

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: P252719

Luminaire Tested: **LD6B50D010TE EU6B30509027 6LBDW1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252719
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-9)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LD6B50D010TE EU6B30509027 6LBDW1H
Description: PORTFOLIO 6 INCH DOUBLE WALLWASH RECESSED DOWNLIGHT, WITH HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4099.0 lumens
Efficiency: N/A
Efficacy: 69.7 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.25 / 1.21
Luminous Opening: Circular (Dia: 0.46' x H: 0')
CIE Type: Direct

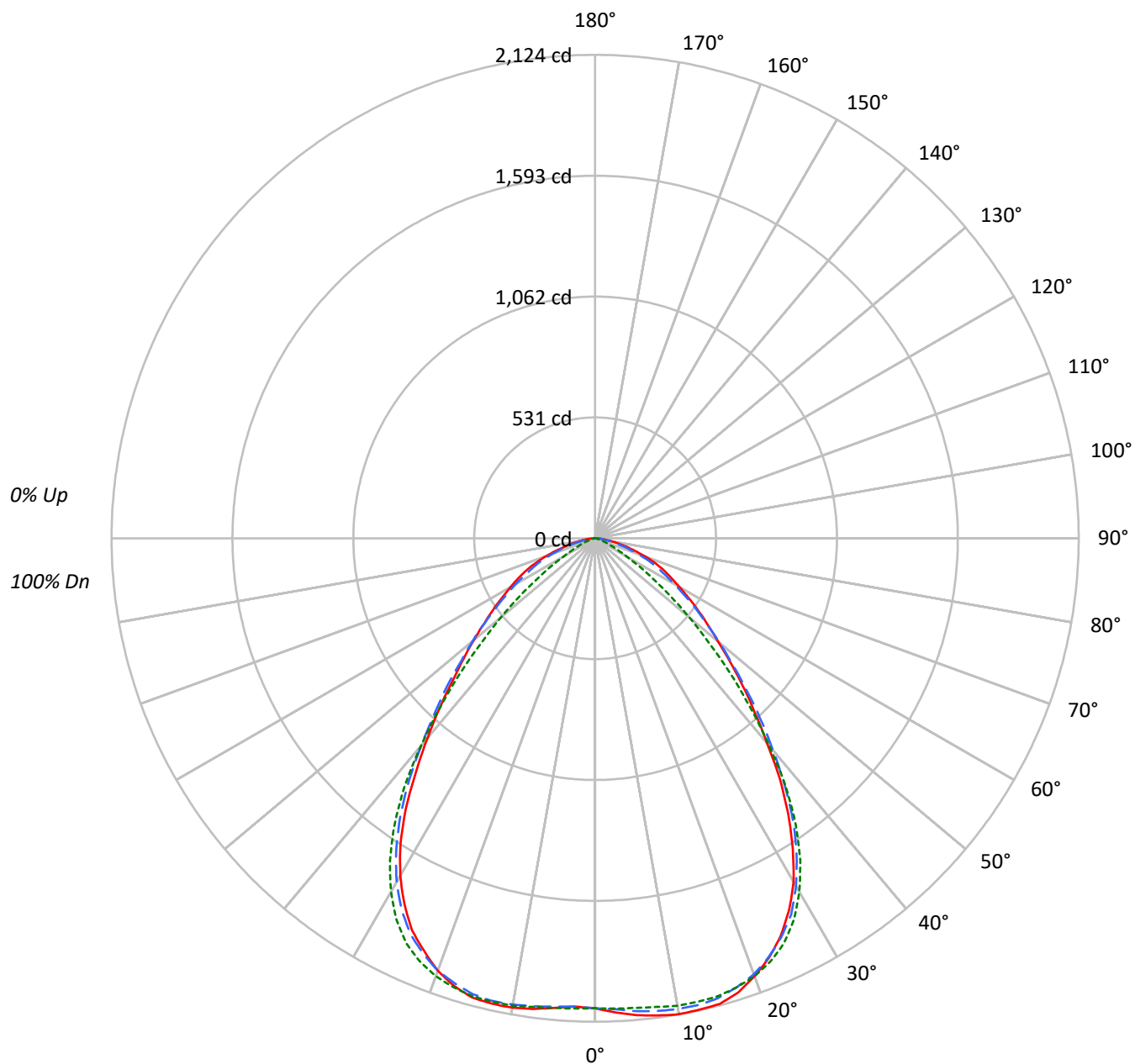
Input Watts (W): 58.77
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	111	107	104	101	109	105	102	99	101	98	96	97	95	93	94	92	91	89		
2	103	96	91	86	101	95	89	85	91	87	83	88	84	81	85	82	80	78		
3	95	87	80	75	93	85	79	74	82	77	73	80	75	71	77	74	70	68		
4	89	78	71	65	87	77	70	65	75	69	64	73	67	63	71	66	62	61		
5	82	71	64	58	80	70	63	58	68	62	57	66	61	56	65	60	56	54		
6	77	65	57	52	75	64	57	51	63	56	51	61	55	51	59	54	50	48		
7	72	60	52	47	70	59	52	46	58	51	46	56	50	46	55	50	45	44		
8	67	55	47	42	66	54	47	42	53	47	42	52	46	42	51	45	41	40		
9	63	51	43	38	62	50	43	38	49	43	38	48	42	38	47	42	38	36		
10	59	47	40	35	58	47	40	35	46	39	35	45	39	35	44	39	35	33		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	134735	134735	134735
5°	137732	135629	135629
10°	140682	138165	138748
15°	143034	140670	141062
20°	142160	142160	140334
25°	138780	141299	136887
30°	131374	135110	128948
35°	117714	122373	115388
40°	100010	101253	97515
45°	84625	77345	81663
50°	71453	54554	70560
55°	62798	35215	62127
60°	55650	20968	56029
65°	51406	12628	51406
70°	44578	7249	43453
75°	35340	4411	33122
80°	26337	3306	25247
85°	24029	2171	21858



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	198.8	4.9
10°-20°	588.4	14.4
20°-30°	885.0	21.6
30°-40°	930.5	22.7
40°-50°	695.1	17.0
50°-60°	432.7	10.6
60°-70°	246.1	6.0
70°-80°	101.4	2.5
80°-90°	20.9	0.5
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°	1672.3	40.8
0°-40°	2602.7	63.5
0°-60°	3730.6	91.0
