

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: PORTFOLIO

Report Number: P#

Luminaire Tested: **LD4C35D010 EX4C359040 4LBSQLWWLI**

Issue Date: 2/18/2022



Test Information

Test Method: LM-79-08
Report Number: P#
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P219529)
Test Lab: INNOVATION CENTER
Issue Date: 2/18/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD4C35D010 EX4C359040 4LBSQLWWLI
Description: 4 INCH 3500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 4000K, 90CRI LEDS
AND 4LBSQLWW TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

Summary

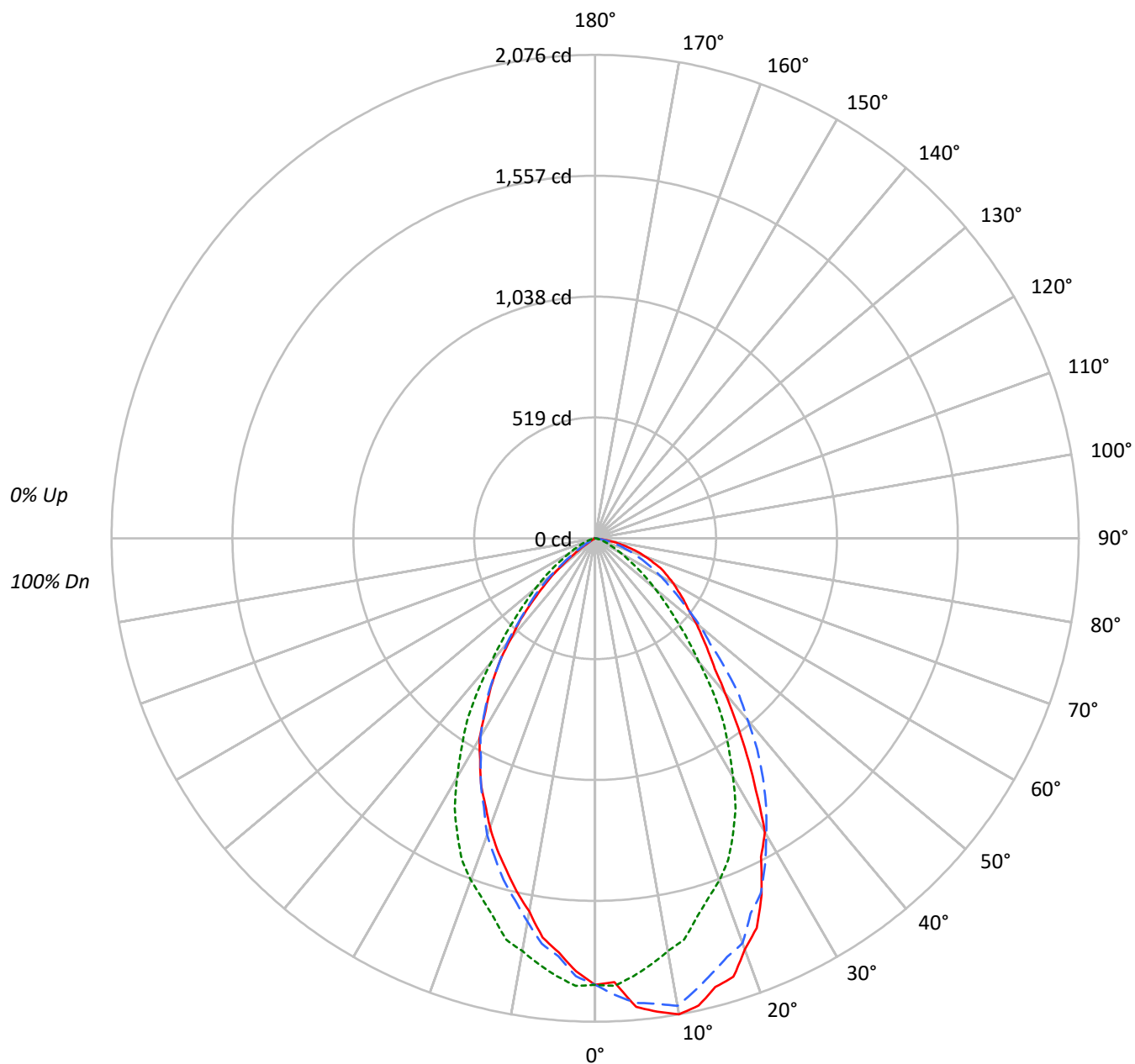
Lumens per Lamp: N/A
Luminaire Lumens: 2748.0 lumens
Efficiency: N/A
Efficacy: 68.0 lumens/watt
Spacing Criteria (0/90/45): 1.01 / 1 / 1.06
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 40.4
Input Voltage (V):
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
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	112	108	105	102	109	106	103	101	102	100	98		98	96	95		95
2	104	98	93	89	102	96	92	88	93	89	86		90	87	84		87
3	97	89	83	78	95	88	82	77	85	80	76		82	78	75		80
4	91	81	74	69	89	80	74	69	78	72	68		76	71	67		74
5	85	75	67	62	83	74	67	62	72	66	61		70	65	60		68
6	80	69	61	56	78	68	61	56	66	60	55		65	59	55		63
7	75	63	56	51	73	63	56	51	61	55	50		60	54	50		59
8	70	59	52	47	69	58	51	46	57	51	46		56	50	46		55
9	66	55	48	43	65	54	47	43	53	47	43		52	46	42		51
10	62	51	44	40	61	51	44	40	50	44	39		49	43	39		48

