452.9	449.5	454.0	460.7	469.6	478.5	485.2	492.9	491.8	476.3	442.9
60°	340.5	341.6	344.9	351.6	358.3	366.1	375.0	381.7	385.0	377.2	356.1
62.5°	248.1	248.1	252.6	259.3	262.6	273.7	279.3	282.6	286.0	284.8	271.5
65°	173.6	175.8	178.0	181.4	184.7	191.4	194.7	201.4	203.6	204.7	194.7
67.5°	122.4	119.1	121.3	123.5	126.8	131.3	138.0	138.0	141.3	141.3	134.6
70°	77.9	77.9	79.0	82.3	84.6	85.7	87.9	90.1	93.5	92.4	92.4
72.5°	52.3	51.2	52.3	53.4	54.5	57.9	57.9	59.0	61.2	62.3	57.9
75°	26.7	27.8	30.0	28.9	32.3	30.0	31.1	34.5	33.4	31.1	31.1
77.5°	22.2	22.2	22.2	21.2	23.4	23.4	22.2	24.5	23.4	23.4	22.2
80°	15.6	16.7	15.6	14.5	15.6	14.5	14.5	14.5	14.5	14.5	13.3
82.5°	12.3	10.0	11.1	10.0	11.1	11.1	10.0	8.9	8.9	10.0	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	3.3	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°	2073.0	2073.0	2073.0	2073.0	2073.0	2073.0	2073.0	2073.0	2073.0	2073.0	2073.0
2.5°	2076.4	2075.2	2077.5	2076.4	2076.4	2075.2	2076.4	2075.2	2077.5	2073.0	2074.1
5°	2076.4	2074.1	2075.2	2076.4	2077.5	2075.2	2075.2	2075.2	2077.5	2075.2	2076.4
7.5°	2071.9	2070.8	2074.1	2076.4	2075.2	2074.1	2076.4	2075.2	2077.5	2076.4	2078.6
10°	2063.0	2064.1	2066.3	2069.7	2070.8	2071.9	2074.1	2074.1	2077.5	2073.0	2075.2
12.5°	2049.7	2054.1	2059.7	2061.9	2066.3	2066.3	2068.6	2069.7	2071.9	2070.8	2074.1
15°	2033.0	2038.5	2045.2	2050.8	2056.3	2059.7	2063.0	2064.1	2067.5	2064.1	2065.2
17.5°	2012.9	2019.6	2029.6	2036.3	2045.2	2048.5	2053.0	2055.2	2058.6	2056.3	2057.4
20°	1985.1	1992.9	2004.0	2014.0	2019.6	2027.4	2033.0	2036.3	2038.5	2036.3	2037.4
22.5°	1946.2	1957.3	1971.8	1979.5	1990.7	1997.4	1998.5	2006.3	2011.8	2006.3	2008.5
25°	1900.5	1911.7	1922.8	1939.5	1949.5	1957.3	1965.1	1966.2	1971.8	1970.6	1969.5
27.5°	1824.9	1839.4	1858.3	1871.6	1885.0	1897.2	1906.1	1908.3	1913.9	1911.7	1912.8
30°	1721.4	1737.0	1754.8	1775.9	1794.8	1807.1	1818.2	1826.0	1831.5	1828.2	1827.1
32.5°	1574.5	1590.1	1609.0	1630.1	1652.4	1670.2	1683.6	1693.6	1700.3	1698.0	1692.5
35°	1406.5	1410.9	1423.2	1439.9	1458.8	1477.7	1490.0	1501.1	1508.9	1511.1	1511.1
37.5°	1234.0	1219.6	1210.7	1210.7	1221.8	1229.6	1240.7	1247.4	1259.6	1264.1	1267.4
40°	1067.1	1033.7	1002.6	979.2	963.6	962.5	962.5	965.8	977.0	991.4	1004.8
42.5°	918.0	864.6	816.7	773.3	742.2	724.4	716.6	717.7	726.6	740.0	762.2
45°	798.9	732.2	672.1	619.8	577.5	549.7	536.3	535.2	541.9	557.5	582.0
47.5°	706.6	635.4	567.5	507.4	461.8	431.7	416.2	411.7	416.2	430.6	459.6
