

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: io LED

Report Number: P212750

Luminaire Tested: **LD4B40D010 EU4B30509027 4LBSWLI1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P212750  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29201)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LD4B40D010 EU4B30509027 4LBSWLI1  
Description: PORTFOLIO 4 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3047.3 lumens  
Efficiency: N/A  
Efficacy: 70.8 lumens/watt  
Spacing Criteria (0/90/45): 1.29 / 1.3 / 1.21  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

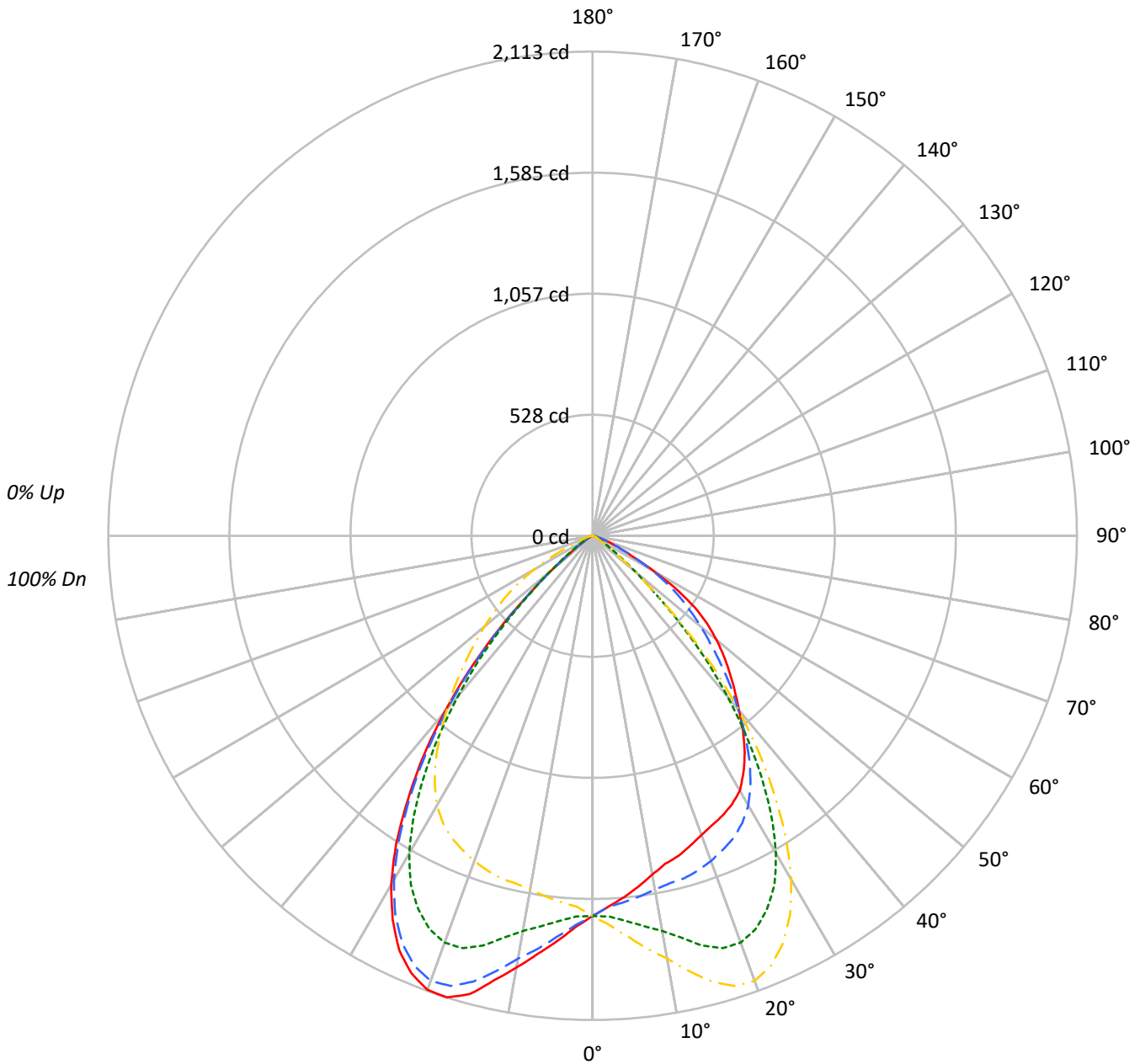
Input Watts (W): 43.02  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									
RC	80									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	109	106	103	110	107	104	102	103	100	99	99	97	96	95	94	93	91																			
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82																			
3	98	90	84	80	96	89	83	79	86	81	78	84	80	76	81	78	75	73																			
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66																			
5	86	76	69	63	84	75	68	63	73	67	62	71	66	62	69	65	61	60																			
6	80	70	62	57	79	69	62	57	67	61	56	66	60	56	64	59	56	54																			
7	75	64	57	52	74	63	57	52	62	56	51	61	55	51	59	55	51	49																			
8	71	59	52	47	69	59	52	47	57	51	47	56	51	47	55	50	46	45																			
9	66	55	48	43	65	54	48	43	53	47	43	52	47	43	52	46	43	41																			
10	63	51	44	40	62	51	44	40	50	44	40	49	43	39	48	43	39	38																			

