

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: P252170

Luminaire Tested: **LD6B30D010 EU6B30508040 6LBSW1LI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P252170  
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 EU6B30508040 6LBSW1LI  
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3896.0 lumens  
Efficiency: N/A  
Efficacy: 139.1 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

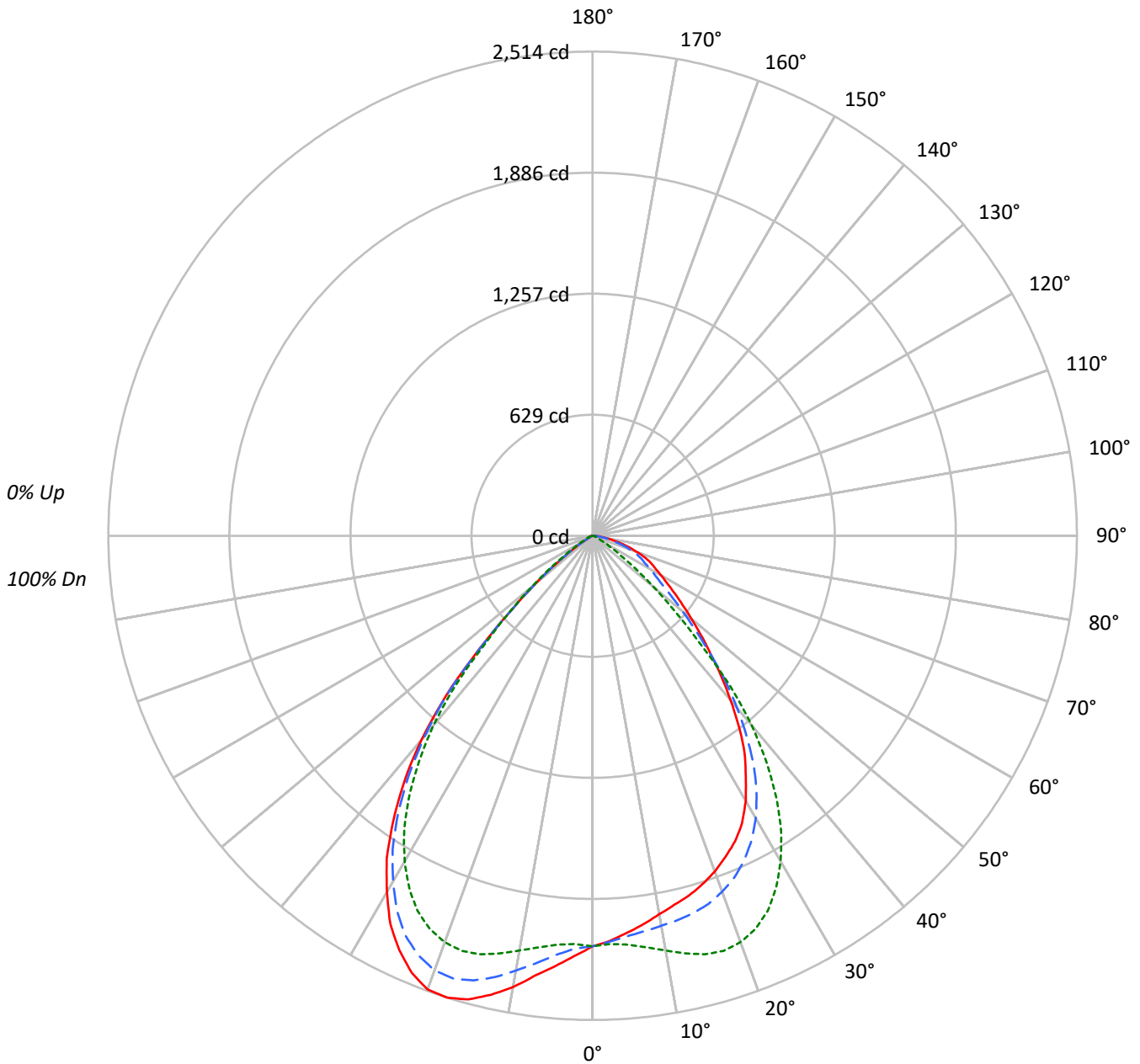
Input Watts (W): 28  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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			
1	112	108	105	103	109	106	103	101	102	100	98	98	96	95	95	93	92	90			
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	80			
3	98	89	83	78	95	88	82	78	85	80	76	83	78	75	80	77	74	72			
4	91	82	75	69	89	80	74	69	78	72	68	76	71	67	74	70	66	65			
5	85	75	67	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58			
6	80	69	61	56	78	68	61	56	66	60	55	64	59	55	63	58	54	53			
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	50	48			
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44			
9	66	54	47	42	64	54	47	42	53	46	42	52	46	42	51	45	42	40			
10	62	50	43	39	61	50	43	39	49	43	39	48	43	39	47	42	38	37			

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

	0°	90°	180°
0°	139054	139054	139054
5°	135453	139585	146926
10°	132156	144843	157668
15°	130613	151943	168322
20°	128740	155900	174013
25°	126003	154753	170885
30°	119735	147058	160874
35°	109542	132591	143630
40°	94755	109506	117835
45°	79901	71818	77087
50°	67840	41573	39086
55°	58874	19928	15060
60°	53171	9303	3719
65°	51591	5341	1266
70°	46257	4273	1164
75°	38012	3075	504
80°	28328	1540	0
85°	24403	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	205.9	5.3
10°-20°	627.4	16.1
20°-30°	958.7	24.6
30°-40°	1002.7	25.7
40°-50°	650.4	16.7
50°-60°	258.3	6.6
60°-70°	122.5	3.1
70°-80°	58.3	1.5
80°-90°	11.9	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°	1792.0	46.0
0°-40°	2794.6	71.7
0°-60°	3703.3	95.1
0°-90°	3896.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3896.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2131	2131	2131	2131	2131	
5°	2068	2087	2131	2184	2244	195
15°	1934	2028	2250	2390	2492	545
25°	1750	1860	2150	2294	2374	802
35°	1375	1459	1665	1763	1803	851
45°	866	858	778	825	836	674
55°	518	440	175	136	132	469
65°	334	277	35	8	8	326
75°	151	122	12	4	2	163
85°	33	20	0	0	0	38
