

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: P252176

Luminaire Tested: **LD6B30D010 EU6B30509040 6LBSW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252176
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-1)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LD6B30D010 EU6B30509040 6LBSW1LI
Description: PORTFOLIO 6 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: 3264.0 lumens
Efficiency: N/A
Efficacy: 116.6 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.29 / 1.21
Luminous Opening: Circular (Dia: 0.46' x H: 0')
CIE Type: Direct

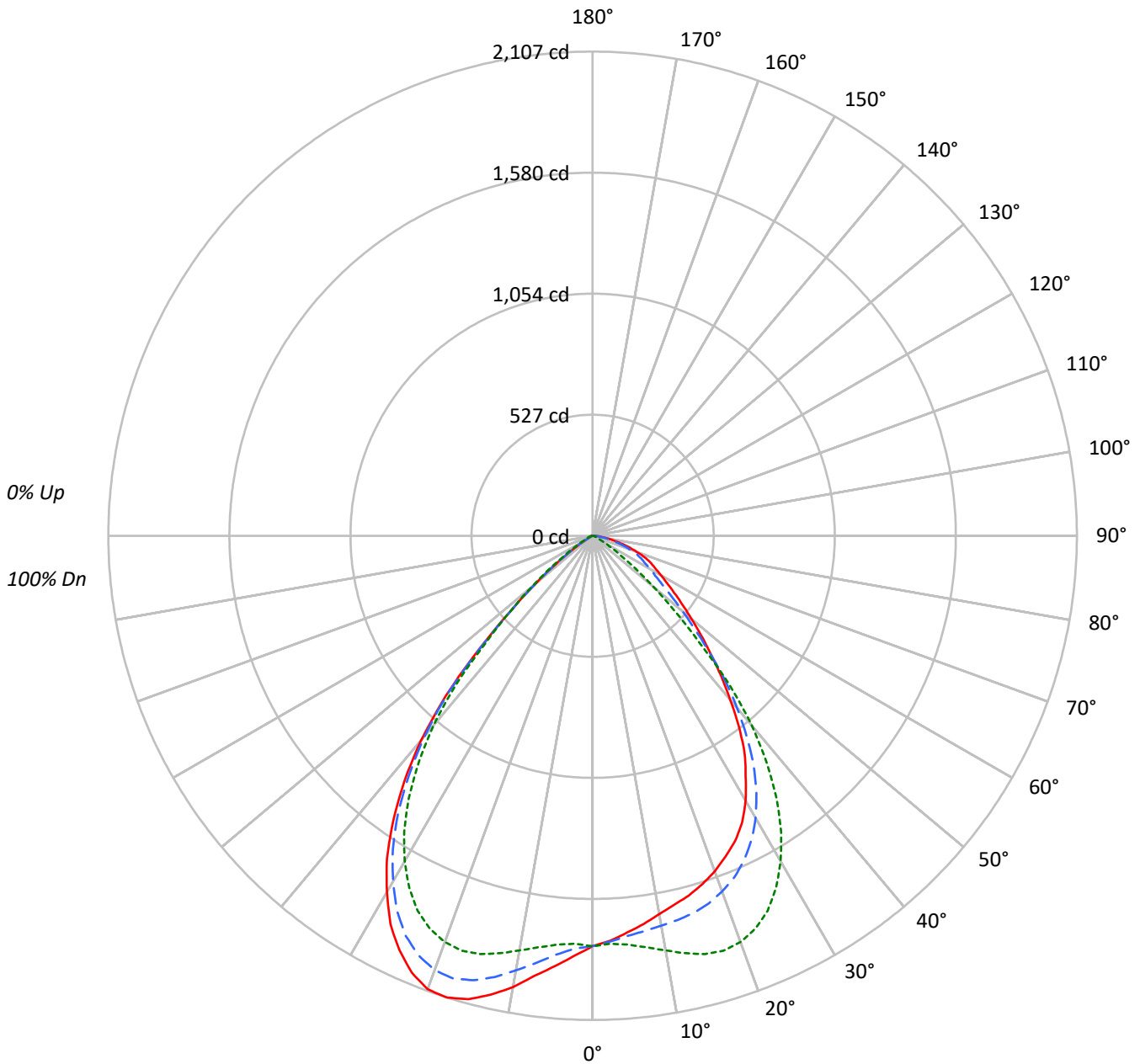
Input Watts (W): 28
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					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	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	103	109	106	103	101	102	100	98	98	96	95	95	93	92	90					90			
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	80					80			
3	98	89	83	78	95	88	82	78	85	80	76	83	78	75	80	77	74	72					72			
4	91	82	75	69	89	80	74	69	78	72	68	76	71	67	74	70	66	65					65			
5	85	75	67	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58					58			
6	80	69	61	56	78	68	61	56	66	60	55	64	59	55	63	58	54	53					53			
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	50	48					48			
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44					44			
9	66	54	47	42	64	54	47	42	53	46	42	52	46	42	51	45	42	40					40			
10	62	50	43	39	61	50	43	39	49	43	39	48	43	39	47	42	38	37					37			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	116500	116500	116500
5°	113474	116945	123095
10°	110719	121351	132090
15°	109425	127297	141014
20°	107856	130614	145784
25°	105559	129645	143164
30°	100314	123200	134779
35°	91774	111080	120326
40°	79383	91740	98715
45°	66938	60165	64576
50°	56828	34823	32743
55°	49319	16698	12626
60°	44546	7790	3119
65°	43224	4477	1050
70°	38741	3586	973
75°	31836	2571	429
80°	23745	1277	0
85°	20435	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	172.5	5.3
10°-20°	525.7	16.1
20°-30°	803.1	24.6
30°-40°	840.0	25.7
40°-50°	544.9	16.7
50°-60°	216.4	6.6
60°-70°	102.6	3.1
70°-80°	48.8	1.5
80°-90°	10.0	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°	1501.3	46.0
0°-40°	2341.3	71.7
0°-60°	3102.6	95.1
0°-90°	3264.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3264.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1786	1786	1786	1786	1786	
5°	1733	1748	1786	1830	1880	164
15°	1620	1699	1885	2002	2088	457
25°	1466	1559	1801	1922	1989	672
35°	1152	1222	1395	1477	1511	713
