

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: P252294

Luminaire Tested: **LD6B40D010 EU6B30509050 6LBSW1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252294
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-7)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LD6B40D010 EU6B30509050 6LBSW1H
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3365.0 lumens
Efficiency: N/A
Efficacy: 78.2 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.18 / 1.16
Luminous Opening: Circular (Dia: 0.46' x H: 0')
CIE Type: Direct

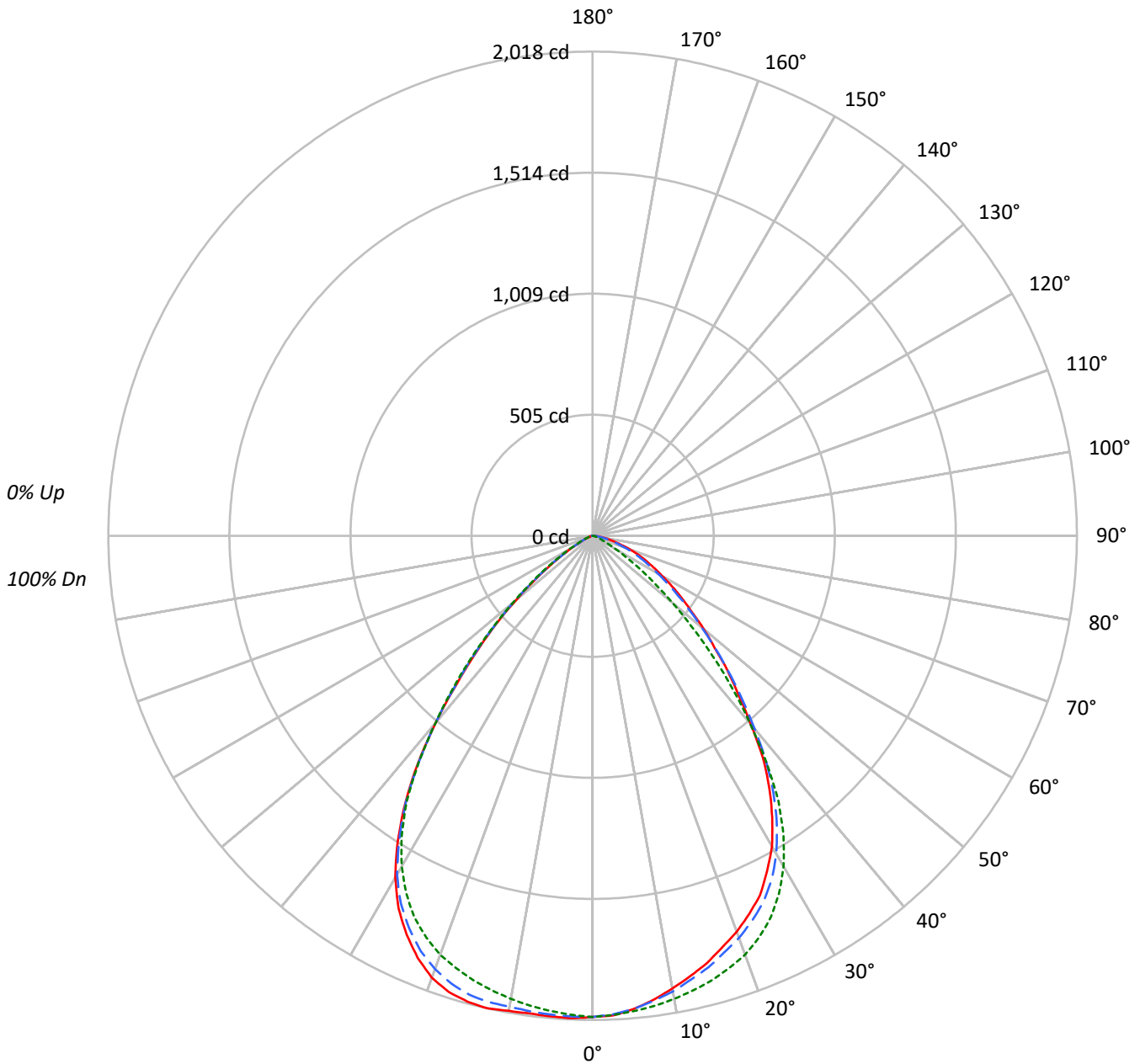
Input Watts (W): 43.02
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				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	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90				90
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	85	82	80				80
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	77	74	72				72
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	69	66	64				64
5	85	74	67	62	83	73	66	61	71	65	61	70	64	60	68	63	60	58				58
6	79	68	61	55	78	67	60	55	66	59	55	64	59	54	63	58	54	52				52
7	74	63	55	50	73	62	55	50	61	54	50	59	54	49	58	53	49	47				47
8	70	58	51	46	68	57	50	46	56	50	45	55	49	45	54	49	45	43				43
9	65	54	47	42	64	53	46	42	52	46	42	51	46	41	50	45	41	40				40
10	62	50	43	39	61	50	43	38	49	43	38	48	42	38	47	42	38	37				37

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	130853	130853	130853
5°	129611	130246	131674
10°	126936	129824	133196
15°	124507	129579	135800
20°	121929	128997	136057
25°	118927	126420	132006
30°	112593	119893	123908
35°	102255	107464	108427
40°	87269	86852	86443
45°	73304	65037	63026
50°	61223	44009	41796
55°	51526	27003	24523
60°	43620	14222	12330
65°	37775	7472	5990
70°	31417	4616	3243
75°	23216	3050	1840
80°	18184	1803	902
85°	14522	1797	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	189.0	5.6
10°-20°	541.2	16.1
20°-30°	799.2	23.8
30°-40°	823.7	24.5
40°-50°	568.9	16.9
50°-60°	280.4	8.3
60°-70°	113.6	3.4
70°-80°	40.5	1.2
80°-90°	8.4	0.2
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°	1529.5	45.5
0°-40°	2353.2	69.9
0°-60°	3202.5	95.2
0°-90°	3365.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3365.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2006	2006	2006	2006	2006	
5°	1979	1979	1989	2003	2011	187
15°	1843	1863	1918	1982	2011	519
25°	1652	1684	1756	1807	1834	755
35°	1284	1315	1349	1356	1361	796
45°	794	799	705	695	683	614
55°	453	436	237	223	216	409
65°	245	220	48	39	39	243
75°	92	78	12	7	7	103
85°	19	14	2	0	0	24
