

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: P252718

Luminaire Tested: **LD6B50D010TE EU6B30509024 6LBDW1H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P252718  
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 EU6B30509024 6LBDW1H  
Description: PORTFOLIO 6 INCH DOUBLE WALLWASH RECESSED DOWNLIGHT, WITH HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 2400K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

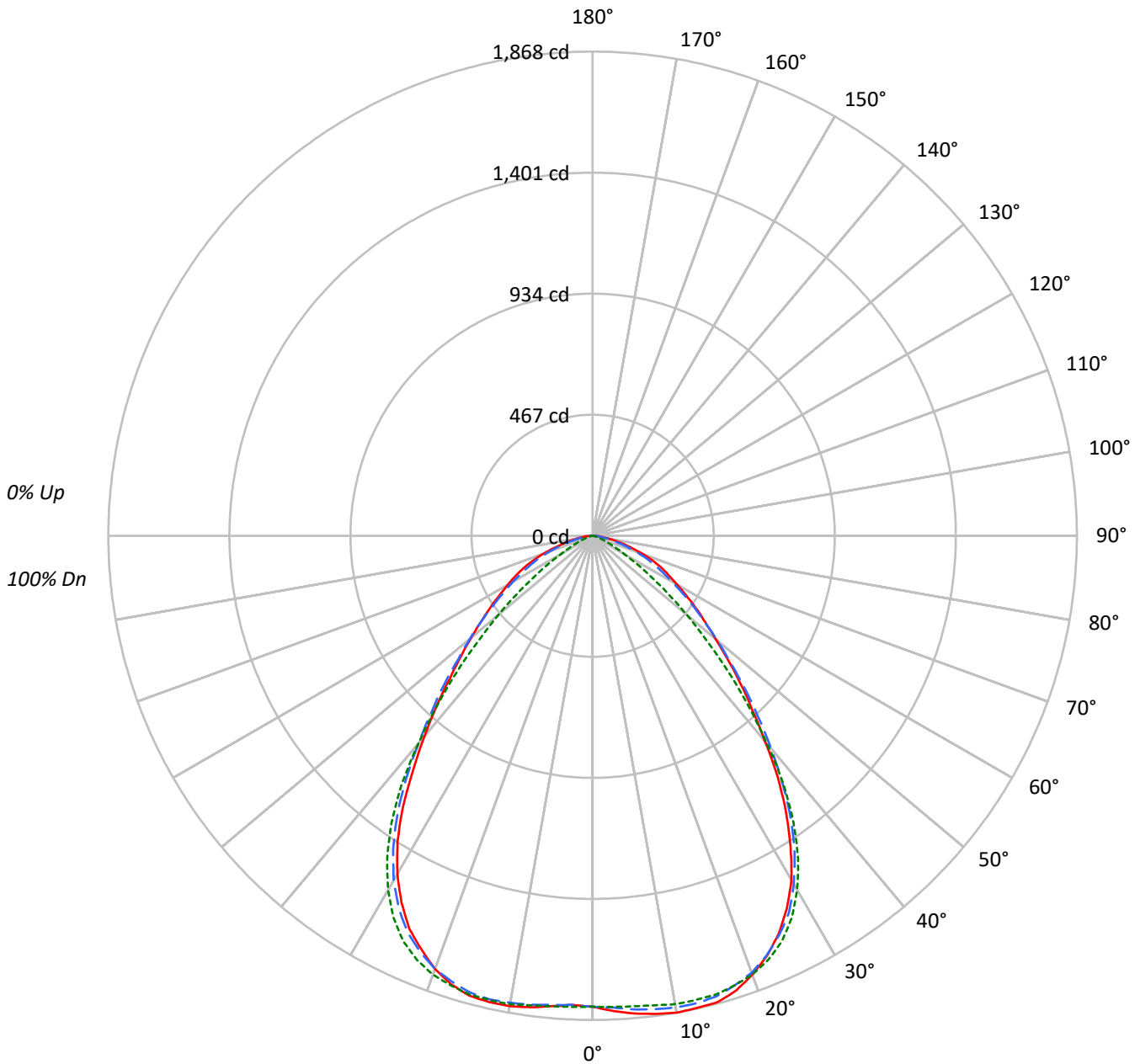
Lumens per Lamp: N/A  
Luminaire Lumens: 3606.0 lumens  
Efficiency: N/A  
Efficacy: 61.4 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.25 / 1.21  
Luminous Opening: Circular (Dia: 0.46' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 58.77  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage 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									
RC	80									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																			
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°	118529	118529	118529
5°	121169	119316	119316
10°	123763	121550	122060
15°	125831	123751	124095
20°	125067	125067	123456
25°	122087	124304	120424
30°	115569	118861	113437
35°	103561	107655	101514
40°	87976	89075	85787
45°	74448	68045	71837
50°	62857	47987	62075
55°	55245	30984	54654
60°	48957	18437	49283
65°	45216	11115	45216
70°	39218	6371	38226
75°	31080	3882	29139
80°	23181	2893	22204
85°	21184	1946	19238



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	174.9	4.9
10°-20°	517.7	14.4
20°-30°	778.6	21.6
30°-40°	818.6	22.7
40°-50°	611.5	17.0
50°-60°	380.7	10.6
60°-70°	216.5	6.0
70°-80°	89.2	2.5
80°-90°	18.4	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°	1471.1	40.8
0°-40°	2289.7	63.5
0°-60°	3281.9	91.0
0°-90°	3606.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3606.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1817	1817	1817	1817	1817	
5°	1850	1835	1822	1817	1822	177
15°	1863	1840	1832	1824	1837	524
25°	1696	1701	1727	1688	1673	776
35°	1300	1334	1352	1313	1275	807
45°	807	825	738	810	779	625
55°	486	475	272	468	480	437