45°	726	719	652	691	700	565
55°	434	369	147	114	111	393
65°	280	232	29	7	7	273
75°	126	102	10	3	2	136
85°	27	17	0	0	0	32
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°	1785.7	1785.7	1785.7	1785.7	1785.7	1785.7	1785.7	1785.7	1785.7	1785.7	1785.7
2.5°	1763.5	1766.9	1748.1	1743.0	1756.6	1761.8	1763.5	1758.4	1760.1	1766.9	1766.9
5°	1732.7	1736.2	1719.1	1714.0	1727.6	1731.0	1736.2	1734.5	1739.6	1749.8	1748.1
7.5°	1703.7	1708.8	1690.1	1683.2	1700.3	1708.8	1712.3	1712.3	1719.1	1732.7	1734.5
10°	1671.3	1678.1	1661.0	1657.6	1676.4	1684.9	1686.7	1690.1	1700.3	1719.1	1722.5
12.5°	1644.0	1650.8	1638.9	1633.7	1654.2	1662.8	1666.2	1673.0	1684.9	1708.8	1712.3
15°	1620.1	1625.2	1611.5	1608.1	1628.6	1638.9	1640.6	1650.8	1666.2	1693.5	1698.6
17.5°	1589.3	1592.8	1582.5	1579.1	1599.6	1609.8	1611.5	1623.5	1642.3	1669.6	1678.1
20°	1553.5	1556.9	1546.7	1543.3	1563.7	1575.7	1577.4	1587.6	1609.8	1638.9	1647.4
22.5°	1510.8	1517.6	1505.7	1502.3	1522.8	1533.0	1538.1	1546.7	1568.9	1597.9	1609.8
25°	1466.4	1466.4	1457.9	1456.2	1475.0	1486.9	1485.2	1497.2	1519.4	1548.4	1558.6
27.5°	1408.4	1406.7	1398.1	1396.4	1416.9	1427.2	1423.8	1435.7	1456.2	1485.2	1495.5
30°	1331.6	1335.0	1323.0	1319.6	1336.7	1353.8	1352.1	1364.0	1384.5	1411.8	1418.6
32.5°	1239.4	1242.8	1241.1	1236.0	1251.3	1259.9	1265.0	1273.5	1290.6	1319.6	1326.4
35°	1152.3	1147.2	1140.4	1140.4	1155.7	1169.4	1164.3	1174.5	1191.6	1220.6	1222.3
37.5°	1044.8	1043.1	1039.6	1036.2	1053.3	1056.7	1058.4	1065.3	1080.6	1104.5	1101.1
40°	932.1	933.8	932.1	925.3	935.5	949.2	947.5	950.9	964.5	981.6	976.5
42.5°	826.3	826.3	826.3	819.4	831.4	838.2	841.6	839.9	843.3	858.7	851.9
45°	725.5	727.2	725.5	723.8	725.5	728.9	725.5	723.8	723.8	728.9	718.7
47.5°	638.5	638.5	633.3	628.2	633.3	635.1	629.9	624.8	623.1	621.4	604.3
50°	559.9	558.2	556.5	548.0	553.1	554.8	548.0	544.6	537.7	529.2	508.7
52.5°	491.7	489.9	488.2	479.7	483.1	484.8	478.0	471.2	462.6	455.8	430.2
55°	433.6	431.9	431.9	426.8	423.4	426.8	420.0	414.8	402.9	394.3	368.7
57.5°	384.1	384.1	380.7	375.6	377.3	377.3	370.4	363.6	353.4	343.1	322.6
60°	341.4	341.4	341.4	336.3	336.3	336.3	332.9	326.1	317.5	307.3	286.8
62.5°	307.3	307.3	305.6	300.5	302.2	302.2	298.7	291.9	283.4	276.6	256.1
65°	280.0	280.0	280.0	274.8	274.8	276.6	273.1	266.3	259.5	250.9	232.2
67.5°	245.8	244.1	244.1	240.7	242.4	244.1	240.7	235.6	227.0	221.9	204.9
70°	203.1	204.9	206.6	201.4	203.1	203.1	201.4	196.3	191.2	186.1	170.7
72.5°	165.6	165.6	163.9	162.2	162.2	163.9	160.5	155.3	151.9	148.5	136.6