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°	2005.7	2005.7	2005.7	2005.7	2005.7	2005.7	2005.7	2005.7	2005.7	2005.7	2005.7
2.5°	2000.9	1993.6	1998.5	1988.8	2000.9	1988.8	1991.2	1993.6	1991.2	1993.6	1996.1
5°	1979.1	1971.8	1979.1	1967.0	1979.1	1971.8	1971.8	1974.3	1974.3	1976.7	1979.1
7.5°	1950.0	1942.8	1950.0	1937.9	1952.5	1945.2	1945.2	1950.0	1947.6	1950.0	1954.9
10°	1916.1	1906.4	1913.7	1906.4	1921.0	1911.3	1916.1	1916.1	1916.1	1923.4	1928.2
12.5°	1879.8	1870.1	1879.8	1867.7	1882.2	1874.9	1877.4	1884.6	1887.0	1891.9	1894.3
15°	1843.4	1831.3	1836.2	1828.9	1843.4	1836.2	1838.6	1848.3	1848.3	1855.6	1862.8
17.5°	1797.4	1787.7	1797.4	1787.7	1799.8	1795.0	1799.8	1807.1	1807.1	1814.4	1821.6
20°	1756.2	1746.6	1753.8	1746.6	1761.1	1753.8	1756.2	1765.9	1768.4	1775.6	1782.9
22.5°	1705.4	1698.1	1702.9	1695.7	1710.2	1705.4	1707.8	1717.5	1719.9	1724.7	1736.9
25°	1652.1	1637.5	1644.8	1640.0	1654.5	1647.2	1652.1	1661.8	1666.6	1673.9	1683.6
27.5°	1574.6	1567.3	1572.1	1572.1	1584.2	1577.0	1579.4	1589.1	1596.4	1603.6	1615.7
30°	1494.6	1482.5	1487.4	1489.8	1499.5	1494.6	1499.5	1509.2	1511.6	1521.3	1531.0
32.5°	1392.9	1388.0	1397.7	1392.9	1397.7	1397.7	1400.1	1407.4	1412.3	1417.1	1429.2
35°	1283.9	1274.2	1283.9	1279.0	1291.1	1283.9	1291.1	1298.4	1298.4	1308.1	1315.4
37.5°	1165.2	1153.1	1157.9	1157.9	1162.8	1160.3	1160.3	1172.4	1174.9	1182.1	1189.4
40°	1024.7	1019.8	1029.5	1027.1	1029.5	1029.5	1031.9	1039.2	1044.1	1046.5	1048.9
42.5°	898.7	901.1	903.6	903.6	903.6	903.6	903.6	913.2	910.8	918.1	920.5
45°	794.5	784.9	789.7	787.3	794.5	787.3	794.5	801.8	797.0	804.2	799.4
47.5°	688.0	688.0	688.0	685.5	690.4	688.0	692.8	695.2	695.2	695.2	692.8
50°	603.2	595.9	598.3	598.3	600.8	598.3	603.2	605.6	605.6	600.8	591.1
52.5°	520.8	518.4	518.4	523.2	523.2	520.8	520.8	520.8	520.8	513.5	508.7
55°	453.0	448.1	450.6	450.6	450.6	450.6	453.0	450.6	450.6	443.3	436.0
57.5°	392.4	387.6	387.6	387.6	390.0	387.6	387.6	387.6	385.2	377.9	368.2
60°	334.3	331.9	334.3	334.3	336.7	334.3	334.3	334.3	329.4	322.2	312.5
62.5°	285.8	285.8	285.8	288.3	288.3	285.8	285.8	283.4	281.0	271.3	261.6
65°	244.7	242.2	244.7	244.7	247.1	247.1	244.7	242.2	239.8	230.1	220.4
67.5°	203.5	201.1	203.5	203.5	205.9	203.5	203.5	203.5	196.2	191.4	181.7
70°	164.7	162.3	162.3	162.3	164.7	159.9	162.3	162.3	157.5	150.2	140.5
72.5°	126.0	126.0	126.0	126.0	126.0	126.0	123.5	123.5	118.7	111.4	106.6
75°	92.1	92.1	94.5	94.5	92.1	92.1	92.1	89.6	87.2	82.4	77.5
77.5°	67.8	67.8	67.8	67.8	65.4	65.4	65.4	63.0	60.6	58.1	53.3
80°	48.4	48.4	48.4	46.0	48.4	46.0	46.0	46.0	41.2	38.8	36.3
82.5°	33.9	31.5	31.5	31.5	31.5	31.5	31.5	29.1	29.1	26.6	24.2
