

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: P212735

Luminaire Tested: **LD4B30D010 EU4B30508050 4LBSWLI1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P212735
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: LD4B30D010 EU4B30508050 4LBSWLI1
Description: PORTFOLIO 4 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2742.0 lumens
Efficiency: N/A
Efficacy: 97.9 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

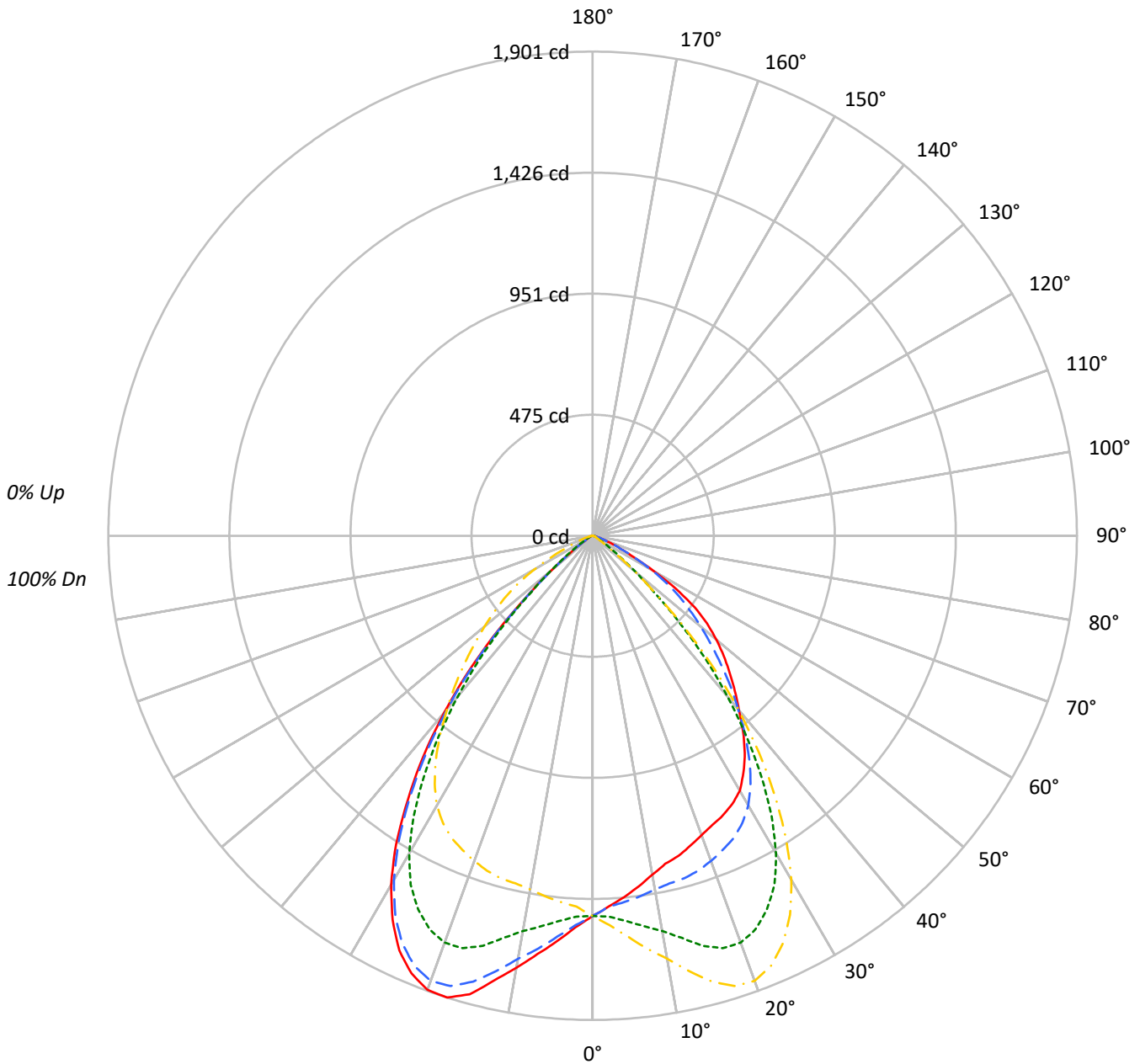
Input Watts (W): 28
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	184130	184130	184130	184130
5°	176278	188003	197773	188003
10°	169186	197341	215615	197341
15°	166197	212781	237963	212781
20°	164103	223119	249003	223119
25°	164786	220341	244484	220341
30°	164589	205024	225249	205024
35°	156781	174007	190330	174007
40°	143836	132404	146058	132404
45°	132781	84271	90812	84271
50°	121467	40873	39741	40873
55°	105158	17806	12731	17806
60°	68111	8758	5847	8758
65°	35695	5750	4611	5750
70°	19186	4256	3570	4256
75°	10342	3765	2812	3765
80°	7032	2770	1421	2770
85°	5519	2830	0	2830



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	145.5	5.3
10°-20°	455.2	16.6
20°-30°	707.8	25.8
30°-40°	714.9	26.1
40°-50°	452.7	16.5
50°-60°	190.0	6.9
60°-70°	60.2	2.2
70°-80°	13.8	0.5
80°-90°	2.0	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°	1308.5	47.7
0°-40°	2023.4	73.8
0°-60°	2666.1	97.2
0°-90°	2742.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2742.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1493	1493	1493	1493	1493	
5°	1424	1518	1597	1518	1424	134
15°	1302	1666	1864	1666	1302	367
25°	1211	1619	1796	1619	1211	558
35°	1041	1156	1264	1156	1041	647
45°	761	483	521	483	761	588
55°	489	83	59	83	489	422
65°	122	20	16	20	122	135
75°	22	8	6	8	22	26
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°	1492.8	1492.8	1492.8	1492.8	1492.8	1492.8	1492.8	1492.8	1492.8	1492.8	1492.8
2.5°	1457.3	1443.5	1455.3	1459.2	1459.2	1457.3	1461.2	1457.3	1451.3	1475.0	1457.3
5°	1423.7	1413.9	1423.7	1427.7	1429.7	1431.6	1435.6	1435.6	1433.6	1455.3	1443.5
7.5°	1388.2	1382.3	1390.2	1396.1	1404.0	1402.0	1408.0	1409.9	1413.9	1439.5	1427.7
10°	1350.8	1344.9	1354.7	1358.7	1368.5	1370.5	1374.4	1380.4	1388.2	1413.9	1409.9
12.5°	1319.2	1317.3	1323.2	1331.1	1340.9	1342.9	1346.8	1356.7	1368.5	1396.1	1398.1
15°	1301.5	1299.5	1305.4	1313.3	1321.2	1325.1	1329.1	1342.9	1354.7	1384.3	1392.2
17.5°	1275.8	1275.8	1281.8	1289.6	1299.5	1303.4	1309.4	1323.2	1338.9	1368.5	1378.4
20°	1250.2	1252.2	1256.1	1264.0	1273.9	1277.8	1283.7	1297.5	1315.3	1344.9	1358.7
22.5°	1228.5	1234.4	1236.4	1242.3	1252.2	1258.1	1260.1	1275.8	1291.6	1317.3	1335.0
25°	1210.8	1218.7	1218.7	1222.6	1234.4	1236.4	1238.4	1254.1	1268.0	1291.6	1309.4