0°-90°	4099.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4099.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2065	2065	2065	2065	2065	
5°	2103	2086	2071	2065	2071	201
15°	2118	2092	2083	2074	2088	595
25°	1928	1934	1963	1919	1902	883
35°	1478	1516	1536	1493	1449	917
45°	917	938	838	920	885	711
55°	552	540	310	532	546	497
65°	333	298	82	298	333	328
75°	140	111	18	108	131	152
85°	32	20	3	18	29	36
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°	2065.2	2065.2	2065.2	2065.2	2065.2	2065.2	2065.2	2065.2	2065.2	2065.2	2065.2
2.5°	2085.6	2082.7	2085.6	2079.8	2076.8	2076.8	2079.8	2073.9	2071.0	2073.9	2071.0
5°	2103.1	2097.3	2100.2	2097.3	2091.5	2091.5	2094.4	2085.6	2085.6	2088.5	2085.6
7.5°	2114.8	2114.8	2114.8	2109.0	2106.1	2103.1	2109.0	2100.2	2097.3	2097.3	2094.4
10°	2123.6	2120.7	2123.6	2117.7	2111.9	2109.0	2114.8	2109.0	2103.1	2109.0	2100.2
12.5°	2120.7	2120.7	2120.7	2117.7	2111.9	2109.0	2114.8	2106.1	2103.1	2106.1	2100.2
15°	2117.7	2109.0	2111.9	2109.0	2100.2	2100.2	2103.1	2094.4	2088.5	2097.3	2091.5
17.5°	2091.5	2085.6	2088.5	2082.7	2076.8	2073.9	2076.8	2073.9	2068.1	2073.9	2068.1
20°	2047.6	2047.6	2050.6	2044.7	2038.9	2036.0	2041.8	2036.0	2030.1	2038.9	2038.9
22.5°	1995.1	1995.1	1995.1	1992.1	1989.2	1989.2	1989.2	1986.3	1983.4	1989.2	1992.1
25°	1927.9	1925.0	1927.9	1930.8	1927.9	1925.0	1927.9	1927.9	1922.0	1933.7	1933.7
27.5°	1843.2	1843.2	1849.0	1846.1	1846.1	1843.2	1849.0	1849.0	1846.1	1854.9	1863.6
30°	1743.9	1738.0	1743.9	1743.9	1746.8	1746.8	1749.7	1749.7	1749.7	1758.5	1764.3
32.5°	1615.3	1618.2	1627.0	1624.1	1621.2	1629.9	1629.9	1635.8	1638.7	1644.5	1647.5
35°	1478.0	1481.0	1481.0	1483.9	1489.7	1483.9	1498.5	1495.6	1498.5	1510.2	1516.0
37.5°	1332.0	1323.2	1337.8	1332.0	1334.9	1334.9	1340.7	1343.7	1352.4	1367.0	1367.0
40°	1174.3	1177.2	1183.0	1185.9	1188.9	1188.9	1188.9	1197.6	1200.5	1218.1	1215.1
42.5°	1037.0	1037.0	1042.8	1045.7	1045.7	1045.7	1045.7	1054.5	1060.3	1066.2	1072.0
45°	917.2	908.4	914.3	914.3	920.1	917.2	923.0	928.9	931.8	940.6	937.6
47.5°	803.3	800.4	803.3	806.2	803.3	806.2	809.1	812.0	815.0	815.0	815.0
50°	704.0	704.0	706.9	709.8	709.8	709.8	709.8	712.7	712.7	718.6	712.7
52.5°	622.2	625.1	625.1	622.2	625.1	625.1	628.0	628.0	625.1	625.1	616.3
