

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: FAIL-SAFE

Report Number: P837921

Luminaire Tested: **ORLG-24-2-INS-ASY2R-LD4-4STD-50-120-EDD**

Issue Date: 5/21/2024

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

**Test Information**

Test Method: LM-79-08
Report Number: P837921
Test Lab: INNOVATION CENTER(G2)
Issue Date: 5/21/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: ORLG-24-2-INS-ASY2R-LD4-4STD-50-120-EDD
Description: 2FT x 2FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2 and
RFI grid
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

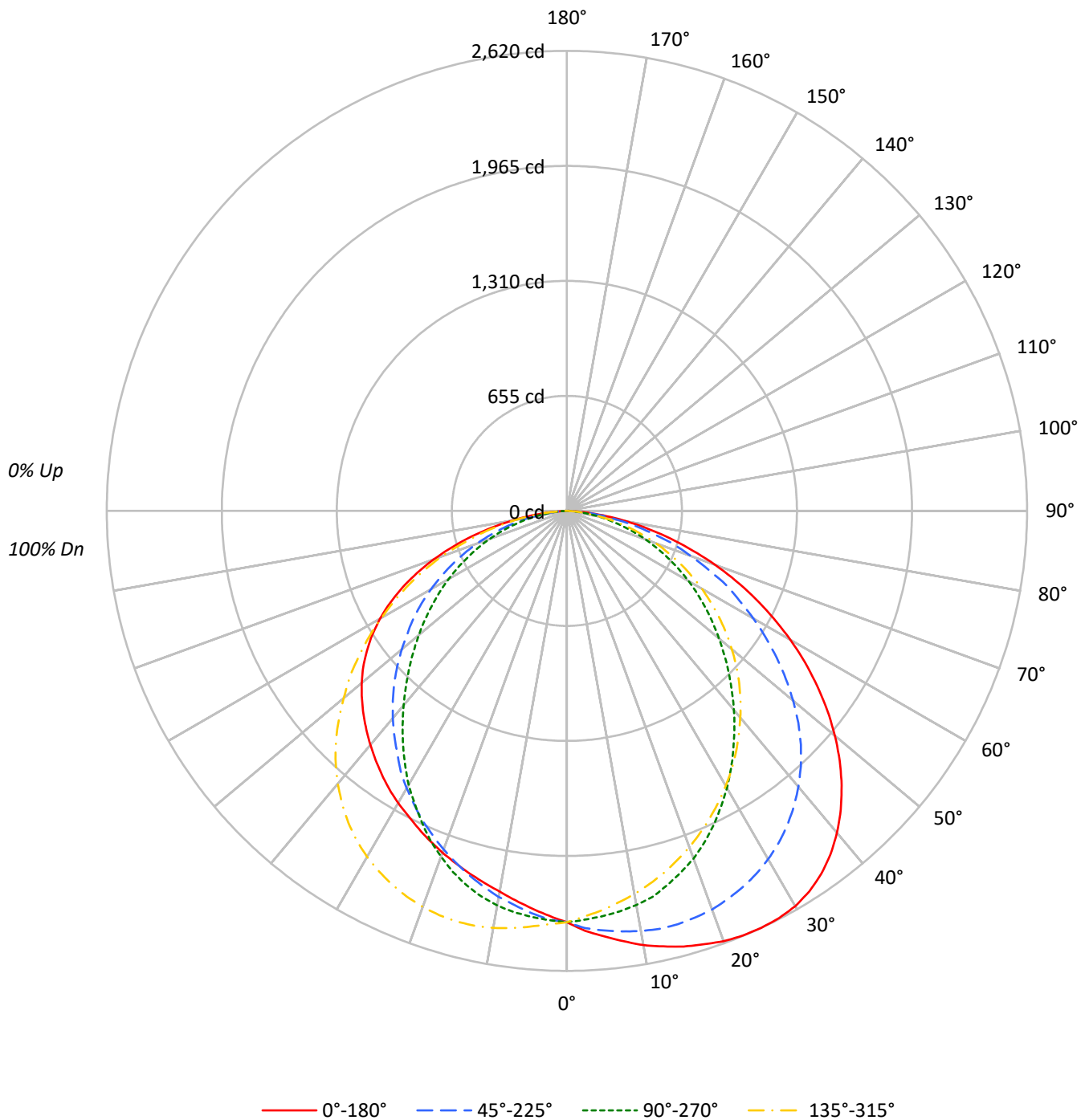
Lumens per Lamp: N/A
Luminaire Lumens: 6872.7 lumens
Efficiency: N/A
Efficacy: 103.2 lumens/watt
Spacing Criteria (0/90/45): 1.43 / 1.16 / 1.4
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
Input Voltage (V): 120
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