75°	126.3	124.6	126.3	122.9	122.9	122.9	119.5	117.8	116.1	111.0	102.4
77.5°	92.2	90.5	90.5	87.1	88.8	88.8	87.1	83.6	80.2	78.5	71.7
80°	63.2	63.2	63.2	61.5	61.5	59.7	59.7	58.0	54.6	52.9	49.5
82.5°	42.7	42.7	42.7	41.0	41.0	41.0	39.3	37.6	35.8	34.1	30.7
85°	27.3	27.3	27.3	25.6	25.6	25.6	23.9	23.9	22.2	20.5	17.1
87.5°	15.4	15.4	15.4	13.7	13.7	13.7	13.7	13.7	11.9	10.2	8.5
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°	1785.7	1785.7	1785.7	1785.7	1785.7	1785.7	1785.7	1785.7	1785.7	1785.7	1785.7
2.5°	1778.8	1754.9	1770.3	1770.3	1765.2	1778.8	1787.4	1794.2	1792.5	1777.1	1775.4
5°	1765.2	1744.7	1761.8	1763.5	1758.4	1777.1	1789.1	1797.6	1799.3	1785.7	1787.4
7.5°	1754.9	1737.9	1760.1	1766.9	1765.2	1782.3	1795.9	1809.6	1816.4	1806.2	1807.9
10°	1749.8	1736.2	1760.1	1770.3	1772.0	1790.8	1811.3	1830.1	1838.6	1831.8	1836.9
12.5°	1743.0	1734.5	1761.8	1777.1	1784.0	1802.7	1828.3	1850.5	1864.2	1860.8	1871.0
15°	1736.2	1729.3	1761.8	1784.0	1792.5	1809.6	1838.6	1871.0	1886.4	1884.7	1898.3
17.5°	1719.1	1717.4	1751.5	1775.4	1787.4	1807.9	1835.2	1874.4	1889.8	1893.2	1910.3
20°	1691.8	1691.8	1729.3	1754.9	1768.6	1787.4	1821.5	1859.1	1877.9	1881.3	1900.0
22.5°	1654.2	1657.6	1693.5	1719.1	1739.6	1753.2	1789.1	1828.3	1845.4	1850.5	1871.0
25°	1604.7	1608.1	1642.3	1667.9	1690.1	1705.4	1739.6	1775.4	1795.9	1801.0	1816.4
27.5°	1539.8	1546.7	1579.1	1604.7	1623.5	1633.7	1669.6	1707.1	1722.5	1727.6	1743.0
30°	1464.7	1466.4	1498.9	1521.1	1539.8	1548.4	1579.1	1618.4	1630.3	1635.4	1657.6
32.5°	1372.5	1370.8	1401.6	1422.0	1437.4	1447.7	1480.1	1505.7	1517.6	1526.2	1538.1
35°	1261.6	1259.9	1282.1	1306.0	1317.9	1321.3	1353.8	1381.1	1387.9	1394.7	1410.1
37.5°	1137.0	1137.0	1155.7	1167.7	1181.3	1186.5	1201.8	1232.6	1244.5	1242.8	1254.7
40°	1005.5	998.7	1012.3	1024.3	1027.7	1029.4	1044.8	1068.7	1077.2	1077.2	1085.7
42.5°	867.2	857.0	858.7	865.5	868.9	857.0	867.2	882.6	877.5	884.3	886.0
45°	720.4	705.0	698.2	682.9	686.3	674.3	667.5	670.9	669.2	652.1	655.5
47.5°	600.9	573.6	561.6	539.5	534.3	520.7	512.1	496.8	483.1	483.1	474.6
50°	500.2	472.9	449.0	423.4	414.8	402.9	384.1	363.6	353.4	343.1	334.6
52.5°	420.0	390.9	361.9	334.6	322.6	307.3	281.7	261.2	242.4	232.2	221.9
55°	355.1	322.6	291.9	262.9	247.5	232.2	206.6	182.7	160.5	146.8	138.3
57.5°	305.6	274.8	242.4	211.7	198.0	181.0	153.6	128.0	107.5	92.2	83.6
60°	269.7	239.0	210.0	177.5	163.9	146.8	117.8	93.9	73.4	59.7	49.5
62.5°	239.0	211.7	181.0	151.9	138.3	121.2	93.9	70.0	51.2	37.6	29.0
65°	216.8	189.5	163.9	134.9	122.9	105.8	80.2	58.0	41.0	29.0	20.5