55°	552.1	549.2	552.1	549.2	552.1	552.1	549.2	549.2	546.2	543.3	540.4
57.5°	484.9	484.9	484.9	484.9	482.0	484.9	482.0	479.0	479.0	473.2	464.4
60°	426.5	426.5	426.5	426.5	426.5	423.5	426.5	423.5	417.7	411.9	400.2
62.5°	376.8	373.9	376.8	373.9	373.9	371.0	371.0	368.0	362.2	356.4	344.7
65°	333.0	335.9	333.0	333.0	330.1	327.2	327.2	324.2	315.5	309.6	297.9
67.5°	286.3	283.3	283.3	283.3	280.4	280.4	280.4	274.6	268.7	260.0	248.3
70°	233.7	233.7	233.7	230.8	230.8	227.8	227.8	224.9	219.1	213.2	198.6
72.5°	184.0	184.0	184.0	178.2	181.1	178.2	178.2	172.3	169.4	160.7	151.9
75°	140.2	140.2	137.3	137.3	134.4	131.4	131.4	128.5	125.6	119.8	111.0
77.5°	102.2	102.2	102.2	99.3	96.4	93.5	93.5	90.6	87.6	84.7	78.9
80°	70.1	70.1	70.1	70.1	67.2	64.3	64.3	61.3	61.3	58.4	52.6
82.5°	46.7	46.7	46.7	46.7	43.8	43.8	43.8	40.9	38.0	38.0	32.1
85°	32.1	32.1	29.2	29.2	29.2	29.2	26.3	26.3	23.4	20.4	20.4
87.5°	17.5	17.5	17.5	17.5	14.6	14.6	14.6	14.6	11.7	11.7	8.8
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°	2065.2	2065.2	2065.2	2065.2	2065.2	2065.2	2065.2	2065.2	2065.2	2065.2	2065.2
2.5°	2079.8	2079.8	2076.8	2068.1	2071.0	2068.1	2071.0	2068.1	2059.3	2068.1	2059.3
5°	2091.5	2094.4	2088.5	2076.8	2079.8	2076.8	2076.8	2073.9	2065.2	2071.0	2065.2
7.5°	2103.1	2100.2	2097.3	2085.6	2088.5	2085.6	2085.6	2079.8	2071.0	2076.8	2068.1
10°	2109.0	2109.0	2103.1	2091.5	2091.5	2088.5	2091.5	2088.5	2076.8	2085.6	2079.8
12.5°	2109.0	2106.1	2106.1	2091.5	2094.4	2091.5	2094.4	2088.5	2079.8	2085.6	2082.7
15°	2100.2	2100.2	2097.3	2082.7	2085.6	2085.6	2088.5	2082.7	2073.9	2082.7	2076.8
17.5°	2082.7	2082.7	2079.8	2068.1	2073.9	2073.9	2076.8	2071.0	2062.2	2068.1	2068.1
20°	2047.6	2050.6	2050.6	2041.8	2047.6	2047.6	2050.6	2047.6	2044.7	2047.6	2041.8
22.5°	2006.7	2012.6	2012.6	2003.8	2009.7	2009.7	2018.4	2015.5	2009.7	2012.6	2009.7
25°	1945.4	1951.2	1957.1	1951.2	1957.1	1957.1	1965.8	1962.9	1957.1	1962.9	1954.2
27.5°	1875.3	1878.2	1884.1	1878.2	1887.0	1884.1	1892.8	1889.9	1881.1	1889.9	1887.0
30°	1776.0	1787.7	1796.4	1787.7	1796.4	1796.4	1802.3	1799.4	1796.4	1793.5	1793.5
32.5°	1665.0	1676.7	1676.7	1673.7	1679.6	1679.6	1682.5	1676.7	1673.7	1676.7	1679.6