65°	293	262	72	262	293	288
75°	123	98	15	95	116	134
85°	28	18	3	15	26	31
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°	1816.8	1816.8	1816.8	1816.8	1816.8	1816.8	1816.8	1816.8	1816.8	1816.8	1816.8
2.5°	1834.8	1832.2	1834.8	1829.6	1827.1	1827.1	1829.6	1824.5	1821.9	1824.5	1821.9
5°	1850.2	1845.0	1847.6	1845.0	1839.9	1839.9	1842.5	1834.8	1834.8	1837.3	1834.8
7.5°	1860.5	1860.5	1860.5	1855.3	1852.8	1850.2	1855.3	1847.6	1845.0	1845.0	1842.5
10°	1868.2	1865.6	1868.2	1863.0	1857.9	1855.3	1860.5	1855.3	1850.2	1855.3	1847.6
12.5°	1865.6	1865.6	1865.6	1863.0	1857.9	1855.3	1860.5	1852.8	1850.2	1852.8	1847.6
15°	1863.0	1855.3	1857.9	1855.3	1847.6	1847.6	1850.2	1842.5	1837.3	1845.0	1839.9
17.5°	1839.9	1834.8	1837.3	1832.2	1827.1	1824.5	1827.1	1824.5	1819.3	1824.5	1819.3
20°	1801.4	1801.4	1803.9	1798.8	1793.7	1791.1	1796.2	1791.1	1785.9	1793.7	1793.7
22.5°	1755.1	1755.1	1755.1	1752.5	1750.0	1750.0	1750.0	1747.4	1744.8	1750.0	1752.5
25°	1696.0	1693.4	1696.0	1698.6	1696.0	1693.4	1696.0	1696.0	1690.9	1701.1	1701.1
27.5°	1621.5	1621.5	1626.6	1624.1	1624.1	1621.5	1626.6	1626.6	1624.1	1631.8	1639.5
30°	1534.1	1529.0	1534.1	1534.1	1536.7	1536.7	1539.3	1539.3	1539.3	1547.0	1552.1
32.5°	1421.0	1423.6	1431.3	1428.8	1426.2	1433.9	1433.9	1439.0	1441.6	1446.7	1449.3
35°	1300.3	1302.8	1302.8	1305.4	1310.5	1305.4	1318.3	1315.7	1318.3	1328.5	1333.7
37.5°	1171.8	1164.1	1176.9	1171.8	1174.4	1174.4	1179.5	1182.1	1189.8	1202.6	1202.6
40°	1033.0	1035.6	1040.7	1043.3	1045.9	1045.9	1045.9	1053.6	1056.1	1071.6	1069.0
42.5°	912.2	912.2	917.4	920.0	920.0	920.0	920.0	927.7	932.8	937.9	943.1
45°	806.9	799.2	804.3	804.3	809.5	806.9	812.0	817.2	819.7	827.4	824.9
47.5°	706.7	704.1	706.7	709.2	706.7	709.2	711.8	714.4	716.9	716.9	716.9
50°	619.3	619.3	621.9	624.4	624.4	624.4	624.4	627.0	627.0	632.1	627.0
52.5°	547.3	549.9	549.9	547.3	549.9	549.9	552.5	552.5	549.9	549.9	542.2
55°	485.7	483.1	485.7	483.1	485.7	485.7	483.1	483.1	480.5	478.0	475.4
57.5°	426.6	426.6	426.6	426.6	424.0	426.6	424.0	421.4	421.4	416.3	408.6
60°	375.2	375.2	375.2	375.2	375.2	372.6	375.2	372.6	367.5	362.3	352.0