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	184979	184979	184979
5°	195701	182799	172997
10°	203381	176350	159448
15°	199306	168309	147182
20°	192846	160265	135478
25°	179881	149039	123583
30°	162377	131894	110647
35°	133752	112915	91795
40°	109155	87150	70649
45°	93786	66195	50816
50°	84887	50377	32094
55°	78106	36336	11607
60°	74972	24836	1775
65°	72421	16804	525
70°	64830	11651	649
75°	53162	6002	0
80°	33228	2556	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	179.6	6.5
10°-20°	483.9	17.6
20°-30°	646.2	23.5
30°-40°	613.4	22.3
40°-50°	424.0	15.4
50°-60°	234.3	8.5
60°-70°	116.3	4.2
70°-80°	45.8	1.7
80°-90°	4.4	0.2
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°	1309.7	47.7
0°-40°	1923.2	70.0
0°-60°	2581.5	93.9
0°-90°	2748.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2748.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1917	1917	1917	1917	1917	
5°	2020	2002	1887	1802	1786	193
15°	1995	1936	1685	1520	1473	564
25°	1690	1683	1400	1161	1161	770
35°	1136	1255	959	788	779	711
45°	687	788	485	398	372	536
55°	464	437	216	110	69	418
65°	317	230	74	2	2	308
75°	143	87	16	0	0	152
85°	0	2	0	0	0	13
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°	1917.1	1917.1	1917.1	1917.1	1917.1	1917.1	1917.1	1917.1	1917.1	1917.1	1917.1
2.5°	1907.9	1960.7	1965.3	1960.7	1967.7	1965.3	1976.9	1965.3	1979.2	1958.5	1963.1
5°	2020.5	1999.8	2043.5	2020.5	2020.5	2018.3	2011.4	2009.0	2018.3	1988.4	2002.2
7.5°	2050.4	2080.3	2119.4	2071.2	2073.4	2073.4	2059.6	2055.0	2055.0	1999.8	2016.0
10°	2075.8	2057.3	2078.0	2059.6	2075.8	2073.4	2082.6	2052.7	2073.4	2041.3	2038.9
12.5°	2055.0	2048.1	2075.8	2045.9	2036.7	2038.9	2027.5	2020.5	2027.5	1990.6	1988.4
15°	1995.2	2002.2	2043.5	2011.4	2006.8	2002.2	1988.4	1965.3	1983.8	1933.2	1935.5
17.5°	1974.6	1963.1	1970.0	1942.4	1949.3	1944.7	1942.4	1921.8	1917.1	1884.9	1884.9
20°	1878.1	1903.3	1903.3	1884.9	1884.9	1882.7	1852.8	1871.1	1850.4	1841.2	1850.4
22.5°	1811.3	1813.7	1813.7	1797.6	1799.9	1790.7	1774.6	1763.1	1774.6	1763.1	1744.7
25°	1689.6	1694.2	1721.7	1691.8	1687.2	1696.4	1682.6	1675.7	1673.5	1645.9	1682.6
27.5°	1542.4	1588.4	1586.1	1574.6	1588.4	1570.0	1563.1	1565.4	1572.3	1570.0	1579.2
30°	1457.4	1464.3	1471.2	1462.0	1464.3	1457.4	1457.4	1459.7	1478.0	1471.2	1468.8
