

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: P252601

Luminaire Tested: **LD6B40D010 EU6B30509024 6LBDW1LI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P252601  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-8)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LD6B40D010 EU6B30509024 6LBDW1LI  
Description: PORTFOLIO 6 INCH DOUBLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 2400K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3009.0 lumens  
Efficiency: N/A  
Efficacy: 69.9 lumens/watt  
Spacing Criteria (0/90/45): 1.11 / 1.22 / 1.15  
Luminous Opening: Circular (Dia: 0.46' x H: 0')  
CIE Type: Direct

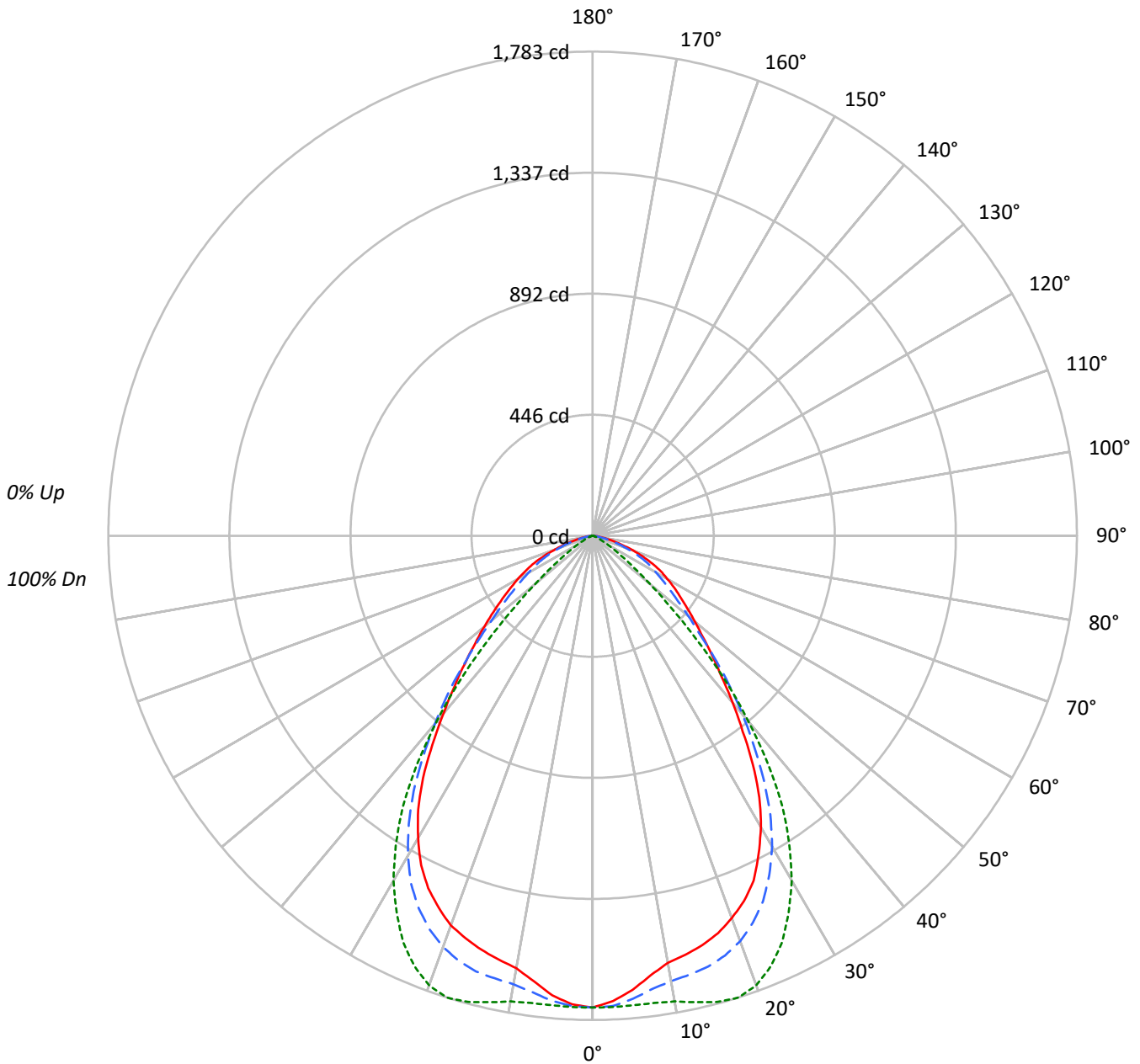
Input Watts (W): 43.02  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89			89
2	104	97	92	87	101	95	91	86	92	88	84	89	86	83	86	83	81	79			79
3	96	88	81	76	94	86	80	76	84	79	74	81	77	73	79	75	72	70			70
4	90	80	73	67	88	79	72	67	76	70	66	74	69	65	72	68	64	62			62
5	84	73	65	60	82	72	65	59	70	64	59	68	63	58	66	62	58	56			56
6	78	67	59	54	76	66	59	53	64	58	53	63	57	53	61	56	52	50			50
7	73	61	54	49	72	61	53	48	59	53	48	58	52	48	57	51	48	46			46
8	69	57	49	44	67	56	49	44	55	48	44	54	48	44	53	47	43	42			42
9	64	53	45	40	63	52	45	40	51	45	40	50	44	40	49	44	40	38			38
10	61	49	42	37	60	48	42	37	48	41	37	47	41	37	46	41	37	35			35

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

	0°	90°	180°
0°	113336	113336	113336
5°	109957	113638	111274
10°	105777	115356	107102
15°	105399	120049	106622
20°	104016	122283	105974
25°	100909	118840	103083
30°	93353	110446	96834
35°	81898	97094	86693
40°	68243	76112	72697
45°	57444	50219	61337
50°	49733	27516	52798
55°	45008	14616	46146
60°	41402	7594	41402
65°	37513	4029	36586
70°	30272	2308	27964
75°	20745	1512	19233
80°	13601	751	12060
85°	9057	1497	7486



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	162.0	5.4
10°-20°	468.4	15.6
20°-30°	692.1	23.0
30°-40°	699.1	23.2
40°-50°	481.8	16.0
50°-60°	276.7	9.2
60°-70°	161.1	5.4
70°-80°	58.8	2.0
80°-90°	9.0	0.3
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°	1322.5	44.0
0°-40°	2021.6	67.2
0°-60°	2780.2	92.4