62.5°	331.5	328.9	331.5	328.9	328.9	326.4	326.4	323.8	318.6	313.5	303.2
65°	292.9	295.5	292.9	292.9	290.4	287.8	287.8	285.2	277.5	272.4	262.1
67.5°	251.8	249.3	249.3	249.3	246.7	246.7	246.7	241.6	236.4	228.7	218.4
70°	205.6	205.6	205.6	203.0	203.0	200.4	200.4	197.9	192.7	187.6	174.7
72.5°	161.9	161.9	161.9	156.8	159.3	156.8	156.8	151.6	149.0	141.3	133.6
75°	123.3	123.3	120.8	120.8	118.2	115.6	115.6	113.1	110.5	105.4	97.6
77.5°	89.9	89.9	89.9	87.4	84.8	82.2	82.2	79.7	77.1	74.5	69.4
80°	61.7	61.7	61.7	61.7	59.1	56.5	56.5	54.0	54.0	51.4	46.3
82.5°	41.1	41.1	41.1	41.1	38.5	38.5	38.5	36.0	33.4	33.4	28.3
85°	28.3	28.3	25.7	25.7	25.7	25.7	23.1	23.1	20.6	18.0	18.0
87.5°	15.4	15.4	15.4	15.4	12.8	12.8	12.8	12.8	10.3	10.3	7.7
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°	1816.8	1816.8	1816.8	1816.8	1816.8	1816.8	1816.8	1816.8	1816.8	1816.8	1816.8
2.5°	1829.6	1829.6	1827.1	1819.3	1821.9	1819.3	1821.9	1819.3	1811.6	1819.3	1811.6
5°	1839.9	1842.5	1837.3	1827.1	1829.6	1827.1	1827.1	1824.5	1816.8	1821.9	1816.8
7.5°	1850.2	1847.6	1845.0	1834.8	1837.3	1834.8	1834.8	1829.6	1821.9	1827.1	1819.3
10°	1855.3	1855.3	1850.2	1839.9	1839.9	1837.3	1839.9	1837.3	1827.1	1834.8	1829.6
12.5°	1855.3	1852.8	1852.8	1839.9	1842.5	1839.9	1842.5	1837.3	1829.6	1834.8	1832.2
15°	1847.6	1847.6	1845.0	1832.2	1834.8	1834.8	1837.3	1832.2	1824.5	1832.2	1827.1
17.5°	1832.2	1832.2	1829.6	1819.3	1824.5	1824.5	1827.1	1821.9	1814.2	1819.3	1819.3
20°	1801.4	1803.9	1803.9	1796.2	1801.4	1801.4	1803.9	1801.4	1798.8	1801.4	1796.2
22.5°	1765.4	1770.5	1770.5	1762.8	1768.0	1768.0	1775.7	1773.1	1768.0	1770.5	1768.0
25°	1711.4	1716.6	1721.7	1716.6	1721.7	1721.7	1729.4	1726.8	1721.7	1726.8	1719.1
27.5°	1649.7	1652.3	1657.5	1652.3	1660.0	1657.5	1665.2	1662.6	1654.9	1662.6	1660.0
30°	1562.4	1572.7	1580.4	1572.7	1580.4	1580.4	1585.5	1582.9	1580.4	1577.8	1577.8
32.5°	1464.7	1475.0	1475.0	1472.4	1477.6	1477.6	1480.1	1475.0	1472.4	1475.0	1477.6
35°	1344.0	1349.1	1354.2	1351.7	1354.2	1356.8	1354.2	1356.8	1349.1	1351.7	1351.7
37.5°	1212.9	1218.0	1218.0	1210.3	1215.5	1215.5	1210.3	1210.3	1205.2	1210.3	1200.1