27.5°	1187.1	1195.0	1195.0	1200.9	1208.8	1212.7	1212.7	1226.5	1240.3	1258.1	1271.9
30°	1155.6	1161.5	1161.5	1163.4	1171.3	1175.3	1173.3	1187.1	1197.0	1208.8	1222.6
32.5°	1102.3	1112.2	1108.2	1114.1	1118.1	1122.0	1118.1	1129.9	1137.8	1149.6	1153.6
35°	1041.2	1049.1	1043.2	1047.1	1055.0	1055.0	1053.0	1060.9	1064.8	1070.8	1072.7
37.5°	970.2	976.1	972.2	974.1	978.1	980.1	976.1	984.0	984.0	986.0	982.0
40°	893.3	903.1	897.2	897.2	901.2	903.1	897.2	901.2	905.1	895.3	887.4
42.5°	826.2	836.1	830.2	830.2	830.2	832.2	824.3	826.2	826.2	812.4	800.6
45°	761.2	769.1	763.1	757.2	759.2	761.2	753.3	751.3	745.4	729.6	711.9
47.5°	698.1	706.0	698.1	694.1	694.1	694.1	684.3	678.3	670.5	648.8	627.1
50°	633.0	640.9	635.0	631.0	627.1	627.1	619.2	611.3	599.5	577.8	554.1
52.5°	565.9	571.9	565.9	562.0	558.1	558.1	548.2	542.3	528.5	506.8	481.2
55°	489.0	493.0	487.1	483.1	481.2	481.2	473.3	467.3	455.5	437.8	414.1
57.5°	386.5	394.4	384.5	388.5	388.5	386.5	380.6	378.6	374.7	358.9	341.1
60°	276.1	276.1	274.1	282.0	280.0	284.0	280.0	282.0	284.0	272.1	260.3
62.5°	181.4	187.3	183.4	187.3	191.3	191.3	189.3	193.2	197.2	191.3	185.4
65°	122.3	122.3	122.3	124.2	124.2	126.2	124.2	126.2	128.2	126.2	122.3
67.5°	80.8	82.8	80.8	82.8	80.8	82.8	82.8	82.8	84.8	82.8	80.8
70°	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	55.2	53.2	51.3
72.5°	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5
75°	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7
77.5°	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
80°	9.9	9.9	9.9	9.9	9.9	9.9	9.9	7.9	9.9	7.9	7.9
82.5°	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9
85°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	2.0	3.9	2.0	2.0
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



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1492.8	1492.8	1492.8	1492.8	1492.8	1492.8	1492.8	1492.8	1492.8	1492.8	1492.8
2.5°	1467.1	1461.2	1490.8	1465.1	1478.9	1477.0	1478.9	1490.8	1490.8	1496.7	1494.7
5°	1459.2	1453.3	1486.8	1467.1	1482.9	1482.9	1488.8	1506.6	1506.6	1518.4	1520.4
7.5°	1447.4	1449.4	1484.9	1473.0	1490.8	1492.8	1502.6	1524.3	1530.2	1546.0	1553.9
10°	1433.6	1441.5	1478.9	1475.0	1498.7	1500.6	1520.4	1546.0	1553.9	1575.6	1589.4
12.5°	1427.7	1441.5	1484.9	1488.8	1512.5	1522.3	1544.0	1577.5	1591.3	1617.0	1636.7
15°	1425.7	1445.4	1492.8	1506.6	1534.2	1548.0	1577.5	1617.0	1632.8	1666.3	1689.9
17.5°	1415.8	1441.5	1492.8	1514.4	1544.0	1557.8	1595.3	1640.6	1660.4	1697.8	1725.4
20°	1398.1	1425.7	1477.0	1504.6	1536.1	1555.9	1593.3	1640.6	1660.4	1699.8	1731.4
22.5°	1374.4	1402.0	1451.3	1482.9	1510.5	1532.2	1571.6	1617.0	1634.7	1672.2	1703.7
25°	1344.9	1372.5	1413.9	1445.4	1471.1	1490.8	1524.3	1571.6	1583.5	1619.0	1652.5