0°-90°	3009.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3009.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1737	1737	1737	1737	1737	
5°	1679	1711	1735	1719	1699	158
15°	1560	1643	1777	1661	1579	440
25°	1402	1484	1651	1514	1432	639
35°	1028	1099	1219	1149	1088	638
45°	623	631	544	671	665	484
55°	396	347	128	362	406	356
65°	243	205	26	203	237	238
75°	82	66	6	64	76	93
85°	12	6	2	8	10	15
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°	1737.2	1737.2	1737.2	1737.2	1737.2	1737.2	1737.2	1737.2	1737.2	1737.2	1737.2
2.5°	1715.2	1717.2	1719.2	1717.2	1719.2	1727.2	1721.2	1725.2	1725.2	1727.2	1733.2
5°	1679.0	1679.0	1683.0	1681.0	1687.0	1695.1	1689.0	1695.1	1697.1	1701.1	1711.1
7.5°	1632.8	1632.8	1634.8	1634.8	1642.9	1650.9	1646.9	1654.9	1662.9	1671.0	1683.0
10°	1596.7	1600.7	1600.7	1602.7	1610.7	1620.8	1618.8	1628.8	1636.8	1648.9	1664.9
12.5°	1580.6	1582.6	1582.6	1586.6	1594.7	1604.7	1602.7	1612.7	1624.8	1638.8	1654.9
15°	1560.5	1564.5	1562.5	1566.5	1574.6	1584.6	1582.6	1592.6	1606.7	1620.8	1642.9
17.5°	1534.4	1536.4	1538.4	1538.4	1546.4	1554.5	1554.5	1564.5	1580.6	1596.7	1620.8
20°	1498.2	1502.3	1502.3	1504.3	1510.3	1522.3	1520.3	1530.4	1546.4	1562.5	1588.6
22.5°	1456.1	1458.1	1458.1	1460.1	1470.1	1476.2	1478.2	1486.2	1500.3	1518.3	1542.4
25°	1401.8	1403.9	1401.8	1407.9	1411.9	1423.9	1419.9	1430.0	1446.0	1460.1	1484.2
27.5°	1323.5	1327.5	1327.5	1329.5	1339.6	1349.6	1349.6	1359.7	1373.7	1383.8	1407.9
30°	1239.2	1245.2	1239.2	1249.2	1253.2	1261.3	1267.3	1273.3	1285.4	1299.4	1321.5
32.5°	1142.8	1140.8	1142.8	1146.8	1158.8	1164.9	1168.9	1174.9	1187.0	1199.0	1217.1
35°	1028.3	1032.3	1034.3	1042.3	1042.3	1052.4	1054.4	1058.4	1076.5	1084.5	1098.6
37.5°	907.8	911.8	913.8	917.8	925.9	929.9	935.9	941.9	954.0	968.0	976.1
40°	801.3	801.3	803.4	807.4	813.4	815.4	821.4	829.5	837.5	849.5	857.6
42.5°	700.9	702.9	700.9	704.9	711.0	719.0	717.0	727.0	729.0	737.1	743.1
45°	622.6	622.6	618.6	622.6	622.6	630.6	628.6	632.6	630.6	634.6	630.6
47.5°	548.3	550.3	548.3	550.3	550.3	550.3	552.3	548.3	550.3	544.3	532.2
50°	490.0	492.1	488.0	490.0	488.0	486.0	488.0	482.0	480.0	472.0	459.9
52.5°	439.8	437.8	435.8	435.8	435.8	433.8	431.8	425.8	419.8	411.7	397.7