TEST NUMBER: P837921

CATALOG NUMBER: ORLG-24-2-INS-ASY2R-LD4-4STD-50-120-EDD

Luminous Intensity Polar Plot



Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P837921

CATALOG NUMBER: ORLG-24-2-INS-ASY2R-LD4-4STD-50-120-EDD

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					10
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	109	104	100	96	106	102	98	94	97	94	91	94	91	89	90	88	86	84		
2	99	91	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70		
3	90	79	71	65	88	78	70	64	75	68	63	72	66	62	69	65	61	59		
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50		
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43		
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38		
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33		
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	29		
9	56	43	34	29	55	42	34	29	41	34	29	40	33	28	39	33	28	26		
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	6304	6304	6304	6304
5°	6570	6259	6140	6269
10°	6862	6226	6016	6235
15°	7156	6147	5957	6148
20°	7469	6035	5931	6001
25°	7778	5867	5930	5807
30°	8079	5662	5970	5600
35°	8293	5430	6030	5344
40°	8404	5196	6114	5079
45°	8420	4959	6232	4835
50°	8341	4733	6385	4607
55°	8168	4522	6527	4396
60°	7911	4302	6614	4191
65°	7557	4050	6579	3956
70°	7059	3753	6345	3685
75°	6352	3346	5823	3329
80°	5385	2803	4894	2845
85°	3745	1856	3103	1905

Classified

Scaled Data Report

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P837921

CATALOG NUMBER: ORLG-24-2-INS-ASY2R-LD4-4STD-50-120-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	222.4	3.2
10°-20°	644.0	9.4
20°-30°	987.0	14.4
30°-40°	1200.2	17.5
40°-50°	1247.6	18.2
50°-60°	1127.0	16.4
60°-70°	856.8	12.5
70°-80°	477.7	7.0
80°-90°	110.0	1.6
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°	1853.5	27.0
0°-40°	3053.6	44.4
0°-60°	5428.2	79.0
0°-90°	6872.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6872.7	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2342	2342	2342	2342	2342	
5°	2432	2317	2273	2321	2432	235
15°	2569	2206	2138	2207	2569	728
25°	2620	1976	1997	1956	2620	1210
35°	2524	1653	1836	1627	2524	1577
45°	2212	1303	1638	1270	2212	1703
55°	1741	964	1391	937	1741	1554
65°	1187	636	1033	621	1187	1173
75°	611	322	560	320	611	649
85°	121	60	100	62	121	153
90°	0	0	0	0	0	

