

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: io LED

Report Number: P397329

Luminaire Tested: **8VRVT2-LD5-16-DR100-W-UNV-LG52-CD2-WL-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P397329
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1710-355-15)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: 8VRVT2-LD5-16-DR100-W-UNV-LG52-CD2-WL-U
Description:
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12190.5 lumens
Efficiency: N/A
Efficacy: 43.8 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.58 / 1.57
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 8.33' x H: 0.17')
CIE Type: Semi-Direct

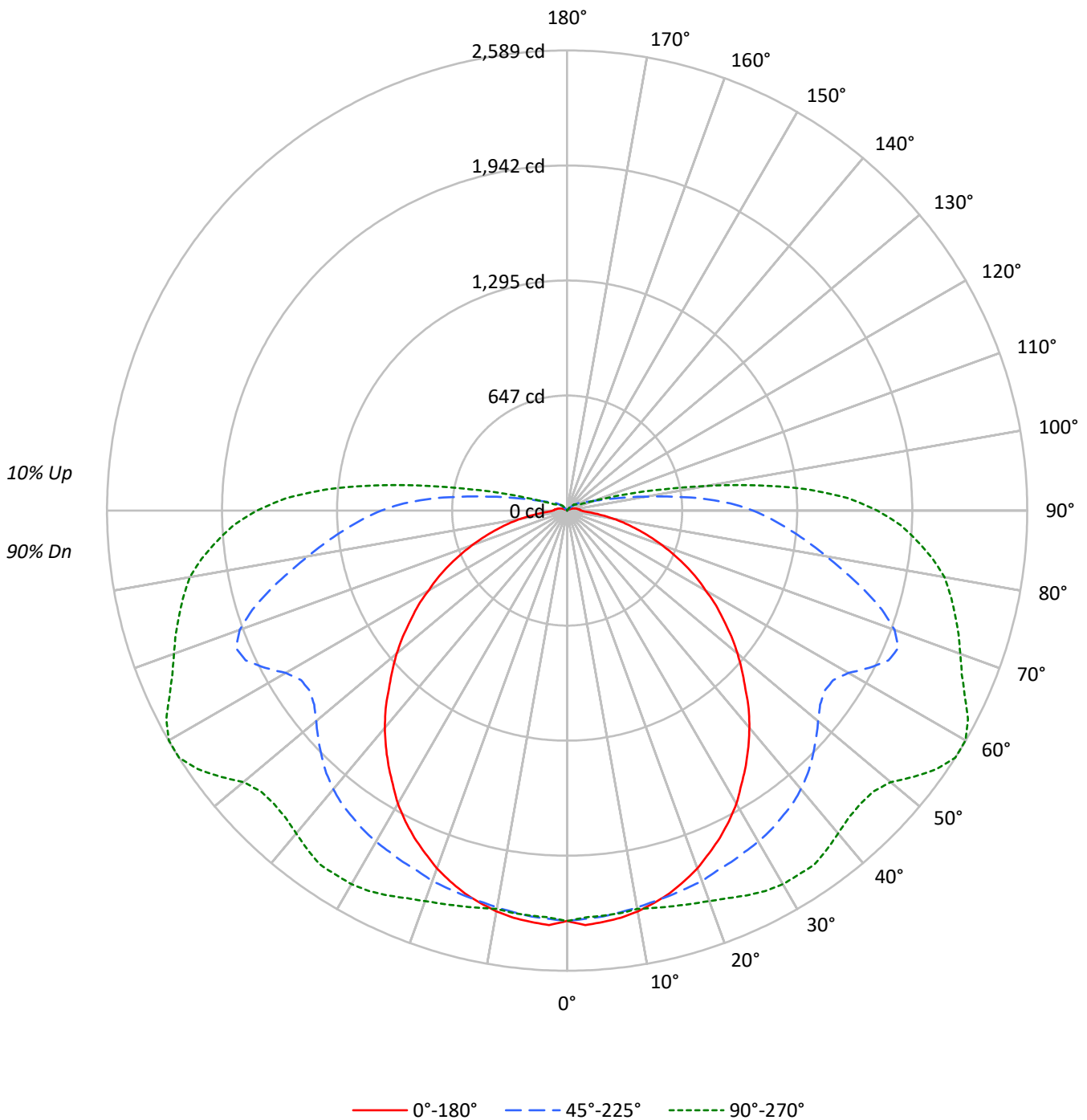
Input Watts (W): 278.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	117	117	117	117	113	113	113	113	106	106	106	99	99	99	93	93	93	90
1	101	94	88	83	97	91	85	80	85	80	76	79	75	72	74	71	68	65
2	90	79	71	63	86	77	69	62	71	64	59	66	61	56	62	57	53	50
3	81	68	58	50	77	66	57	49	61	53	47	57	50	45	53	47	43	40
4	73	59	49	41	70	57	48	40	53	45	39	50	43	37	46	40	35	33
5	67	52	42	35	64	51	41	34	47	39	33	44	37	31	41	35	30	27
6	62	47	37	30	59	45	36	29	42	34	28	40	32	27	37	31	26	23
7	57	42	33	26	55	41	32	25	38	30	24	36	29	24	34	27	23	20
8	53	38	29	23	51	37	28	22	35	27	22	33	26	21	31	25	20	18
9	49	35	26	20	47	34	26	20	32	24	19	30	23	19	28	22	18	16
10	46	32	24	18	44	31	23	18	30	22	17	28	21	17	26	20	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5965	5965	5965
5°	6014	5819	5765
10°	5985	5697	5637
15°	5929	5619	5657
20°	5847	5589	5731
25°	5739	5572	5893
30°	5615	5606	6072
35°	5449	5652	6210
40°	5291	5705	6249
45°	5078	5711	6392
50°	4912	5708	6834
55°	4708	5869	7738
60°	4498	6590	8475
65°	4314	7942	8801
70°	4067	8779	9279
75°	3790	8951	10049
80°	3549	9110	11093
85°	3281	9681	12187



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	219.0	1.8
10°-20°	639.2	5.2
20°-30°	1015.8	8.3
30°-40°	1313.1	10.8
40°-50°	1481.7	12.2
50°-60°	1624.3	13.3
60°-70°	1733.4	14.2
70°-80°	1624.9	13.3
80°-90°	1308.7	10.7
90°-100°	814.9	6.7
100°-110°	264.2	2.2
110°-120°	86.2	0.7
120°-130°	44.1	0.4
130°-140°	18.2	0.1
140°-150°	2.8	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1874.0	15.4
0°-40°	3187.0	26.1
0°-60°	6293.1	51.6
0°-90°	10960.1	89.9
90°-120°	1165.2	9.6
90°-150°	1230.4	10.1
90°-180°	1230.0	10.1
0°-180°	12190.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2309	2309	2309	2309	2309	