85°	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	17.0	14.5	14.5
87.5°	9.7	12.1	12.1	12.1	12.1	12.1	12.1	9.7	9.7	9.7	7.3
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°	2005.7	2005.7	2005.7	2005.7	2005.7	2005.7	2005.7	2005.7	2005.7	2005.7	2005.7
2.5°	1996.1	1996.1	2000.9	1993.6	2005.7	1998.5	1996.1	2008.2	2000.9	1998.5	2003.3
5°	1979.1	1981.5	1983.9	1979.1	1991.2	1983.9	1983.9	1996.1	1991.2	1988.8	1996.1
7.5°	1957.3	1959.7	1964.6	1962.1	1971.8	1967.0	1969.4	1981.5	1976.7	1976.7	1983.9
10°	1930.7	1935.5	1940.3	1940.3	1952.5	1947.6	1947.6	1962.1	1957.3	1959.7	1969.4
12.5°	1899.2	1906.4	1913.7	1916.1	1928.2	1921.0	1923.4	1940.3	1937.9	1940.3	1950.0
15°	1865.2	1874.9	1882.2	1882.2	1896.7	1889.5	1896.7	1913.7	1908.9	1918.5	1930.7
17.5°	1826.5	1836.2	1845.9	1848.3	1862.8	1858.0	1867.7	1884.6	1884.6	1889.5	1904.0
20°	1790.2	1802.3	1807.1	1814.4	1828.9	1826.5	1831.3	1850.7	1850.7	1858.0	1872.5
22.5°	1741.7	1753.8	1763.5	1770.8	1782.9	1782.9	1790.2	1807.1	1807.1	1812.0	1826.5
25°	1688.4	1702.9	1710.2	1717.5	1729.6	1727.2	1734.4	1749.0	1751.4	1756.2	1770.8
27.5°	1620.6	1632.7	1642.4	1647.2	1664.2	1654.5	1661.8	1678.7	1676.3	1681.1	1693.3
30°	1535.8	1547.9	1557.6	1557.6	1572.1	1572.1	1579.4	1586.7	1586.7	1591.5	1601.2
32.5°	1436.5	1451.0	1451.0	1458.3	1468.0	1458.3	1468.0	1477.7	1472.8	1480.1	1487.4
35°	1322.6	1329.9	1332.3	1332.3	1339.6	1337.2	1334.7	1342.0	1337.2	1349.3	1356.5
37.5°	1184.6	1194.2	1189.4	1194.2	1191.8	1184.6	1184.6	1196.7	1187.0	1189.4	1196.7
40°	1051.3	1051.3	1048.9	1036.8	1039.2	1031.9	1029.5	1031.9	1022.3	1019.8	1029.5
42.5°	913.2	910.8	903.6	886.6	889.0	876.9	867.2	867.2	862.4	860.0	862.4
45°	789.7	782.4	770.3	750.9	746.1	736.4	717.0	712.2	704.9	704.9	707.3
47.5°	675.8	666.2	646.8	625.0	612.9	600.8	581.4	574.1	562.0	557.2	562.0
50°	581.4	564.4	540.2	508.7	496.6	482.1	462.7	450.6	438.5	433.6	431.2
52.5°	494.2	469.9	445.7	407.0	397.3	382.7	356.1	344.0	331.9	322.2	322.2
55°	419.1	397.3	363.4	327.0	312.5	298.0	271.3	254.4	242.2	237.4	232.6
57.5°	351.2	327.0	295.5	256.8	242.2	227.7	201.1	184.1	172.0	164.7	159.9
60°	295.5	268.9	237.4	203.5	186.5	172.0	145.3	128.4	116.3	109.0	104.2
62.5°	242.2	220.4	188.9	157.5	142.9	128.4	106.6	89.6	77.5	72.7	65.4
65°	203.5	181.7	152.6	126.0	113.9	99.3	79.9	65.4	55.7	48.4	43.6
67.5°	164.7	147.8	123.5	99.3	87.2	77.5	60.6	48.4	38.8	33.9	31.5
70°	130.8	113.9	94.5	75.1	67.8	58.1	46.0	33.9	29.1	24.2	21.8
72.5°	96.9	84.8	70.2	55.7	48.4	43.6	31.5	26.6	19.4	17.0	14.5
75°	70.2	60.6	50.9	38.8	33.9	31.5	24.2	17.0	14.5	12.1	9.7