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P837921

CATALOG NUMBER: ORLG-24-2-INS-ASY2R-LD4-4STD-50-120-EDD

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2342.5	2342.5	2342.5	2342.5	2342.5	2342.5	2342.5	2342.5	2342.5	2342.5	2342.5
2.5°	2394.4	2359.5	2360.0	2390.6	2367.1	2378.6	2345.8	2358.4	2354.6	2357.3	2330.5
5°	2432.1	2394.4	2393.9	2420.1	2393.9	2398.8	2357.3	2365.5	2353.5	2345.8	2316.9
7.5°	2472.0	2434.3	2430.5	2453.5	2419.0	2415.2	2369.3	2369.3	2347.5	2328.3	2301.0
10°	2511.4	2472.6	2467.7	2485.2	2442.5	2430.0	2374.2	2365.5	2336.5	2308.1	2278.6
12.5°	2540.9	2501.5	2497.7	2508.6	2460.6	2437.6	2374.2	2357.3	2314.7	2274.8	2251.8
15°	2568.8	2528.3	2517.9	2523.4	2468.2	2437.6	2366.6	2340.3	2285.7	2233.2	2206.5
17.5°	2588.4	2549.6	2539.2	2538.7	2472.0	2428.3	2350.2	2314.1	2248.5	2185.2	2158.4
20°	2608.1	2569.3	2556.2	2546.4	2470.9	2415.8	2326.1	2277.5	2201.0	2130.0	2107.6
22.5°	2617.9	2578.0	2563.8	2549.1	2463.8	2392.8	2296.6	2234.9	2147.5	2062.8	2044.2
25°	2619.6	2578.6	2563.3	2542.0	2449.6	2365.5	2258.4	2183.5	2085.7	1991.7	1975.9
27.5°	2615.2	2570.4	2555.1	2529.4	2428.3	2332.2	2213.0	2125.1	2020.1	1916.3	1899.4
30°	2599.9	2554.5	2539.8	2506.5	2398.3	2291.2	2163.3	2060.0	1947.5	1837.1	1822.3
32.5°	2569.3	2525.0	2513.0	2479.7	2365.5	2243.6	2105.4	1990.1	1867.1	1761.7	1739.8
35°	2524.5	2480.2	2472.6	2437.6	2319.6	2186.8	2042.0	1913.6	1781.9	1674.3	1652.9
37.5°	2466.0	2428.9	2417.4	2383.0	2265.5	2122.3	1969.3	1830.5	1695.0	1579.2	1566.1
40°	2392.3	2357.3	2348.5	2317.9	2202.6	2050.7	1890.6	1744.7	1605.4	1497.8	1479.2
42.5°	2308.1	2275.3	2270.4	2238.7	2125.1	1971.5	1805.4	1655.7	1512.0	1408.1	1389.6
45°	2212.5	2180.8	2179.7	2149.6	2040.4	1883.5	1715.8	1565.5	1420.7	1313.1	1303.2
47.5°	2107.0	2078.6	2078.6	2050.7	1945.8	1786.8	1623.4	1471.5	1328.9	1233.8	1216.3
50°	1992.3	1965.5	1957.3	1943.6	1841.5	1681.4	1526.2	1379.7	1238.2	1147.5	1130.6
52.5°	1869.9	1846.9	1852.4	1827.3	1728.4	1571.5	1427.8	1276.5	1147.0	1064.4	1047.5
55°	1740.9	1708.1	1713.1	1703.8	1610.3	1458.4	1317.4	1191.2	1057.3	979.7	963.9
57.5°	1607.0	1564.4	1581.9	1576.4	1484.6	1342.6	1216.3	1094.5	968.3	896.7	881.4
60°	1469.9	1428.9	1446.9	1442.0	1355.7	1226.7	1112.0	998.9	879.7	814.7	799.4
62.5°	1328.9	1291.2	1307.6	1303.8	1224.5	1108.2	1008.2	904.3	790.7	732.2	718.0
65°	1186.8	1150.8	1165.5	1162.8	1089.6	1001.1	901.6	806.5	701.1	650.2	636.0
67.5°	1041.5	1008.2	1021.8	1021.8	954.6	869.9	794.5	707.6	613.1	569.4	556.3
70°	897.2	866.1	878.1	877.0	820.2	751.3	686.3	608.7	524.0	488.0	477.0
72.5°	751.9	724.6	735.5	734.4	686.9	642.6	578.1	510.9	437.1	408.2	398.3
75°	610.9	585.2	595.6	594.5	555.7	514.2	471.0	415.3	351.9	331.7	321.8
77.5°	476.5	450.3	459.0	459.0	430.6	400.5	366.1	322.9	278.1	256.3	249.2
80°	347.5	335.0	330.6	331.1	312.0	292.3	274.9	233.3	200.5	185.8	180.9
82.5°	228.4	218.0	213.7	214.7	203.8	191.8	180.9	151.9	130.0	121.3	118.6
85°	121.3	113.7	109.8	112.6	110.4	103.8	98.4	78.7	65.0	61.7	60.1
87.5°	38.2	33.3	30.6	40.4	34.4	30.6	29.5	23.5	18.0	18.0	17.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P837921