35°	1527.7	1533.5	1539.4	1536.5	1539.4	1542.3	1539.4	1542.3	1533.5	1536.5	1536.5
37.5°	1378.7	1384.6	1384.6	1375.8	1381.6	1381.6	1375.8	1375.8	1370.0	1375.8	1364.1
40°	1221.0	1215.1	1218.1	1212.2	1206.4	1206.4	1203.5	1191.8	1185.9	1188.9	1191.8
42.5°	1066.2	1066.2	1057.4	1042.8	1028.2	1028.2	1019.4	1013.6	1001.9	1007.8	1004.8
45°	934.7	920.1	908.4	885.1	876.3	870.5	855.9	841.3	835.4	838.3	835.4
47.5°	809.1	797.4	768.2	736.1	727.3	718.6	701.0	683.5	677.7	671.8	671.8
50°	704.0	683.5	651.4	616.3	601.7	587.1	563.8	546.2	534.5	537.5	537.5
52.5°	607.6	584.2	546.2	502.4	484.9	467.4	446.9	426.5	417.7	414.8	414.8
55°	522.9	496.6	458.6	408.9	394.3	373.9	347.6	324.2	312.5	309.6	315.5
57.5°	446.9	423.5	379.7	330.1	312.5	292.1	265.8	245.4	230.8	227.8	230.8
60°	385.6	353.4	315.5	268.7	245.4	227.8	198.6	181.1	166.5	160.7	163.6
62.5°	324.2	295.0	257.1	210.3	192.8	175.3	149.0	128.5	116.8	113.9	116.8
65°	277.5	248.3	213.2	172.3	154.8	137.3	113.9	93.5	84.7	81.8	84.7
67.5°	230.8	204.5	175.3	137.3	122.7	108.1	84.7	70.1	58.4	55.5	58.4
70°	186.9	163.6	134.4	108.1	93.5	81.8	64.3	49.7	40.9	38.0	40.9
72.5°	140.2	122.7	102.2	78.9	70.1	61.3	46.7	35.1	29.2	26.3	29.2
75°	102.2	87.6	73.0	55.5	49.7	43.8	32.1	23.4	20.4	17.5	20.4
77.5°	70.1	61.3	49.7	38.0	32.1	29.2	20.4	17.5	14.6	11.7	11.7
80°	46.7	40.9	32.1	26.3	23.4	20.4	14.6	11.7	8.8	8.8	8.8
82.5°	29.2	23.4	20.4	14.6	11.7	11.7	8.8	5.8	5.8	5.8	5.8
85°	17.5	14.6	11.7	8.8	5.8	5.8	2.9	2.9	2.9	2.9	2.9
87.5°	8.8	5.8	5.8	2.9	2.9	2.9	2.9	2.9	0.0	0.0	2.9
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°	2065.2	2065.2	2065.2	2065.2	2065.2	2065.2	2065.2	2065.2	2065.2	2065.2	2065.2
2.5°	2065.2	2059.3	2059.3	2062.2	2065.2	2068.1	2062.2	2059.3	2059.3	2068.1	2062.2
5°	2065.2	2062.2	2062.2	2062.2	2068.1	2071.0	2065.2	2062.2	2065.2	2073.9	2071.0
7.5°	2073.9	2068.1	2071.0	2071.0	2073.9	2079.8	2073.9	2071.0	2073.9	2082.7	2076.8
10°	2079.8	2073.9	2076.8	2073.9	2082.7	2085.6	2079.8	2076.8	2079.8	2091.5	2088.5
12.5°	2082.7	2079.8	2079.8	2076.8	2085.6	2088.5	2082.7	2079.8	2082.7	2091.5	2088.5
15°	2076.8	2073.9	2073.9	2073.9	2079.8	2085.6	2076.8	2073.9	2073.9	2082.7	2079.8