77.5°	48.4	43.6	33.9	26.6	24.2	21.8	17.0	12.1	9.7	7.3	7.3
80°	31.5	26.6	21.8	17.0	17.0	14.5	9.7	7.3	7.3	4.8	4.8
82.5°	19.4	17.0	14.5	12.1	9.7	9.7	7.3	4.8	4.8	2.4	2.4
85°	12.1	9.7	7.3	7.3	4.8	4.8	4.8	2.4	2.4	2.4	2.4
87.5°	4.8	4.8	4.8	2.4	2.4	2.4	2.4	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°	2005.7	2005.7	2005.7	2005.7	2005.7	2005.7	2005.7	2005.7	2005.7	2005.7	2005.7
2.5°	2003.3	2003.3	2008.2	2000.9	2005.7	2005.7	2010.6	2000.9	2005.7	2008.2	2013.0
5°	1993.6	1996.1	2000.9	1998.5	2000.9	2000.9	2005.7	1993.6	2003.3	2003.3	2010.6
7.5°	1983.9	1983.9	1988.8	1986.4	1991.2	1993.6	1998.5	1988.8	1998.5	1998.5	2005.7
10°	1971.8	1971.8	1979.1	1976.7	1983.9	1986.4	1993.6	1983.9	1993.6	1996.1	2003.3
12.5°	1954.9	1957.3	1964.6	1964.6	1971.8	1976.7	1983.9	1979.1	1991.2	1993.6	2003.3
15°	1935.5	1940.3	1950.0	1947.6	1954.9	1962.1	1971.8	1964.6	1981.5	1986.4	1996.1
17.5°	1911.3	1916.1	1923.4	1923.4	1930.7	1935.5	1947.6	1942.8	1957.3	1959.7	1971.8
20°	1874.9	1882.2	1891.9	1889.5	1896.7	1901.6	1911.3	1906.4	1921.0	1925.8	1937.9
22.5°	1831.3	1836.2	1843.4	1843.4	1850.7	1855.6	1865.2	1858.0	1872.5	1874.9	1884.6
25°	1773.2	1778.0	1782.9	1785.3	1792.6	1795.0	1799.8	1795.0	1807.1	1809.5	1821.6
27.5°	1698.1	1700.5	1707.8	1707.8	1712.6	1715.1	1722.3	1712.6	1729.6	1729.6	1736.9
30°	1608.5	1606.1	1615.7	1610.9	1615.7	1615.7	1623.0	1618.2	1630.3	1625.4	1632.7
32.5°	1489.8	1494.6	1494.6	1489.8	1499.5	1497.0	1497.0	1492.2	1499.5	1501.9	1506.7
35°	1351.7	1359.0	1359.0	1361.4	1363.8	1356.5	1359.0	1344.4	1356.5	1359.0	1361.4
37.5°	1201.5	1194.2	1199.1	1191.8	1203.9	1189.4	1189.4	1179.7	1189.4	1189.4	1191.8
40°	1029.5	1027.1	1031.9	1027.1	1024.7	1022.3	1017.4	1010.1	1019.8	1015.0	1022.3
42.5°	867.2	864.8	864.8	860.0	857.5	857.5	852.7	847.8	845.4	845.4	857.5
45°	700.1	704.9	700.1	697.7	702.5	697.7	700.1	690.4	695.2	690.4	695.2
47.5°	559.6	562.0	557.2	552.3	559.6	552.3	552.3	545.0	554.7	554.7	549.9
50°	433.6	431.2	426.3	431.2	428.8	428.8	428.8	421.5	426.3	419.1	423.9
52.5°	319.8	317.3	317.3	314.9	317.3	314.9	314.9	312.5	312.5	310.1	312.5
55°	232.6	230.1	225.3	225.3	225.3	227.7	225.3	222.9	222.9	220.4	222.9
57.5°	157.5	152.6	152.6	152.6	152.6	150.2	150.2	147.8	150.2	147.8	150.2
60°	101.7	101.7	96.9	96.9	96.9	96.9	96.9	94.5	96.9	96.9	96.9
62.5°	63.0	63.0	60.6	58.1	60.6	58.1	58.1	58.1	60.6	58.1	60.6
65°	41.2	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8
67.5°	29.1	26.6	26.6	26.6	26.6	26.6	26.6	24.2	26.6	26.6	26.6
70°	19.4	19.4	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
72.5°	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1