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°	2131.4	2131.4	2131.4	2131.4	2131.4	2131.4	2131.4	2131.4	2131.4	2131.4	2131.4
2.5°	2104.9	2109.0	2086.6	2080.5	2096.8	2102.9	2104.9	2098.8	2100.9	2109.0	2109.0
5°	2068.3	2072.3	2051.9	2045.8	2062.1	2066.2	2072.3	2070.3	2076.4	2088.6	2086.6
7.5°	2033.6	2039.7	2017.3	2009.2	2029.5	2039.7	2043.8	2043.8	2051.9	2068.3	2070.3
10°	1994.9	2003.0	1982.7	1978.6	2001.0	2011.2	2013.2	2017.3	2029.5	2051.9	2056.0
12.5°	1962.3	1970.4	1956.2	1950.1	1974.5	1984.7	1988.8	1996.9	2011.2	2039.7	2043.8
15°	1933.8	1939.9	1923.6	1919.5	1944.0	1956.2	1958.2	1970.4	1988.8	2021.4	2027.5
17.5°	1897.1	1901.2	1888.9	1884.9	1909.3	1921.5	1923.6	1937.8	1960.3	1992.9	2003.0
20°	1854.3	1858.4	1846.1	1842.1	1866.5	1880.8	1882.8	1895.0	1921.5	1956.2	1966.4
22.5°	1803.4	1811.5	1797.2	1793.2	1817.6	1829.8	1836.0	1846.1	1872.6	1907.3	1921.5
25°	1750.4	1750.4	1740.2	1738.1	1760.6	1774.8	1772.8	1787.1	1813.5	1848.2	1860.4
27.5°	1681.1	1679.1	1668.9	1666.8	1691.3	1703.5	1699.4	1713.7	1738.1	1772.8	1785.0
30°	1589.4	1593.5	1579.2	1575.1	1595.5	1615.9	1613.8	1628.1	1652.6	1685.2	1693.3
32.5°	1479.4	1483.4	1481.4	1475.3	1493.6	1503.8	1509.9	1520.1	1540.5	1575.1	1583.3
35°	1375.4	1369.3	1361.2	1361.2	1379.5	1395.8	1389.7	1401.9	1422.3	1456.9	1459.0
37.5°	1247.1	1245.0	1241.0	1236.9	1257.3	1261.3	1263.4	1271.5	1289.9	1318.4	1314.3
40°	1112.6	1114.6	1112.6	1104.4	1116.7	1133.0	1130.9	1135.0	1151.3	1171.7	1165.6
42.5°	986.2	986.2	986.2	978.1	992.4	1000.5	1004.6	1002.5	1006.6	1025.0	1016.8
45°	866.0	868.1	866.0	864.0	866.0	870.1	866.0	864.0	864.0	870.1	857.9
47.5°	762.1	762.1	756.0	749.9	756.0	758.0	751.9	745.8	743.8	741.7	721.3
50°	668.4	666.3	664.3	654.1	660.2	662.2	654.1	650.0	641.9	631.7	607.2
52.5°	586.9	584.8	582.8	572.6	576.7	578.7	570.6	562.4	552.2	544.1	513.5
55°	517.6	515.5	515.5	509.4	505.3	509.4	501.3	495.2	480.9	470.7	440.1
57.5°	458.5	458.5	454.4	448.3	450.3	450.3	442.2	434.0	421.8	409.6	385.1
60°	407.5	407.5	407.5	401.4	401.4	401.4	397.3	389.2	379.0	366.8	342.3
62.5°	366.8	366.8	364.7	358.6	360.7	360.7	356.6	348.4	338.3	330.1	305.7
65°	334.2	334.2	334.2	328.1	328.1	330.1	326.0	317.9	309.7	299.5	277.1
67.5°	293.4	291.4	291.4	287.3	289.4	291.4	287.3	281.2	271.0	264.9	244.5
70°	242.5	244.5	246.6	240.4	242.5	242.5	240.4	234.3	228.2	222.1	203.8
72.5°	197.7	197.7	195.6	193.6	193.6	195.6	191.5	185.4	181.4	177.3	163.0
75°	150.8	148.8	150.8	146.7	146.7	146.7	142.6	140.6	138.6	132.4	122.3
77.5°	110.0	108.0	108.0	103.9	106.0	106.0	103.9	99.8	95.8	93.7	85.6
