

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: P212743

Luminaire Tested: **LD4B30D010 EU4B30509730 4LBSWLI1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P212743
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 EU4B30509730 4LBSWLI1
Description: PORTFOLIO 4 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 97CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2769.5 lumens
Efficiency: N/A
Efficacy: 98.9 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

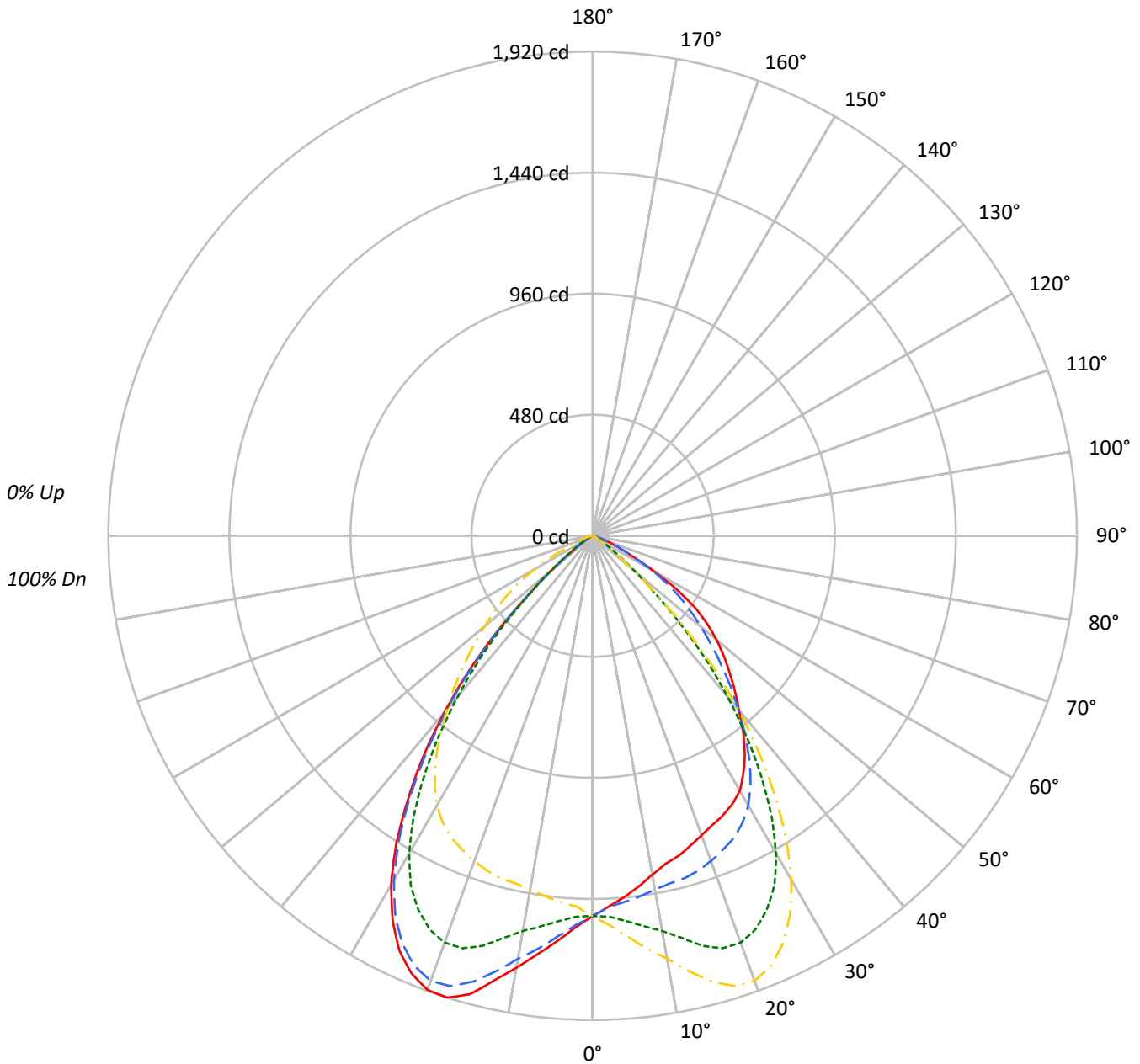
Input Watts (W): 28
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			100
1	112	109	106	103	110	107	104	102	103	100	99	99	97	96	95	94	93	91			91
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82			82
3	98	90	84	80	96	89	83	79	86	81	78	84	80	76	81	78	75	73			73
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66			66
5	86	76	69	63	84	75	68	63	73	67	62	71	66	62	69	65	61	60			60
6	80	70	62	57	79	69	62	57	67	61	56	66	60	56	64	59	56	54			54
7	75	64	57	52	74	63	57	52	62	56	51	61	55	51	59	55	51	49			49
8	71	59	52	47	69	59	52	47	57	51	47	56	51	47	55	50	46	45			45
9	66	55	48	43	65	54	48	43	53	47	43	52	47	43	52	46	43	41			41
10	63	51	44	40	62	51	44	40	50	44	40	49	43	39	48	43	39	38			38

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	185968	185968	185968	185968
5°	178049	189885	199754	189885
10°	170876	199308	217769	199308
15°	167857	214914	240338	214914
20°	165744	225350	251497	225350
25°	166433	222546	246934	222546
30°	166227	207075	227499	207075
35°	158347	175739	192242	175739
40°	145269	133724	147523	133724
45°	134107	85125	91719	85125
50°	122676	41276	40125	41276
55°	106211	17999	12860	17999
60°	68778	8856	5896	8856
65°	36045	5808	4641	5808
70°	19402	4328	3606	4328
75°	10437	3813	2859	3813
80°	7103	2841	1421	2841
85°	5661	2830	0	2830



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	147.0	5.3
10°-20°	459.8	16.6
20°-30°	714.9	25.8
30°-40°	722.0	26.1
40°-50°	457.2	16.5
50°-60°	191.9	6.9
60°-70°	60.8	2.2
70°-80°	13.9	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°	1321.6	47.7
0°-40°	2043.7	73.8
0°-60°	2692.8	97.2
0°-90°	2769.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2769.5	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1508	1508	1508	1508	1508	
5°	1438	1534	1613	1534	1438	135
15°	1314	1683	1882	1683	1314	371
25°	1223	1635	1814	1635	1223	563
35°	1052	1167	1277	1167	1052	653
45°	769	488	526	488	769	593
55°	494	84	60	84	494	426
65°	124	20	16	20	124	136
75°	22	8	6	8	22	27
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°	1507.7	1507.7	1507.7	1507.7	1507.7	1507.7	1507.7	1507.7	1507.7	1507.7	1507.7
2.5°	1471.8	1457.9	1469.9	1473.8	1473.8	1471.8	1475.8	1471.8	1465.9	1489.8	1471.8