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

	0°	90°	180°	270°
0°	204618	204618	204618	204618
5°	195903	208928	219787	208928
10°	188023	219310	239613	219310
15°	184701	236469	264447	236469
20°	182375	247953	276726	247953
25°	183132	244865	271704	244865
30°	182905	227855	250330	227855
35°	174233	193371	211516	193371
40°	159841	147137	162321	147137
45°	147556	93655	100912	93655
50°	134996	45421	44154	45421
55°	116878	19784	14129	19784
60°	75685	9720	6488	9720
65°	39664	6392	5108	6392
70°	21350	4724	3967	4724
75°	11485	4194	3145	4194
80°	7814	3125	1563	3125
85°	6227	3114	0	3114



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	161.7	5.3
10°-20°	505.9	16.6
20°-30°	786.6	25.8
30°-40°	794.5	26.1
40°-50°	503.0	16.5
50°-60°	211.1	6.9
60°-70°	66.9	2.2
70°-80°	15.3	0.5
80°-90°	2.2	0.1
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°	1454.2	47.7
0°-40°	2248.7	73.8
0°-60°	2962.9	97.2
0°-90°	3047.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3047.3	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	1659	1659	1659	1659	1659	
5°	1582	1687	1775	1687	1582	149
15°	1446	1852	2071	1852	1446	408
25°	1346	1799	1996	1799	1346	620
35°	1157	1284	1405	1284	1157	719
45°	846	537	578	537	846	653
55°	544	92	66	92	544	469
65°	136	22	18	22	136	150
75°	24	9	7	9	24	29
85°	4	2	0	2	4	4
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9
2.5°	1619.5	1604.2	1617.3	1621.7	1621.7	1619.5	1623.9	1619.5	1612.9	1639.2	1619.5
5°	1582.2	1571.3	1582.2	1586.6	1588.8	1591.0	1595.4	1595.4	1593.2	1617.3	1604.2
7.5°	1542.8	1536.2	1545.0	1551.6	1560.3	1558.1	1564.7	1566.9	1571.3	1599.8	1586.6
10°	1501.2	1494.6	1505.5	1509.9	1520.9	1523.1	1527.5	1534.0	1542.8	1571.3	1566.9
12.5°	1466.1	1463.9	1470.5	1479.2	1490.2	1492.4	1496.8	1507.7	1520.9	1551.6	1553.7
15°	1446.4	1444.2	1450.7	1459.5	1468.3	1472.7	1477.0	1492.4	1505.5	1538.4	1547.2
17.5°	1417.9	1417.9	1424.5	1433.2	1444.2	1448.6	1455.1	1470.5	1488.0	1520.9	1531.8
20°	1389.4	1391.6	1396.0	1404.7	1415.7	1420.1	1426.6	1442.0	1461.7	1494.6	1509.9
22.5°	1365.3	1371.9	1374.0	1380.6	1391.6	1398.2	1400.3	1417.9	1435.4	1463.9	1483.6
25°	1345.6	1354.3	1354.3	1358.7	1371.9	1374.0	1376.2	1393.8	1409.1	1435.4	1455.1
27.5°	1319.3	1328.0	1328.0	1334.6	1343.4	1347.8	1347.8	1363.1	1378.4	1398.2	1413.5
30°	1284.2	1290.8	1290.8	1293.0	1301.7	1306.1	1303.9	1319.3	1330.2	1343.4	1358.7
32.5°	1225.0	1236.0	1231.6	1238.2	1242.6	1246.9	1242.6	1255.7	1264.5	1277.6	1282.0
35°	1157.1	1165.9	1159.3	1163.7	1172.4	1172.4	1170.2	1179.0	1183.4	1190.0	1192.2
37.5°	1078.2	1084.8	1080.4	1082.6	1087.0	1089.2	1084.8	1093.5	1093.5	1095.7	1091.3
40°	992.7	1003.7	997.1	997.1	1001.5	1003.7	997.1	1001.5	1005.9	994.9	986.2
42.5°	918.2	929.2	922.6	922.6	922.6	924.8	916.0	918.2	918.2	902.9	889.7
45°	845.9	854.7	848.1	841.5	843.7	845.9	837.1	834.9	828.4	810.8	791.1
47.5°	775.8	784.5	775.8	771.4	771.4	771.4	760.4	753.9	745.1	721.0	696.9
50°	703.5	712.2	705.7	701.3	696.9	696.9	688.1	679.4	666.2	642.1	615.8