32.5°	1284.9	1307.9	1326.4	1326.4	1328.6	1335.6	1333.2	1381.5	1393.0	1370.1	1365.5
35°	1135.5	1151.7	1167.7	1170.0	1199.9	1202.2	1204.5	1218.3	1250.5	1257.4	1255.1
37.5°	993.1	1009.1	1013.7	1034.4	1050.5	1066.6	1085.0	1103.4	1131.0	1153.9	1142.5
40°	866.6	873.5	885.0	894.2	926.3	926.3	935.5	972.4	1002.3	1020.6	1018.3
42.5°	760.9	763.2	772.3	788.5	818.4	811.4	818.4	843.7	887.3	889.6	914.9
45°	687.3	685.0	691.9	694.2	712.6	721.8	726.4	744.8	781.5	786.1	788.5
47.5°	620.7	618.3	629.9	634.5	641.3	650.5	650.5	652.8	666.6	678.1	669.0
50°	565.5	565.5	565.5	570.1	581.6	579.3	581.6	590.8	597.6	593.0	590.8
52.5°	505.7	514.9	521.8	524.1	526.4	526.4	528.7	524.1	521.8	514.9	501.1
55°	464.3	473.5	473.5	473.5	473.5	482.7	471.3	473.5	473.5	455.2	436.8
57.5°	423.0	432.2	439.0	429.8	439.0	429.8	425.3	423.0	418.3	399.9	372.4
60°	388.5	393.1	390.8	388.5	393.1	386.2	381.6	372.4	367.8	342.5	324.1
62.5°	349.4	351.7	354.0	349.4	344.8	342.5	333.3	319.5	310.3	289.6	273.5
65°	317.2	310.3	308.0	305.7	301.2	294.2	287.4	271.3	264.3	245.9	229.8
67.5°	268.9	266.7	271.3	264.3	252.9	252.9	245.9	232.2	216.0	204.6	188.5
70°	229.8	227.6	223.0	216.0	213.8	204.6	204.6	188.5	183.9	163.2	149.4
72.5°	188.5	188.5	181.6	174.7	167.8	163.2	160.9	149.4	142.6	131.0	119.5
75°	142.6	142.6	140.2	133.3	128.7	124.1	121.8	112.7	105.7	94.3	87.4
77.5°	101.1	101.1	91.9	87.4	89.6	85.0	80.4	78.2	75.8	69.0	59.8
80°	59.8	57.5	50.6	52.9	50.6	50.6	48.3	45.9	41.3	36.7	32.2
82.5°	16.1	18.4	18.4	18.4	20.7	16.1	16.1	16.1	18.4	18.4	11.5
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	2.3	2.3
87.5°	2.3	4.6	9.2	9.2	9.2	9.2	9.2	6.9	6.9	6.9	4.6
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):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1917.1	1917.1	1917.1	1917.1	1917.1	1917.1	1917.1	1917.1	1917.1	1917.1	1917.1
2.5°	1940.1	1937.8	1940.1	1924.0	1960.7	1933.2	1928.6	1924.0	1940.1	1924.0	1901.0
5°	1981.5	1958.5	1951.6	1944.7	1965.3	1933.2	1926.3	1928.6	1917.1	1887.3	1889.5
7.5°	1995.2	1974.6	1953.9	1910.2	1928.6	1921.8	1903.3	1889.5	1871.1	1845.8	1841.2
10°	1999.8	1976.9	1947.0	1933.2	1905.6	1896.4	1889.5	1866.5	1843.6	1799.9	1788.4
12.5°	1986.1	1958.5	1921.8	1910.2	1889.5	1859.6	1843.6	1820.5	1799.9	1765.4	1740.1
15°	1926.3	1903.3	1891.9	1852.8	1843.6	1825.1	1793.0	1760.8	1730.9	1684.9	1671.1
17.5°	1857.4	1848.2	1836.6	1806.7	1804.5	1786.1	1756.2	1728.6	1689.6	1618.3	1595.3