5°	1438.0	1428.0	1438.0	1442.0	1444.0	1446.0	1449.9	1449.9	1447.9	1469.9	1457.9
7.5°	1402.1	1396.2	1404.1	1410.1	1418.1	1416.1	1422.1	1424.0	1428.0	1453.9	1442.0
10°	1364.3	1358.3	1368.3	1372.3	1382.2	1384.2	1388.2	1394.2	1402.1	1428.0	1424.0
12.5°	1332.4	1330.4	1336.4	1344.4	1354.3	1356.3	1360.3	1370.3	1382.2	1410.1	1412.1
15°	1314.5	1312.5	1318.5	1326.5	1334.4	1338.4	1342.4	1356.3	1368.3	1398.2	1406.1
17.5°	1288.6	1288.6	1294.6	1302.6	1312.5	1316.5	1322.5	1336.4	1352.3	1382.2	1392.2
20°	1262.7	1264.7	1268.7	1276.7	1286.6	1290.6	1296.6	1310.5	1328.4	1358.3	1372.3
22.5°	1240.8	1246.8	1248.8	1254.8	1264.7	1270.7	1272.7	1288.6	1304.5	1330.4	1348.4
25°	1222.9	1230.9	1230.9	1234.8	1246.8	1248.8	1250.8	1266.7	1280.6	1304.5	1322.5
27.5°	1199.0	1207.0	1207.0	1212.9	1220.9	1224.9	1224.9	1238.8	1252.8	1270.7	1284.6
30°	1167.1	1173.1	1173.1	1175.1	1183.1	1187.0	1185.0	1199.0	1208.9	1220.9	1234.8
32.5°	1113.3	1123.3	1119.3	1125.3	1129.3	1133.3	1129.3	1141.2	1149.2	1161.1	1165.1
35°	1051.6	1059.6	1053.6	1057.6	1065.5	1065.5	1063.6	1071.5	1075.5	1081.5	1083.5
37.5°	979.9	985.9	981.9	983.9	987.9	989.9	985.9	993.8	993.8	995.8	991.9
40°	902.2	912.2	906.2	906.2	910.2	912.2	906.2	910.2	914.2	904.2	896.3
42.5°	834.5	844.5	838.5	838.5	838.5	840.5	832.5	834.5	834.5	820.6	808.6
45°	768.8	776.8	770.8	764.8	766.8	768.8	760.8	758.8	752.9	736.9	719.0
47.5°	705.1	713.0	705.1	701.1	701.1	701.1	691.1	685.1	677.2	655.3	633.4
50°	639.3	647.3	641.3	637.3	633.4	633.4	625.4	617.4	605.5	583.6	559.7
52.5°	571.6	577.6	571.6	567.6	563.6	563.6	553.7	547.7	533.8	511.9	486.0
55°	493.9	497.9	491.9	488.0	486.0	486.0	478.0	472.0	460.1	442.2	418.3
57.5°	390.4	398.3	388.4	392.4	392.4	390.4	384.4	382.4	378.4	362.5	344.6
60°	278.8	278.8	276.8	284.8	282.8	286.8	282.8	284.8	286.8	274.9	262.9
62.5°	183.2	189.2	185.2	189.2	193.2	193.2	191.2	195.2	199.2	193.2	187.2
65°	123.5	123.5	123.5	125.5	125.5	127.5	125.5	127.5	129.5	127.5	123.5
67.5°	81.7	83.7	81.7	83.7	81.7	83.7	83.7	83.7	85.6	83.7	81.7
70°	53.8	53.8	53.8	53.8	53.8	53.8	53.8	53.8	55.8	53.8	51.8
72.5°	33.9	33.9	33.9	33.9	33.9	33.9	33.9	33.9	33.9	33.9	33.9
75°	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.9
77.5°	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9
80°	10.0	10.0	10.0	10.0	10.0	10.0	10.0	8.0	10.0	8.0	8.0
82.5°	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
85°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	2.0	4.0	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):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1507.7	1507.7	1507.7	1507.7	1507.7	1507.7	1507.7	1507.7	1507.7	1507.7	1507.7
2.5°	1481.8	1475.8	1505.7	1479.8	1493.8	1491.8	1493.8	1505.7	1505.7	1511.7	1509.7
5°	1473.8	1467.9	1501.7	1481.8	1497.7	1497.7	1503.7	1521.6	1521.6	1533.6	1535.6