52.5°	629.0	635.5	629.0	624.6	620.2	620.2	609.2	602.7	587.3	563.2	534.7
55°	543.5	547.9	541.3	536.9	534.7	534.7	526.0	519.4	506.2	486.5	460.2
57.5°	429.5	438.3	427.3	431.7	431.7	429.5	423.0	420.8	416.4	398.8	379.1
60°	306.8	306.8	304.6	313.4	311.2	315.6	311.2	313.4	315.6	302.4	289.3
62.5°	201.6	208.2	203.8	208.2	212.6	212.6	210.4	214.8	219.1	212.6	206.0
65°	135.9	135.9	135.9	138.1	138.1	140.3	138.1	140.3	142.4	140.3	135.9
67.5°	89.9	92.0	89.9	92.0	89.9	92.0	92.0	92.0	94.2	92.0	89.9
70°	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2	61.4	59.2	57.0
72.5°	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3
75°	24.1	24.1	24.1	24.1	24.1	24.1	24.1	24.1	24.1	24.1	24.1
77.5°	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3
80°	11.0	11.0	11.0	11.0	11.0	11.0	11.0	8.8	11.0	8.8	8.8
82.5°	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6
85°	4.4	4.4	4.4	4.4	4.4	4.4	4.4	2.2	4.4	2.2	2.2
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9
2.5°	1630.4	1623.9	1656.7	1628.3	1643.6	1641.4	1643.6	1656.7	1656.7	1663.3	1661.1
5°	1621.7	1615.1	1652.4	1630.4	1648.0	1648.0	1654.6	1674.3	1674.3	1687.4	1689.6
7.5°	1608.5	1610.7	1650.2	1637.0	1656.7	1658.9	1669.9	1694.0	1700.6	1718.1	1726.9
10°	1593.2	1602.0	1643.6	1639.2	1665.5	1667.7	1689.6	1718.1	1726.9	1751.0	1766.3
12.5°	1586.6	1602.0	1650.2	1654.6	1680.9	1691.8	1715.9	1753.2	1768.5	1797.0	1818.9
15°	1584.4	1606.3	1658.9	1674.3	1705.0	1720.3	1753.2	1797.0	1814.5	1851.8	1878.1
17.5°	1573.5	1602.0	1658.9	1683.0	1715.9	1731.3	1772.9	1823.3	1845.2	1886.9	1917.5
20°	1553.7	1584.4	1641.4	1672.1	1707.2	1729.1	1770.7	1823.3	1845.2	1889.0	1924.1
22.5°	1527.5	1558.1	1612.9	1648.0	1678.7	1702.8	1746.6	1797.0	1816.7	1858.4	1893.4
25°	1494.6	1525.3	1571.3	1606.3	1634.8	1656.7	1694.0	1746.6	1759.7	1799.2	1836.4
27.5°	1448.6	1477.0	1512.1	1545.0	1571.3	1588.8	1621.7	1667.7	1678.7	1718.1	1748.8
30°	1387.2	1404.7	1435.4	1457.3	1477.0	1494.6	1518.7	1560.3	1564.7	1599.8	1628.3
32.5°	1303.9	1312.7	1334.6	1345.6	1363.1	1369.7	1389.4	1424.5	1420.1	1452.9	1477.0
35°	1203.1	1207.5	1207.5	1220.6	1225.0	1227.2	1242.6	1262.3	1255.7	1284.2	1301.7
37.5°	1093.5	1091.3	1078.2	1078.2	1080.4	1073.8	1080.4	1089.2	1080.4	1102.3	1117.6
40°	981.8	968.6	944.5	931.4	924.8	922.6	909.5	920.4	898.5	913.8	924.8
42.5°	874.4	852.5	815.2	788.9	778.0	767.0	745.1	745.1	716.6	727.6	729.8
45°	764.8	727.6	677.2	653.1	624.6	607.0	578.5	550.1	530.3	536.9	530.3
47.5°	664.0	620.2	561.0	519.4	486.5	462.4	423.0	390.1	370.4	361.6	352.8
50°	576.4	532.5	464.6	412.0	379.1	350.6	311.2	273.9	249.8	236.7	230.1
52.5°	497.5	451.4	385.7	330.9	295.8	269.6	225.7	188.5	162.2	146.8	138.1
55°	423.0	381.3	320.0	269.6	236.7	210.4	166.6	131.5	107.4	92.0	81.1
57.5°	348.4	311.2	260.8	212.6	184.1	160.0	122.7	92.0	72.3	59.2	50.4
60°	267.4	238.9	197.2	160.0	135.9	116.1	87.7	63.6	50.4	39.4	35.1
62.5°	188.5	170.9	140.3	114.0	98.6	83.3	61.4	46.0	35.1	28.5	26.3
65°	127.1	114.0	96.4	76.7	65.7	57.0	43.8	32.9	26.3	21.9	19.7