20°	1786.1	1786.1	1749.3	1737.9	1760.8	1724.0	1701.0	1675.7	1595.3	1560.8	1519.5
22.5°	1733.3	1708.0	1687.2	1668.9	1671.1	1648.2	1616.0	1565.4	1535.5	1494.2	1445.9
25°	1629.8	1639.0	1593.0	1586.1	1593.0	1540.1	1524.1	1482.6	1438.9	1399.9	1363.1
27.5°	1565.4	1540.1	1510.3	1485.0	1485.0	1464.3	1418.3	1409.1	1342.4	1305.7	1259.6
30°	1468.8	1450.5	1425.2	1388.4	1383.8	1367.7	1331.0	1307.9	1239.0	1183.8	1158.5
32.5°	1347.0	1340.2	1319.4	1278.1	1264.3	1245.9	1199.9	1160.8	1128.7	1066.6	1036.7
35°	1259.6	1234.4	1190.7	1156.3	1144.7	1112.6	1075.7	1048.2	1013.7	958.6	919.5
37.5°	1128.7	1103.4	1062.0	1020.6	1020.6	988.5	937.9	910.3	862.0	829.8	797.6
40°	1013.7	981.5	940.2	891.9	885.0	839.0	818.4	772.3	742.4	691.9	687.3
42.5°	885.0	855.1	818.4	781.5	754.0	731.0	678.1	643.6	611.5	586.2	579.3
45°	767.7	728.7	696.5	650.5	622.9	595.4	560.9	537.9	512.6	485.1	468.9
47.5°	666.6	634.5	588.4	547.1	519.5	505.7	466.6	441.4	420.7	402.3	390.8
50°	563.2	524.1	498.8	452.8	448.2	416.1	383.9	363.2	351.7	335.6	319.5
52.5°	485.1	448.2	413.7	379.3	360.9	349.4	319.5	298.8	282.8	271.3	262.1
55°	409.1	377.0	349.4	314.9	303.4	287.4	252.9	248.3	232.2	216.0	204.6
57.5°	351.7	321.8	289.6	266.7	245.9	234.5	206.9	188.5	179.3	165.5	154.0
60°	298.8	266.7	241.4	213.8	204.6	188.5	167.8	151.7	140.2	128.7	117.3
62.5°	250.5	223.0	195.4	172.4	158.6	149.4	133.3	119.5	108.1	98.9	89.6
65°	206.9	181.6	158.6	135.6	128.7	117.3	105.7	94.3	85.0	73.6	64.4
67.5°	170.1	147.2	124.1	108.1	101.1	96.5	82.8	71.2	64.4	57.5	48.3
70°	133.3	117.3	98.9	85.0	78.2	71.2	62.1	55.2	45.9	41.3	34.5
72.5°	103.5	89.6	73.6	62.1	57.5	52.9	43.7	36.7	32.2	27.6	23.0
75°	73.6	62.1	52.9	41.3	39.1	36.7	29.9	25.3	20.7	16.1	13.8
77.5°	50.6	41.3	32.2	27.6	25.3	20.7	18.4	13.8	11.5	9.2	6.9
80°	27.6	20.7	16.1	13.8	11.5	9.2	9.2	6.9	4.6	4.6	2.3
82.5°	9.2	6.9	4.6	2.3	2.3	2.3	2.3	2.3	2.3	0.0	2.3
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°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	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°	1917.1	1917.1	1917.1	1917.1	1917.1	1917.1	1917.1	1917.1	1917.1	1917.1	1917.1
2.5°	1914.8	1889.5	1896.4	1896.4	1891.9	1891.9	1887.3	1880.3	1882.7	1868.8	1839.0
5°	1894.1	1862.0	1857.4	1862.0	1843.6	1839.0	1829.8	1843.6	1802.2	1818.3	1799.9