55°	395.7	393.6	391.6	391.6	387.6	385.6	385.6	379.6	373.6	363.5	347.4
57.5°	355.5	353.5	351.5	351.5	349.5	345.4	345.4	339.4	331.4	319.3	305.3
60°	317.3	317.3	317.3	315.3	315.3	311.3	311.3	305.3	297.2	285.2	269.1
62.5°	283.2	281.2	281.2	281.2	281.2	279.2	277.2	273.1	265.1	253.1	239.0
65°	243.0	243.0	243.0	243.0	241.0	241.0	241.0	235.0	231.0	218.9	204.9
67.5°	198.8	198.8	198.8	198.8	196.8	198.8	198.8	194.8	190.8	178.7	166.7
70°	158.7	156.7	154.6	156.7	154.6	154.6	156.7	152.6	150.6	140.6	128.5
72.5°	116.5	118.5	116.5	116.5	116.5	114.5	116.5	114.5	110.5	102.4	94.4
75°	82.3	84.4	84.4	82.3	82.3	82.3	80.3	80.3	76.3	70.3	66.3
77.5°	56.2	56.2	56.2	56.2	54.2	54.2	54.2	52.2	50.2	46.2	42.2
80°	36.2	36.2	36.2	36.2	34.1	34.1	34.1	32.1	32.1	28.1	24.1
82.5°	22.1	22.1	22.1	22.1	22.1	22.1	20.1	20.1	18.1	16.1	14.1
85°	12.1	12.1	12.1	12.1	12.1	12.1	12.1	10.0	10.0	8.0	6.0
87.5°	4.0	4.0	6.0	6.0	6.0	6.0	6.0	6.0	4.0	4.0	4.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1737.2	1737.2	1737.2	1737.2	1737.2	1737.2	1737.2	1737.2	1737.2	1737.2	1737.2
2.5°	1729.2	1731.2	1731.2	1731.2	1737.2	1739.3	1733.2	1727.2	1739.3	1737.2	1741.3
5°	1709.1	1715.2	1719.2	1721.2	1727.2	1731.2	1725.2	1723.2	1733.2	1735.2	1737.2
7.5°	1685.0	1695.1	1705.1	1709.1	1717.2	1721.2	1719.2	1719.2	1731.2	1735.2	1735.2
10°	1669.0	1683.0	1695.1	1705.1	1715.2	1721.2	1721.2	1723.2	1737.2	1741.3	1745.3
12.5°	1664.9	1683.0	1699.1	1713.1	1721.2	1731.2	1733.2	1739.3	1753.3	1759.3	1759.3
15°	1654.9	1679.0	1699.1	1717.2	1729.2	1741.3	1745.3	1757.3	1773.4	1777.4	1781.4
17.5°	1636.8	1660.9	1685.0	1707.1	1723.2	1733.2	1745.3	1757.3	1777.4	1783.4	1785.4
20°	1604.7	1632.8	1656.9	1679.0	1695.1	1709.1	1721.2	1735.2	1753.3	1761.3	1763.4
22.5°	1556.5	1584.6	1608.7	1632.8	1648.9	1660.9	1673.0	1689.0	1707.1	1715.2	1715.2
25°	1498.2	1524.4	1550.5	1568.5	1584.6	1598.7	1604.7	1622.8	1640.8	1650.9	1650.9
27.5°	1423.9	1448.0	1472.1	1492.2	1502.3	1514.3	1524.4	1540.4	1554.5	1562.5	1570.6
30°	1329.5	1353.6	1375.7	1395.8	1407.9	1419.9	1430.0	1442.0	1456.1	1466.1	1468.1
32.5°	1227.1	1247.2	1269.3	1289.4	1301.4	1305.4	1315.5	1327.5	1339.6	1347.6	1349.6