80°	75.4	75.4	75.4	73.4	73.4	71.3	71.3	69.3	65.2	63.2	59.1
82.5°	50.9	50.9	50.9	48.9	48.9	48.9	46.9	44.8	42.8	40.8	36.7
85°	32.6	32.6	32.6	30.6	30.6	30.6	28.5	28.5	26.5	24.5	20.4
87.5°	18.3	18.3	18.3	16.3	16.3	16.3	16.3	16.3	14.3	12.2	10.2
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°	2131.4	2131.4	2131.4	2131.4	2131.4	2131.4	2131.4	2131.4	2131.4	2131.4	2131.4
2.5°	2123.3	2094.7	2113.1	2113.1	2107.0	2123.3	2133.5	2141.6	2139.6	2121.2	2119.2
5°	2107.0	2082.5	2102.9	2104.9	2098.8	2121.2	2135.5	2145.7	2147.7	2131.4	2133.5
7.5°	2094.7	2074.4	2100.9	2109.0	2107.0	2127.3	2143.6	2159.9	2168.1	2155.9	2157.9
10°	2088.6	2072.3	2100.9	2113.1	2115.1	2137.5	2162.0	2184.4	2194.6	2186.4	2192.6
12.5°	2080.5	2070.3	2102.9	2121.2	2129.4	2151.8	2182.4	2208.9	2225.2	2221.1	2233.3
15°	2072.3	2064.2	2102.9	2129.4	2139.6	2159.9	2194.6	2233.3	2251.6	2249.6	2265.9
17.5°	2051.9	2049.9	2090.7	2119.2	2133.5	2157.9	2190.5	2237.4	2255.7	2259.8	2280.2
20°	2019.3	2019.3	2064.2	2094.7	2111.0	2133.5	2174.2	2219.0	2241.5	2245.5	2267.9
22.5°	1974.5	1978.6	2021.4	2051.9	2076.4	2092.7	2135.5	2182.4	2202.7	2208.9	2233.3
25°	1915.4	1919.5	1960.3	1990.8	2017.3	2035.6	2076.4	2119.2	2143.6	2149.8	2168.1
27.5°	1838.0	1846.1	1884.9	1915.4	1937.8	1950.1	1992.9	2037.7	2056.0	2062.1	2080.5
30°	1748.3	1750.4	1789.1	1815.6	1838.0	1848.2	1884.9	1931.7	1946.0	1952.1	1978.6
32.5°	1638.3	1636.3	1672.9	1697.4	1715.7	1728.0	1766.7	1797.2	1811.5	1821.7	1836.0
35°	1505.8	1503.8	1530.3	1558.8	1573.1	1577.2	1615.9	1648.5	1656.6	1664.8	1683.1
37.5°	1357.1	1357.1	1379.5	1393.8	1410.1	1416.2	1434.5	1471.2	1485.5	1483.4	1497.7
40°	1200.2	1192.0	1208.3	1222.6	1226.7	1228.7	1247.1	1275.6	1285.8	1285.8	1296.0
42.5°	1035.1	1022.9	1025.0	1033.1	1037.2	1022.9	1035.1	1053.5	1047.4	1055.5	1057.6
45°	859.9	841.6	833.4	815.1	819.1	804.9	796.7	800.8	798.8	778.4	782.5
47.5°	717.3	684.7	670.4	643.9	637.8	621.5	611.3	593.0	576.7	576.7	566.5
50°	597.0	564.4	535.9	505.3	495.2	480.9	458.5	434.0	421.8	409.6	399.4
52.5°	501.3	466.6	432.0	399.4	385.1	366.8	336.2	311.8	289.4	277.1	264.9
55°	423.8	385.1	348.4	313.8	295.5	277.1	246.6	218.0	191.5	175.2	165.1
57.5°	364.7	328.1	289.4	252.7	236.4	216.0	183.4	152.8	128.4	110.0	99.8
60°	322.0	285.3	250.6	211.9	195.6	175.2	140.6	112.1	87.6	71.3	59.1
62.5°	285.3	252.7	216.0	181.4	165.1	144.7	112.1	83.5	61.1	44.8	34.6
65°	258.8	226.2	195.6	161.0	146.7	126.3	95.8	69.3	48.9	34.6	24.5
67.5°	228.2	199.7	169.1	140.6	126.3	110.0	81.5	59.1	40.8	28.5	20.4