27.5°	1303.4	1329.1	1360.6	1390.2	1413.9	1429.7	1459.2	1500.6	1510.5	1546.0	1573.6
30°	1248.2	1264.0	1291.6	1311.3	1329.1	1344.9	1366.5	1404.0	1408.0	1439.5	1465.1
32.5°	1173.3	1181.2	1200.9	1210.8	1226.5	1232.5	1250.2	1281.8	1277.8	1307.4	1329.1
35°	1082.6	1086.5	1086.5	1098.4	1102.3	1104.3	1118.1	1135.8	1129.9	1155.6	1171.3
37.5°	984.0	982.0	970.2	970.2	972.2	966.2	972.2	980.1	972.2	991.9	1005.7
40°	883.4	871.6	849.9	838.1	832.2	830.2	818.4	828.2	808.5	822.3	832.2
42.5°	786.8	767.1	733.6	709.9	700.0	690.2	670.5	670.5	644.8	654.7	656.7
45°	688.2	654.7	609.3	587.6	562.0	546.2	520.6	495.0	477.2	483.1	477.2
47.5°	597.5	558.1	504.8	467.3	437.8	416.1	380.6	351.0	333.3	325.4	317.5
50°	518.6	479.2	418.0	370.7	341.1	315.5	280.0	246.5	224.8	213.0	207.1
52.5°	447.6	406.2	347.1	297.8	266.2	242.5	203.1	169.6	145.9	132.1	124.2
55°	380.6	343.1	287.9	242.5	213.0	189.3	149.9	118.3	96.6	82.8	73.0
57.5°	313.5	280.0	234.7	191.3	165.6	144.0	110.4	82.8	65.1	53.2	45.4
60°	240.6	214.9	177.5	144.0	122.3	104.5	78.9	57.2	45.4	35.5	31.6
62.5°	169.6	153.8	126.2	102.5	88.7	74.9	55.2	41.4	31.6	25.6	23.7
65°	114.4	102.5	86.8	69.0	59.2	51.3	39.4	29.6	23.7	19.7	17.7
67.5°	74.9	69.0	57.2	47.3	41.4	35.5	27.6	21.7	17.7	15.8	13.8
70°	49.3	45.4	37.5	31.6	29.6	25.6	19.7	15.8	13.8	11.8	11.8
72.5°	31.6	27.6	25.6	21.7	19.7	17.7	13.8	11.8	9.9	9.9	9.9
75°	19.7	17.7	15.8	13.8	13.8	11.8	9.9	9.9	7.9	7.9	7.9
77.5°	11.8	11.8	9.9	9.9	7.9	7.9	7.9	5.9	5.9	5.9	5.9
80°	7.9	7.9	5.9	5.9	5.9	5.9	3.9	3.9	3.9	3.9	3.9
82.5°	3.9	3.9	3.9	3.9	3.9	3.9	2.0	2.0	2.0	2.0	2.0
85°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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



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CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1492.8	1492.8	1492.8	1492.8	1492.8	1492.8	1492.8	1492.8	1492.8	1492.8	1492.8
2.5°	1504.6	1508.5	1504.6	1516.4	1496.7	1518.4	1510.5	1514.4	1530.2	1524.3	1530.2
5°	1534.2	1542.1	1542.1	1555.9	1538.1	1563.7	1555.9	1563.7	1579.5	1579.5	1587.4
7.5°	1571.6	1581.5	1585.4	1599.2	1581.5	1613.0	1605.2	1615.0	1634.7	1634.7	1640.6
10°	1611.1	1622.9	1630.8	1646.6	1626.8	1662.3	1654.5	1668.3	1686.0	1688.0	1697.8
12.5°	1660.4	1676.1	1686.0	1699.8	1686.0	1721.5	1713.6	1727.4	1751.1	1753.0	1764.9
15°	1715.6	1735.3	1747.1	1762.9	1747.1	1786.6	1778.7	1794.5	1812.2	1820.1	1831.9
17.5°	1751.1	1774.7	1784.6	1802.3	1786.6	1826.0	1816.1	1837.8	1853.6	1857.6	1871.4
20°	1757.0	1778.7	1792.5	1806.3	1792.5	1831.9	1822.1	1839.8	1859.5	1863.5	1873.3
22.5°	1731.4	1749.1	1764.9	1776.7	1764.9	1804.3	1790.5	1810.2	1828.0	1831.9	1839.8
25°	1672.2	1693.9	1709.7	1719.5	1707.7	1745.2	1733.3	1751.1	1766.9	1774.7	1776.7
