

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: P212753

Luminaire Tested: **LD4B40D010 EU4B30509040 4LBSWLI1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P212753
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 EU4B30509040 4LBSWLI1
Description: PORTFOLIO 4 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3219.1 lumens
Efficiency: N/A
Efficacy: 74.8 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

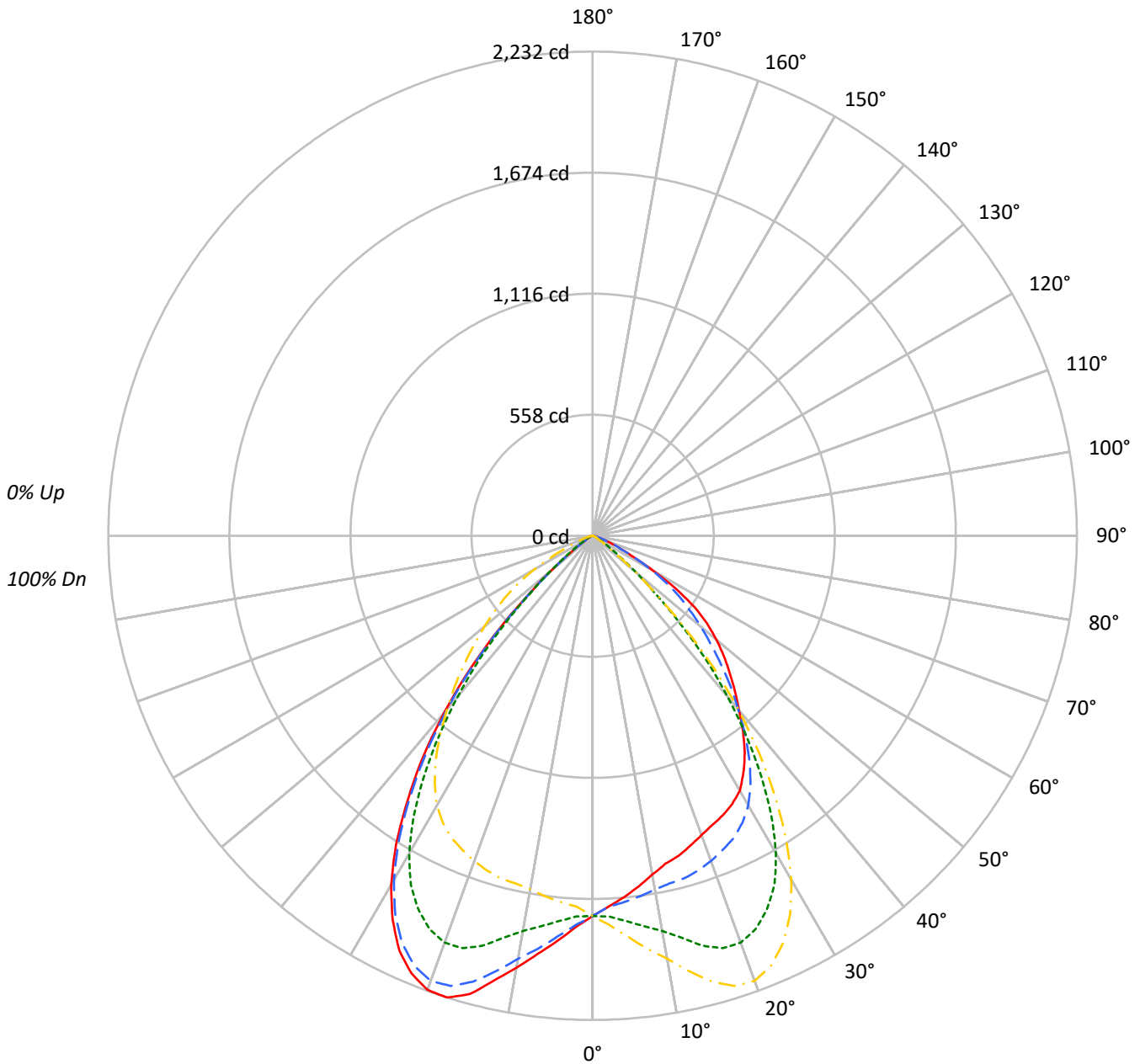
Input Watts (W): 43.02
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P212753

CATALOG NUMBER: LD4B40D010 EU4B30509040 4LBSWL11

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°	216163	216163	216163	216163
5°	206960	220716	232181	220716
10°	198619	231672	253140	231672
15°	195108	249800	279362	249800
20°	192666	261946	292333	261946
25°	193462	258679	287028	258679
30°	193217	240702	264445	240702
35°	184066	204273	223457	204273
40°	168858	155445	171466	155445
45°	155877	98941	106616	98941
50°	142595	47973	46649	47973
55°	123458	20903	14946	20903
60°	79953	10287	6858	10287
65°	41882	6771	5399	6771
70°	22540	5013	4183	5013
75°	12153	4432	3288	4432
80°	8240	3267	1634	3267
85°	6510	3255	0	3255