70°	191.5	169.1	142.6	116.1	106.0	91.7	67.2	48.9	32.6	22.4	16.3
72.5°	152.8	134.5	114.1	93.7	85.6	71.3	55.0	38.7	24.5	16.3	12.2
75°	116.1	101.9	85.6	71.3	63.2	55.0	40.8	28.5	18.3	12.2	8.2
77.5°	79.5	73.4	61.1	48.9	44.8	38.7	26.5	18.3	12.2	8.2	4.1
80°	55.0	48.9	40.8	32.6	28.5	24.5	16.3	12.2	6.1	4.1	2.0
82.5°	34.6	28.5	24.5	20.4	18.3	14.3	10.2	6.1	4.1	2.0	2.0
85°	18.3	16.3	14.3	10.2	10.2	8.2	6.1	4.1	2.0	0.0	0.0
87.5°	10.2	8.2	6.1	4.1	4.1	2.0	2.0	2.0	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°	2131.4	2131.4	2131.4	2131.4	2131.4	2131.4	2131.4	2131.4	2131.4	2131.4	2131.4
2.5°	2143.6	2143.6	2141.6	2166.1	2137.5	2166.1	2151.8	2166.1	2145.7	2143.6	2145.7
5°	2159.9	2166.1	2168.1	2190.5	2164.0	2198.7	2186.4	2198.7	2184.4	2188.5	2194.6
7.5°	2192.6	2202.7	2200.7	2229.2	2202.7	2241.5	2233.3	2251.6	2237.4	2241.5	2249.6
10°	2229.2	2241.5	2243.5	2272.0	2247.6	2294.4	2284.2	2304.6	2292.4	2298.5	2308.7
12.5°	2272.0	2286.3	2288.3	2320.9	2294.4	2343.3	2337.2	2357.6	2347.4	2353.5	2365.8
15°	2304.6	2325.0	2329.1	2361.7	2333.2	2384.1	2380.0	2406.5	2390.2	2400.4	2410.6
17.5°	2320.9	2339.3	2347.4	2378.0	2353.5	2404.5	2400.4	2422.8	2410.6	2420.8	2433.0
20°	2310.7	2333.2	2339.3	2369.8	2345.4	2396.3	2390.2	2412.6	2400.4	2408.5	2420.8
22.5°	2274.1	2296.5	2304.6	2333.2	2310.7	2357.6	2355.6	2375.9	2359.6	2369.8	2380.0
25°	2208.9	2233.3	2237.4	2263.9	2239.4	2288.3	2284.2	2306.7	2294.4	2300.5	2314.8
27.5°	2115.1	2143.6	2149.8	2172.2	2153.8	2194.6	2194.6	2212.9	2198.7	2198.7	2212.9
30°	2003.0	2031.6	2035.6	2054.0	2037.7	2074.4	2076.4	2094.7	2072.3	2084.6	2086.6
32.5°	1866.5	1884.9	1897.1	1913.4	1888.9	1935.8	1929.7	1944.0	1931.7	1931.7	1941.9
35°	1701.5	1723.9	1730.0	1750.4	1730.0	1766.7	1766.7	1774.8	1762.6	1762.6	1778.9
37.5°	1522.2	1538.5	1540.5	1560.9	1544.6	1575.1	1573.1	1579.2	1567.0	1575.1	1575.1
40°	1312.3	1324.5	1328.6	1338.8	1336.7	1359.1	1357.1	1361.2	1355.1	1357.1	1361.2
42.5°	1067.7	1084.0	1092.2	1100.4	1088.1	1118.7	1112.6	1118.7	1116.7	1118.7	1124.8
45°	786.5	798.8	804.9	806.9	802.8	821.2	835.5	823.2	825.3	821.2	829.3
47.5°	568.5	570.6	566.5	578.7	568.5	576.7	580.7	582.8	570.6	568.5	576.7
50°	389.2	399.4	385.1	391.2	389.2	397.3	393.3	395.3	383.1	389.2	385.1
52.5°	258.8	256.7	252.7	254.7	250.6	250.6	250.6	254.7	246.6	242.5	238.4
55°	156.9	152.8	144.7	142.6	142.6	144.7	140.6	136.5	136.5	134.5	134.5
57.5°	91.7	85.6	81.5	79.5	75.4	73.4	71.3	71.3	67.2	67.2	67.2