27.5°	1589.4	1609.1	1624.9	1630.8	1622.9	1658.4	1642.6	1664.3	1678.1	1682.1	1688.0
30°	1477.0	1494.7	1510.5	1514.4	1508.5	1534.2	1526.3	1546.0	1559.8	1563.7	1567.7
32.5°	1338.9	1356.7	1366.5	1370.5	1364.6	1390.2	1382.3	1398.1	1413.9	1413.9	1413.9
35°	1183.2	1198.9	1204.9	1216.7	1202.9	1228.5	1220.6	1234.4	1248.2	1248.2	1250.2
37.5°	1015.5	1027.4	1031.3	1043.2	1029.3	1053.0	1047.1	1058.9	1070.8	1068.8	1072.7
40°	836.1	847.9	851.9	861.7	849.9	869.6	865.7	877.5	887.4	887.4	887.4
42.5°	662.6	670.5	670.5	680.3	668.5	686.2	686.2	694.1	704.0	702.0	702.0
45°	481.2	479.2	483.1	481.2	481.2	496.9	496.9	500.9	508.8	504.8	506.8
47.5°	319.5	321.4	313.5	319.5	311.6	325.4	325.4	325.4	331.3	327.3	331.3
50°	203.1	197.2	193.2	193.2	191.3	201.1	197.2	199.2	203.1	199.2	203.1
52.5°	114.4	112.4	108.5	110.4	106.5	108.5	108.5	108.5	110.4	108.5	112.4
55°	67.0	61.1	59.2	59.2	57.2	59.2	57.2	57.2	57.2	55.2	57.2
57.5°	39.4	37.5	35.5	35.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5
60°	27.6	25.6	25.6	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7
62.5°	21.7	19.7	19.7	19.7	17.7	17.7	17.7	17.7	17.7	19.7	17.7
65°	15.8	15.8	15.8	15.8	15.8	15.8	13.8	15.8	15.8	15.8	15.8
67.5°	13.8	13.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8
70°	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9
72.5°	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9
75°	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9
77.5°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
80°	3.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
82.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
85°	0.0	2.0	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: P212735

CATALOG NUMBER: LD4B30D010 EU4B30508050 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	1492.8	1492.8	1492.8	1492.8	1492.8	1492.8	1492.8	1492.8	1492.8	1492.8	1492.8
2.5°	1536.1	1528.2	1510.5	1522.3	1524.3	1516.4	1526.3	1538.1	1526.3	1516.4	1524.3
5°	1593.3	1587.4	1571.6	1581.5	1583.5	1581.5	1587.4	1597.3	1587.4	1581.5	1583.5
7.5°	1650.5	1646.6	1628.8	1640.6	1644.6	1640.6	1646.6	1656.4	1646.6	1640.6	1644.6
10°	1705.7	1703.7	1686.0	1701.8	1703.7	1699.8	1705.7	1721.5	1705.7	1699.8	1703.7
12.5°	1768.8	1772.8	1753.0	1770.8	1772.8	1768.8	1776.7	1788.5	1776.7	1768.8	1772.8
15°	1841.8	1839.8	1824.0	1837.8	1841.8	1837.8	1847.7	1863.5	1847.7	1837.8	1841.8
17.5°	1877.3	1877.3	1865.4	1879.3	1881.2	1881.2	1889.1	1900.9	1889.1	1881.2	1881.2
20°	1879.3	1881.2	1867.4	1883.2	1883.2	1883.2	1891.1	1897.0	1891.1	1883.2	1883.2
22.5°	1847.7	1849.7	1835.9	1849.7	1849.7	1851.6	1855.6	1859.5	1855.6	1851.6	1849.7
25°	1786.6	1788.5	1776.7	1788.5	1786.6	1786.6	1790.5	1796.4	1790.5	1786.6	1786.6