5°	2323	2315	2293	2296	2288	221
15°	2229	2229	2242	2299	2304	628
25°	2032	2059	2182	2336	2389	936
35°	1752	1851	2106	2347	2429	1096
45°	1418	1592	1954	2222	2333	1098
55°	1075	1304	1768	2349	2536	964
65°	736	1032	1995	2416	2469	728
75°	408	998	1733	2096	2259	435
85°	136	683	1259	1784	1978	139
90°	78	510	1046	1554	1746	45
95°	69	355	770	1205	1363	54
105°	46	128	254	330	368	49
115°	22	58	115	102	88	24
125°	10	19	69	70	61	9
135°	3	0	27	42	40	3
145°	2	0	0	8	8	1
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	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°	2308.9	2308.9	2308.9	2308.9	2308.9	2308.9	2308.9	2308.9	2308.9	2308.9	2308.9
2.5°	2334.5	2328.1	2323.3	2323.3	2323.3	2321.7	2321.7	2320.1	2316.9	2307.3	2299.3
5°	2323.3	2320.1	2315.3	2315.3	2315.3	2315.3	2315.3	2312.1	2305.7	2299.3	2292.9
7.5°	2310.5	2307.3	2300.9	2302.5	2297.7	2299.3	2297.7	2294.5	2292.9	2288.1	2280.1
10°	2289.7	2286.5	2280.1	2281.7	2278.5	2280.1	2280.1	2281.7	2278.5	2273.7	2267.3
12.5°	2260.9	2259.3	2256.1	2254.5	2257.7	2260.9	2262.5	2259.3	2256.1	2254.5	2252.9
15°	2228.9	2225.7	2222.5	2224.1	2228.9	2228.9	2233.7	2233.7	2233.7	2235.3	2241.7
17.5°	2187.3	2185.7	2182.5	2185.7	2188.9	2190.5	2196.9	2200.1	2201.7	2214.5	2228.9
20°	2142.5	2139.3	2136.1	2139.3	2144.1	2150.5	2156.9	2166.5	2180.9	2201.7	2217.7
22.5°	2086.5	2084.9	2083.3	2086.5	2094.5	2104.1	2115.3	2136.1	2158.5	2180.9	2195.3
25°	2032.1	2028.9	2027.3	2033.7	2049.7	2059.3	2073.7	2100.9	2126.5	2155.3	2182.5
27.5°	1971.3	1961.7	1969.7	1976.1	1996.9	2009.7	2027.3	2062.5	2091.3	2123.3	2164.9
30°	1904.1	1899.3	1899.3	1913.7	1940.9	1960.1	1980.9	2020.9	2054.5	2099.3	2150.5
32.5°	1825.7	1827.3	1830.5	1849.7	1886.5	1908.9	1926.5	1972.9	2016.1	2072.1	2131.3
35°	1752.1	1748.9	1756.9	1784.1	1825.7	1851.3	1875.3	1924.9	1979.3	2041.7	2105.7
37.5°	1675.3	1672.1	1683.3	1715.3	1760.1	1787.3	1814.5	1876.9	1939.3	2009.7	2081.7
40°	1595.3	1595.3	1608.1	1643.3	1692.9	1721.7	1753.7	1824.1	1892.9	1969.7	2046.5
42.5°	1512.1	1508.9	1524.9	1572.9	1628.9	1657.7	1696.1	1769.7	1848.1	1924.9	2004.9
45°	1417.7	1430.5	1446.5	1494.5	1552.1	1592.1	1636.9	1715.3	1795.3	1876.9	1953.7
47.5°	1334.5	1344.1	1366.5	1417.7	1484.9	1521.7	1569.7	1652.9	1739.3	1817.7	1899.3
50°	1251.3	1256.1	1286.5	1337.7	1408.1	1454.5	1500.9	1585.7	1670.5	1760.1	1843.3