67.5°	83.3	76.7	63.6	52.6	46.0	39.4	30.7	24.1	19.7	17.5	15.3
70°	54.8	50.4	41.6	35.1	32.9	28.5	21.9	17.5	15.3	13.1	13.1
72.5°	35.1	30.7	28.5	24.1	21.9	19.7	15.3	13.1	11.0	11.0	11.0
75°	21.9	19.7	17.5	15.3	15.3	13.1	11.0	11.0	8.8	8.8	8.8
77.5°	13.1	13.1	11.0	11.0	8.8	8.8	8.8	6.6	6.6	6.6	6.6
80°	8.8	8.8	6.6	6.6	6.6	6.6	4.4	4.4	4.4	4.4	4.4
82.5°	4.4	4.4	4.4	4.4	4.4	4.4	2.2	2.2	2.2	2.2	2.2
85°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9
2.5°	1672.1	1676.5	1672.1	1685.2	1663.3	1687.4	1678.7	1683.0	1700.6	1694.0	1700.6
5°	1705.0	1713.7	1713.7	1729.1	1709.3	1737.8	1729.1	1737.8	1755.4	1755.4	1764.1
7.5°	1746.6	1757.6	1761.9	1777.3	1757.6	1792.6	1783.9	1794.8	1816.7	1816.7	1823.3
10°	1790.4	1803.6	1812.3	1829.9	1808.0	1847.4	1838.6	1854.0	1873.7	1875.9	1886.9
12.5°	1845.2	1862.7	1873.7	1889.0	1873.7	1913.1	1904.4	1919.7	1946.0	1948.2	1961.4
15°	1906.6	1928.5	1941.6	1959.2	1941.6	1985.5	1976.7	1994.2	2014.0	2022.7	2035.9
17.5°	1946.0	1972.3	1983.3	2003.0	1985.5	2029.3	2018.3	2042.4	2060.0	2064.4	2079.7
20°	1952.6	1976.7	1992.0	2007.4	1992.0	2035.9	2024.9	2044.6	2066.6	2070.9	2081.9
22.5°	1924.1	1943.8	1961.4	1974.5	1961.4	2005.2	1989.8	2011.8	2031.5	2035.9	2044.6
25°	1858.4	1882.5	1900.0	1911.0	1897.8	1939.4	1926.3	1946.0	1963.6	1972.3	1974.5
27.5°	1766.3	1788.2	1805.8	1812.3	1803.6	1843.0	1825.5	1849.6	1864.9	1869.3	1875.9
30°	1641.4	1661.1	1678.7	1683.0	1676.5	1705.0	1696.2	1718.1	1733.4	1737.8	1742.2
32.5°	1488.0	1507.7	1518.7	1523.1	1516.5	1545.0	1536.2	1553.7	1571.3	1571.3	1571.3
35°	1314.9	1332.4	1339.0	1352.1	1336.8	1365.3	1356.5	1371.9	1387.2	1387.2	1389.4
37.5°	1128.6	1141.8	1146.1	1159.3	1143.9	1170.2	1163.7	1176.8	1190.0	1187.8	1192.2
40°	929.2	942.3	946.7	957.7	944.5	966.4	962.1	975.2	986.2	986.2	986.2
42.5°	736.3	745.1	745.1	756.1	742.9	762.6	762.6	771.4	782.4	780.2	780.2
45°	534.7	532.5	536.9	534.7	534.7	552.2	552.2	556.6	565.4	561.0	563.2
47.5°	355.0	357.2	348.4	355.0	346.3	361.6	361.6	361.6	368.2	363.8	368.2
50°	225.7	219.1	214.8	214.8	212.6	223.5	219.1	221.3	225.7	221.3	225.7
52.5°	127.1	124.9	120.5	122.7	118.3	120.5	120.5	120.5	122.7	120.5	124.9
55°	74.5	67.9	65.7	65.7	63.6	65.7	63.6	63.6	63.6	61.4	63.6
57.5°	43.8	41.6	39.4	39.4	37.3	37.3	37.3	37.3	37.3	37.3	37.3
60°	30.7	28.5	28.5	26.3	26.3	26.3	26.3	26.3	26.3	26.3	26.3
62.5°	24.1	21.9	21.9	21.9	19.7	19.7	19.7	19.7	19.7	21.9	19.7
65°	17.5	17.5	17.5	17.5	17.5	17.5	15.3	17.5	17.5	17.5	17.5
67.5°	15.3	15.3	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1
70°	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
72.5°	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
75°	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6
77.5°	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
80°	4.4	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
82.5°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
85°	0.0	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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: P212750

