

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: P246154

Luminaire Tested: **LSR8B40D010 EC8B40940 8LBDW0B**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P246154
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 8LBDW0B
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
90 CRI 4000 CCT WITH SPECULAR BLACK TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3516.0 lumens
Efficiency: N/A
Efficacy: 86.0 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

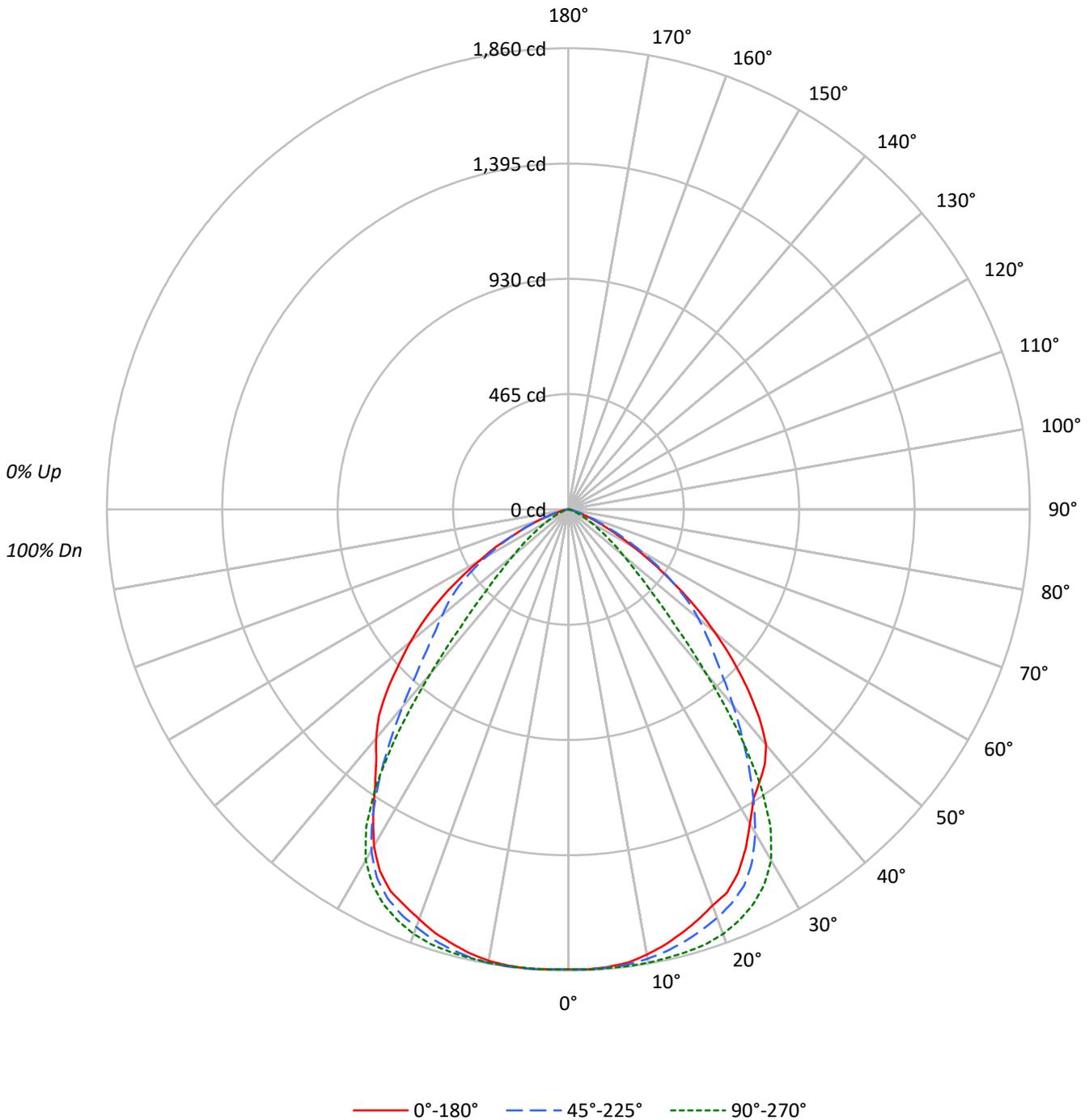
Input Watts (W): 40.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	57204	57204	57204
5°	57330	57485	57547
10°	57088	58118	57868
15°	56458	58967	57856
20°	55779	59796	57706
25°	55054	59865	57766
30°	52085	58181	55806
35°	50530	50567	51091
40°	49903	34791	48502
45°	44468	20889	45074
50°	36973	13903	39841
55°	27730	9586	33778
60°	18792	6389	25489
65°	11331	4144	17512
70°	6284	2245	10774
75°	2848	953	5576
80°	2468	1065	3889
85°	2830	1415	3892



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	177.0	5.0
10°-20°	514.2	14.6
20°-30°	780.4	22.2
30°-40°	819.7	23.3
40°-50°	614.5	17.5
50°-60°	394.3	11.2
60°-70°	168.7	4.8
70°-80°	39.8	1.1
80°-90°	7.4	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°	1471.6	41.9
0°-40°	2291.3	65.2
0°-60°	3300.1	93.9
0°-90°	3516.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3516.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1855	1855	1855	1855	1855	
5°	1852	1855	1857	1860	1859	176
15°	1768	1805	1847	1835	1812	499
25°	1618	1675	1760	1728	1698	739
35°	1342	1268	1343	1327	1357	842
45°	1020	833	479	810	1034	781
55°	516	516	178	538	628	468
65°	155	183	57	236	240	166
75°	24	28	8	48	47	35
85°	8	5	4	8	11	8
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°	1855.1	1855.1	1855.1	1855.1	1855.1	1855.1	1855.1	1855.1	1855.1	1855.1	1855.1
2.5°	1856.1	1858.1	1857.1	1857.1	1856.1	1857.1	1857.1	1859.1	1859.1	1857.1	1856.1
5°	1852.1	1854.1	1854.1	1852.1	1852.1	1857.1	1854.1	1856.1	1856.1	1855.1	1855.1
7.5°	1843.2	1843.2	1847.1	1844.2	1844.2	1847.1	1846.1	1848.1	1850.1	1851.1	1851.1
10°	1823.2	1825.2	1826.2	1826.2	1827.2	1830.2	1832.2	1836.2	1838.2	1840.2	1841.2
12.5°	1798.4	1801.3	1802.3	1801.3	1804.3	1808.3	1813.3	1818.3	1821.3	1825.2	1828.2