52.5°	1164.8	1166.4	1203.2	1252.9	1336.1	1382.5	1425.7	1515.3	1606.5	1699.3	1793.7
55°	1075.2	1080.0	1118.4	1172.8	1260.9	1304.1	1352.1	1444.9	1544.1	1649.7	1768.1
57.5°	993.6	998.4	1035.2	1094.4	1185.6	1232.1	1278.5	1379.3	1488.1	1619.3	1774.5
60°	900.8	913.6	947.2	1014.4	1107.2	1153.6	1208.0	1320.1	1456.1	1630.5	1827.3
62.5°	822.4	825.6	864.0	937.6	1035.2	1086.4	1145.6	1281.7	1460.9	1680.1	1915.3
65°	736.0	744.0	784.0	867.2	971.2	1032.0	1102.4	1276.9	1505.7	1766.5	1995.3
67.5°	649.6	662.4	710.4	801.6	921.6	995.2	1084.8	1310.5	1577.7	1832.1	2017.7
70°	568.0	584.0	638.4	744.0	888.0	980.8	1096.0	1360.1	1627.3	1836.9	1960.1
72.5°	486.4	508.8	579.2	700.8	875.2	990.4	1121.6	1390.5	1616.1	1760.1	1857.7
75°	408.0	433.6	524.8	667.2	873.6	998.4	1131.2	1361.7	1521.7	1641.7	1732.9
77.5°	337.6	368.0	473.6	640.0	862.4	979.2	1086.4	1264.1	1396.9	1508.9	1601.7
80°	265.6	305.6	428.8	604.8	808.0	900.8	988.8	1137.6	1257.7	1371.3	1480.1
82.5°	196.8	249.6	380.8	552.0	715.2	798.4	867.2	1003.2	1124.8	1243.3	1368.1
85°	136.0	196.8	323.2	470.4	611.2	683.2	750.4	880.0	1000.0	1124.8	1259.3
87.5°	94.4	155.2	268.8	398.4	528.0	588.8	649.6	774.4	894.4	1017.6	1155.2
90°	78.4	123.2	224.0	337.6	452.8	510.4	568.0	681.6	800.0	918.4	1046.4
92.5°	73.6	102.4	184.0	283.2	387.2	435.2	486.4	592.0	697.6	811.2	920.0
95°	68.8	81.6	145.6	225.6	313.6	355.2	398.4	481.6	577.6	670.4	769.6
97.5°	62.4	67.2	112.0	176.0	246.4	281.6	313.6	380.8	456.0	526.4	596.8
100°	57.6	57.6	84.8	134.4	190.4	216.0	243.2	299.2	348.8	401.6	451.2
102.5°	51.2	51.2	65.6	100.8	145.6	166.4	190.4	228.8	265.6	302.4	337.6
105°	46.4	44.8	52.8	78.4	110.4	128.0	145.6	177.6	206.4	230.4	254.4
107.5°	40.0	40.0	43.2	62.4	88.0	102.4	115.2	142.4	164.8	182.4	195.2
110°	33.6	33.6	35.2	49.6	72.0	83.2	96.0	116.8	134.4	148.8	156.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	28.8	28.8	27.2	40.0	59.2	70.4	80.0	99.2	115.2	124.8	131.2
115°	22.4	22.4	22.4	30.4	48.0	57.6	67.2	84.8	100.8	110.4	115.2
117.5°	19.2	19.2	17.6	22.4	38.4	48.0	56.0	73.6	86.4	97.6	102.4
120°	14.4	14.4	14.4	14.4	28.8	38.4	46.4	62.4	75.2	84.8	89.6
122.5°	11.2	11.2	11.2	9.6	20.8	28.8	36.8	51.2	64.0	73.6	80.0
125°	9.6	8.0	8.0	8.0	12.8	19.2	27.2	40.0	51.2	62.4	68.8
127.5°	8.0	6.4	6.4	6.4	6.4	11.2	17.6	30.4	41.6	51.2	57.6
130°	6.4	4.8	4.8	4.8	3.2	6.4	11.2	20.8	32.0	40.0	46.4
132.5°	4.8	4.8	3.2	3.2	1.6	1.6	4.8	12.8	22.4	30.4	36.8
135°	3.2	3.2	3.2	1.6	1.6	0.0	0.0	6.4	14.4	20.8	27.2