TEST NUMBER: P212753

CATALOG NUMBER: LD4B40D010 EU4B30509040 4LBSWLI1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	170.8	5.3
10°-20°	534.5	16.6
20°-30°	830.9	25.8
30°-40°	839.3	26.1
40°-50°	531.4	16.5
50°-60°	223.0	6.9
60°-70°	70.7	2.2
70°-80°	16.2	0.5
80°-90°	2.3	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°	1536.3	47.7
0°-40°	2375.5	73.8
0°-60°	3130.0	97.2
0°-90°	3219.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3219.1	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1752	1752	1752	1752	1752	
5°	1672	1783	1875	1783	1672	157
15°	1528	1956	2188	1956	1528	431
25°	1422	1901	2109	1901	1422	655
35°	1222	1357	1484	1357	1222	759
45°	894	567	611	567	894	690
55°	574	97	70	97	574	496
65°	144	23	18	23	144	158
75°	26	9	7	9	26	31
85°	5	2	0	2	5	5
90°	0	0	0	0	0	



TEST NUMBER: P212753

CATALOG NUMBER: LD4B40D010 EU4B30509040 4LBSWLI1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1752.5	1752.5	1752.5	1752.5	1752.5	1752.5	1752.5	1752.5	1752.5	1752.5	1752.5
2.5°	1710.8	1694.6	1708.5	1713.2	1713.2	1710.8	1715.5	1710.8	1703.9	1731.7	1710.8
5°	1671.5	1659.9	1671.5	1676.1	1678.4	1680.7	1685.4	1685.4	1683.1	1708.5	1694.6
7.5°	1629.8	1622.9	1632.1	1639.1	1648.3	1646.0	1653.0	1655.3	1659.9	1690.0	1676.1
10°	1585.8	1578.9	1590.5	1595.1	1606.7	1609.0	1613.6	1620.5	1629.8	1659.9	1655.3
12.5°	1548.8	1546.5	1553.4	1562.7	1574.2	1576.6	1581.2	1592.8	1606.7	1639.1	1641.4
15°	1527.9	1525.6	1532.6	1541.8	1551.1	1555.7	1560.4	1576.6	1590.5	1625.2	1634.4
17.5°	1497.9	1497.9	1504.8	1514.1	1525.6	1530.3	1537.2	1553.4	1571.9	1606.7	1618.2
20°	1467.8	1470.1	1474.7	1484.0	1495.5	1500.2	1507.1	1523.3	1544.2	1578.9	1595.1
22.5°	1442.3	1449.2	1451.5	1458.5	1470.1	1477.0	1479.3	1497.9	1516.4	1546.5	1567.3
25°	1421.5	1430.7	1430.7	1435.3	1449.2	1451.5	1453.9	1472.4	1488.6	1516.4	1537.2
27.5°	1393.7	1402.9	1402.9	1409.9	1419.1	1423.8	1423.8	1440.0	1456.2	1477.0	1493.2
30°	1356.6	1363.6	1363.6	1365.9	1375.2	1379.8	1377.5	1393.7	1405.2	1419.1	1435.3
32.5°	1294.1	1305.7	1301.1	1308.0	1312.6	1317.3	1312.6	1326.5	1335.8	1349.7	1354.3
35°	1222.4	1231.6	1224.7	1229.3	1238.6	1238.6	1236.2	1245.5	1250.1	1257.1	1259.4
37.5°	1139.0	1146.0	1141.3	1143.6	1148.3	1150.6	1146.0	1155.2	1155.2	1157.5	1152.9
40°	1048.7	1060.3	1053.4	1053.4	1058.0	1060.3	1053.4	1058.0	1062.6	1051.0	1041.8
42.5°	970.0	981.6	974.6	974.6	974.6	977.0	967.7	970.0	970.0	953.8	939.9
45°	893.6	902.9	895.9	889.0	891.3	893.6	884.4	882.0	875.1	856.6	835.7
47.5°	819.5	828.8	819.5	814.9	814.9	814.9	803.3	796.4	787.1	761.7	736.2
50°	743.1	752.4	745.5	740.8	736.2	736.2	726.9	717.7	703.8	678.3	650.5
52.5°	664.4	671.4	664.4	659.8	655.2	655.2	643.6	636.6	620.4	595.0	564.9
55°	574.1	578.8	571.8	567.2	564.9	564.9	555.6	548.7	534.8	513.9	486.2
57.5°	453.8	463.0	451.4	456.1	456.1	453.8	446.8	444.5	439.9	421.3	400.5
60°	324.1	324.1	321.8	331.1	328.7	333.4	328.7	331.1	333.4	319.5	305.6
62.5°	213.0	219.9	215.3	219.9	224.6	224.6	222.2	226.9	231.5	224.6	217.6
65°	143.5	143.5	143.5	145.8	145.8	148.2	145.8	148.2	150.5	148.2	143.5
67.5°	94.9	97.2	94.9	97.2	94.9	97.2	97.2	97.2	99.5	97.2	94.9
70°	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	64.8	62.5	60.2
72.5°	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4
75°	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5
77.5°	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2
80°	11.6	11.6	11.6	11.6	11.6	11.6	11.6	9.3	11.6	9.3	9.3
82.5°	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
85°	4.6	4.6	4.6	4.6	4.6	4.6	4.6	2.3	4.6	2.3	2.3
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: P212753