CATALOG NUMBER: ORLG-24-2-INS-ASY2R-LD4-4STD-50-120-EDD

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	2342.5	2342.5	2342.5	2342.5	2342.5	2342.5	2342.5	2342.5	2342.5	2342.5	2342.5
2.5°	2339.3	2339.3	2317.9	2313.0	2310.8	2313.6	2292.3	2288.4	2319.0	2308.7	2285.2
5°	2320.7	2319.6	2289.5	2284.1	2284.1	2280.8	2256.7	2251.3	2281.9	2273.1	2247.5
7.5°	2297.7	2294.4	2258.9	2255.1	2249.6	2247.5	2220.7	2216.9	2243.1	2237.6	2213.6
10°	2269.9	2266.6	2224.5	2221.8	2215.8	2211.4	2186.3	2183.5	2210.3	2201.6	2182.4
12.5°	2233.2	2227.2	2184.1	2181.3	2176.4	2174.8	2150.2	2149.1	2178.6	2169.9	2149.6
15°	2185.2	2180.2	2132.2	2133.3	2133.8	2133.8	2114.1	2113.0	2142.0	2138.2	2116.3
17.5°	2132.2	2125.6	2079.7	2083.0	2086.8	2091.2	2075.9	2078.6	2109.2	2104.3	2084.6
20°	2072.1	2065.5	2020.7	2030.0	2038.2	2046.9	2037.1	2044.7	2073.1	2071.0	2056.2
22.5°	2004.8	1998.3	1956.8	1971.0	1984.6	2001.0	1996.6	2005.4	2035.4	2034.9	2021.8
25°	1922.9	1924.5	1887.9	1905.4	1928.3	1951.3	1952.9	1967.1	2000.5	1997.2	1985.2
27.5°	1846.4	1848.6	1809.8	1839.3	1869.9	1899.4	1906.5	1926.2	1960.0	1957.3	1946.9
30°	1766.1	1768.8	1731.1	1771.5	1808.7	1844.7	1860.0	1886.8	1921.2	1921.2	1910.3
32.5°	1682.5	1687.4	1648.0	1702.1	1745.3	1787.4	1814.1	1842.0	1881.4	1880.3	1871.0
35°	1596.7	1602.1	1566.1	1634.9	1678.1	1729.4	1762.8	1799.9	1834.9	1835.5	1828.3
37.5°	1509.2	1515.8	1483.0	1558.4	1607.6	1668.2	1710.9	1748.0	1786.8	1789.0	1782.4
40°	1422.4	1429.5	1401.0	1473.7	1536.0	1603.8	1652.9	1696.7	1739.3	1740.4	1736.0
42.5°	1335.5	1343.1	1321.8	1392.8	1463.3	1536.0	1593.9	1643.7	1687.4	1690.1	1685.2
45°	1250.8	1257.3	1242.0	1319.6	1387.4	1466.6	1533.3	1589.6	1633.8	1637.6	1636.0
47.5°	1166.6	1172.6	1159.0	1230.0	1308.1	1392.3	1469.3	1531.6	1578.6	1583.0	1581.9
50°	1084.1	1089.0	1074.3	1148.6	1226.2	1315.8	1396.1	1468.3	1520.7	1525.1	1524.5
52.5°	1002.1	1007.1	994.5	1072.6	1143.1	1237.7	1325.1	1403.2	1455.1	1461.7	1462.8
55°	922.9	925.1	915.3	990.1	1058.4	1157.3	1257.9	1333.8	1385.7	1391.2	1394.5
57.5°	843.7	844.2	836.0	907.6	973.2	1074.3	1179.7	1259.5	1308.7	1314.2	1319.1
60°	765.0	764.5	755.2	824.6	887.4	987.4	1097.2	1176.5	1224.0	1228.9	1235.5
62.5°	686.9	685.2	677.0	741.0	800.0	898.9	1009.3	1085.8	1131.1	1134.4	1143.1
65°	609.3	607.6	600.0	659.0	712.5	807.1	915.3	987.9	1028.9	1033.3	1031.7
67.5°	532.8	529.5	523.5	576.5	625.1	712.5	816.4	885.8	919.6	923.5	933.8
70°	456.3	452.4	438.8	495.1	537.7	615.8	712.5	774.3	802.7	806.5	804.9
72.5°	380.9	377.0	362.3	414.2	450.3	518.6	604.9	656.3	680.8	684.1	684.1
75°	307.6	305.5	296.2	335.5	365.6	421.3	494.5	537.1	556.3	560.1	559.0
77.5°	237.1	235.5	226.2	260.1	283.6	325.1	384.1	417.5	431.7	436.0	445.3
80°	169.9	169.4	154.6	188.0	198.4	233.3	276.5	302.2	309.8	315.8	322.4
82.5°	108.7	109.3	94.5	122.9	127.3	149.7	176.5	192.3	197.8	202.7	207.6
85°	53.0	55.2	47.0	65.0	65.6	77.0	88.5	94.5	96.7	100.5	104.9
87.5°	13.7	15.8	8.7	18.6	16.4	21.3	24.6	26.2	25.7	28.4	30.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P837921