15°	1768.5	1768.5	1770.5	1773.5	1775.5	1781.4	1786.4	1792.4	1800.3	1805.3	1810.3
17.5°	1735.6	1737.6	1740.6	1740.6	1744.6	1754.5	1757.5	1766.5	1775.5	1780.4	1790.4
20°	1699.8	1701.8	1704.8	1706.8	1711.7	1719.7	1725.7	1733.6	1743.6	1752.6	1762.5
22.5°	1671.9	1667.9	1669.9	1671.9	1676.9	1683.9	1690.8	1700.8	1710.7	1719.7	1729.7
25°	1618.1	1619.1	1622.1	1624.1	1630.1	1636.0	1644.0	1656.0	1664.9	1674.9	1685.8
27.5°	1545.4	1546.4	1551.4	1551.4	1556.4	1566.3	1571.3	1581.3	1593.2	1603.2	1616.1
30°	1462.8	1464.8	1464.8	1468.8	1471.7	1476.7	1481.7	1491.7	1497.6	1506.6	1524.5
32.5°	1387.1	1389.1	1388.1	1387.1	1384.1	1383.1	1382.1	1384.1	1386.1	1389.1	1396.1
35°	1342.3	1337.3	1333.3	1326.4	1318.4	1308.4	1299.5	1287.5	1276.6	1267.6	1257.7
37.5°	1299.5	1298.5	1292.5	1282.5	1266.6	1248.7	1227.8	1201.9	1176.0	1148.1	1121.2
40°	1239.7	1236.7	1231.8	1217.8	1199.9	1178.0	1150.1	1118.2	1076.4	1033.6	989.8
42.5°	1138.2	1139.2	1133.2	1122.2	1105.3	1084.4	1055.5	1020.7	975.9	925.1	868.3
45°	1019.7	1019.7	1017.7	1008.7	996.8	979.8	957.9	929.1	885.2	833.4	772.7
47.5°	896.2	897.2	894.2	892.2	887.2	876.3	860.3	838.4	807.6	757.8	697.0
50°	770.7	770.7	775.7	774.7	774.7	770.7	763.8	750.8	723.9	684.1	627.3
52.5°	645.3	647.3	650.2	654.2	659.2	667.2	659.2	653.2	636.3	605.4	556.6
55°	515.8	517.8	522.8	529.7	535.7	543.7	545.7	545.7	536.7	515.8	479.0
57.5°	405.3	402.3	406.3	412.3	420.2	428.2	434.2	441.1	440.1	426.2	396.3
60°	304.7	305.7	308.7	314.7	320.6	327.6	335.6	341.5	344.5	337.6	318.6
62.5°	222.1	222.1	226.0	232.0	235.0	245.0	249.9	252.9	255.9	254.9	243.0
65°	155.3	157.3	159.3	162.3	165.3	171.3	174.3	180.2	182.2	183.2	174.3
67.5°	109.5	106.5	108.5	110.5	113.5	117.5	123.5	123.5	126.5	126.5	120.5
70°	69.7	69.7	70.7	73.7	75.7	76.7	78.7	80.6	83.6	82.6	82.6
72.5°	46.8	45.8	46.8	47.8	48.8	51.8	51.8	52.8	54.8	55.8	51.8
75°	23.9	24.9	26.9	25.9	28.9	26.9	27.9	30.9	29.9	27.9	27.9
77.5°	19.9	19.9	19.9	18.9	20.9	20.9	19.9	21.9	20.9	20.9	19.9
80°	13.9	14.9	13.9	12.9	13.9	12.9	12.9	12.9	12.9	12.9	11.9
82.5°	11.0	9.0	10.0	9.0	10.0	10.0	9.0	8.0	8.0	9.0	8.0
85°	8.0	6.0	7.0	7.0	6.0	6.0	6.0	6.0	6.0	5.0	5.0
87.5°	5.0	3.0	3.0	3.0	4.0	4.0	4.0	3.0	4.0	4.0	2.0