75°	9.7	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3
77.5°	7.3	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
80°	4.8	4.8	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
82.5°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
85°	2.4	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	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
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: P252294

CATALOG NUMBER: LD6B40D010 EU6B30509050 6LBSW1H

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2005.7	2005.7	2005.7	2005.7	2005.7	2005.7	2005.7	2005.7
2.5°	2005.7	2008.2	2003.3	2005.7	2000.9	2005.7	2008.2	2013.0
5°	2000.9	2003.3	1998.5	2003.3	1998.5	2003.3	2005.7	2010.6
7.5°	1996.1	2000.9	1996.1	2000.9	1996.1	2000.9	2003.3	2008.2
10°	1996.1	2003.3	1998.5	2005.7	1998.5	2003.3	2008.2	2010.6
12.5°	1996.1	2003.3	2000.9	2005.7	2003.3	2008.2	2013.0	2017.9
15°	1991.2	1998.5	1993.6	2000.9	1998.5	2000.9	2010.6	2010.6
17.5°	1964.6	1971.8	1971.8	1976.7	1976.7	1983.9	1988.8	1993.6
20°	1930.7	1937.9	1935.5	1942.8	1942.8	1950.0	1954.9	1959.7
22.5°	1879.8	1889.5	1887.0	1894.3	1891.9	1896.7	1906.4	1904.0
25°	1814.4	1826.5	1824.1	1828.9	1826.5	1826.5	1831.3	1833.8
27.5°	1734.4	1741.7	1739.3	1744.1	1739.3	1744.1	1749.0	1751.4
30°	1630.3	1635.1	1632.7	1635.1	1632.7	1637.5	1640.0	1644.8
32.5°	1504.3	1511.6	1504.3	1509.2	1506.7	1506.7	1516.4	1511.6
35°	1354.1	1356.5	1359.0	1359.0	1354.1	1356.5	1361.4	1361.4
37.5°	1187.0	1199.1	1184.6	1191.8	1189.4	1189.4	1189.4	1196.7
40°	1012.6	1015.0	1010.1	1010.1	1010.1	1007.7	1017.4	1015.0
42.5°	847.8	850.3	847.8	840.6	843.0	843.0	850.3	840.6
45°	688.0	692.8	690.4	690.4	685.5	685.5	688.0	683.1
47.5°	545.0	549.9	542.6	545.0	540.2	545.0	542.6	547.5
50°	414.2	419.1	416.7	419.1	419.1	414.2	421.5	411.8
52.5°	310.1	312.5	310.1	307.6	305.2	305.2	310.1	307.6
55°	220.4	218.0	218.0	218.0	220.4	220.4	218.0	215.6
57.5°	147.8	147.8	145.3	145.3	147.8	142.9	145.3	142.9
60°	94.5	94.5	94.5	94.5	92.1	94.5	94.5	94.5
62.5°	58.1	58.1	58.1	58.1	58.1	58.1	58.1	58.1
65°	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8
67.5°	24.2	26.6	26.6	26.6	24.2	24.2	24.2	24.2
70°	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
72.5°	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1
75°	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3
77.5°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
80°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
82.5°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.4	2.4	2.4	2.4	2.4	0.0	0.0	0.0
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)