CATALOG NUMBER: LD4B40D010 EU4B30509040 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1752.5	1752.5	1752.5	1752.5	1752.5	1752.5	1752.5	1752.5	1752.5	1752.5	1752.5
2.5°	1722.4	1715.5	1750.2	1720.1	1736.3	1734.0	1736.3	1750.2	1750.2	1757.1	1754.8
5°	1713.2	1706.2	1745.6	1722.4	1740.9	1740.9	1747.9	1768.7	1768.7	1782.6	1784.9
7.5°	1699.3	1701.6	1743.2	1729.4	1750.2	1752.5	1764.1	1789.5	1796.5	1815.0	1824.3
10°	1683.1	1692.3	1736.3	1731.7	1759.5	1761.8	1784.9	1815.0	1824.3	1849.7	1865.9
12.5°	1676.1	1692.3	1743.2	1747.9	1775.7	1787.2	1812.7	1852.1	1868.3	1898.4	1921.5
15°	1673.8	1696.9	1752.5	1768.7	1801.1	1817.3	1852.1	1898.4	1916.9	1956.2	1984.0
17.5°	1662.2	1692.3	1752.5	1778.0	1812.7	1828.9	1872.9	1926.1	1949.3	1993.3	2025.7
20°	1641.4	1673.8	1734.0	1766.4	1803.4	1826.6	1870.6	1926.1	1949.3	1995.6	2032.6
22.5°	1613.6	1646.0	1703.9	1740.9	1773.3	1798.8	1845.1	1898.4	1919.2	1963.2	2000.2
25°	1578.9	1611.3	1659.9	1696.9	1727.0	1750.2	1789.5	1845.1	1859.0	1900.7	1940.0
27.5°	1530.3	1560.4	1597.4	1632.1	1659.9	1678.4	1713.2	1761.8	1773.3	1815.0	1847.4
30°	1465.4	1484.0	1516.4	1539.5	1560.4	1578.9	1604.3	1648.3	1653.0	1690.0	1720.1
32.5°	1377.5	1386.7	1409.9	1421.5	1440.0	1446.9	1467.8	1504.8	1500.2	1534.9	1560.4
35°	1271.0	1275.6	1275.6	1289.5	1294.1	1296.4	1312.6	1333.5	1326.5	1356.6	1375.2
37.5°	1155.2	1152.9	1139.0	1139.0	1141.3	1134.4	1141.3	1150.6	1141.3	1164.5	1180.7
40°	1037.2	1023.3	997.8	983.9	977.0	974.6	960.8	972.3	949.2	965.4	977.0
42.5°	923.7	900.6	861.2	833.4	821.8	810.3	787.1	787.1	757.0	768.6	770.9
45°	808.0	768.6	715.4	689.9	659.8	641.3	611.2	581.1	560.2	567.2	560.2
47.5°	701.5	655.2	592.7	548.7	513.9	488.5	446.8	412.1	391.2	382.0	372.7
50°	608.9	562.6	490.8	435.2	400.5	370.4	328.7	289.4	263.9	250.0	243.1
52.5°	525.5	476.9	407.5	349.6	312.5	284.8	238.5	199.1	171.3	155.1	145.8
55°	446.8	402.8	338.0	284.8	250.0	222.2	175.9	138.9	113.4	97.2	85.7
57.5°	368.1	328.7	275.5	224.6	194.5	169.0	129.6	97.2	76.4	62.5	53.2
60°	282.4	252.3	208.4	169.0	143.5	122.7	92.6	67.1	53.2	41.7	37.0
62.5°	199.1	180.6	148.2	120.4	104.2	88.0	64.8	48.6	37.0	30.1	27.8
65°	134.3	120.4	101.9	81.0	69.5	60.2	46.3	34.7	27.8	23.2	20.8
67.5°	88.0	81.0	67.1	55.6	48.6	41.7	32.4	25.5	20.8	18.5	16.2
70°	57.9	53.2	44.0	37.0	34.7	30.1	23.2	18.5	16.2	13.9	13.9
72.5°	37.0	32.4	30.1	25.5	23.2	20.8	16.2	13.9	11.6	11.6	11.6
75°	23.2	20.8	18.5	16.2	16.2	13.9	11.6	11.6	9.3	9.3	9.3
77.5°	13.9	13.9	11.6	11.6	9.3	9.3	9.3	6.9	6.9	6.9	6.9
80°	9.3	9.3	6.9	6.9	6.9	6.9	4.6	4.6	4.6	4.6	4.6
82.5°	4.6	4.6	4.6	4.6	4.6	4.6	2.3	2.3	2.3	2.3	2.3
85°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
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: P212753