17.5°	2065.2	2059.3	2059.3	2059.3	2062.2	2065.2	2056.4	2053.5	2050.6	2059.3	2056.4
20°	2044.7	2038.9	2033.0	2033.0	2036.0	2036.0	2030.1	2021.3	2021.3	2024.3	2018.4
22.5°	2006.7	2003.8	1998.0	1995.1	2000.9	1998.0	1986.3	1977.5	1974.6	1977.5	1971.7
25°	1954.2	1948.3	1945.4	1942.5	1945.4	1942.5	1930.8	1919.1	1919.1	1919.1	1910.3
27.5°	1881.1	1875.3	1872.4	1872.4	1875.3	1869.5	1857.8	1846.1	1840.2	1840.2	1831.5
30°	1787.7	1787.7	1784.7	1781.8	1778.9	1778.9	1761.4	1749.7	1743.9	1746.8	1740.9
32.5°	1673.7	1670.8	1667.9	1659.1	1662.1	1659.1	1644.5	1635.8	1627.0	1621.2	1618.2
35°	1527.7	1527.7	1524.8	1524.8	1524.8	1521.9	1507.2	1498.5	1492.6	1489.7	1481.0
37.5°	1367.0	1364.1	1361.2	1361.2	1361.2	1361.2	1352.4	1343.7	1343.7	1340.7	1334.9
40°	1185.9	1188.9	1191.8	1188.9	1197.6	1206.4	1194.7	1188.9	1185.9	1194.7	1183.0
42.5°	1010.7	1007.8	1022.4	1025.3	1025.3	1039.9	1042.8	1045.7	1042.8	1048.6	1048.6
45°	841.3	838.3	852.9	858.8	873.4	890.9	899.7	914.3	920.1	926.0	920.1
47.5°	680.6	692.3	704.0	718.6	730.3	759.5	777.0	791.6	797.4	806.2	806.2
50°	546.2	557.9	578.4	590.0	604.7	639.7	668.9	689.4	701.0	709.8	706.9
52.5°	420.6	441.1	467.4	479.0	499.5	540.4	572.5	595.9	610.5	619.3	622.2
55°	324.2	341.8	368.0	385.6	406.0	449.8	490.7	517.0	531.6	543.3	549.2
57.5°	239.5	260.0	289.2	303.8	327.2	376.8	411.9	444.0	461.5	476.1	479.0
60°	175.3	195.7	222.0	239.5	262.9	312.5	353.4	382.7	403.1	414.8	420.6
62.5°	125.6	146.1	172.3	189.9	210.3	254.1	295.0	324.2	344.7	359.3	368.0
65°	90.6	111.0	137.3	151.9	169.4	210.3	248.3	277.5	297.9	315.5	321.3
67.5°	67.2	81.8	105.2	119.8	137.3	169.4	201.6	227.8	248.3	262.9	268.7
70°	49.7	61.3	81.8	90.6	102.2	131.4	157.7	181.1	198.6	210.3	216.2
72.5°	35.1	43.8	58.4	67.2	75.9	99.3	119.8	137.3	149.0	160.7	166.5
75°	23.4	29.2	40.9	46.7	52.6	70.1	84.7	99.3	108.1	116.8	119.8
77.5°	14.6	20.4	29.2	32.1	38.0	46.7	58.4	67.2	73.0	78.9	84.7
80°	8.8	11.7	17.5	20.4	23.4	32.1	38.0	43.8	49.7	55.5	58.4
82.5°	5.8	8.8	11.7	11.7	14.6	17.5	23.4	29.2	32.1	35.1	38.0
85°	2.9	2.9	5.8	5.8	8.8	8.8	11.7	14.6	17.5	20.4	23.4
87.5°	2.9	2.9	2.9	2.9	5.8	5.8	8.8	8.8	8.8	11.7	11.7
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: P252719