7.5°	1461.9	1463.9	1499.7	1487.8	1505.7	1507.7	1517.7	1539.6	1545.5	1561.5	1569.4
10°	1447.9	1455.9	1493.8	1489.8	1513.7	1515.7	1535.6	1561.5	1569.4	1591.3	1605.3
12.5°	1442.0	1455.9	1499.7	1503.7	1527.6	1537.6	1559.5	1593.3	1607.3	1633.2	1653.1
15°	1440.0	1459.9	1507.7	1521.6	1549.5	1563.5	1593.3	1633.2	1649.1	1683.0	1706.9
17.5°	1430.0	1455.9	1507.7	1529.6	1559.5	1573.4	1611.3	1657.1	1677.0	1714.8	1742.7
20°	1412.1	1440.0	1491.8	1519.6	1551.5	1571.4	1609.3	1657.1	1677.0	1716.8	1748.7
22.5°	1388.2	1416.1	1465.9	1497.7	1525.6	1547.5	1587.4	1633.2	1651.1	1688.9	1720.8
25°	1358.3	1386.2	1428.0	1459.9	1485.8	1505.7	1539.6	1587.4	1599.3	1635.2	1669.0
27.5°	1316.5	1342.4	1374.3	1404.1	1428.0	1444.0	1473.8	1515.7	1525.6	1561.5	1589.4
30°	1260.7	1276.7	1304.5	1324.5	1342.4	1358.3	1380.2	1418.1	1422.1	1453.9	1479.8
32.5°	1185.0	1193.0	1212.9	1222.9	1238.8	1244.8	1262.7	1294.6	1290.6	1320.5	1342.4
35°	1093.4	1097.4	1097.4	1109.4	1113.3	1115.3	1129.3	1147.2	1141.2	1167.1	1183.1
37.5°	993.8	991.9	979.9	979.9	981.9	975.9	981.9	989.9	981.9	1001.8	1015.8
40°	892.3	880.3	858.4	846.5	840.5	838.5	826.5	836.5	816.6	830.5	840.5
42.5°	794.7	774.8	740.9	717.0	707.0	697.1	677.2	677.2	651.3	661.2	663.2
45°	695.1	661.2	615.4	593.5	567.6	551.7	525.8	499.9	482.0	488.0	482.0
47.5°	603.5	563.6	509.9	472.0	442.2	420.2	384.4	354.5	336.6	328.6	320.7
50°	523.8	484.0	422.2	374.4	344.6	318.7	282.8	249.0	227.1	215.1	209.1
52.5°	452.1	410.3	350.5	300.7	268.9	245.0	205.1	171.3	147.4	133.4	125.5
55°	384.4	346.6	290.8	245.0	215.1	191.2	151.4	119.5	97.6	83.7	73.7
57.5°	316.7	282.8	237.0	193.2	167.3	145.4	111.5	83.7	65.7	53.8	45.8
60°	243.0	217.1	179.3	145.4	123.5	105.6	79.7	57.8	45.8	35.9	31.9
62.5°	171.3	155.4	127.5	103.6	89.6	75.7	55.8	41.8	31.9	25.9	23.9
65°	115.5	103.6	87.6	69.7	59.8	51.8	39.8	29.9	23.9	19.9	17.9
67.5°	75.7	69.7	57.8	47.8	41.8	35.9	27.9	21.9	17.9	15.9	13.9
70°	49.8	45.8	37.8	31.9	29.9	25.9	19.9	15.9	13.9	12.0	12.0
72.5°	31.9	27.9	25.9	21.9	19.9	17.9	13.9	12.0	10.0	10.0	10.0
75°	19.9	17.9	15.9	13.9	13.9	12.0	10.0	10.0	8.0	8.0	8.0
77.5°	12.0	12.0	10.0	10.0	8.0	8.0	8.0	6.0	6.0	6.0	6.0
80°	8.0	8.0	6.0	6.0	6.0	6.0	4.0	4.0	4.0	4.0	4.0
82.5°	4.0	4.0	4.0	4.0	4.0	4.0	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°	1507.7	1507.7	1507.7	1507.7	1507.7	1507.7	1507.7	1507.7	1507.7	1507.7	1507.7
2.5°	1519.6	1523.6	1519.6	1531.6	1511.7	1533.6	1525.6	1529.6	1545.5	1539.6	1545.5
5°	1549.5	1557.5	1557.5	1571.4	1553.5	1579.4	1571.4	1579.4	1595.3	1595.3	1603.3
7.5°	1587.4	1597.3	1601.3	1615.2	1597.3	1629.2	1621.2	1631.2	1651.1	1651.1	1657.1
10°	1627.2	1639.1	1647.1	1663.0	1643.1	1679.0	1671.0	1685.0	1702.9	1704.9	1714.8
12.5°	1677.0	1692.9	1702.9	1716.8	1702.9	1738.7	1730.8	1744.7	1768.6	1770.6	1782.5