CATALOG NUMBER: LD4B40D010 EU4B30509027 4LBSWLI1

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9
2.5°	1707.2	1698.4	1678.7	1691.8	1694.0	1685.2	1696.2	1709.3	1696.2	1685.2	1694.0
5°	1770.7	1764.1	1746.6	1757.6	1759.7	1757.6	1764.1	1775.1	1764.1	1757.6	1759.7
7.5°	1834.3	1829.9	1810.1	1823.3	1827.7	1823.3	1829.9	1840.8	1829.9	1823.3	1827.7
10°	1895.6	1893.4	1873.7	1891.2	1893.4	1889.0	1895.6	1913.1	1895.6	1889.0	1893.4
12.5°	1965.7	1970.1	1948.2	1967.9	1970.1	1965.7	1974.5	1987.7	1974.5	1965.7	1970.1
15°	2046.8	2044.6	2027.1	2042.4	2046.8	2042.4	2053.4	2070.9	2053.4	2042.4	2046.8
17.5°	2086.3	2086.3	2073.1	2088.5	2090.7	2090.7	2099.4	2112.6	2099.4	2090.7	2090.7
20°	2088.5	2090.7	2075.3	2092.8	2092.8	2092.8	2101.6	2108.2	2101.6	2092.8	2092.8
22.5°	2053.4	2055.6	2040.3	2055.6	2055.6	2057.8	2062.2	2066.6	2062.2	2057.8	2055.6
25°	1985.5	1987.7	1974.5	1987.7	1985.5	1985.5	1989.8	1996.4	1989.8	1985.5	1985.5
27.5°	1884.7	1886.9	1869.3	1884.7	1882.5	1880.3	1886.9	1889.0	1886.9	1880.3	1882.5
30°	1751.0	1753.2	1737.8	1751.0	1748.8	1746.6	1755.4	1757.6	1755.4	1746.6	1748.8
32.5°	1591.0	1586.6	1575.7	1586.6	1584.4	1584.4	1588.8	1595.4	1588.8	1584.4	1584.4
35°	1398.2	1398.2	1391.6	1400.3	1393.8	1402.5	1402.5	1404.7	1402.5	1402.5	1393.8
37.5°	1200.9	1200.9	1196.5	1200.9	1198.7	1207.5	1207.5	1214.1	1207.5	1207.5	1198.7
40°	994.9	994.9	990.5	994.9	1001.5	1001.5	999.3	1008.1	999.3	1001.5	1001.5
42.5°	786.7	786.7	784.5	795.5	795.5	795.5	788.9	797.7	788.9	795.5	795.5
45°	572.0	567.6	565.4	565.4	567.6	576.4	567.6	578.5	567.6	576.4	567.6
47.5°	363.8	366.0	368.2	374.7	370.4	368.2	368.2	374.7	368.2	368.2	370.4
50°	223.5	225.7	225.7	230.1	223.5	227.9	225.7	230.1	225.7	227.9	223.5
52.5°	122.7	122.7	122.7	127.1	122.7	124.9	122.7	127.1	122.7	124.9	122.7
55°	63.6	63.6	63.6	65.7	63.6	63.6	63.6	65.7	63.6	63.6	63.6
57.5°	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3
60°	26.3	26.3	26.3	26.3	26.3	26.3	26.3	26.3	26.3	26.3	26.3
62.5°	21.9	19.7	19.7	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.9
65°	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
67.5°	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1
70°	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
72.5°	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
75°	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6
77.5°	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
80°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
82.5°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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: P212750