27.5°	1695.9	1697.8	1682.1	1695.9	1693.9	1691.9	1697.8	1699.8	1697.8	1691.9	1693.9
30°	1575.6	1577.5	1563.7	1575.6	1573.6	1571.6	1579.5	1581.5	1579.5	1571.6	1573.6
32.5°	1431.6	1427.7	1417.8	1427.7	1425.7	1425.7	1429.7	1435.6	1429.7	1425.7	1425.7
35°	1258.1	1258.1	1252.2	1260.1	1254.1	1262.0	1262.0	1264.0	1262.0	1262.0	1254.1
37.5°	1080.6	1080.6	1076.7	1080.6	1078.6	1086.5	1086.5	1092.5	1086.5	1086.5	1078.6
40°	895.3	895.3	891.3	895.3	901.2	901.2	899.2	907.1	899.2	901.2	901.2
42.5°	707.9	707.9	706.0	715.8	715.8	715.8	709.9	717.8	709.9	715.8	715.8
45°	514.7	510.7	508.8	508.8	510.7	518.6	510.7	520.6	510.7	518.6	510.7
47.5°	327.3	329.3	331.3	337.2	333.3	331.3	331.3	337.2	331.3	331.3	333.3
50°	201.1	203.1	203.1	207.1	201.1	205.1	203.1	207.1	203.1	205.1	201.1
52.5°	110.4	110.4	110.4	114.4	110.4	112.4	110.4	114.4	110.4	112.4	110.4
55°	57.2	57.2	57.2	59.2	57.2	57.2	57.2	59.2	57.2	57.2	57.2
57.5°	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5
60°	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7
62.5°	19.7	17.7	17.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7
65°	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8
67.5°	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8
70°	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9
72.5°	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9
75°	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9
77.5°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
80°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
82.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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: P212735

CATALOG NUMBER: LD4B30D010 EU4B30508050 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	1492.8	1492.8	1492.8	1492.8	1492.8	1492.8	1492.8	1492.8	1492.8	1492.8	1492.8
2.5°	1522.3	1510.5	1528.2	1536.1	1530.2	1524.3	1530.2	1514.4	1510.5	1518.4	1496.7
5°	1581.5	1571.6	1587.4	1593.3	1587.4	1579.5	1579.5	1563.7	1555.9	1563.7	1538.1
7.5°	1640.6	1628.8	1646.6	1650.5	1640.6	1634.7	1634.7	1615.0	1605.2	1613.0	1581.5
10°	1701.8	1686.0	1703.7	1705.7	1697.8	1688.0	1686.0	1668.3	1654.5	1662.3	1626.8
12.5°	1770.8	1753.0	1772.8	1768.8	1764.9	1753.0	1751.1	1727.4	1713.6	1721.5	1686.0
15°	1837.8	1824.0	1839.8	1841.8	1831.9	1820.1	1812.2	1794.5	1778.7	1786.6	1747.1
17.5°	1879.3	1865.4	1877.3	1877.3	1871.4	1857.6	1853.6	1837.8	1816.1	1826.0	1786.6
20°	1883.2	1867.4	1881.2	1879.3	1873.3	1863.5	1859.5	1839.8	1822.1	1831.9	1792.5
22.5°	1849.7	1835.9	1849.7	1847.7	1839.8	1831.9	1828.0	1810.2	1790.5	1804.3	1764.9
25°	1788.5	1776.7	1788.5	1786.6	1776.7	1774.7	1766.9	1751.1	1733.3	1745.2	1707.7
27.5°	1695.9	1682.1	1697.8	1695.9	1688.0	1682.1	1678.1	1664.3	1642.6	1658.4	1622.9