137.5°	3.2	3.2	1.6	1.6	0.0	0.0	0.0	1.6	6.4	12.8	19.2
140°	3.2	1.6	1.6	1.6	0.0	0.0	0.0	0.0	1.6	6.4	11.2
142.5°	1.6	1.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2
145°	1.6	1.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	1.6	1.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	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°
0°	2308.9	2308.9	2308.9	2308.9	2308.9	2308.9	2308.9	2308.9	2308.9	2308.9
2.5°	2299.3	2300.9	2302.5	2302.5	2300.9	2300.9	2299.3	2296.1	2292.9	2291.3
5°	2288.1	2292.9	2296.1	2296.1	2296.1	2294.5	2294.5	2292.9	2289.7	2288.1
7.5°	2278.5	2286.5	2289.7	2288.1	2288.1	2288.1	2288.1	2289.7	2286.5	2284.9
10°	2268.9	2275.3	2281.7	2283.3	2284.9	2283.3	2283.3	2280.1	2278.5	2275.3
12.5°	2259.3	2270.5	2280.1	2288.1	2288.1	2288.1	2291.3	2296.1	2294.5	2289.7
15°	2251.3	2270.5	2281.7	2294.5	2299.3	2304.1	2305.7	2308.9	2304.1	2304.1
17.5°	2246.5	2272.1	2288.1	2300.9	2302.5	2308.9	2318.5	2323.3	2321.7	2320.1
20°	2238.5	2268.9	2291.3	2302.5	2310.5	2318.5	2331.3	2334.5	2337.7	2337.7
22.5°	2228.9	2262.5	2284.9	2310.5	2323.3	2331.3	2348.9	2358.5	2361.7	2360.1
25°	2220.9	2259.3	2292.9	2323.3	2336.1	2345.7	2368.1	2385.7	2388.9	2388.9
27.5°	2212.9	2257.7	2297.7	2337.7	2353.7	2364.9	2387.3	2404.9	2411.3	2412.9
30°	2204.9	2254.5	2302.5	2342.5	2361.7	2372.9	2398.5	2414.5	2427.3	2427.3
32.5°	2190.5	2251.3	2299.3	2342.5	2358.5	2377.7	2401.7	2419.3	2428.9	2427.3
35°	2176.1	2232.1	2286.5	2329.7	2347.3	2366.5	2395.3	2416.1	2422.5	2428.9
37.5°	2152.1	2211.3	2265.7	2308.9	2334.5	2350.5	2376.1	2392.1	2404.9	2401.7
40°	2120.1	2179.3	2235.3	2276.9	2299.3	2318.5	2347.3	2361.7	2372.9	2371.3
42.5°	2073.7	2140.9	2193.7	2238.5	2262.5	2281.7	2316.9	2329.7	2342.5	2344.1
45°	2027.3	2092.9	2152.1	2200.1	2222.5	2244.9	2288.1	2312.1	2328.1	2332.9
47.5°	1971.3	2044.9	2112.1	2177.7	2209.7	2238.5	2283.3	2316.9	2334.5	2337.7
50°	1924.9	2016.1	2099.3	2176.1	2216.1	2248.1	2308.9	2348.9	2368.1	2376.1
52.5°	1897.7	2008.1	2116.9	2216.1	2264.1	2304.1	2379.3	2424.1	2456.1	2459.3
55°	1902.5	2041.7	2177.7	2300.9	2348.9	2398.5	2467.3	2508.9	2536.1	2536.1
57.5°	1950.5	2116.9	2273.7	2387.3	2435.3	2473.7	2537.7	2564.9	2584.1	2588.9
60°	2036.9	2212.9	2348.9	2448.1	2480.1	2510.5	2545.7	2576.1	2584.1	2587.3
62.5°	2121.7	2272.1	2379.3	2448.1	2467.3	2492.9	2518.5	2536.1	2542.5	2542.5