15°	1732.8	1752.7	1764.6	1780.6	1764.6	1804.5	1796.5	1812.4	1830.3	1838.3	1850.3
17.5°	1768.6	1792.5	1802.5	1820.4	1804.5	1844.3	1834.3	1856.2	1872.2	1876.2	1890.1
20°	1774.6	1796.5	1810.4	1824.4	1810.4	1850.3	1840.3	1858.2	1878.1	1882.1	1892.1
22.5°	1748.7	1766.6	1782.5	1794.5	1782.5	1822.4	1808.4	1828.4	1846.3	1850.3	1858.2
25°	1688.9	1710.8	1726.8	1736.7	1724.8	1762.6	1750.7	1768.6	1784.5	1792.5	1794.5
27.5°	1605.3	1625.2	1641.1	1647.1	1639.1	1675.0	1659.1	1681.0	1694.9	1698.9	1704.9
30°	1491.8	1509.7	1525.6	1529.6	1523.6	1549.5	1541.6	1561.5	1575.4	1579.4	1583.4
32.5°	1352.3	1370.3	1380.2	1384.2	1378.2	1404.1	1396.2	1412.1	1428.0	1428.0	1428.0
35°	1195.0	1210.9	1216.9	1228.9	1214.9	1240.8	1232.8	1246.8	1260.7	1260.7	1262.7
37.5°	1025.7	1037.7	1041.6	1053.6	1039.7	1063.6	1057.6	1069.5	1081.5	1079.5	1083.5
40°	844.5	856.4	860.4	870.4	858.4	878.3	874.3	886.3	896.3	896.3	896.3
42.5°	669.2	677.2	677.2	687.1	675.2	693.1	693.1	701.1	711.0	709.0	709.0
45°	486.0	484.0	488.0	486.0	486.0	501.9	501.9	505.9	513.9	509.9	511.9
47.5°	322.7	324.6	316.7	322.7	314.7	328.6	328.6	328.6	334.6	330.6	334.6
50°	205.1	199.2	195.2	195.2	193.2	203.2	199.2	201.2	205.1	201.2	205.1
52.5°	115.5	113.5	109.5	111.5	107.6	109.5	109.5	109.5	111.5	109.5	113.5
55°	67.7	61.7	59.8	59.8	57.8	59.8	57.8	57.8	57.8	55.8	57.8
57.5°	39.8	37.8	35.9	35.9	33.9	33.9	33.9	33.9	33.9	33.9	33.9
60°	27.9	25.9	25.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9
62.5°	21.9	19.9	19.9	19.9	17.9	17.9	17.9	17.9	17.9	19.9	17.9
65°	15.9	15.9	15.9	15.9	15.9	15.9	13.9	15.9	15.9	15.9	15.9
67.5°	13.9	13.9	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
70°	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
72.5°	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
75°	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
77.5°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
80°	4.0	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	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: P212743

CATALOG NUMBER: LD4B30D010 EU4B30509730 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	1507.7	1507.7	1507.7	1507.7	1507.7	1507.7	1507.7	1507.7	1507.7	1507.7	1507.7
2.5°	1551.5	1543.5	1525.6	1537.6	1539.6	1531.6	1541.6	1553.5	1541.6	1531.6	1539.6
5°	1609.3	1603.3	1587.4	1597.3	1599.3	1597.3	1603.3	1613.3	1603.3	1597.3	1599.3
7.5°	1667.0	1663.0	1645.1	1657.1	1661.1	1657.1	1663.0	1673.0	1663.0	1657.1	1661.1
10°	1722.8	1720.8	1702.9	1718.8	1720.8	1716.8	1722.8	1738.7	1722.8	1716.8	1720.8
12.5°	1786.5	1790.5	1770.6	1788.5	1790.5	1786.5	1794.5	1806.4	1794.5	1786.5	1790.5
15°	1860.2	1858.2	1842.3	1856.2	1860.2	1856.2	1866.2	1882.1	1866.2	1856.2	1860.2
17.5°	1896.1	1896.1	1884.1	1898.1	1900.1	1900.1	1908.0	1920.0	1908.0	1900.1	1900.1