30°	1575.6	1563.7	1577.5	1575.6	1567.7	1563.7	1559.8	1546.0	1526.3	1534.2	1508.5
32.5°	1427.7	1417.8	1427.7	1431.6	1413.9	1413.9	1413.9	1398.1	1382.3	1390.2	1364.6
35°	1260.1	1252.2	1258.1	1258.1	1250.2	1248.2	1248.2	1234.4	1220.6	1228.5	1202.9
37.5°	1080.6	1076.7	1080.6	1080.6	1072.7	1068.8	1070.8	1058.9	1047.1	1053.0	1029.3
40°	895.3	891.3	895.3	895.3	887.4	887.4	887.4	877.5	865.7	869.6	849.9
42.5°	715.8	706.0	707.9	707.9	702.0	702.0	704.0	694.1	686.2	686.2	668.5
45°	508.8	508.8	510.7	514.7	506.8	504.8	508.8	500.9	496.9	496.9	481.2
47.5°	337.2	331.3	329.3	327.3	331.3	327.3	331.3	325.4	325.4	325.4	311.6
50°	207.1	203.1	203.1	201.1	203.1	199.2	203.1	199.2	197.2	201.1	191.3
52.5°	114.4	110.4	110.4	110.4	112.4	108.5	110.4	108.5	108.5	108.5	106.5
55°	59.2	57.2	57.2	57.2	57.2	55.2	57.2	57.2	57.2	59.2	57.2
57.5°	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5
60°	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7
62.5°	19.7	17.7	17.7	19.7	17.7	19.7	17.7	17.7	17.7	17.7	17.7
65°	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	13.8	15.8	15.8
67.5°	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8
70°	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9
72.5°	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9
75°	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9
77.5°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
80°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
82.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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: P212735

CATALOG NUMBER: LD4B30D010 EU4B30508050 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	1492.8	1492.8	1492.8	1492.8	1492.8	1492.8	1492.8	1492.8	1492.8	1492.8	1492.8
2.5°	1516.4	1504.6	1508.5	1504.6	1494.7	1496.7	1490.8	1490.8	1478.9	1477.0	1478.9
5°	1555.9	1542.1	1542.1	1534.2	1520.4	1518.4	1506.6	1506.6	1488.8	1482.9	1482.9
7.5°	1599.2	1585.4	1581.5	1571.6	1553.9	1546.0	1530.2	1524.3	1502.6	1492.8	1490.8
10°	1646.6	1630.8	1622.9	1611.1	1589.4	1575.6	1553.9	1546.0	1520.4	1500.6	1498.7
12.5°	1699.8	1686.0	1676.1	1660.4	1636.7	1617.0	1591.3	1577.5	1544.0	1522.3	1512.5
15°	1762.9	1747.1	1735.3	1715.6	1689.9	1666.3	1632.8	1617.0	1577.5	1548.0	1534.2
17.5°	1802.3	1784.6	1774.7	1751.1	1725.4	1697.8	1660.4	1640.6	1595.3	1557.8	1544.0
20°	1806.3	1792.5	1778.7	1757.0	1731.4	1699.8	1660.4	1640.6	1593.3	1555.9	1536.1
22.5°	1776.7	1764.9	1749.1	1731.4	1703.7	1672.2	1634.7	1617.0	1571.6	1532.2	1510.5
25°	1719.5	1709.7	1693.9	1672.2	1652.5	1619.0	1583.5	1571.6	1524.3	1490.8	1471.1
27.5°	1630.8	1624.9	1609.1	1589.4	1573.6	1546.0	1510.5	1500.6	1459.2	1429.7	1413.9
30°	1514.4	1510.5	1494.7	1477.0	1465.1	1439.5	1408.0	1404.0	1366.5	1344.9	1329.1