CATALOG NUMBER: LD4B40D010 EU4B30509027 4LBSWLI1

**CANDELA DISTRIBUTION (continued):**

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9
2.5°	1691.8	1678.7	1698.4	1707.2	1700.6	1694.0	1700.6	1683.0	1678.7	1687.4	1663.3
5°	1757.6	1746.6	1764.1	1770.7	1764.1	1755.4	1755.4	1737.8	1729.1	1737.8	1709.3
7.5°	1823.3	1810.1	1829.9	1834.3	1823.3	1816.7	1816.7	1794.8	1783.9	1792.6	1757.6
10°	1891.2	1873.7	1893.4	1895.6	1886.9	1875.9	1873.7	1854.0	1838.6	1847.4	1808.0
12.5°	1967.9	1948.2	1970.1	1965.7	1961.4	1948.2	1946.0	1919.7	1904.4	1913.1	1873.7
15°	2042.4	2027.1	2044.6	2046.8	2035.9	2022.7	2014.0	1994.2	1976.7	1985.5	1941.6
17.5°	2088.5	2073.1	2086.3	2086.3	2079.7	2064.4	2060.0	2042.4	2018.3	2029.3	1985.5
20°	2092.8	2075.3	2090.7	2088.5	2081.9	2070.9	2066.6	2044.6	2024.9	2035.9	1992.0
22.5°	2055.6	2040.3	2055.6	2053.4	2044.6	2035.9	2031.5	2011.8	1989.8	2005.2	1961.4
25°	1987.7	1974.5	1987.7	1985.5	1974.5	1972.3	1963.6	1946.0	1926.3	1939.4	1897.8
27.5°	1884.7	1869.3	1886.9	1884.7	1875.9	1869.3	1864.9	1849.6	1825.5	1843.0	1803.6
30°	1751.0	1737.8	1753.2	1751.0	1742.2	1737.8	1733.4	1718.1	1696.2	1705.0	1676.5
32.5°	1586.6	1575.7	1586.6	1591.0	1571.3	1571.3	1571.3	1553.7	1536.2	1545.0	1516.5
35°	1400.3	1391.6	1398.2	1398.2	1389.4	1387.2	1387.2	1371.9	1356.5	1365.3	1336.8
37.5°	1200.9	1196.5	1200.9	1200.9	1192.2	1187.8	1190.0	1176.8	1163.7	1170.2	1143.9
40°	994.9	990.5	994.9	994.9	986.2	986.2	986.2	975.2	962.1	966.4	944.5
42.5°	795.5	784.5	786.7	786.7	780.2	780.2	782.4	771.4	762.6	762.6	742.9
45°	565.4	565.4	567.6	572.0	563.2	561.0	565.4	556.6	552.2	552.2	534.7
47.5°	374.7	368.2	366.0	363.8	368.2	363.8	368.2	361.6	361.6	361.6	346.3
50°	230.1	225.7	225.7	223.5	225.7	221.3	225.7	221.3	219.1	223.5	212.6
52.5°	127.1	122.7	122.7	122.7	124.9	120.5	122.7	120.5	120.5	120.5	118.3
55°	65.7	63.6	63.6	63.6	63.6	61.4	63.6	63.6	63.6	65.7	63.6
57.5°	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3
60°	26.3	26.3	26.3	26.3	26.3	26.3	26.3	26.3	26.3	26.3	26.3
62.5°	21.9	19.7	19.7	21.9	19.7	21.9	19.7	19.7	19.7	19.7	19.7
65°	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	15.3	17.5	17.5
67.5°	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1
70°	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
72.5°	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
75°	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6
77.5°	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
80°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
82.5°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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: P212750