50°	629.8	556.4	486.3	423.9	375.0	343.8	329.4	323.8	329.4	341.6	370.5
52.5°	558.6	482.9	417.3	357.2	304.9	278.2	262.6	259.3	262.6	277.1	300.4
55°	476.3	411.7	347.2	287.1	241.5	214.8	202.5	199.2	202.5	215.9	240.4
57.5°	395.0	339.4	282.6	228.1	189.2	165.8	154.7	150.2	158.0	166.9	195.8
60°	319.3	274.9	227.0	179.2	146.9	125.7	116.8	115.7	117.9	129.1	149.1
62.5°	250.4	213.6	175.8	136.9	110.2	101.3	90.1	89.0	91.2	97.9	113.5
65°	180.3	156.9	128.0	100.1	79.0	66.8	62.3	63.4	65.6	70.1	84.6
67.5°	125.7	109.0	89.0	70.1	54.5	49.0	44.5	43.4	44.5	52.3	60.1
70°	84.6	74.5	60.1	53.4	37.8	30.0	31.1	27.8	32.3	32.3	38.9
72.5°	55.6	49.0	40.1	31.1	26.7	21.2	21.2	20.0	22.2	23.4	28.9
75°	28.9	22.2	22.2	15.6	11.1	5.6	10.0	8.9	7.8	8.9	11.1
77.5°	20.0	16.7	15.6	12.3	11.1	8.9	8.9	8.9	8.9	10.0	11.1
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	4.4	4.4	4.4	4.4	4.4	6.7
85°	6.7	4.4	4.4	3.3	4.4	7.8	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	5.6	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°	2073.0	2073.0	2073.0	2073.0	2073.0	2073.0	2073.0	2073.0	2073.0	2073.0	2073.0
2.5°	2076.4	2077.5	2077.5	2076.4	2076.4	2074.1	2078.6	2075.2	2076.4	2080.8	2077.5
5°	2078.6	2079.7	2079.7	2078.6	2078.6	2078.6	2079.7	2079.7	2078.6	2077.5	2079.7
7.5°	2083.0	2081.9	2081.9	2079.7	2079.7	2077.5	2079.7	2076.4	2078.6	2076.4	2079.7
10°	2077.5	2078.6	2077.5	2076.4	2076.4	2075.2	2075.2	2071.9	2073.0	2069.7	2071.9
12.5°	2074.1	2073.0	2073.0	2070.8	2068.6	2066.3	2065.2	2061.9	2061.9	2054.1	2057.4
15°	2065.2	2066.3	2063.0	2058.6	2056.3	2050.8	2048.5	2044.1	2039.6	2034.1	2035.2
17.5°	2057.4	2054.1	2049.7	2045.2	2036.3	2031.9	2027.4	2020.7	2018.5	2011.8	2009.6
20°	2034.1	2031.9	2026.3	2018.5	2012.9	2002.9	1998.5	1991.8	1986.2	1979.5	1976.2
22.5°	2004.0	2001.8	1995.1	1987.3	1978.4	1974.0	1969.5	1957.3	1951.7	1945.1	1943.9
25°	1966.2	1962.9	1956.2	1947.3	1942.8	1930.6	1926.1	1917.2	1915.0	1908.3	1907.2
27.5°	1908.3	1903.9	1896.1	1885.0	1877.2	1869.4	1865.0	1858.3	1856.0	1849.4	1848.3
30°	1821.6	1816.0	1800.4	1796.0	1782.6	1774.8	1774.8	1765.9	1767.0	1762.6	1762.6
32.5°	1684.7	1675.8	1663.5	1654.6	1645.7	1641.3	1641.3	1637.9	1640.2	1640.2	1642.4
35°	1503.3	1491.1	1484.4	1478.8	1478.8	1483.3	1496.6	1500.0	1506.6	1512.2	1516.7
37.5°	1270.7	1269.6	1277.4	1284.1	1300.8	1319.7	1343.1	1363.1	1382.0	1395.4	1408.7
40°	1019.3	1047.1	1069.3	1100.5	1126.1	1162.8	1205.1	1239.6	1271.8	1295.2	1319.7
42.5°	795.6	831.2	878.0	923.6	969.2	1019.3	1074.9	1122.7	1165.0	1197.3	1222.9