60°	50.9	44.8	40.8	36.7	36.7	34.6	32.6	30.6	30.6	30.6	28.5
62.5°	26.5	22.4	18.3	16.3	16.3	14.3	12.2	12.2	12.2	12.2	10.2
65°	18.3	14.3	12.2	10.2	10.2	8.2	8.2	8.2	8.2	8.2	8.2
67.5°	14.3	12.2	10.2	8.2	8.2	8.2	6.1	6.1	6.1	6.1	6.1
70°	12.2	8.2	8.2	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
72.5°	8.2	8.2	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
75°	6.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
77.5°	2.0	2.0	2.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0
80°	2.0	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: P252170

CATALOG NUMBER: LD6B30D010 EU6B30508040 6LBSW1LI

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2131.4	2131.4	2131.4	2131.4	2131.4	2131.4	2131.4	2131.4
2.5°	2164.0	2162.0	2164.0	2168.1	2159.9	2184.4	2172.2	2184.4
5°	2210.9	2212.9	2215.0	2221.1	2210.9	2241.5	2225.2	2243.5
7.5°	2272.0	2274.1	2276.1	2282.2	2276.1	2306.7	2288.3	2304.6
10°	2335.2	2339.3	2339.3	2349.5	2343.3	2371.9	2359.6	2380.0
12.5°	2394.3	2398.4	2402.4	2408.5	2404.5	2435.0	2424.8	2441.1
15°	2441.1	2449.3	2451.3	2459.5	2455.4	2488.0	2475.8	2492.1
17.5°	2463.6	2471.7	2471.7	2481.9	2477.8	2512.5	2496.2	2514.5
20°	2451.3	2457.4	2459.5	2469.7	2465.6	2500.2	2483.9	2506.4
22.5°	2412.6	2414.7	2416.7	2426.9	2424.8	2455.4	2441.1	2455.4
25°	2341.3	2347.4	2345.4	2353.5	2353.5	2378.0	2361.7	2373.9
27.5°	2239.4	2245.5	2245.5	2255.7	2247.6	2272.0	2255.7	2274.1
30°	2115.1	2121.2	2117.2	2125.3	2117.2	2141.6	2129.4	2135.5
32.5°	1966.4	1966.4	1968.4	1970.4	1966.4	1988.8	1976.6	1988.8
35°	1789.1	1793.2	1795.2	1797.2	1793.2	1809.5	1795.2	1803.4
37.5°	1589.4	1599.6	1597.5	1599.6	1593.5	1613.8	1601.6	1605.7
40°	1375.4	1375.4	1373.4	1377.5	1371.4	1387.7	1379.5	1383.6
42.5°	1126.8	1133.0	1124.8	1135.0	1118.7	1141.1	1133.0	1126.8
45°	845.6	837.5	835.5	837.5	831.4	833.4	839.5	835.5
47.5°	576.7	576.7	572.6	566.5	574.6	576.7	568.5	568.5
50°	387.2	387.2	383.1	381.0	385.1	383.1	379.0	385.1
52.5°	246.6	238.4	238.4	242.5	238.4	234.3	240.4	236.4
55°	134.5	130.4	130.4	134.5	130.4	130.4	128.4	132.4
57.5°	65.2	67.2	65.2	65.2	65.2	65.2	63.2	65.2
60°	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5
62.5°	12.2	12.2	10.2	10.2	10.2	10.2	10.2	10.2
65°	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2
67.5°	6.1	6.1	6.1	6.1	6.1	8.2	6.1	6.1
70°	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
72.5°	6.1	6.1	8.2	8.2	8.2	8.2	8.2	8.2
75°	4.1	4.1	4.1	2.0	2.0	2.0	2.0	2.0
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)