40°	1074.1	1069.0	1071.6	1066.4	1061.3	1061.3	1058.7	1048.4	1043.3	1045.9	1048.4
42.5°	937.9	937.9	930.2	917.4	904.5	904.5	896.8	891.7	881.4	886.5	884.0
45°	822.3	809.5	799.2	778.6	770.9	765.8	752.9	740.1	734.9	737.5	734.9
47.5°	711.8	701.5	675.8	647.6	639.9	632.1	616.7	601.3	596.2	591.0	591.0
50°	619.3	601.3	573.0	542.2	529.4	516.5	496.0	480.5	470.3	472.8	472.8
52.5°	534.5	513.9	480.5	442.0	426.6	411.2	393.2	375.2	367.5	364.9	364.9
55°	460.0	436.8	403.4	359.8	346.9	328.9	305.8	285.2	275.0	272.4	277.5
57.5°	393.2	372.6	334.1	290.4	275.0	257.0	233.8	215.9	203.0	200.4	203.0
60°	339.2	310.9	277.5	236.4	215.9	200.4	174.7	159.3	146.5	141.3	143.9
62.5°	285.2	259.5	226.1	185.0	169.6	154.2	131.1	113.1	102.8	100.2	102.8
65°	244.1	218.4	187.6	151.6	136.2	120.8	100.2	82.2	74.5	72.0	74.5
67.5°	203.0	179.9	154.2	120.8	107.9	95.1	74.5	61.7	51.4	48.8	51.4
70°	164.5	143.9	118.2	95.1	82.2	72.0	56.5	43.7	36.0	33.4	36.0
72.5°	123.3	107.9	89.9	69.4	61.7	54.0	41.1	30.8	25.7	23.1	25.7
75°	89.9	77.1	64.2	48.8	43.7	38.5	28.3	20.6	18.0	15.4	18.0
77.5°	61.7	54.0	43.7	33.4	28.3	25.7	18.0	15.4	12.8	10.3	10.3
80°	41.1	36.0	28.3	23.1	20.6	18.0	12.8	10.3	7.7	7.7	7.7
82.5°	25.7	20.6	18.0	12.8	10.3	10.3	7.7	5.1	5.1	5.1	5.1
85°	15.4	12.8	10.3	7.7	5.1	5.1	2.6	2.6	2.6	2.6	2.6
87.5°	7.7	5.1	5.1	2.6	2.6	2.6	2.6	2.6	0.0	0.0	2.6
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°	1816.8	1816.8	1816.8	1816.8	1816.8	1816.8	1816.8	1816.8	1816.8	1816.8	1816.8
2.5°	1816.8	1811.6	1811.6	1814.2	1816.8	1819.3	1814.2	1811.6	1811.6	1819.3	1814.2
5°	1816.8	1814.2	1814.2	1814.2	1819.3	1821.9	1816.8	1814.2	1816.8	1824.5	1821.9
7.5°	1824.5	1819.3	1821.9	1821.9	1824.5	1829.6	1824.5	1821.9	1824.5	1832.2	1827.1
10°	1829.6	1824.5	1827.1	1824.5	1832.2	1834.8	1829.6	1827.1	1829.6	1839.9	1837.3
12.5°	1832.2	1829.6	1829.6	1827.1	1834.8	1837.3	1832.2	1829.6	1832.2	1839.9	1837.3
15°	1827.1	1824.5	1824.5	1824.5	1829.6	1834.8	1827.1	1824.5	1824.5	1832.2	1829.6
17.5°	1816.8	1811.6	1811.6	1811.6	1814.2	1816.8	1809.1	1806.5	1803.9	1811.6	1809.1
20°	1798.8	1793.7	1788.5	1788.5	1791.1	1791.1	1785.9	1778.2	1778.2	1780.8	1775.7