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°	1855.1	1855.1	1855.1	1855.1	1855.1	1855.1	1855.1	1855.1	1855.1	1855.1	1855.1
2.5°	1858.1	1857.1	1859.1	1858.1	1858.1	1857.1	1858.1	1857.1	1859.1	1855.1	1856.1
5°	1858.1	1856.1	1857.1	1858.1	1859.1	1857.1	1857.1	1857.1	1859.1	1857.1	1858.1
7.5°	1854.1	1853.1	1856.1	1858.1	1857.1	1856.1	1858.1	1857.1	1859.1	1858.1	1860.1
10°	1846.1	1847.1	1849.1	1852.1	1853.1	1854.1	1856.1	1856.1	1859.1	1855.1	1857.1
12.5°	1834.2	1838.2	1843.2	1845.1	1849.1	1849.1	1851.1	1852.1	1854.1	1853.1	1856.1
15°	1819.3	1824.2	1830.2	1835.2	1840.2	1843.2	1846.1	1847.1	1850.1	1847.1	1848.1
17.5°	1801.3	1807.3	1816.3	1822.2	1830.2	1833.2	1837.2	1839.2	1842.2	1840.2	1841.2
20°	1776.4	1783.4	1793.4	1802.3	1807.3	1814.3	1819.3	1822.2	1824.2	1822.2	1823.2
22.5°	1741.6	1751.6	1764.5	1771.5	1781.4	1787.4	1788.4	1795.4	1800.3	1795.4	1797.4
25°	1700.8	1710.7	1720.7	1735.6	1744.6	1751.6	1758.5	1759.5	1764.5	1763.5	1762.5
27.5°	1633.1	1646.0	1662.9	1674.9	1686.8	1697.8	1705.8	1707.7	1712.7	1710.7	1711.7
30°	1540.4	1554.4	1570.3	1589.2	1606.2	1617.1	1627.1	1634.0	1639.0	1636.0	1635.0
32.5°	1409.0	1423.0	1439.9	1458.8	1478.7	1494.6	1506.6	1515.6	1521.5	1519.5	1514.6
35°	1258.7	1262.6	1273.6	1288.5	1305.4	1322.4	1333.3	1343.3	1350.2	1352.2	1352.2
37.5°	1104.3	1091.4	1083.4	1083.4	1093.3	1100.3	1110.3	1116.2	1127.2	1131.2	1134.2
40°	954.9	925.1	897.2	876.3	862.3	861.3	861.3	864.3	874.3	887.2	899.2
42.5°	821.5	773.7	730.9	692.1	664.2	648.2	641.3	642.3	650.2	662.2	682.1
45°	715.0	655.2	601.4	554.6	516.8	491.9	480.0	479.0	484.9	498.9	520.8
47.5°	632.3	568.6	507.8	454.1	413.3	386.4	372.4	368.4	372.4	385.4	411.3
50°	563.6	497.9	435.2	379.4	335.6	307.7	294.7	289.8	294.7	305.7	331.6
52.5°	499.9	432.2	373.4	319.6	272.8	248.9	235.0	232.0	235.0	247.9	268.9
55°	426.2	368.4	310.7	256.9	216.1	192.2	181.2	178.3	181.2	193.2	215.1
57.5°	353.5	303.7	252.9	204.1	169.3	148.4	138.4	134.4	141.4	149.4	175.3
60°	285.8	246.0	203.1	160.3	131.4	112.5	104.5	103.6	105.5	115.5	133.4
62.5°	224.1	191.2	157.3	122.5	98.6	90.6	80.6	79.7	81.6	87.6	101.6
65°	161.3	140.4	114.5	89.6	70.7	59.7	55.8	56.8	58.7	62.7	75.7
67.5°	112.5	97.6	79.7	62.7	48.8	43.8	39.8	38.8	39.8	46.8	53.8