65°	2166.5	2278.5	2344.1	2395.3	2416.1	2424.1	2451.3	2457.7	2472.1	2468.9
67.5°	2139.3	2211.3	2264.1	2307.3	2323.3	2339.3	2371.3	2387.3	2400.1	2403.3
70°	2046.5	2104.1	2160.1	2214.5	2235.3	2262.5	2300.9	2331.3	2345.7	2353.7
72.5°	1932.9	2001.7	2073.7	2139.3	2172.9	2198.5	2246.5	2286.5	2300.9	2308.9
75°	1816.1	1897.7	1980.9	2060.9	2096.1	2129.7	2187.3	2225.7	2251.3	2259.3
77.5°	1699.3	1798.5	1899.3	1990.5	2033.7	2068.9	2134.5	2176.1	2206.5	2209.7
80°	1590.5	1708.9	1820.9	1918.5	1961.7	2003.3	2068.9	2116.9	2132.9	2155.3
82.5°	1494.5	1617.7	1731.3	1833.7	1881.7	1918.5	1987.3	2036.9	2060.9	2073.7
85°	1390.5	1518.5	1633.7	1734.5	1784.1	1828.9	1892.9	1939.3	1972.9	1977.7
87.5°	1284.9	1412.9	1531.3	1635.3	1684.9	1726.5	1793.7	1838.5	1868.9	1878.5
90°	1172.8	1294.5	1408.1	1512.1	1553.7	1596.9	1660.9	1712.1	1744.1	1745.7
92.5°	1038.4	1155.2	1259.3	1356.9	1406.5	1438.5	1499.3	1552.1	1574.5	1584.1
95°	867.2	974.4	1073.6	1155.2	1204.8	1233.7	1292.9	1331.3	1356.9	1363.3
97.5°	680.0	763.2	843.2	915.2	952.0	976.0	1024.0	1057.6	1096.0	1086.4
100°	512.0	558.4	616.0	662.4	689.6	705.6	740.8	763.2	785.6	798.4
102.5°	371.2	406.4	432.0	456.0	475.2	491.2	518.4	526.4	532.8	548.8
105°	272.0	289.6	304.0	321.6	329.6	334.4	345.6	353.6	353.6	368.0
107.5°	204.8	212.8	219.2	228.8	228.8	233.6	233.6	235.2	240.0	236.8
110°	161.6	163.2	164.8	163.2	164.8	163.2	161.6	160.0	160.0	158.4



TEST NUMBER: P397329

CATALOG NUMBER: 8VRVT2-LD5-16-DR100-W-UNV-LG52-CD2-WL-U

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	134.4	132.8	131.2	126.4	124.8	121.6	120.0	116.8	113.6	113.6
115°	115.2	113.6	110.4	105.6	102.4	99.2	97.6	92.8	89.6	88.0
117.5°	102.4	100.8	97.6	92.8	91.2	88.0	84.8	80.0	76.8	75.2
120°	92.8	92.8	89.6	84.8	83.2	81.6	76.8	73.6	70.4	68.8
122.5°	83.2	83.2	81.6	78.4	76.8	75.2	72.0	68.8	65.6	65.6
125°	72.0	73.6	73.6	72.0	70.4	68.8	67.2	64.0	62.4	60.8
127.5°	62.4	64.0	65.6	65.6	64.0	64.0	60.8	59.2	57.6	57.6
130°	51.2	56.0	57.6	57.6	57.6	57.6	56.0	54.4	52.8	52.8
132.5°	41.6	44.8	48.0	49.6	49.6	49.6	48.0	48.0	46.4	46.4
135°	32.0	35.2	38.4	40.0	41.6	41.6	41.6	41.6	40.0	40.0
137.5°	24.0	27.2	30.4	32.0	32.0	33.6	33.6	33.6	32.0	32.0
140°	14.4	19.2	20.8	22.4	24.0	24.0	25.6	25.6	24.0	24.0
142.5°	8.0	11.2	12.8	14.4	16.0	16.0	17.6	16.0	16.0	16.0
145°	1.6	3.2	6.4	8.0	8.0	8.0	8.0	9.6	8.0	8.0
147.5°	0.0	0.0	0.0	0.0	0.0	1.6	1.6	1.6	1.6	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)