CATALOG NUMBER: LD4B40D010 EU4B30509040 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1752.5	1752.5	1752.5	1752.5	1752.5	1752.5	1752.5	1752.5	1752.5	1752.5	1752.5
2.5°	1766.4	1771.0	1766.4	1780.3	1757.1	1782.6	1773.3	1778.0	1796.5	1789.5	1796.5
5°	1801.1	1810.4	1810.4	1826.6	1805.8	1835.9	1826.6	1835.9	1854.4	1854.4	1863.6
7.5°	1845.1	1856.7	1861.3	1877.5	1856.7	1893.7	1884.5	1896.0	1919.2	1919.2	1926.1
10°	1891.4	1905.3	1914.6	1933.1	1909.9	1951.6	1942.3	1958.5	1979.4	1981.7	1993.3
12.5°	1949.3	1967.8	1979.4	1995.6	1979.4	2021.1	2011.8	2028.0	2055.8	2058.1	2072.0
15°	2014.1	2037.3	2051.2	2069.7	2051.2	2097.5	2088.2	2106.7	2127.5	2136.8	2150.7
17.5°	2055.8	2083.6	2095.1	2116.0	2097.5	2143.8	2132.2	2157.6	2176.2	2180.8	2197.0
20°	2062.7	2088.2	2104.4	2120.6	2104.4	2150.7	2139.1	2160.0	2183.1	2187.7	2199.3
22.5°	2032.6	2053.5	2072.0	2085.9	2072.0	2118.3	2102.1	2125.2	2146.1	2150.7	2160.0
25°	1963.2	1988.6	2007.2	2018.7	2004.9	2048.8	2034.9	2055.8	2074.3	2083.6	2085.9
27.5°	1865.9	1889.1	1907.6	1914.6	1905.3	1947.0	1928.5	1953.9	1970.1	1974.8	1981.7
30°	1734.0	1754.8	1773.3	1778.0	1771.0	1801.1	1791.9	1815.0	1831.2	1835.9	1840.5
32.5°	1571.9	1592.8	1604.3	1609.0	1602.0	1632.1	1622.9	1641.4	1659.9	1659.9	1659.9
35°	1389.0	1407.6	1414.5	1428.4	1412.2	1442.3	1433.0	1449.2	1465.4	1465.4	1467.8
37.5°	1192.3	1206.2	1210.8	1224.7	1208.5	1236.2	1229.3	1243.2	1257.1	1254.8	1259.4
40°	981.6	995.5	1000.1	1011.7	997.8	1020.9	1016.3	1030.2	1041.8	1041.8	1041.8
42.5°	777.9	787.1	787.1	798.7	784.8	805.6	805.6	814.9	826.5	824.2	824.2
45°	564.9	562.6	567.2	564.9	564.9	583.4	583.4	588.0	597.3	592.7	595.0
47.5°	375.0	377.4	368.1	375.0	365.8	382.0	382.0	382.0	388.9	384.3	388.9
50°	238.5	231.5	226.9	226.9	224.6	236.1	231.5	233.8	238.5	233.8	238.5
52.5°	134.3	132.0	127.3	129.6	125.0	127.3	127.3	127.3	129.6	127.3	132.0
55°	78.7	71.8	69.5	69.5	67.1	69.5	67.1	67.1	67.1	64.8	67.1
57.5°	46.3	44.0	41.7	41.7	39.4	39.4	39.4	39.4	39.4	39.4	39.4
60°	32.4	30.1	30.1	27.8	27.8	27.8	27.8	27.8	27.8	27.8	27.8
62.5°	25.5	23.2	23.2	23.2	20.8	20.8	20.8	20.8	20.8	23.2	20.8
65°	18.5	18.5	18.5	18.5	18.5	18.5	16.2	18.5	18.5	18.5	18.5
67.5°	16.2	16.2	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9
70°	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6
72.5°	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3
75°	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
77.5°	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
80°	4.6	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
82.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
85°	0.0	2.3	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: P212753