70°	75.7	66.7	53.8	47.8	33.9	26.9	27.9	24.9	28.9	28.9	34.8
72.5°	49.8	43.8	35.8	27.9	23.9	18.9	18.9	17.9	19.9	20.9	25.9
75°	25.9	19.9	19.9	13.9	10.0	5.0	9.0	8.0	7.0	8.0	10.0
77.5°	17.9	14.9	13.9	11.0	10.0	8.0	8.0	8.0	8.0	9.0	10.0
80°	11.0	11.0	8.0	7.0	6.0	5.0	6.0	6.0	6.0	6.0	7.0
82.5°	7.0	6.0	6.0	5.0	5.0	4.0	4.0	4.0	4.0	4.0	6.0
85°	6.0	4.0	4.0	3.0	4.0	7.0	3.0	4.0	4.0	4.0	3.0
87.5°	2.0	3.0	3.0	3.0	2.0	1.0	2.0	3.0	3.0	5.0	4.0
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°	1855.1	1855.1	1855.1	1855.1	1855.1	1855.1	1855.1	1855.1	1855.1	1855.1	1855.1
2.5°	1858.1	1859.1	1859.1	1858.1	1858.1	1856.1	1860.1	1857.1	1858.1	1862.1	1859.1
5°	1860.1	1861.1	1861.1	1860.1	1860.1	1860.1	1861.1	1861.1	1860.1	1859.1	1861.1
7.5°	1864.1	1863.1	1863.1	1861.1	1861.1	1859.1	1861.1	1858.1	1860.1	1858.1	1861.1
10°	1859.1	1860.1	1859.1	1858.1	1858.1	1857.1	1857.1	1854.1	1855.1	1852.1	1854.1
12.5°	1856.1	1855.1	1855.1	1853.1	1851.1	1849.1	1848.1	1845.1	1845.1	1838.2	1841.2
15°	1848.1	1849.1	1846.1	1842.2	1840.2	1835.2	1833.2	1829.2	1825.2	1820.3	1821.3
17.5°	1841.2	1838.2	1834.2	1830.2	1822.2	1818.3	1814.3	1808.3	1806.3	1800.3	1798.4
20°	1820.3	1818.3	1813.3	1806.3	1801.3	1792.4	1788.4	1782.4	1777.4	1771.5	1768.5
22.5°	1793.4	1791.4	1785.4	1778.4	1770.5	1766.5	1762.5	1751.6	1746.6	1740.6	1739.6
25°	1759.5	1756.5	1750.6	1742.6	1738.6	1727.7	1723.7	1715.7	1713.7	1707.7	1706.8
27.5°	1707.7	1703.8	1696.8	1686.8	1679.9	1672.9	1668.9	1662.9	1660.9	1655.0	1654.0
30°	1630.1	1625.1	1611.1	1607.2	1595.2	1588.2	1588.2	1580.3	1581.3	1577.3	1577.3
32.5°	1507.6	1499.6	1488.7	1480.7	1472.7	1468.8	1468.8	1465.8	1467.8	1467.8	1469.8
35°	1345.3	1334.3	1328.3	1323.4	1323.4	1327.3	1339.3	1342.3	1348.3	1353.2	1357.2
37.5°	1137.2	1136.2	1143.1	1149.1	1164.1	1181.0	1201.9	1219.8	1236.7	1248.7	1260.6
40°	912.1	937.0	956.9	984.8	1007.7	1040.6	1078.4	1109.3	1138.2	1159.1	1181.0
42.5°	712.0	743.8	785.7	826.5	867.3	912.1	961.9	1004.7	1042.6	1071.4	1094.3
45°	554.6	598.4	649.2	701.0	753.8	809.6	861.3	905.2	945.0	974.9	997.8
47.5°	447.1	494.9	552.6	609.4	669.2	727.9	785.7	823.5	856.3	880.3	901.2
50°	369.4	420.2	481.0	545.7	605.4	664.2	714.0	750.8	777.7	798.6	811.5
52.5°	308.7	362.5	427.2	491.9	551.6	605.4	650.2	678.1	700.0	715.0	726.9