22.5°	1765.4	1762.8	1757.7	1755.1	1760.2	1757.7	1747.4	1739.7	1737.1	1739.7	1734.5
25°	1719.1	1714.0	1711.4	1708.9	1711.4	1708.9	1698.6	1688.3	1688.3	1688.3	1680.6
27.5°	1654.9	1649.7	1647.2	1647.2	1649.7	1644.6	1634.3	1624.1	1618.9	1618.9	1611.2
30°	1572.7	1572.7	1570.1	1567.5	1564.9	1564.9	1549.5	1539.3	1534.1	1536.7	1531.5
32.5°	1472.4	1469.9	1467.3	1459.6	1462.2	1459.6	1446.7	1439.0	1431.3	1426.2	1423.6
35°	1344.0	1344.0	1341.4	1341.4	1341.4	1338.8	1326.0	1318.3	1313.1	1310.5	1302.8
37.5°	1202.6	1200.1	1197.5	1197.5	1197.5	1197.5	1189.8	1182.1	1182.1	1179.5	1174.4
40°	1043.3	1045.9	1048.4	1045.9	1053.6	1061.3	1051.0	1045.9	1043.3	1051.0	1040.7
42.5°	889.1	886.5	899.4	902.0	902.0	914.8	917.4	920.0	917.4	922.5	922.5
45°	740.1	737.5	750.4	755.5	768.3	783.8	791.5	804.3	809.5	814.6	809.5
47.5°	598.7	609.0	619.3	632.1	642.4	668.1	683.5	696.4	701.5	709.2	709.2
50°	480.5	490.8	508.8	519.1	531.9	562.8	588.5	606.4	616.7	624.4	621.9
52.5°	370.0	388.0	411.2	421.4	439.4	475.4	503.7	524.2	537.1	544.8	547.3
55°	285.2	300.7	323.8	339.2	357.2	395.7	431.7	454.8	467.7	478.0	483.1
57.5°	210.7	228.7	254.4	267.2	287.8	331.5	362.3	390.6	406.0	418.9	421.4
60°	154.2	172.2	195.3	210.7	231.3	275.0	310.9	336.6	354.6	364.9	370.0
62.5°	110.5	128.5	151.6	167.0	185.0	223.6	259.5	285.2	303.2	316.1	323.8
65°	79.7	97.6	120.8	133.6	149.0	185.0	218.4	244.1	262.1	277.5	282.7
67.5°	59.1	72.0	92.5	105.4	120.8	149.0	177.3	200.4	218.4	231.3	236.4
70°	43.7	54.0	72.0	79.7	89.9	115.6	138.8	159.3	174.7	185.0	190.2
72.5°	30.8	38.5	51.4	59.1	66.8	87.4	105.4	120.8	131.1	141.3	146.5
75°	20.6	25.7	36.0	41.1	46.3	61.7	74.5	87.4	95.1	102.8	105.4
77.5°	12.8	18.0	25.7	28.3	33.4	41.1	51.4	59.1	64.2	69.4	74.5
80°	7.7	10.3	15.4	18.0	20.6	28.3	33.4	38.5	43.7	48.8	51.4
82.5°	5.1	7.7	10.3	10.3	12.8	15.4	20.6	25.7	28.3	30.8	33.4
85°	2.6	2.6	5.1	5.1	7.7	7.7	10.3	12.8	15.4	18.0	20.6
87.5°	2.6	2.6	2.6	2.6	5.1	5.1	7.7	7.7	7.7	10.3	10.3
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: P252718

CATALOG NUMBER: LD6B50D010TE EU6B30509024 6LBDW1H