CATALOG NUMBER: LD6B50D010TE EU6B30509027 6LBDW1H

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2065.2	2065.2	2065.2	2065.2	2065.2	2065.2	2065.2	2065.2
2.5°	2056.4	2065.2	2056.4	2062.2	2059.3	2059.3	2056.4	2059.3
5°	2065.2	2076.8	2065.2	2073.9	2068.1	2068.1	2068.1	2071.0
7.5°	2073.9	2085.6	2076.8	2085.6	2082.7	2079.8	2079.8	2085.6
10°	2082.7	2091.5	2085.6	2094.4	2091.5	2088.5	2088.5	2094.4
12.5°	2082.7	2094.4	2088.5	2097.3	2094.4	2091.5	2091.5	2094.4
15°	2073.9	2088.5	2079.8	2088.5	2085.6	2082.7	2082.7	2088.5
17.5°	2047.6	2059.3	2053.5	2059.3	2059.3	2056.4	2059.3	2062.2
20°	2012.6	2021.3	2015.5	2021.3	2021.3	2015.5	2018.4	2021.3
22.5°	1962.9	1971.7	1965.8	1971.7	1968.8	1965.8	1965.8	1962.9
25°	1901.6	1913.3	1904.5	1910.3	1904.5	1898.7	1898.7	1901.6
27.5°	1825.6	1834.4	1822.7	1828.6	1822.7	1816.9	1816.9	1814.0
30°	1726.3	1729.2	1720.5	1726.3	1720.5	1717.6	1711.7	1711.7
32.5°	1606.6	1609.5	1600.7	1600.7	1594.9	1594.9	1583.2	1592.0
35°	1466.4	1469.3	1466.4	1463.4	1454.7	1451.7	1448.8	1448.8
37.5°	1320.3	1320.3	1311.5	1308.6	1302.8	1296.9	1299.9	1291.1
40°	1171.3	1168.4	1159.6	1162.6	1159.6	1150.9	1148.0	1145.0
42.5°	1031.1	1031.1	1022.4	1025.3	1019.4	1016.5	1007.8	1010.7
45°	908.4	908.4	899.7	899.7	896.8	888.0	890.9	885.1
47.5°	797.4	797.4	794.5	794.5	785.8	782.8	782.8	782.8
50°	701.0	701.0	701.0	701.0	698.1	695.2	692.3	695.2
52.5°	619.3	625.1	622.2	622.2	619.3	616.3	613.4	613.4
55°	546.2	549.2	549.2	552.1	549.2	546.2	549.2	546.2
57.5°	482.0	487.8	487.8	487.8	487.8	487.8	484.9	482.0
60°	426.5	429.4	429.4	432.3	432.3	432.3	429.4	429.4
62.5°	371.0	376.8	379.7	379.7	382.7	379.7	379.7	379.7
65°	327.2	333.0	335.9	333.0	335.9	335.9	333.0	333.0
67.5°	274.6	280.4	280.4	280.4	280.4	283.3	280.4	280.4
70°	222.0	227.8	224.9	227.8	227.8	227.8	227.8	227.8
72.5°	169.4	172.3	175.3	175.3	178.2	175.3	175.3	175.3
75°	122.7	128.5	128.5	128.5	128.5	131.4	131.4	131.4
77.5°	87.6	90.6	90.6	93.5	93.5	93.5	93.5	96.4
80°	61.3	61.3	64.3	64.3	67.2	67.2	67.2	67.2
82.5°	40.9	43.8	43.8	43.8	43.8	43.8	43.8	43.8
85°	23.4	26.3	26.3	26.3	26.3	29.2	29.2	29.2
87.5°	14.6	14.6	14.6	14.6	14.6	14.6	11.7	11.7
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)