45°	619.8	668.7	725.5	783.4	842.3	904.7	962.5	1011.5	1056.0	1089.4	1115.0
47.5°	499.6	553.0	617.6	681.0	747.8	813.4	878.0	920.2	956.9	983.6	1007.0
50°	412.8	469.6	537.5	609.8	676.5	742.2	797.8	839.0	869.1	892.4	906.9
52.5°	344.9	405.0	477.4	549.7	616.4	676.5	726.6	757.8	782.3	798.9	812.3
55°	284.8	342.7	410.6	478.5	544.1	600.9	642.0	665.4	684.3	694.3	702.1
57.5°	232.6	286.0	348.3	410.6	467.3	514.1	546.4	569.7	578.6	586.4	585.3
60°	182.5	232.6	289.3	342.7	391.7	429.5	452.9	466.2	472.9	476.3	474.0
62.5°	143.5	189.2	232.6	279.3	314.9	347.2	369.4	369.4	372.8	373.9	377.2
65°	106.8	141.3	179.2	213.6	242.6	263.7	276.0	279.3	283.8	282.6	280.4
67.5°	79.0	104.6	132.4	158.0	178.0	191.4	200.3	208.1	207.0	204.7	203.6
70°	54.5	71.2	95.7	111.3	125.7	139.1	141.3	142.4	143.5	144.7	142.4
72.5°	37.8	50.1	63.4	76.8	85.7	91.2	96.8	97.9	97.9	97.9	96.8
75°	18.9	25.6	37.8	43.4	51.2	53.4	57.9	57.9	61.2	56.7	55.6
77.5°	16.7	20.0	26.7	31.1	34.5	37.8	38.9	42.3	41.2	38.9	40.1
80°	10.0	12.3	16.7	18.9	23.4	24.5	25.6	26.7	25.6	26.7	26.7
82.5°	7.8	8.9	11.1	11.1	14.5	14.5	15.6	15.6	16.7	16.7	16.7
85°	4.4	7.8	6.7	13.3	8.9	8.9	11.1	13.3	11.1	11.1	13.3
87.5°	4.4	4.4	3.3	4.4	4.4	4.4	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: P246226

CATALOG NUMBER: LSR8B40D010 EC8B40940 8LBDW0MW

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	2073.0	2073.0	2073.0	2073.0
2.5°	2076.4	2078.6	2075.2	2074.1
5°	2079.7	2079.7	2077.5	2077.5
7.5°	2079.7	2079.7	2076.4	2074.1
10°	2070.8	2070.8	2067.5	2065.2
12.5°	2054.1	2054.1	2053.0	2049.7
15°	2033.0	2033.0	2028.5	2025.2
17.5°	2004.0	2006.3	2000.7	2000.7
20°	1972.9	1971.8	1967.3	1965.1
22.5°	1940.6	1938.4	1937.3	1930.6
25°	1906.1	1903.9	1900.5	1897.2
27.5°	1847.1	1846.0	1842.7	1838.2
30°	1757.0	1755.9	1751.4	1751.4
32.5°	1640.2	1639.1	1634.6	1635.7
35°	1518.9	1523.3	1521.1	1516.7
37.5°	1417.6	1421.0	1423.2	1421.0
40°	1333.0	1343.1	1344.2	1346.4
42.5°	1242.9	1256.3	1260.7	1262.9
45°	1135.0	1147.2	1157.2	1155.0
47.5°	1024.8	1033.7	1042.6	1036.0
50°	919.1	924.7	928.0	928.0
52.5°	819.0	819.0	817.9	819.0
55°	704.4	704.4	699.9	702.1
57.5°	584.2	586.4	583.1	577.5
60°	472.9	467.3	465.1	461.8
62.5°	368.3	368.3	360.5	370.5
65°	276.0	272.6	269.3	268.2
67.5°	200.3	199.2	195.8	194.7
70°	141.3	136.9	135.8	133.5
72.5°	94.6	94.6	92.4	92.4
75°	57.9	52.3	51.2	52.3
77.5°	40.1	38.9	38.9	37.8
80°	26.7	25.6	27.8	24.5
82.5°	16.7	17.8	16.7	17.8
85°	11.1	13.3	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)