67.5°	191.2	167.3	141.7	117.8	105.8	92.2	68.3	49.5	34.1	23.9	17.1
70°	160.5	141.7	119.5	97.3	88.8	76.8	56.3	41.0	27.3	18.8	13.7
72.5°	128.0	112.7	95.6	78.5	71.7	59.7	46.1	32.4	20.5	13.7	10.2
75°	97.3	85.4	71.7	59.7	52.9	46.1	34.1	23.9	15.4	10.2	6.8
77.5°	66.6	61.5	51.2	41.0	37.6	32.4	22.2	15.4	10.2	6.8	3.4
80°	46.1	41.0	34.1	27.3	23.9	20.5	13.7	10.2	5.1	3.4	1.7
82.5°	29.0	23.9	20.5	17.1	15.4	11.9	8.5	5.1	3.4	1.7	1.7
85°	15.4	13.7	11.9	8.5	8.5	6.8	5.1	3.4	1.7	0.0	0.0
87.5°	8.5	6.8	5.1	3.4	3.4	1.7	1.7	1.7	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°	1785.7	1785.7	1785.7	1785.7	1785.7	1785.7	1785.7	1785.7	1785.7	1785.7	1785.7
2.5°	1795.9	1795.9	1794.2	1814.7	1790.8	1814.7	1802.7	1814.7	1797.6	1795.9	1797.6
5°	1809.6	1814.7	1816.4	1835.2	1813.0	1842.0	1831.8	1842.0	1830.1	1833.5	1838.6
7.5°	1836.9	1845.4	1843.7	1867.6	1845.4	1877.9	1871.0	1886.4	1874.4	1877.9	1884.7
10°	1867.6	1877.9	1879.6	1903.5	1883.0	1922.2	1913.7	1930.8	1920.5	1925.7	1934.2
12.5°	1903.5	1915.4	1917.1	1944.4	1922.2	1963.2	1958.1	1975.2	1966.6	1971.7	1982.0
15°	1930.8	1947.8	1951.3	1978.6	1954.7	1997.4	1993.9	2016.1	2002.5	2011.0	2019.5
17.5°	1944.4	1959.8	1966.6	1992.2	1971.7	2014.4	2011.0	2029.8	2019.5	2028.1	2038.3
20°	1935.9	1954.7	1959.8	1985.4	1964.9	2007.6	2002.5	2021.3	2011.0	2017.8	2028.1
22.5°	1905.2	1923.9	1930.8	1954.7	1935.9	1975.2	1973.5	1990.5	1976.9	1985.4	1993.9
25°	1850.5	1871.0	1874.4	1896.6	1876.1	1917.1	1913.7	1932.5	1922.2	1927.4	1939.3
27.5°	1772.0	1795.9	1801.0	1819.8	1804.4	1838.6	1838.6	1854.0	1842.0	1842.0	1854.0
30°	1678.1	1702.0	1705.4	1720.8	1707.1	1737.9	1739.6	1754.9	1736.2	1746.4	1748.1
32.5°	1563.7	1579.1	1589.3	1603.0	1582.5	1621.8	1616.7	1628.6	1618.4	1618.4	1626.9
35°	1425.5	1444.2	1449.4	1466.4	1449.4	1480.1	1480.1	1486.9	1476.7	1476.7	1490.3
37.5°	1275.2	1288.9	1290.6	1307.7	1294.0	1319.6	1317.9	1323.0	1312.8	1319.6	1319.6
40°	1099.4	1109.6	1113.1	1121.6	1119.9	1138.7	1137.0	1140.4	1135.2	1137.0	1140.4
42.5°	894.5	908.2	915.0	921.9	911.6	937.2	932.1	937.2	935.5	937.2	942.3
45°	659.0	669.2	674.3	676.0	672.6	688.0	699.9	689.7	691.4	688.0	694.8
47.5°	476.3	478.0	474.6	484.8	476.3	483.1	486.5	488.2	478.0	476.3	483.1
50°	326.1	334.6	322.6	327.8	326.1	332.9	329.5	331.2	320.9	326.1	322.6
52.5°	216.8	215.1	211.7	213.4	210.0	210.0	210.0	213.4	206.6	203.1	199.7
55°	131.4	128.0	121.2	119.5	119.5	121.2	117.8	114.4	114.4	112.7	112.7
57.5°	76.8	71.7	68.3	66.6	63.2	61.5	59.7	59.7	56.3	56.3	56.3
60°	42.7	37.6	34.1	30.7	30.7	29.0	27.3	25.6	25.6	25.6	23.9