CATALOG NUMBER: ORLG-24-2-INS-ASY2R-LD4-4STD-50-120-EDD

CANDELA DISTRIBUTION (continued):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	2342.5	2342.5	2342.5	2342.5	2342.5	2342.5	2342.5	2342.5	2342.5	2342.5	2342.5
2.5°	2292.8	2310.3	2301.6	2330.0	2340.9	2323.4	2354.0	2354.6	2332.7	2358.4	2372.6
5°	2257.3	2275.3	2269.9	2299.4	2313.0	2297.7	2334.9	2342.0	2320.7	2349.6	2372.6
7.5°	2221.2	2242.5	2235.4	2265.5	2281.9	2269.9	2309.7	2321.2	2304.8	2336.5	2367.1
10°	2190.1	2208.1	2200.5	2232.2	2246.4	2236.5	2275.9	2297.2	2281.9	2320.7	2357.3
12.5°	2159.5	2174.2	2165.5	2191.7	2205.4	2192.8	2240.9	2260.6	2249.6	2290.1	2337.1
15°	2120.1	2136.5	2124.5	2148.0	2158.4	2147.5	2186.8	2220.7	2207.0	2251.3	2303.2
17.5°	2090.1	2099.4	2083.0	2101.6	2107.6	2092.8	2132.7	2166.0	2156.2	2204.3	2264.4
20°	2056.8	2064.4	2041.5	2051.8	2051.3	2032.7	2069.3	2102.1	2095.6	2148.6	2216.9
22.5°	2019.6	2023.4	1996.6	1998.8	1997.7	1967.1	1999.9	2033.3	2030.5	2084.1	2160.6
25°	1980.3	1980.8	1946.4	1945.3	1933.3	1897.2	1926.2	1963.9	1955.7	2013.6	2093.9
27.5°	1941.5	1936.0	1894.5	1884.6	1865.5	1822.3	1848.0	1881.9	1877.0	1933.8	2022.9
30°	1899.9	1892.8	1842.0	1824.0	1796.1	1746.4	1767.7	1799.4	1802.1	1851.8	1945.3
32.5°	1860.6	1842.6	1786.3	1760.0	1725.1	1667.2	1678.6	1710.9	1715.2	1765.5	1861.7
35°	1809.8	1797.7	1728.4	1683.5	1649.1	1585.7	1597.8	1620.2	1626.7	1675.9	1773.7
37.5°	1761.7	1742.6	1668.8	1614.1	1569.9	1503.2	1506.5	1529.5	1536.0	1585.7	1682.5
40°	1712.0	1684.6	1605.4	1541.5	1490.7	1420.7	1416.9	1440.9	1445.8	1494.5	1581.9
42.5°	1659.0	1626.2	1537.1	1467.2	1408.7	1337.7	1330.0	1350.8	1356.2	1403.8	1489.6
45°	1605.4	1566.1	1467.2	1390.7	1326.7	1254.1	1246.4	1262.2	1270.4	1315.3	1397.8
47.5°	1548.6	1502.7	1395.0	1309.8	1243.7	1171.0	1161.7	1177.6	1184.1	1228.4	1306.5
50°	1489.0	1433.3	1320.7	1226.7	1161.2	1089.6	1075.9	1094.5	1100.5	1142.0	1218.5
52.5°	1423.4	1361.7	1241.5	1143.1	1077.6	1009.3	992.9	1010.9	1018.0	1058.4	1128.9
55°	1354.0	1287.4	1161.7	1066.1	995.0	928.4	914.7	921.8	937.1	975.4	1040.9
57.5°	1275.9	1209.8	1077.6	980.3	912.0	848.1	836.6	843.1	857.3	894.5	953.5
60°	1192.9	1122.9	991.8	894.5	828.4	767.7	757.3	763.4	778.7	812.5	867.2
62.5°	1110.9	1032.2	903.2	806.5	746.4	690.1	687.4	685.2	699.4	732.2	780.3
65°	1011.4	936.0	810.9	719.1	664.5	613.6	602.7	607.6	621.3	651.3	701.6
67.5°	904.9	836.6	716.4	631.7	583.0	537.7	528.4	530.6	544.8	571.0	614.7
70°	791.8	731.7	619.6	543.7	502.7	460.1	454.1	454.6	468.3	491.2	529.5
72.5°	673.2	619.1	521.8	456.8	422.9	392.3	386.9	380.3	392.9	412.6	445.3
75°	552.4	504.9	424.6	371.6	344.8	319.1	314.2	307.6	320.2	337.1	362.8
77.5°	430.6	392.3	330.0	289.1	268.3	249.2	244.8	237.7	250.3	262.8	283.0
80°	311.5	283.6	246.4	203.3	196.2	183.6	179.2	171.6	183.6	191.8	207.1
82.5°	201.1	182.5	161.2	131.1	130.0	120.8	118.6	109.8	120.8	125.7	137.2
85°	101.6	92.9	87.4	66.7	68.8	62.8	62.3	53.0	61.7	63.9	70.5
87.5°	29.0	30.6	27.3	16.4	20.8	19.7	19.7	14.2	19.7	19.7	22.4
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: P837921