20°	1898.1	1900.1	1886.1	1902.0	1902.0	1902.0	1910.0	1916.0	1910.0	1902.0	1902.0
22.5°	1866.2	1868.2	1854.2	1868.2	1868.2	1870.2	1874.2	1878.1	1874.2	1870.2	1868.2
25°	1804.5	1806.4	1794.5	1806.4	1804.5	1804.5	1808.4	1814.4	1808.4	1804.5	1804.5
27.5°	1712.8	1714.8	1698.9	1712.8	1710.8	1708.9	1714.8	1716.8	1714.8	1708.9	1710.8
30°	1591.3	1593.3	1579.4	1591.3	1589.4	1587.4	1595.3	1597.3	1595.3	1587.4	1589.4
32.5°	1446.0	1442.0	1432.0	1442.0	1440.0	1440.0	1444.0	1449.9	1444.0	1440.0	1440.0
35°	1270.7	1270.7	1264.7	1272.7	1266.7	1274.7	1274.7	1276.7	1274.7	1274.7	1266.7
37.5°	1091.4	1091.4	1087.5	1091.4	1089.4	1097.4	1097.4	1103.4	1097.4	1097.4	1089.4
40°	904.2	904.2	900.2	904.2	910.2	910.2	908.2	916.2	908.2	910.2	910.2
42.5°	715.0	715.0	713.0	723.0	723.0	723.0	717.0	725.0	717.0	723.0	723.0
45°	519.8	515.8	513.9	513.9	515.8	523.8	515.8	525.8	515.8	523.8	515.8
47.5°	330.6	332.6	334.6	340.6	336.6	334.6	334.6	340.6	334.6	334.6	336.6
50°	203.2	205.1	205.1	209.1	203.2	207.1	205.1	209.1	205.1	207.1	203.2
52.5°	111.5	111.5	111.5	115.5	111.5	113.5	111.5	115.5	111.5	113.5	111.5
55°	57.8	57.8	57.8	59.8	57.8	57.8	57.8	59.8	57.8	57.8	57.8
57.5°	33.9	33.9	33.9	33.9	33.9	33.9	33.9	33.9	33.9	33.9	33.9
60°	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9
62.5°	19.9	17.9	17.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9
65°	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9
67.5°	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
70°	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
72.5°	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
75°	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
77.5°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
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: P212743

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CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	1507.7	1507.7	1507.7	1507.7	1507.7	1507.7	1507.7	1507.7	1507.7	1507.7	1507.7
2.5°	1537.6	1525.6	1543.5	1551.5	1545.5	1539.6	1545.5	1529.6	1525.6	1533.6	1511.7
5°	1597.3	1587.4	1603.3	1609.3	1603.3	1595.3	1595.3	1579.4	1571.4	1579.4	1553.5
7.5°	1657.1	1645.1	1663.0	1667.0	1657.1	1651.1	1651.1	1631.2	1621.2	1629.2	1597.3
10°	1718.8	1702.9	1720.8	1722.8	1714.8	1704.9	1702.9	1685.0	1671.0	1679.0	1643.1
12.5°	1788.5	1770.6	1790.5	1786.5	1782.5	1770.6	1768.6	1744.7	1730.8	1738.7	1702.9
15°	1856.2	1842.3	1858.2	1860.2	1850.3	1838.3	1830.3	1812.4	1796.5	1804.5	1764.6
17.5°	1898.1	1884.1	1896.1	1896.1	1890.1	1876.2	1872.2	1856.2	1834.3	1844.3	1804.5
20°	1902.0	1886.1	1900.1	1898.1	1892.1	1882.1	1878.1	1858.2	1840.3	1850.3	1810.4
22.5°	1868.2	1854.2	1868.2	1866.2	1858.2	1850.3	1846.3	1828.4	1808.4	1822.4	1782.5
25°	1806.4	1794.5	1806.4	1804.5	1794.5	1792.5	1784.5	1768.6	1750.7	1762.6	1724.8