CATALOG NUMBER: LD4B40D010 EU4B30509027 4LBSWLI1

**CANDELA DISTRIBUTION (continued):**

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9
2.5°	1685.2	1672.1	1676.5	1672.1	1661.1	1663.3	1656.7	1656.7	1643.6	1641.4	1643.6
5°	1729.1	1713.7	1713.7	1705.0	1689.6	1687.4	1674.3	1674.3	1654.6	1648.0	1648.0
7.5°	1777.3	1761.9	1757.6	1746.6	1726.9	1718.1	1700.6	1694.0	1669.9	1658.9	1656.7
10°	1829.9	1812.3	1803.6	1790.4	1766.3	1751.0	1726.9	1718.1	1689.6	1667.7	1665.5
12.5°	1889.0	1873.7	1862.7	1845.2	1818.9	1797.0	1768.5	1753.2	1715.9	1691.8	1680.9
15°	1959.2	1941.6	1928.5	1906.6	1878.1	1851.8	1814.5	1797.0	1753.2	1720.3	1705.0
17.5°	2003.0	1983.3	1972.3	1946.0	1917.5	1886.9	1845.2	1823.3	1772.9	1731.3	1715.9
20°	2007.4	1992.0	1976.7	1952.6	1924.1	1889.0	1845.2	1823.3	1770.7	1729.1	1707.2
22.5°	1974.5	1961.4	1943.8	1924.1	1893.4	1858.4	1816.7	1797.0	1746.6	1702.8	1678.7
25°	1911.0	1900.0	1882.5	1858.4	1836.4	1799.2	1759.7	1746.6	1694.0	1656.7	1634.8
27.5°	1812.3	1805.8	1788.2	1766.3	1748.8	1718.1	1678.7	1667.7	1621.7	1588.8	1571.3
30°	1683.0	1678.7	1661.1	1641.4	1628.3	1599.8	1564.7	1560.3	1518.7	1494.6	1477.0
32.5°	1523.1	1518.7	1507.7	1488.0	1477.0	1452.9	1420.1	1424.5	1389.4	1369.7	1363.1
35°	1352.1	1339.0	1332.4	1314.9	1301.7	1284.2	1255.7	1262.3	1242.6	1227.2	1225.0
37.5°	1159.3	1146.1	1141.8	1128.6	1117.6	1102.3	1080.4	1089.2	1080.4	1073.8	1080.4
40°	957.7	946.7	942.3	929.2	924.8	913.8	898.5	920.4	909.5	922.6	924.8
42.5°	756.1	745.1	745.1	736.3	729.8	727.6	716.6	745.1	745.1	767.0	778.0
45°	534.7	536.9	532.5	534.7	530.3	536.9	530.3	550.1	578.5	607.0	624.6
47.5°	355.0	348.4	357.2	355.0	352.8	361.6	370.4	390.1	423.0	462.4	486.5
50°	214.8	214.8	219.1	225.7	230.1	236.7	249.8	273.9	311.2	350.6	379.1
52.5°	122.7	120.5	124.9	127.1	138.1	146.8	162.2	188.5	225.7	269.6	295.8
55°	65.7	65.7	67.9	74.5	81.1	92.0	107.4	131.5	166.6	210.4	236.7
57.5°	39.4	39.4	41.6	43.8	50.4	59.2	72.3	92.0	122.7	160.0	184.1
60°	26.3	28.5	28.5	30.7	35.1	39.4	50.4	63.6	87.7	116.1	135.9
62.5°	21.9	21.9	21.9	24.1	26.3	28.5	35.1	46.0	61.4	83.3	98.6
65°	17.5	17.5	17.5	17.5	19.7	21.9	26.3	32.9	43.8	57.0	65.7
67.5°	13.1	13.1	15.3	15.3	15.3	17.5	19.7	24.1	30.7	39.4	46.0
70°	11.0	11.0	11.0	11.0	13.1	13.1	15.3	17.5	21.9	28.5	32.9
72.5°	8.8	8.8	8.8	8.8	11.0	11.0	11.0	13.1	15.3	19.7	21.9
75°	6.6	6.6	6.6	6.6	8.8	8.8	8.8	11.0	11.0	13.1	15.3
77.5°	4.4	4.4	4.4	4.4	6.6	6.6	6.6	6.6	8.8	8.8	8.8
80°	2.2	2.2	2.2	4.4	4.4	4.4	4.4	4.4	4.4	6.6	6.6
82.5°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	4.4	4.4
85°	0.0	0.0	2.2	0.0	2.2	2.2	2.2	2.2	2.2	2.2	2.2
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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: P212750