CATALOG NUMBER: LD4B40D010 EU4B30509040 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	1752.5	1752.5	1752.5	1752.5	1752.5	1752.5	1752.5	1752.5	1752.5	1752.5	1752.5
2.5°	1803.4	1794.2	1773.3	1787.2	1789.5	1780.3	1791.9	1805.8	1791.9	1780.3	1789.5
5°	1870.6	1863.6	1845.1	1856.7	1859.0	1856.7	1863.6	1875.2	1863.6	1856.7	1859.0
7.5°	1937.7	1933.1	1912.2	1926.1	1930.8	1926.1	1933.1	1944.7	1933.1	1926.1	1930.8
10°	2002.5	2000.2	1979.4	1997.9	2000.2	1995.6	2002.5	2021.1	2002.5	1995.6	2000.2
12.5°	2076.6	2081.2	2058.1	2078.9	2081.2	2076.6	2085.9	2099.8	2085.9	2076.6	2081.2
15°	2162.3	2160.0	2141.4	2157.6	2162.3	2157.6	2169.2	2187.7	2169.2	2157.6	2162.3
17.5°	2203.9	2203.9	2190.1	2206.3	2208.6	2208.6	2217.8	2231.7	2217.8	2208.6	2208.6
20°	2206.3	2208.6	2192.4	2210.9	2210.9	2210.9	2220.2	2227.1	2220.2	2210.9	2210.9
22.5°	2169.2	2171.5	2155.3	2171.5	2171.5	2173.9	2178.5	2183.1	2178.5	2173.9	2171.5
25°	2097.5	2099.8	2085.9	2099.8	2097.5	2097.5	2102.1	2109.0	2102.1	2097.5	2097.5
27.5°	1991.0	1993.3	1974.8	1991.0	1988.6	1986.3	1993.3	1995.6	1993.3	1986.3	1988.6
30°	1849.7	1852.1	1835.9	1849.7	1847.4	1845.1	1854.4	1856.7	1854.4	1845.1	1847.4
32.5°	1680.7	1676.1	1664.5	1676.1	1673.8	1673.8	1678.4	1685.4	1678.4	1673.8	1673.8
35°	1477.0	1477.0	1470.1	1479.3	1472.4	1481.6	1481.6	1484.0	1481.6	1481.6	1472.4
37.5°	1268.7	1268.7	1264.0	1268.7	1266.3	1275.6	1275.6	1282.5	1275.6	1275.6	1266.3
40°	1051.0	1051.0	1046.4	1051.0	1058.0	1058.0	1055.7	1064.9	1055.7	1058.0	1058.0
42.5°	831.1	831.1	828.8	840.4	840.4	840.4	833.4	842.7	833.4	840.4	840.4
45°	604.2	599.6	597.3	597.3	599.6	608.9	599.6	611.2	599.6	608.9	599.6
47.5°	384.3	386.6	388.9	395.9	391.2	388.9	388.9	395.9	388.9	388.9	391.2
50°	236.1	238.5	238.5	243.1	236.1	240.8	238.5	243.1	238.5	240.8	236.1
52.5°	129.6	129.6	129.6	134.3	129.6	132.0	129.6	134.3	129.6	132.0	129.6
55°	67.1	67.1	67.1	69.5	67.1	67.1	67.1	69.5	67.1	67.1	67.1
57.5°	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4
60°	27.8	27.8	27.8	27.8	27.8	27.8	27.8	27.8	27.8	27.8	27.8
62.5°	23.2	20.8	20.8	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.2
65°	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
67.5°	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9
70°	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6
72.5°	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3
75°	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
77.5°	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
80°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
82.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
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: P212753