27.5°	1712.8	1698.9	1714.8	1712.8	1704.9	1698.9	1694.9	1681.0	1659.1	1675.0	1639.1
30°	1591.3	1579.4	1593.3	1591.3	1583.4	1579.4	1575.4	1561.5	1541.6	1549.5	1523.6
32.5°	1442.0	1432.0	1442.0	1446.0	1428.0	1428.0	1428.0	1412.1	1396.2	1404.1	1378.2
35°	1272.7	1264.7	1270.7	1270.7	1262.7	1260.7	1260.7	1246.8	1232.8	1240.8	1214.9
37.5°	1091.4	1087.5	1091.4	1091.4	1083.5	1079.5	1081.5	1069.5	1057.6	1063.6	1039.7
40°	904.2	900.2	904.2	904.2	896.3	896.3	896.3	886.3	874.3	878.3	858.4
42.5°	723.0	713.0	715.0	715.0	709.0	709.0	711.0	701.1	693.1	693.1	675.2
45°	513.9	513.9	515.8	519.8	511.9	509.9	513.9	505.9	501.9	501.9	486.0
47.5°	340.6	334.6	332.6	330.6	334.6	330.6	334.6	328.6	328.6	328.6	314.7
50°	209.1	205.1	205.1	203.2	205.1	201.2	205.1	201.2	199.2	203.2	193.2
52.5°	115.5	111.5	111.5	111.5	113.5	109.5	111.5	109.5	109.5	109.5	107.6
55°	59.8	57.8	57.8	57.8	57.8	55.8	57.8	57.8	57.8	59.8	57.8
57.5°	33.9	33.9	33.9	33.9	33.9	33.9	33.9	33.9	33.9	33.9	33.9
60°	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9
62.5°	19.9	17.9	17.9	19.9	17.9	19.9	17.9	17.9	17.9	17.9	17.9
65°	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	13.9	15.9	15.9
67.5°	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
70°	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
72.5°	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
75°	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
77.5°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
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: P212743

CATALOG NUMBER: LD4B30D010 EU4B30509730 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	1507.7	1507.7	1507.7	1507.7	1507.7	1507.7	1507.7	1507.7	1507.7	1507.7	1507.7
2.5°	1531.6	1519.6	1523.6	1519.6	1509.7	1511.7	1505.7	1505.7	1493.8	1491.8	1493.8
5°	1571.4	1557.5	1557.5	1549.5	1535.6	1533.6	1521.6	1521.6	1503.7	1497.7	1497.7
7.5°	1615.2	1601.3	1597.3	1587.4	1569.4	1561.5	1545.5	1539.6	1517.7	1507.7	1505.7
10°	1663.0	1647.1	1639.1	1627.2	1605.3	1591.3	1569.4	1561.5	1535.6	1515.7	1513.7
12.5°	1716.8	1702.9	1692.9	1677.0	1653.1	1633.2	1607.3	1593.3	1559.5	1537.6	1527.6
15°	1780.6	1764.6	1752.7	1732.8	1706.9	1683.0	1649.1	1633.2	1593.3	1563.5	1549.5
17.5°	1820.4	1802.5	1792.5	1768.6	1742.7	1714.8	1677.0	1657.1	1611.3	1573.4	1559.5
20°	1824.4	1810.4	1796.5	1774.6	1748.7	1716.8	1677.0	1657.1	1609.3	1571.4	1551.5
22.5°	1794.5	1782.5	1766.6	1748.7	1720.8	1688.9	1651.1	1633.2	1587.4	1547.5	1525.6
25°	1736.7	1726.8	1710.8	1688.9	1669.0	1635.2	1599.3	1587.4	1539.6	1505.7	1485.8
27.5°	1647.1	1641.1	1625.2	1605.3	1589.4	1561.5	1525.6	1515.7	1473.8	1444.0	1428.0
30°	1529.6	1525.6	1509.7	1491.8	1479.8	1453.9	1422.1	1418.1	1380.2	1358.3	1342.4