55°	254.9	306.7	367.4	428.2	486.9	537.7	574.5	595.5	612.4	621.4	628.3
57.5°	208.1	255.9	311.7	367.4	418.2	460.1	488.9	509.8	517.8	524.8	523.8
60°	163.3	208.1	258.9	306.7	350.5	384.4	405.3	417.2	423.2	426.2	424.2
62.5°	128.5	169.3	208.1	249.9	281.8	310.7	330.6	330.6	333.6	334.6	337.6
65°	95.6	126.5	160.3	191.2	217.1	236.0	247.0	249.9	253.9	252.9	250.9
67.5°	70.7	93.6	118.5	141.4	159.3	171.3	179.2	186.2	185.2	183.2	182.2
70°	48.8	63.7	85.6	99.6	112.5	124.5	126.5	127.5	128.5	129.5	127.5
72.5°	33.9	44.8	56.8	68.7	76.7	81.6	86.6	87.6	87.6	87.6	86.6
75°	16.9	22.9	33.9	38.8	45.8	47.8	51.8	51.8	54.8	50.8	49.8
77.5°	14.9	17.9	23.9	27.9	30.9	33.9	34.8	37.8	36.8	34.8	35.8
80°	9.0	11.0	14.9	16.9	20.9	21.9	22.9	23.9	22.9	23.9	23.9
82.5°	7.0	8.0	10.0	10.0	12.9	12.9	13.9	13.9	14.9	14.9	14.9
85°	4.0	7.0	6.0	11.9	8.0	8.0	10.0	11.9	10.0	10.0	11.9
87.5°	4.0	4.0	3.0	4.0	4.0	4.0	5.0	6.0	6.0	7.0	6.0
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: P246154

CATALOG NUMBER: LSR8B40D010 EC8B40940 8LBDW0B

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	1855.1	1855.1	1855.1	1855.1
2.5°	1858.1	1860.1	1857.1	1856.1
5°	1861.1	1861.1	1859.1	1859.1
7.5°	1861.1	1861.1	1858.1	1856.1
10°	1853.1	1853.1	1850.1	1848.1
12.5°	1838.2	1838.2	1837.2	1834.2
15°	1819.3	1819.3	1815.3	1812.3
17.5°	1793.4	1795.4	1790.4	1790.4
20°	1765.5	1764.5	1760.5	1758.5
22.5°	1736.6	1734.6	1733.6	1727.7
25°	1705.8	1703.8	1700.8	1697.8
27.5°	1653.0	1652.0	1649.0	1645.0
30°	1572.3	1571.3	1567.3	1567.3
32.5°	1467.8	1466.8	1462.8	1463.8
35°	1359.2	1363.2	1361.2	1357.2
37.5°	1268.6	1271.6	1273.6	1271.6
40°	1192.9	1201.9	1202.9	1204.9
42.5°	1112.3	1124.2	1128.2	1130.2
45°	1015.7	1026.6	1035.6	1033.6
47.5°	917.1	925.1	933.0	927.1
50°	822.5	827.5	830.5	830.5
52.5°	732.9	732.9	731.9	732.9
55°	630.3	630.3	626.3	628.3
57.5°	522.8	524.8	521.8	516.8
60°	423.2	418.2	416.2	413.3
62.5°	329.6	329.6	322.6	331.6
65°	247.0	244.0	241.0	240.0
67.5°	179.2	178.3	175.3	174.3
70°	126.5	122.5	121.5	119.5
72.5°	84.6	84.6	82.6	82.6
75°	51.8	46.8	45.8	46.8
77.5°	35.8	34.8	34.8	33.9
80°	23.9	22.9	24.9	21.9
82.5°	14.9	15.9	14.9	15.9
85°	10.0	11.9	11.0	11.0
87.5°	6.0	6.0	6.0	6.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)