CATALOG NUMBER: ORLG-24-2-INS-ASY2R-LD4-4STD-50-120-EDD

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	2342.5	2342.5	2342.5	2342.5	2342.5	2342.5	2342.5	2342.5
2.5°	2344.7	2354.0	2356.2	2355.6	2361.7	2394.4	2383.5	2394.4
5°	2350.2	2370.9	2376.4	2384.1	2393.9	2431.1	2419.0	2432.1
7.5°	2353.5	2384.6	2396.6	2411.4	2427.2	2468.8	2458.9	2472.0
10°	2353.5	2393.9	2411.4	2436.0	2457.3	2505.4	2496.1	2511.4
12.5°	2343.6	2395.5	2420.1	2454.6	2481.9	2533.8	2530.0	2540.9
15°	2323.4	2387.3	2421.2	2465.5	2499.4	2557.3	2555.6	2568.8
17.5°	2296.1	2373.1	2414.1	2469.9	2512.5	2577.5	2581.3	2588.4
20°	2261.7	2346.4	2399.9	2468.2	2521.8	2593.3	2598.3	2608.1
22.5°	2216.3	2314.1	2378.6	2461.1	2522.9	2599.9	2608.6	2617.9
25°	2162.8	2275.3	2350.7	2447.4	2517.4	2599.4	2611.4	2619.6
27.5°	2101.6	2225.1	2315.2	2425.6	2502.1	2590.6	2605.4	2615.2
30°	2030.5	2171.5	2274.8	2397.2	2481.3	2574.2	2590.1	2599.9
32.5°	1957.3	2112.5	2226.7	2360.6	2451.3	2548.0	2561.7	2569.3
35°	1877.5	2040.9	2168.8	2313.6	2412.5	2505.9	2516.3	2524.5
37.5°	1790.6	1963.3	2102.7	2260.6	2357.8	2447.4	2456.7	2466.0
40°	1701.0	1881.9	2028.3	2195.5	2292.8	2375.9	2385.7	2392.3
42.5°	1610.9	1791.7	1949.1	2119.0	2215.8	2295.5	2301.6	2308.1
45°	1519.6	1698.3	1860.0	2034.4	2130.0	2204.8	2207.0	2212.5
47.5°	1426.7	1601.6	1762.2	1937.6	2032.2	2100.5	2102.7	2107.0
50°	1333.3	1504.9	1657.9	1833.3	1925.6	1997.7	1987.9	1992.3
52.5°	1241.5	1403.2	1559.5	1720.7	1812.0	1875.9	1878.6	1869.9
55°	1151.3	1303.8	1447.5	1602.7	1689.6	1739.3	1737.6	1740.9
57.5°	1060.1	1203.2	1334.9	1477.0	1561.7	1608.7	1618.5	1607.0
60°	967.2	1101.6	1219.6	1348.0	1430.0	1469.3	1480.8	1469.9
62.5°	874.8	998.3	1105.4	1217.4	1293.4	1342.0	1340.9	1328.9
65°	782.5	894.5	990.1	1085.2	1151.3	1200.0	1197.8	1186.8
67.5°	697.2	789.6	875.4	952.4	1009.8	1043.1	1054.6	1041.5
70°	603.3	683.0	758.4	820.2	867.7	897.8	908.7	897.2
72.5°	509.3	577.0	630.0	689.6	726.2	751.3	762.8	751.9
75°	416.4	472.1	515.3	561.7	587.4	608.7	621.8	610.9
77.5°	326.2	369.4	403.8	437.7	467.2	472.1	483.6	476.5
80°	240.4	271.6	296.7	319.1	340.4	342.6	351.9	347.5
82.5°	160.1	180.9	187.4	210.9	224.6	222.4	231.7	228.4
85°	84.7	97.3	108.7	115.8	123.5	116.4	124.6	121.3
87.5°	28.4	30.1	26.2	37.2	41.0	35.0	39.9	38.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)