32.5°	1384.2	1380.2	1370.3	1352.3	1342.4	1320.5	1290.6	1294.6	1262.7	1244.8	1238.8
35°	1228.9	1216.9	1210.9	1195.0	1183.1	1167.1	1141.2	1147.2	1129.3	1115.3	1113.3
37.5°	1053.6	1041.6	1037.7	1025.7	1015.8	1001.8	981.9	989.9	981.9	975.9	981.9
40°	870.4	860.4	856.4	844.5	840.5	830.5	816.6	836.5	826.5	838.5	840.5
42.5°	687.1	677.2	677.2	669.2	663.2	661.2	651.3	677.2	677.2	697.1	707.0
45°	486.0	488.0	484.0	486.0	482.0	488.0	482.0	499.9	525.8	551.7	567.6
47.5°	322.7	316.7	324.6	322.7	320.7	328.6	336.6	354.5	384.4	420.2	442.2
50°	195.2	195.2	199.2	205.1	209.1	215.1	227.1	249.0	282.8	318.7	344.6
52.5°	111.5	109.5	113.5	115.5	125.5	133.4	147.4	171.3	205.1	245.0	268.9
55°	59.8	59.8	61.7	67.7	73.7	83.7	97.6	119.5	151.4	191.2	215.1
57.5°	35.9	35.9	37.8	39.8	45.8	53.8	65.7	83.7	111.5	145.4	167.3
60°	23.9	25.9	25.9	27.9	31.9	35.9	45.8	57.8	79.7	105.6	123.5
62.5°	19.9	19.9	19.9	21.9	23.9	25.9	31.9	41.8	55.8	75.7	89.6
65°	15.9	15.9	15.9	15.9	17.9	19.9	23.9	29.9	39.8	51.8	59.8
67.5°	12.0	12.0	13.9	13.9	13.9	15.9	17.9	21.9	27.9	35.9	41.8
70°	10.0	10.0	10.0	10.0	12.0	12.0	13.9	15.9	19.9	25.9	29.9
72.5°	8.0	8.0	8.0	8.0	10.0	10.0	10.0	12.0	13.9	17.9	19.9
75°	6.0	6.0	6.0	6.0	8.0	8.0	8.0	10.0	10.0	12.0	13.9
77.5°	4.0	4.0	4.0	4.0	6.0	6.0	6.0	6.0	8.0	8.0	8.0
80°	2.0	2.0	2.0	4.0	4.0	4.0	4.0	4.0	4.0	6.0	6.0
82.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	4.0	4.0
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: P212743

CATALOG NUMBER: LD4B30D010 EU4B30509730 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	1507.7	1507.7	1507.7	1507.7	1507.7	1507.7	1507.7	1507.7	1507.7	1507.7	1507.7
2.5°	1479.8	1505.7	1475.8	1481.8	1471.8	1489.8	1465.9	1471.8	1475.8	1471.8	1473.8
5°	1481.8	1501.7	1467.9	1473.8	1457.9	1469.9	1447.9	1449.9	1449.9	1446.0	1444.0
7.5°	1487.8	1499.7	1463.9	1461.9	1442.0	1453.9	1428.0	1424.0	1422.1	1416.1	1418.1
10°	1489.8	1493.8	1455.9	1447.9	1424.0	1428.0	1402.1	1394.2	1388.2	1384.2	1382.2
12.5°	1503.7	1499.7	1455.9	1442.0	1412.1	1410.1	1382.2	1370.3	1360.3	1356.3	1354.3
15°	1521.6	1507.7	1459.9	1440.0	1406.1	1398.2	1368.3	1356.3	1342.4	1338.4	1334.4
17.5°	1529.6	1507.7	1455.9	1430.0	1392.2	1382.2	1352.3	1336.4	1322.5	1316.5	1312.5
20°	1519.6	1491.8	1440.0	1412.1	1372.3	1358.3	1328.4	1310.5	1296.6	1290.6	1286.6
22.5°	1497.7	1465.9	1416.1	1388.2	1348.4	1330.4	1304.5	1288.6	1272.7	1270.7	1264.7
25°	1459.9	1428.0	1386.2	1358.3	1322.5	1304.5	1280.6	1266.7	1250.8	1248.8	1246.8
27.5°	1404.1	1374.3	1342.4	1316.5	1284.6	1270.7	1252.8	1238.8	1224.9	1224.9	1220.9
30°	1324.5	1304.5	1276.7	1260.7	1234.8	1220.9	1208.9	1199.0	1185.0	1187.0	1183.1
32.5°	1222.9	1212.9	1193.0	1185.0	1165.1	1161.1	1149.2	1141.2	1129.3	1133.3	1129.3
35°	1109.4	1097.4	1097.4	1093.4	1083.5	1081.5	1075.5	1071.5	1063.6	1065.5	1065.5