CATALOG NUMBER: LD4B40D010 EU4B30509040 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	1752.5	1752.5	1752.5	1752.5	1752.5	1752.5	1752.5	1752.5	1752.5	1752.5	1752.5
2.5°	1787.2	1773.3	1794.2	1803.4	1796.5	1789.5	1796.5	1778.0	1773.3	1782.6	1757.1
5°	1856.7	1845.1	1863.6	1870.6	1863.6	1854.4	1854.4	1835.9	1826.6	1835.9	1805.8
7.5°	1926.1	1912.2	1933.1	1937.7	1926.1	1919.2	1919.2	1896.0	1884.5	1893.7	1856.7
10°	1997.9	1979.4	2000.2	2002.5	1993.3	1981.7	1979.4	1958.5	1942.3	1951.6	1909.9
12.5°	2078.9	2058.1	2081.2	2076.6	2072.0	2058.1	2055.8	2028.0	2011.8	2021.1	1979.4
15°	2157.6	2141.4	2160.0	2162.3	2150.7	2136.8	2127.5	2106.7	2088.2	2097.5	2051.2
17.5°	2206.3	2190.1	2203.9	2203.9	2197.0	2180.8	2176.2	2157.6	2132.2	2143.8	2097.5
20°	2210.9	2192.4	2208.6	2206.3	2199.3	2187.7	2183.1	2160.0	2139.1	2150.7	2104.4
22.5°	2171.5	2155.3	2171.5	2169.2	2160.0	2150.7	2146.1	2125.2	2102.1	2118.3	2072.0
25°	2099.8	2085.9	2099.8	2097.5	2085.9	2083.6	2074.3	2055.8	2034.9	2048.8	2004.9
27.5°	1991.0	1974.8	1993.3	1991.0	1981.7	1974.8	1970.1	1953.9	1928.5	1947.0	1905.3
30°	1849.7	1835.9	1852.1	1849.7	1840.5	1835.9	1831.2	1815.0	1791.9	1801.1	1771.0
32.5°	1676.1	1664.5	1676.1	1680.7	1659.9	1659.9	1659.9	1641.4	1622.9	1632.1	1602.0
35°	1479.3	1470.1	1477.0	1477.0	1467.8	1465.4	1465.4	1449.2	1433.0	1442.3	1412.2
37.5°	1268.7	1264.0	1268.7	1268.7	1259.4	1254.8	1257.1	1243.2	1229.3	1236.2	1208.5
40°	1051.0	1046.4	1051.0	1051.0	1041.8	1041.8	1041.8	1030.2	1016.3	1020.9	997.8
42.5°	840.4	828.8	831.1	831.1	824.2	824.2	826.5	814.9	805.6	805.6	784.8
45°	597.3	597.3	599.6	604.2	595.0	592.7	597.3	588.0	583.4	583.4	564.9
47.5°	395.9	388.9	386.6	384.3	388.9	384.3	388.9	382.0	382.0	382.0	365.8
50°	243.1	238.5	238.5	236.1	238.5	233.8	238.5	233.8	231.5	236.1	224.6
52.5°	134.3	129.6	129.6	129.6	132.0	127.3	129.6	127.3	127.3	127.3	125.0
55°	69.5	67.1	67.1	67.1	67.1	64.8	67.1	67.1	67.1	69.5	67.1
57.5°	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4
60°	27.8	27.8	27.8	27.8	27.8	27.8	27.8	27.8	27.8	27.8	27.8
62.5°	23.2	20.8	20.8	23.2	20.8	23.2	20.8	20.8	20.8	20.8	20.8
65°	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	16.2	18.5	18.5
67.5°	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9
70°	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6
72.5°	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3
75°	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
77.5°	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
80°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
82.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
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: P212753