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1816.8	1816.8	1816.8	1816.8	1816.8	1816.8	1816.8	1816.8
2.5°	1809.1	1816.8	1809.1	1814.2	1811.6	1811.6	1809.1	1811.6
5°	1816.8	1827.1	1816.8	1824.5	1819.3	1819.3	1819.3	1821.9
7.5°	1824.5	1834.8	1827.1	1834.8	1832.2	1829.6	1829.6	1834.8
10°	1832.2	1839.9	1834.8	1842.5	1839.9	1837.3	1837.3	1842.5
12.5°	1832.2	1842.5	1837.3	1845.0	1842.5	1839.9	1839.9	1842.5
15°	1824.5	1837.3	1829.6	1837.3	1834.8	1832.2	1832.2	1837.3
17.5°	1801.4	1811.6	1806.5	1811.6	1811.6	1809.1	1811.6	1814.2
20°	1770.5	1778.2	1773.1	1778.2	1778.2	1773.1	1775.7	1778.2
22.5°	1726.8	1734.5	1729.4	1734.5	1732.0	1729.4	1729.4	1726.8
25°	1672.9	1683.2	1675.4	1680.6	1675.4	1670.3	1670.3	1672.9
27.5°	1606.1	1613.8	1603.5	1608.6	1603.5	1598.4	1598.4	1595.8
30°	1518.7	1521.3	1513.6	1518.7	1513.6	1511.0	1505.8	1505.8
32.5°	1413.3	1415.9	1408.2	1408.2	1403.1	1403.1	1392.8	1400.5
35°	1290.0	1292.6	1290.0	1287.4	1279.7	1277.1	1274.6	1274.6
37.5°	1161.5	1161.5	1153.8	1151.2	1146.1	1140.9	1143.5	1135.8
40°	1030.5	1027.9	1020.2	1022.7	1020.2	1012.5	1009.9	1007.3
42.5°	907.1	907.1	899.4	902.0	896.8	894.3	886.5	889.1
45°	799.2	799.2	791.5	791.5	788.9	781.2	783.8	778.6
47.5°	701.5	701.5	699.0	699.0	691.3	688.7	688.7	688.7
50°	616.7	616.7	616.7	616.7	614.2	611.6	609.0	611.6
52.5°	544.8	549.9	547.3	547.3	544.8	542.2	539.6	539.6
55°	480.5	483.1	483.1	485.7	483.1	480.5	483.1	480.5
57.5°	424.0	429.1	429.1	429.1	429.1	429.1	426.6	424.0
60°	375.2	377.7	377.7	380.3	380.3	380.3	377.7	377.7
62.5°	326.4	331.5	334.1	334.1	336.6	334.1	334.1	334.1
65°	287.8	292.9	295.5	292.9	295.5	295.5	292.9	292.9
67.5°	241.6	246.7	246.7	246.7	246.7	249.3	246.7	246.7
70°	195.3	200.4	197.9	200.4	200.4	200.4	200.4	200.4
72.5°	149.0	151.6	154.2	154.2	156.8	154.2	154.2	154.2
75°	107.9	113.1	113.1	113.1	113.1	115.6	115.6	115.6
77.5°	77.1	79.7	79.7	82.2	82.2	82.2	82.2	84.8
80°	54.0	54.0	56.5	56.5	59.1	59.1	59.1	59.1
82.5°	36.0	38.5	38.5	38.5	38.5	38.5	38.5	38.5
85°	20.6	23.1	23.1	23.1	23.1	25.7	25.7	25.7
87.5°	12.8	12.8	12.8	12.8	12.8	12.8	10.3	10.3
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)