32.5°	1370.5	1366.5	1356.7	1338.9	1329.1	1307.4	1277.8	1281.8	1250.2	1232.5	1226.5
35°	1216.7	1204.9	1198.9	1183.2	1171.3	1155.6	1129.9	1135.8	1118.1	1104.3	1102.3
37.5°	1043.2	1031.3	1027.4	1015.5	1005.7	991.9	972.2	980.1	972.2	966.2	972.2
40°	861.7	851.9	847.9	836.1	832.2	822.3	808.5	828.2	818.4	830.2	832.2
42.5°	680.3	670.5	670.5	662.6	656.7	654.7	644.8	670.5	670.5	690.2	700.0
45°	481.2	483.1	479.2	481.2	477.2	483.1	477.2	495.0	520.6	546.2	562.0
47.5°	319.5	313.5	321.4	319.5	317.5	325.4	333.3	351.0	380.6	416.1	437.8
50°	193.2	193.2	197.2	203.1	207.1	213.0	224.8	246.5	280.0	315.5	341.1
52.5°	110.4	108.5	112.4	114.4	124.2	132.1	145.9	169.6	203.1	242.5	266.2
55°	59.2	59.2	61.1	67.0	73.0	82.8	96.6	118.3	149.9	189.3	213.0
57.5°	35.5	35.5	37.5	39.4	45.4	53.2	65.1	82.8	110.4	144.0	165.6
60°	23.7	25.6	25.6	27.6	31.6	35.5	45.4	57.2	78.9	104.5	122.3
62.5°	19.7	19.7	19.7	21.7	23.7	25.6	31.6	41.4	55.2	74.9	88.7
65°	15.8	15.8	15.8	15.8	17.7	19.7	23.7	29.6	39.4	51.3	59.2
67.5°	11.8	11.8	13.8	13.8	13.8	15.8	17.7	21.7	27.6	35.5	41.4
70°	9.9	9.9	9.9	9.9	11.8	11.8	13.8	15.8	19.7	25.6	29.6
72.5°	7.9	7.9	7.9	7.9	9.9	9.9	9.9	11.8	13.8	17.7	19.7
75°	5.9	5.9	5.9	5.9	7.9	7.9	7.9	9.9	9.9	11.8	13.8
77.5°	3.9	3.9	3.9	3.9	5.9	5.9	5.9	5.9	7.9	7.9	7.9
80°	2.0	2.0	2.0	3.9	3.9	3.9	3.9	3.9	3.9	5.9	5.9
82.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.9	3.9
85°	0.0	0.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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: P212735

CATALOG NUMBER: LD4B30D010 EU4B30508050 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	1492.8	1492.8	1492.8	1492.8	1492.8	1492.8	1492.8	1492.8	1492.8	1492.8	1492.8
2.5°	1465.1	1490.8	1461.2	1467.1	1457.3	1475.0	1451.3	1457.3	1461.2	1457.3	1459.2
5°	1467.1	1486.8	1453.3	1459.2	1443.5	1455.3	1433.6	1435.6	1435.6	1431.6	1429.7
7.5°	1473.0	1484.9	1449.4	1447.4	1427.7	1439.5	1413.9	1409.9	1408.0	1402.0	1404.0
10°	1475.0	1478.9	1441.5	1433.6	1409.9	1413.9	1388.2	1380.4	1374.4	1370.5	1368.5
12.5°	1488.8	1484.9	1441.5	1427.7	1398.1	1396.1	1368.5	1356.7	1346.8	1342.9	1340.9
15°	1506.6	1492.8	1445.4	1425.7	1392.2	1384.3	1354.7	1342.9	1329.1	1325.1	1321.2
17.5°	1514.4	1492.8	1441.5	1415.8	1378.4	1368.5	1338.9	1323.2	1309.4	1303.4	1299.5
20°	1504.6	1477.0	1425.7	1398.1	1358.7	1344.9	1315.3	1297.5	1283.7	1277.8	1273.9
22.5°	1482.9	1451.3	1402.0	1374.4	1335.0	1317.3	1291.6	1275.8	1260.1	1258.1	1252.2
25°	1445.4	1413.9	1372.5	1344.9	1309.4	1291.6	1268.0	1254.1	1238.4	1236.4	1234.4
27.5°	1390.2	1360.6	1329.1	1303.4	1271.9	1258.1	1240.3	1226.5	1212.7	1212.7	1208.8
30°	1311.3	1291.6	1264.0	1248.2	1222.6	1208.8	1197.0	1187.1	1173.3	1175.3	1171.3
32.5°	1210.8	1200.9	1181.2	1173.3	1153.6	1149.6	1137.8	1129.9	1118.1	1122.0	1118.1