CATALOG NUMBER: LD4B40D010 EU4B30509040 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	1752.5	1752.5	1752.5	1752.5	1752.5	1752.5	1752.5	1752.5	1752.5	1752.5	1752.5
2.5°	1780.3	1766.4	1771.0	1766.4	1754.8	1757.1	1750.2	1750.2	1736.3	1734.0	1736.3
5°	1826.6	1810.4	1810.4	1801.1	1784.9	1782.6	1768.7	1768.7	1747.9	1740.9	1740.9
7.5°	1877.5	1861.3	1856.7	1845.1	1824.3	1815.0	1796.5	1789.5	1764.1	1752.5	1750.2
10°	1933.1	1914.6	1905.3	1891.4	1865.9	1849.7	1824.3	1815.0	1784.9	1761.8	1759.5
12.5°	1995.6	1979.4	1967.8	1949.3	1921.5	1898.4	1868.3	1852.1	1812.7	1787.2	1775.7
15°	2069.7	2051.2	2037.3	2014.1	1984.0	1956.2	1916.9	1898.4	1852.1	1817.3	1801.1
17.5°	2116.0	2095.1	2083.6	2055.8	2025.7	1993.3	1949.3	1926.1	1872.9	1828.9	1812.7
20°	2120.6	2104.4	2088.2	2062.7	2032.6	1995.6	1949.3	1926.1	1870.6	1826.6	1803.4
22.5°	2085.9	2072.0	2053.5	2032.6	2000.2	1963.2	1919.2	1898.4	1845.1	1798.8	1773.3
25°	2018.7	2007.2	1988.6	1963.2	1940.0	1900.7	1859.0	1845.1	1789.5	1750.2	1727.0
27.5°	1914.6	1907.6	1889.1	1865.9	1847.4	1815.0	1773.3	1761.8	1713.2	1678.4	1659.9
30°	1778.0	1773.3	1754.8	1734.0	1720.1	1690.0	1653.0	1648.3	1604.3	1578.9	1560.4
32.5°	1609.0	1604.3	1592.8	1571.9	1560.4	1534.9	1500.2	1504.8	1467.8	1446.9	1440.0
35°	1428.4	1414.5	1407.6	1389.0	1375.2	1356.6	1326.5	1333.5	1312.6	1296.4	1294.1
37.5°	1224.7	1210.8	1206.2	1192.3	1180.7	1164.5	1141.3	1150.6	1141.3	1134.4	1141.3
40°	1011.7	1000.1	995.5	981.6	977.0	965.4	949.2	972.3	960.8	974.6	977.0
42.5°	798.7	787.1	787.1	777.9	770.9	768.6	757.0	787.1	787.1	810.3	821.8
45°	564.9	567.2	562.6	564.9	560.2	567.2	560.2	581.1	611.2	641.3	659.8
47.5°	375.0	368.1	377.4	375.0	372.7	382.0	391.2	412.1	446.8	488.5	513.9
50°	226.9	226.9	231.5	238.5	243.1	250.0	263.9	289.4	328.7	370.4	400.5
52.5°	129.6	127.3	132.0	134.3	145.8	155.1	171.3	199.1	238.5	284.8	312.5
55°	69.5	69.5	71.8	78.7	85.7	97.2	113.4	138.9	175.9	222.2	250.0
57.5°	41.7	41.7	44.0	46.3	53.2	62.5	76.4	97.2	129.6	169.0	194.5
60°	27.8	30.1	30.1	32.4	37.0	41.7	53.2	67.1	92.6	122.7	143.5
62.5°	23.2	23.2	23.2	25.5	27.8	30.1	37.0	48.6	64.8	88.0	104.2
65°	18.5	18.5	18.5	18.5	20.8	23.2	27.8	34.7	46.3	60.2	69.5
67.5°	13.9	13.9	16.2	16.2	16.2	18.5	20.8	25.5	32.4	41.7	48.6
70°	11.6	11.6	11.6	11.6	13.9	13.9	16.2	18.5	23.2	30.1	34.7
72.5°	9.3	9.3	9.3	9.3	11.6	11.6	11.6	13.9	16.2	20.8	23.2
75°	6.9	6.9	6.9	6.9	9.3	9.3	9.3	11.6	11.6	13.9	16.2
77.5°	4.6	4.6	4.6	4.6	6.9	6.9	6.9	6.9	9.3	9.3	9.3
80°	2.3	2.3	2.3	4.6	4.6	4.6	4.6	4.6	4.6	6.9	6.9
82.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	4.6	4.6
85°	0.0	0.0	2.3	0.0	2.3	2.3	2.3	2.3	2.3	2.3	2.3
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: P212753