37.5°	979.9	979.9	991.9	993.8	991.9	995.8	993.8	993.8	985.9	989.9	987.9
40°	846.5	858.4	880.3	892.3	896.3	904.2	914.2	910.2	906.2	912.2	910.2
42.5°	717.0	740.9	774.8	794.7	808.6	820.6	834.5	834.5	832.5	840.5	838.5
45°	593.5	615.4	661.2	695.1	719.0	736.9	752.9	758.8	760.8	768.8	766.8
47.5°	472.0	509.9	563.6	603.5	633.4	655.3	677.2	685.1	691.1	701.1	701.1
50°	374.4	422.2	484.0	523.8	559.7	583.6	605.5	617.4	625.4	633.4	633.4
52.5°	300.7	350.5	410.3	452.1	486.0	511.9	533.8	547.7	553.7	563.6	563.6
55°	245.0	290.8	346.6	384.4	418.3	442.2	460.1	472.0	478.0	486.0	486.0
57.5°	193.2	237.0	282.8	316.7	344.6	362.5	378.4	382.4	384.4	390.4	392.4
60°	145.4	179.3	217.1	243.0	262.9	274.9	286.8	284.8	282.8	286.8	282.8
62.5°	103.6	127.5	155.4	171.3	187.2	193.2	199.2	195.2	191.2	193.2	193.2
65°	69.7	87.6	103.6	115.5	123.5	127.5	129.5	127.5	125.5	127.5	125.5
67.5°	47.8	57.8	69.7	75.7	81.7	83.7	85.6	83.7	83.7	83.7	81.7
70°	31.9	37.8	45.8	49.8	51.8	53.8	55.8	53.8	53.8	53.8	53.8
72.5°	21.9	25.9	27.9	31.9	33.9	33.9	33.9	33.9	33.9	33.9	33.9
75°	13.9	15.9	17.9	19.9	21.9	21.9	21.9	21.9	21.9	21.9	21.9
77.5°	10.0	10.0	12.0	12.0	13.9	13.9	13.9	13.9	13.9	13.9	13.9
80°	6.0	6.0	8.0	8.0	8.0	8.0	10.0	8.0	10.0	10.0	10.0
82.5°	4.0	4.0	4.0	4.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
85°	2.0	2.0	2.0	2.0	2.0	2.0	4.0	2.0	4.0	4.0	4.0
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: P212743

CATALOG NUMBER: LD4B30D010 EU4B30509730 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	1507.7	1507.7	1507.7	1507.7
2.5°	1473.8	1469.9	1457.9	1471.8
5°	1442.0	1438.0	1428.0	1438.0
7.5°	1410.1	1404.1	1396.2	1402.1
10°	1372.3	1368.3	1358.3	1364.3
12.5°	1344.4	1336.4	1330.4	1332.4
15°	1326.5	1318.5	1312.5	1314.5
17.5°	1302.6	1294.6	1288.6	1288.6
20°	1276.7	1268.7	1264.7	1262.7
22.5°	1254.8	1248.8	1246.8	1240.8
25°	1234.8	1230.9	1230.9	1222.9
27.5°	1212.9	1207.0	1207.0	1199.0
30°	1175.1	1173.1	1173.1	1167.1
32.5°	1125.3	1119.3	1123.3	1113.3
35°	1057.6	1053.6	1059.6	1051.6
37.5°	983.9	981.9	985.9	979.9
40°	906.2	906.2	912.2	902.2
42.5°	838.5	838.5	844.5	834.5
45°	764.8	770.8	776.8	768.8
47.5°	701.1	705.1	713.0	705.1
50°	637.3	641.3	647.3	639.3
52.5°	567.6	571.6	577.6	571.6
55°	488.0	491.9	497.9	493.9
57.5°	392.4	388.4	398.3	390.4
60°	284.8	276.8	278.8	278.8
62.5°	189.2	185.2	189.2	183.2
65°	125.5	123.5	123.5	123.5
67.5°	83.7	81.7	83.7	81.7
70°	53.8	53.8	53.8	53.8
72.5°	33.9	33.9	33.9	33.9
75°	21.9	21.9	21.9	21.9
77.5°	13.9	13.9	13.9	13.9
80°	10.0	10.0	10.0	10.0
82.5°	6.0	6.0	6.0	6.0
85°	4.0	4.0	4.0	4.0
87.5°	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0



Report Generated By E9808895 / USPTCWHP6082093





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





















(END OF REPORT)