35°	1114.6	1128.7	1142.8	1160.8	1172.9	1172.9	1182.9	1191.0	1201.0	1219.1	1215.1
37.5°	982.1	1002.2	1012.2	1018.2	1026.3	1034.3	1036.3	1046.4	1058.4	1062.4	1068.5
40°	857.6	863.6	869.6	869.6	877.7	877.7	877.7	879.7	891.7	893.7	901.8
42.5°	733.1	733.1	727.0	721.0	723.0	721.0	711.0	711.0	717.0	725.0	725.0
45°	616.6	602.5	584.4	570.4	560.3	556.3	544.3	544.3	542.3	544.3	552.3
47.5°	518.2	494.1	463.9	435.8	425.8	417.7	399.7	391.6	387.6	389.6	393.6
50°	435.8	409.7	375.6	341.4	323.3	313.3	291.2	277.2	275.1	271.1	279.2
52.5°	375.6	343.4	307.3	267.1	249.0	233.0	208.9	196.8	188.8	188.8	190.8
55°	323.3	289.2	249.0	208.9	190.8	178.7	154.6	138.6	130.5	128.5	134.6
57.5°	279.2	247.0	206.9	166.7	148.6	134.6	110.5	96.4	90.4	86.4	88.4
60°	245.0	212.9	172.7	134.6	118.5	102.4	82.3	66.3	58.2	58.2	60.3
62.5°	212.9	182.8	146.6	110.5	96.4	82.3	60.3	46.2	40.2	38.2	40.2
65°	180.8	152.6	122.5	92.4	78.3	66.3	48.2	36.2	28.1	26.1	28.1
67.5°	146.6	124.5	98.4	74.3	62.3	52.2	36.2	26.1	20.1	18.1	20.1
70°	114.5	94.4	74.3	54.2	46.2	38.2	26.1	20.1	14.1	12.1	14.1
72.5°	82.3	68.3	52.2	38.2	32.1	26.1	18.1	14.1	10.0	8.0	10.0
75°	56.2	46.2	34.1	24.1	20.1	18.1	12.1	8.0	6.0	6.0	6.0
77.5°	36.2	28.1	22.1	16.1	12.1	10.0	6.0	4.0	4.0	4.0	4.0
80°	20.1	16.1	12.1	8.0	6.0	6.0	4.0	4.0	2.0	2.0	2.0
82.5°	12.1	8.0	6.0	4.0	4.0	2.0	2.0	2.0	2.0	2.0	2.0
85°	6.0	4.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
87.5°	2.0	2.0	2.0	2.0	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°	1737.2	1737.2	1737.2	1737.2	1737.2	1737.2	1737.2	1737.2	1737.2	1737.2	1737.2
2.5°	1733.2	1735.2	1729.2	1737.2	1731.2	1739.3	1739.3	1731.2	1733.2	1729.2	1737.2
5°	1729.2	1729.2	1725.2	1731.2	1723.2	1731.2	1729.2	1715.2	1719.2	1711.1	1719.2
7.5°	1729.2	1725.2	1719.2	1725.2	1715.2	1721.2	1713.1	1699.1	1695.1	1685.0	1685.0
10°	1735.2	1729.2	1721.2	1723.2	1713.1	1715.2	1703.1	1683.0	1677.0	1664.9	1660.9
12.5°	1749.3	1743.3	1731.2	1735.2	1721.2	1721.2	1705.1	1681.0	1669.0	1652.9	1648.9
15°	1769.4	1759.3	1745.3	1747.3	1733.2	1725.2	1705.1	1677.0	1660.9	1638.8	1632.8
17.5°	1773.4	1763.4	1745.3	1745.3	1727.2	1717.2	1693.1	1660.9	1640.8	1618.8	1606.7