CATALOG NUMBER: LD4B40D010 EU4B30509040 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	1752.5	1752.5	1752.5	1752.5	1752.5	1752.5	1752.5	1752.5	1752.5	1752.5	1752.5
2.5°	1720.1	1750.2	1715.5	1722.4	1710.8	1731.7	1703.9	1710.8	1715.5	1710.8	1713.2
5°	1722.4	1745.6	1706.2	1713.2	1694.6	1708.5	1683.1	1685.4	1685.4	1680.7	1678.4
7.5°	1729.4	1743.2	1701.6	1699.3	1676.1	1690.0	1659.9	1655.3	1653.0	1646.0	1648.3
10°	1731.7	1736.3	1692.3	1683.1	1655.3	1659.9	1629.8	1620.5	1613.6	1609.0	1606.7
12.5°	1747.9	1743.2	1692.3	1676.1	1641.4	1639.1	1606.7	1592.8	1581.2	1576.6	1574.2
15°	1768.7	1752.5	1696.9	1673.8	1634.4	1625.2	1590.5	1576.6	1560.4	1555.7	1551.1
17.5°	1778.0	1752.5	1692.3	1662.2	1618.2	1606.7	1571.9	1553.4	1537.2	1530.3	1525.6
20°	1766.4	1734.0	1673.8	1641.4	1595.1	1578.9	1544.2	1523.3	1507.1	1500.2	1495.5
22.5°	1740.9	1703.9	1646.0	1613.6	1567.3	1546.5	1516.4	1497.9	1479.3	1477.0	1470.1
25°	1696.9	1659.9	1611.3	1578.9	1537.2	1516.4	1488.6	1472.4	1453.9	1451.5	1449.2
27.5°	1632.1	1597.4	1560.4	1530.3	1493.2	1477.0	1456.2	1440.0	1423.8	1423.8	1419.1
30°	1539.5	1516.4	1484.0	1465.4	1435.3	1419.1	1405.2	1393.7	1377.5	1379.8	1375.2
32.5°	1421.5	1409.9	1386.7	1377.5	1354.3	1349.7	1335.8	1326.5	1312.6	1317.3	1312.6
35°	1289.5	1275.6	1275.6	1271.0	1259.4	1257.1	1250.1	1245.5	1236.2	1238.6	1238.6
37.5°	1139.0	1139.0	1152.9	1155.2	1152.9	1157.5	1155.2	1155.2	1146.0	1150.6	1148.3
40°	983.9	997.8	1023.3	1037.2	1041.8	1051.0	1062.6	1058.0	1053.4	1060.3	1058.0
42.5°	833.4	861.2	900.6	923.7	939.9	953.8	970.0	970.0	967.7	977.0	974.6
45°	689.9	715.4	768.6	808.0	835.7	856.6	875.1	882.0	884.4	893.6	891.3
47.5°	548.7	592.7	655.2	701.5	736.2	761.7	787.1	796.4	803.3	814.9	814.9
50°	435.2	490.8	562.6	608.9	650.5	678.3	703.8	717.7	726.9	736.2	736.2
52.5°	349.6	407.5	476.9	525.5	564.9	595.0	620.4	636.6	643.6	655.2	655.2
55°	284.8	338.0	402.8	446.8	486.2	513.9	534.8	548.7	555.6	564.9	564.9
57.5°	224.6	275.5	328.7	368.1	400.5	421.3	439.9	444.5	446.8	453.8	456.1
60°	169.0	208.4	252.3	282.4	305.6	319.5	333.4	331.1	328.7	333.4	328.7
62.5°	120.4	148.2	180.6	199.1	217.6	224.6	231.5	226.9	222.2	224.6	224.6
65°	81.0	101.9	120.4	134.3	143.5	148.2	150.5	148.2	145.8	148.2	145.8
67.5°	55.6	67.1	81.0	88.0	94.9	97.2	99.5	97.2	97.2	97.2	94.9
70°	37.0	44.0	53.2	57.9	60.2	62.5	64.8	62.5	62.5	62.5	62.5
72.5°	25.5	30.1	32.4	37.0	39.4	39.4	39.4	39.4	39.4	39.4	39.4
75°	16.2	18.5	20.8	23.2	25.5	25.5	25.5	25.5	25.5	25.5	25.5
77.5°	11.6	11.6	13.9	13.9	16.2	16.2	16.2	16.2	16.2	16.2	16.2
80°	6.9	6.9	9.3	9.3	9.3	9.3	11.6	9.3	11.6	11.6	11.6
82.5°	4.6	4.6	4.6	4.6	6.9	6.9	6.9	6.9	6.9	6.9	6.9
85°	2.3	2.3	2.3	2.3	2.3	2.3	4.6	2.3	4.6	4.6	4.6
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: P212753

CATALOG NUMBER: LD4B40D010 EU4B30509040 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	1752.5	1752.5	1752.5	1752.5
2.5°	1713.2	1708.5	1694.6	1710.8
5°	1676.1	1671.5	1659.9	1671.5
7.5°	1639.1	1632.1	1622.9	1629.8
10°	1595.1	1590.5	1578.9	1585.8
12.5°	1562.7	1553.4	1546.5	1548.8
15°	1541.8	1532.6	1525.6	1527.9
17.5°	1514.1	1504.8	1497.9	1497.9
20°	1484.0	1474.7	1470.1	1467.8
22.5°	1458.5	1451.5	1449.2	1442.3
25°	1435.3	1430.7	1430.7	1421.5
27.5°	1409.9	1402.9	1402.9	1393.7
30°	1365.9	1363.6	1363.6	1356.6
32.5°	1308.0	1301.1	1305.7	1294.1
35°	1229.3	1224.7	1231.6	1222.4
37.5°	1143.6	1141.3	1146.0	1139.0
40°	1053.4	1053.4	1060.3	1048.7
42.5°	974.6	974.6	981.6	970.0
45°	889.0	895.9	902.9	893.6
47.5°	814.9	819.5	828.8	819.5
50°	740.8	745.5	752.4	743.1
52.5°	659.8	664.4	671.4	664.4
55°	567.2	571.8	578.8	574.1
57.5°	456.1	451.4	463.0	453.8
60°	331.1	321.8	324.1	324.1
62.5°	219.9	215.3	219.9	213.0
65°	145.8	143.5	143.5	143.5
67.5°	97.2	94.9	97.2	94.9
70°	62.5	62.5	62.5	62.5
72.5°	39.4	39.4	39.4	39.4
75°	25.5	25.5	25.5	25.5
77.5°	16.2	16.2	16.2	16.2
80°	11.6	11.6	11.6	11.6
82.5°	6.9	6.9	6.9	6.9
85°	4.6	4.6	4.6	4.6
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)