62.5°	22.2	18.8	15.4	13.7	13.7	11.9	10.2	10.2	10.2	10.2	8.5
65°	15.4	11.9	10.2	8.5	8.5	6.8	6.8	6.8	6.8	6.8	6.8
67.5°	11.9	10.2	8.5	6.8	6.8	6.8	5.1	5.1	5.1	5.1	5.1
70°	10.2	6.8	6.8	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
72.5°	6.8	6.8	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
75°	5.1	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
77.5°	1.7	1.7	1.7	1.7	1.7	1.7	0.0	0.0	0.0	0.0	0.0
80°	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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: P252176

CATALOG NUMBER: LD6B30D010 EU6B30509040 6LBSW1LI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1785.7	1785.7	1785.7	1785.7	1785.7	1785.7	1785.7	1785.7
2.5°	1813.0	1811.3	1813.0	1816.4	1809.6	1830.1	1819.8	1830.1
5°	1852.2	1854.0	1855.7	1860.8	1852.2	1877.9	1864.2	1879.6
7.5°	1903.5	1905.2	1906.9	1912.0	1906.9	1932.5	1917.1	1930.8
10°	1956.4	1959.8	1959.8	1968.3	1963.2	1987.1	1976.9	1993.9
12.5°	2005.9	2009.3	2012.7	2017.8	2014.4	2040.0	2031.5	2045.2
15°	2045.2	2052.0	2053.7	2060.5	2057.1	2084.4	2074.2	2087.8
17.5°	2063.9	2070.8	2070.8	2079.3	2075.9	2104.9	2091.2	2106.6
20°	2053.7	2058.8	2060.5	2069.1	2065.6	2094.7	2081.0	2099.8
22.5°	2021.3	2023.0	2024.7	2033.2	2031.5	2057.1	2045.2	2057.1
25°	1961.5	1966.6	1964.9	1971.7	1971.7	1992.2	1978.6	1988.8
27.5°	1876.1	1881.3	1881.3	1889.8	1883.0	1903.5	1889.8	1905.2
30°	1772.0	1777.1	1773.7	1780.5	1773.7	1794.2	1784.0	1789.1
32.5°	1647.4	1647.4	1649.1	1650.8	1647.4	1666.2	1655.9	1666.2
35°	1498.9	1502.3	1504.0	1505.7	1502.3	1515.9	1504.0	1510.8
37.5°	1331.6	1340.1	1338.4	1340.1	1335.0	1352.1	1341.8	1345.2
40°	1152.3	1152.3	1150.6	1154.0	1148.9	1162.6	1155.7	1159.1
42.5°	944.0	949.2	942.3	950.9	937.2	956.0	949.2	944.0
45°	708.5	701.6	699.9	701.6	696.5	698.2	703.3	699.9
47.5°	483.1	483.1	479.7	474.6	481.4	483.1	476.3	476.3
50°	324.4	324.4	320.9	319.2	322.6	320.9	317.5	322.6
52.5°	206.6	199.7	199.7	203.1	199.7	196.3	201.4	198.0
55°	112.7	109.3	109.3	112.7	109.3	109.3	107.5	111.0
57.5°	54.6	56.3	54.6	54.6	54.6	54.6	52.9	54.6
60°	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9
62.5°	10.2	10.2	8.5	8.5	8.5	8.5	8.5	8.5
65°	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
67.5°	5.1	5.1	5.1	5.1	5.1	6.8	5.1	5.1
70°	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
72.5°	5.1	5.1	6.8	6.8	6.8	6.8	6.8	6.8
75°	3.4	3.4	3.4	1.7	1.7	1.7	1.7	1.7
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	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
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)