20°	1751.3	1741.3	1721.2	1719.2	1703.1	1689.0	1662.9	1630.8	1610.7	1586.6	1576.6
22.5°	1705.1	1693.1	1675.0	1673.0	1656.9	1648.9	1620.8	1588.6	1568.5	1544.4	1536.4
25°	1636.8	1630.8	1612.7	1610.7	1596.7	1586.6	1562.5	1532.4	1514.3	1490.2	1482.2
27.5°	1556.5	1550.5	1532.4	1532.4	1516.3	1510.3	1488.2	1460.1	1446.0	1423.9	1413.9
30°	1460.1	1452.1	1442.0	1440.0	1425.9	1419.9	1399.8	1373.7	1359.7	1341.6	1337.6
32.5°	1345.6	1339.6	1333.6	1331.6	1317.5	1311.5	1297.4	1271.3	1259.3	1243.2	1237.2
35°	1213.1	1209.0	1203.0	1201.0	1195.0	1189.0	1174.9	1154.8	1148.8	1136.7	1130.7
37.5°	1060.4	1064.4	1060.4	1060.4	1054.4	1056.4	1044.4	1032.3	1026.3	1018.2	1014.2
40°	895.7	903.8	909.8	909.8	907.8	915.8	913.8	903.8	901.8	897.7	895.7
42.5°	729.0	733.1	745.1	753.1	751.1	771.2	773.2	781.3	787.3	783.3	785.3
45°	554.3	566.4	582.4	590.5	600.5	626.6	640.7	656.7	670.8	678.8	676.8
47.5°	399.7	413.7	431.8	443.9	461.9	494.1	530.2	550.3	570.4	580.4	590.5
50°	289.2	303.3	325.4	343.4	355.5	399.7	437.8	463.9	486.0	500.1	510.1
52.5°	202.8	218.9	243.0	259.1	277.2	319.3	363.5	393.6	417.7	435.8	445.9
55°	140.6	158.7	180.8	196.8	216.9	261.1	303.3	335.4	361.5	377.6	389.6
57.5°	98.4	114.5	136.6	150.6	170.7	212.9	255.1	287.2	313.3	329.4	343.4
60°	66.3	82.3	104.4	118.5	134.6	176.7	214.9	249.0	273.1	289.2	303.3
62.5°	46.2	60.3	82.3	96.4	110.5	146.6	182.8	212.9	237.0	255.1	267.1
65°	36.2	48.2	66.3	78.3	92.4	122.5	152.6	178.7	202.8	220.9	229.0
67.5°	26.1	38.2	52.2	62.3	72.3	98.4	124.5	144.6	166.7	180.8	190.8
70°	18.1	26.1	38.2	46.2	54.2	74.3	94.4	112.5	128.5	138.6	146.6
72.5°	14.1	18.1	26.1	32.1	38.2	52.2	68.3	82.3	94.4	102.4	110.5
75°	8.0	12.1	18.1	22.1	26.1	36.2	46.2	56.2	64.3	70.3	74.3
77.5°	4.0	6.0	10.0	12.1	16.1	22.1	30.1	36.2	42.2	46.2	50.2
80°	4.0	4.0	6.0	6.0	8.0	12.1	16.1	20.1	24.1	28.1	30.1
82.5°	2.0	2.0	4.0	4.0	4.0	6.0	8.0	12.1	14.1	16.1	18.1
85°	2.0	2.0	2.0	2.0	2.0	4.0	4.0	6.0	8.0	10.0	10.0
87.5°	0.0	0.0	2.0	2.0	2.0	2.0	2.0	4.0	4.0	4.0	6.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0





TEST NUMBER: P252601

CATALOG NUMBER: LD6B40D010 EU6B30509024 6LBDW1LI

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1737.2	1737.2	1737.2	1737.2	1737.2	1737.2	1737.2	1737.2