CATALOG NUMBER: LD4B40D010 EU4B30509027 4LBSWLI1

**CANDELA DISTRIBUTION (continued):**

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9
2.5°	1628.3	1656.7	1623.9	1630.4	1619.5	1639.2	1612.9	1619.5	1623.9	1619.5	1621.7
5°	1630.4	1652.4	1615.1	1621.7	1604.2	1617.3	1593.2	1595.4	1595.4	1591.0	1588.8
7.5°	1637.0	1650.2	1610.7	1608.5	1586.6	1599.8	1571.3	1566.9	1564.7	1558.1	1560.3
10°	1639.2	1643.6	1602.0	1593.2	1566.9	1571.3	1542.8	1534.0	1527.5	1523.1	1520.9
12.5°	1654.6	1650.2	1602.0	1586.6	1553.7	1551.6	1520.9	1507.7	1496.8	1492.4	1490.2
15°	1674.3	1658.9	1606.3	1584.4	1547.2	1538.4	1505.5	1492.4	1477.0	1472.7	1468.3
17.5°	1683.0	1658.9	1602.0	1573.5	1531.8	1520.9	1488.0	1470.5	1455.1	1448.6	1444.2
20°	1672.1	1641.4	1584.4	1553.7	1509.9	1494.6	1461.7	1442.0	1426.6	1420.1	1415.7
22.5°	1648.0	1612.9	1558.1	1527.5	1483.6	1463.9	1435.4	1417.9	1400.3	1398.2	1391.6
25°	1606.3	1571.3	1525.3	1494.6	1455.1	1435.4	1409.1	1393.8	1376.2	1374.0	1371.9
27.5°	1545.0	1512.1	1477.0	1448.6	1413.5	1398.2	1378.4	1363.1	1347.8	1347.8	1343.4
30°	1457.3	1435.4	1404.7	1387.2	1358.7	1343.4	1330.2	1319.3	1303.9	1306.1	1301.7
32.5°	1345.6	1334.6	1312.7	1303.9	1282.0	1277.6	1264.5	1255.7	1242.6	1246.9	1242.6
35°	1220.6	1207.5	1207.5	1203.1	1192.2	1190.0	1183.4	1179.0	1170.2	1172.4	1172.4
37.5°	1078.2	1078.2	1091.3	1093.5	1091.3	1095.7	1093.5	1093.5	1084.8	1089.2	1087.0
40°	931.4	944.5	968.6	981.8	986.2	994.9	1005.9	1001.5	997.1	1003.7	1001.5
42.5°	788.9	815.2	852.5	874.4	889.7	902.9	918.2	918.2	916.0	924.8	922.6
45°	653.1	677.2	727.6	764.8	791.1	810.8	828.4	834.9	837.1	845.9	843.7
47.5°	519.4	561.0	620.2	664.0	696.9	721.0	745.1	753.9	760.4	771.4	771.4
50°	412.0	464.6	532.5	576.4	615.8	642.1	666.2	679.4	688.1	696.9	696.9
52.5°	330.9	385.7	451.4	497.5	534.7	563.2	587.3	602.7	609.2	620.2	620.2
55°	269.6	320.0	381.3	423.0	460.2	486.5	506.2	519.4	526.0	534.7	534.7
57.5°	212.6	260.8	311.2	348.4	379.1	398.8	416.4	420.8	423.0	429.5	431.7
60°	160.0	197.2	238.9	267.4	289.3	302.4	315.6	313.4	311.2	315.6	311.2
62.5°	114.0	140.3	170.9	188.5	206.0	212.6	219.1	214.8	210.4	212.6	212.6
65°	76.7	96.4	114.0	127.1	135.9	140.3	142.4	140.3	138.1	140.3	138.1
67.5°	52.6	63.6	76.7	83.3	89.9	92.0	94.2	92.0	92.0	92.0	89.9
70°	35.1	41.6	50.4	54.8	57.0	59.2	61.4	59.2	59.2	59.2	59.2
72.5°	24.1	28.5	30.7	35.1	37.3	37.3	37.3	37.3	37.3	37.3	37.3
75°	15.3	17.5	19.7	21.9	24.1	24.1	24.1	24.1	24.1	24.1	24.1
77.5°	11.0	11.0	13.1	13.1	15.3	15.3	15.3	15.3	15.3	15.3	15.3
80°	6.6	6.6	8.8	8.8	8.8	8.8	11.0	8.8	11.0	11.0	11.0
82.5°	4.4	4.4	4.4	4.4	6.6	6.6	6.6	6.6	6.6	6.6	6.6
85°	2.2	2.2	2.2	2.2	2.2	2.2	4.4	2.2	4.4	4.4	4.4
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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: P212750

CATALOG NUMBER: LD4B40D010 EU4B30509027 4LBSWLI1

**CANDELA DISTRIBUTION (continued):**

	345°	350°	355°	360°
0°	1658.9	1658.9	1658.9	1658.9
2.5°	1621.7	1617.3	1604.2	1619.5
5°	1586.6	1582.2	1571.3	1582.2
7.5°	1551.6	1545.0	1536.2	1542.8
10°	1509.9	1505.5	1494.6	1501.2
12.5°	1479.2	1470.5	1463.9	1466.1
15°	1459.5	1450.7	1444.2	1446.4
17.5°	1433.2	1424.5	1417.9	1417.9
20°	1404.7	1396.0	1391.6	1389.4
22.5°	1380.6	1374.0	1371.9	1365.3
25°	1358.7	1354.3	1354.3	1345.6
27.5°	1334.6	1328.0	1328.0	1319.3
30°	1293.0	1290.8	1290.8	1284.2
32.5°	1238.2	1231.6	1236.0	1225.0
35°	1163.7	1159.3	1165.9	1157.1
37.5°	1082.6	1080.4	1084.8	1078.2
40°	997.1	997.1	1003.7	992.7
42.5°	922.6	922.6	929.2	918.2
45°	841.5	848.1	854.7	845.9
47.5°	771.4	775.8	784.5	775.8
50°	701.3	705.7	712.2	703.5
52.5°	624.6	629.0	635.5	629.0
55°	536.9	541.3	547.9	543.5
57.5°	431.7	427.3	438.3	429.5
60°	313.4	304.6	306.8	306.8
62.5°	208.2	203.8	208.2	201.6
65°	138.1	135.9	135.9	135.9
67.5°	92.0	89.9	92.0	89.9
70°	59.2	59.2	59.2	59.2
72.5°	37.3	37.3	37.3	37.3
75°	24.1	24.1	24.1	24.1
77.5°	15.3	15.3	15.3	15.3
80°	11.0	11.0	11.0	11.0
82.5°	6.6	6.6	6.6	6.6
85°	4.4	4.4	4.4	4.4
87.5°	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0



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— 0°-180°    - - 45°-225°    - - - - 90°-270°    - · - · 135°-315°

























(END OF REPORT)