35°	1098.4	1086.5	1086.5	1082.6	1072.7	1070.8	1064.8	1060.9	1053.0	1055.0	1055.0
37.5°	970.2	970.2	982.0	984.0	982.0	986.0	984.0	984.0	976.1	980.1	978.1
40°	838.1	849.9	871.6	883.4	887.4	895.3	905.1	901.2	897.2	903.1	901.2
42.5°	709.9	733.6	767.1	786.8	800.6	812.4	826.2	826.2	824.3	832.2	830.2
45°	587.6	609.3	654.7	688.2	711.9	729.6	745.4	751.3	753.3	761.2	759.2
47.5°	467.3	504.8	558.1	597.5	627.1	648.8	670.5	678.3	684.3	694.1	694.1
50°	370.7	418.0	479.2	518.6	554.1	577.8	599.5	611.3	619.2	627.1	627.1
52.5°	297.8	347.1	406.2	447.6	481.2	506.8	528.5	542.3	548.2	558.1	558.1
55°	242.5	287.9	343.1	380.6	414.1	437.8	455.5	467.3	473.3	481.2	481.2
57.5°	191.3	234.7	280.0	313.5	341.1	358.9	374.7	378.6	380.6	386.5	388.5
60°	144.0	177.5	214.9	240.6	260.3	272.1	284.0	282.0	280.0	284.0	280.0
62.5°	102.5	126.2	153.8	169.6	185.4	191.3	197.2	193.2	189.3	191.3	191.3
65°	69.0	86.8	102.5	114.4	122.3	126.2	128.2	126.2	124.2	126.2	124.2
67.5°	47.3	57.2	69.0	74.9	80.8	82.8	84.8	82.8	82.8	82.8	80.8
70°	31.6	37.5	45.4	49.3	51.3	53.2	55.2	53.2	53.2	53.2	53.2
72.5°	21.7	25.6	27.6	31.6	33.5	33.5	33.5	33.5	33.5	33.5	33.5
75°	13.8	15.8	17.7	19.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7
77.5°	9.9	9.9	11.8	11.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
80°	5.9	5.9	7.9	7.9	7.9	7.9	9.9	7.9	9.9	9.9	9.9
82.5°	3.9	3.9	3.9	3.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9
85°	2.0	2.0	2.0	2.0	2.0	2.0	3.9	2.0	3.9	3.9	3.9
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: P212735

CATALOG NUMBER: LD4B30D010 EU4B30508050 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	1492.8	1492.8	1492.8	1492.8
2.5°	1459.2	1455.3	1443.5	1457.3
5°	1427.7	1423.7	1413.9	1423.7
7.5°	1396.1	1390.2	1382.3	1388.2
10°	1358.7	1354.7	1344.9	1350.8
12.5°	1331.1	1323.2	1317.3	1319.2
15°	1313.3	1305.4	1299.5	1301.5
17.5°	1289.6	1281.8	1275.8	1275.8
20°	1264.0	1256.1	1252.2	1250.2
22.5°	1242.3	1236.4	1234.4	1228.5
25°	1222.6	1218.7	1218.7	1210.8
27.5°	1200.9	1195.0	1195.0	1187.1
30°	1163.4	1161.5	1161.5	1155.6
32.5°	1114.1	1108.2	1112.2	1102.3
35°	1047.1	1043.2	1049.1	1041.2
37.5°	974.1	972.2	976.1	970.2
40°	897.2	897.2	903.1	893.3
42.5°	830.2	830.2	836.1	826.2
45°	757.2	763.1	769.1	761.2
47.5°	694.1	698.1	706.0	698.1
50°	631.0	635.0	640.9	633.0
52.5°	562.0	565.9	571.9	565.9
55°	483.1	487.1	493.0	489.0
57.5°	388.5	384.5	394.4	386.5
60°	282.0	274.1	276.1	276.1
62.5°	187.3	183.4	187.3	181.4
65°	124.2	122.3	122.3	122.3
67.5°	82.8	80.8	82.8	80.8
70°	53.2	53.2	53.2	53.2
72.5°	33.5	33.5	33.5	33.5
75°	21.7	21.7	21.7	21.7
77.5°	13.8	13.8	13.8	13.8
80°	9.9	9.9	9.9	9.9
82.5°	5.9	5.9	5.9	5.9
85°	3.9	3.9	3.9	3.9
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)