2.5°	1731.2	1735.2	1733.2	1737.2	1731.2	1729.2	1733.2	1727.2
5°	1709.1	1711.1	1709.1	1709.1	1705.1	1701.1	1705.1	1699.1
7.5°	1675.0	1675.0	1669.0	1669.0	1660.9	1656.9	1656.9	1654.9
10°	1646.9	1640.8	1634.8	1636.8	1624.8	1620.8	1618.8	1616.7
12.5°	1632.8	1628.8	1618.8	1618.8	1606.7	1602.7	1600.7	1598.7
15°	1616.7	1608.7	1600.7	1598.7	1588.6	1584.6	1582.6	1578.6
17.5°	1588.6	1582.6	1572.6	1572.6	1562.5	1560.5	1556.5	1554.5
20°	1558.5	1550.5	1542.4	1542.4	1530.4	1530.4	1524.4	1526.4
22.5°	1516.3	1510.3	1502.3	1502.3	1492.2	1490.2	1484.2	1482.2
25°	1466.1	1458.1	1452.1	1450.0	1442.0	1438.0	1436.0	1432.0
27.5°	1399.8	1393.8	1387.8	1383.8	1373.7	1371.7	1365.7	1367.7
30°	1317.5	1313.5	1311.5	1307.5	1295.4	1291.4	1291.4	1285.4
32.5°	1227.1	1221.1	1217.1	1211.1	1201.0	1199.0	1193.0	1195.0
35°	1116.7	1108.6	1102.6	1104.6	1092.6	1090.5	1086.5	1088.5
37.5°	1002.2	994.1	986.1	984.1	974.1	974.1	968.0	968.0
40°	883.7	875.7	871.6	871.6	859.6	861.6	855.6	853.6
42.5°	777.2	769.2	767.2	765.2	759.2	757.2	751.1	753.1
45°	676.8	674.8	674.8	670.8	664.8	662.8	664.8	664.8
47.5°	588.5	590.5	588.5	588.5	584.4	588.5	584.4	586.4
50°	514.1	518.2	518.2	518.2	516.2	518.2	518.2	520.2
52.5°	451.9	457.9	455.9	457.9	455.9	459.9	457.9	459.9
55°	397.7	401.7	403.7	405.7	405.7	405.7	405.7	405.7
57.5°	347.4	353.5	355.5	357.5	357.5	361.5	357.5	357.5
60°	307.3	313.3	315.3	317.3	317.3	319.3	315.3	317.3
62.5°	271.1	277.2	277.2	279.2	279.2	279.2	275.1	277.2
65°	235.0	237.0	239.0	239.0	237.0	237.0	235.0	237.0
67.5°	194.8	196.8	194.8	194.8	192.8	192.8	188.8	190.8
70°	150.6	150.6	152.6	150.6	148.6	150.6	148.6	146.6
72.5°	112.5	112.5	112.5	110.5	110.5	108.5	110.5	110.5
75°	76.3	76.3	78.3	78.3	78.3	78.3	76.3	76.3
77.5°	50.2	50.2	50.2	50.2	52.2	50.2	50.2	50.2
80°	32.1	32.1	34.1	34.1	32.1	32.1	32.1	32.1
82.5°	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1
85°	12.1	12.1	12.1	12.1	10.0	10.0	10.0	10.0
87.5°	6.0	6.0	6.0	6.0	6.0	6.0	4.0	4.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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— 0°-180°    - - 45°-225°    - - - - 90°-270°















(END OF REPORT)