7.5°	1834.4	1804.5	1797.6	1813.7	1790.7	1776.8	1774.6	1793.0	1756.2	1737.9	1717.1
10°	1767.7	1756.2	1735.5	1724.0	1717.1	1719.4	1701.0	1678.1	1671.1	1666.5	1648.2
12.5°	1708.0	1682.6	1664.3	1650.5	1645.9	1645.9	1616.0	1611.4	1590.7	1586.1	1558.5
15°	1636.6	1606.8	1595.3	1576.9	1560.8	1570.0	1535.5	1526.3	1519.5	1489.6	1494.2
17.5°	1574.6	1542.4	1514.9	1503.3	1489.6	1475.8	1443.5	1450.5	1434.4	1434.4	1393.0
20°	1494.2	1459.7	1438.9	1416.0	1416.0	1397.6	1374.6	1376.9	1356.2	1335.6	1298.7
22.5°	1409.1	1372.3	1347.0	1337.8	1314.8	1310.3	1282.7	1275.8	1248.2	1250.5	1218.3
25°	1319.4	1282.7	1248.2	1250.5	1229.8	1220.6	1204.5	1172.4	1160.8	1147.1	1137.9
27.5°	1213.7	1188.4	1158.5	1156.3	1117.2	1119.4	1098.8	1089.6	1062.0	1068.9	1048.2
30°	1117.2	1080.4	1052.8	1045.9	1029.8	1025.2	993.1	979.2	983.9	965.4	954.0
32.5°	1018.3	963.2	951.6	937.9	928.7	917.2	894.2	903.4	882.7	887.3	868.9
35°	887.3	864.3	834.4	834.4	825.2	816.0	800.0	809.2	788.5	779.3	760.9
37.5°	776.9	756.3	726.4	735.6	719.5	705.7	691.9	694.2	675.8	673.5	655.1
40°	657.4	645.9	625.3	625.3	613.7	613.7	606.8	600.0	588.4	574.7	553.9
42.5°	544.8	535.6	526.4	528.7	512.6	526.4	508.0	519.5	482.7	480.5	466.6
45°	462.0	441.4	443.6	434.4	425.3	429.8	413.7	418.3	397.7	393.1	379.3
47.5°	374.7	367.8	354.0	349.4	349.4	342.5	335.6	333.3	324.1	312.6	294.2
50°	308.0	282.8	278.1	271.3	266.7	266.7	257.5	243.7	245.9	234.5	216.0
52.5°	241.4	220.6	211.5	209.2	200.0	195.4	183.9	174.7	167.8	163.2	151.7
55°	186.2	167.8	156.3	156.3	142.6	142.6	126.4	119.5	110.3	101.1	94.3
57.5°	140.2	131.0	119.5	110.3	105.7	94.3	85.0	73.6	66.6	52.9	43.7
60°	105.7	96.5	85.0	78.2	73.6	62.1	50.6	41.3	25.3	20.7	18.4
62.5°	78.2	69.0	57.5	52.9	48.3	39.1	27.6	13.8	6.9	6.9	6.9
65°	57.5	45.9	36.7	32.2	27.6	20.7	9.2	4.6	2.3	2.3	2.3
67.5°	39.1	29.9	20.7	18.4	13.8	6.9	2.3	2.3	2.3	2.3	2.3
70°	25.3	18.4	9.2	6.9	4.6	2.3	2.3	2.3	2.3	2.3	2.3
72.5°	16.1	9.2	4.6	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	9.2	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	4.6	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	2.3	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	2.3	2.3	2.3
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: P#

CATALOG NUMBER: LD4C35D010 EX4C359040 4LBSQLWWLI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1917.1	1917.1	1917.1	1917.1	1917.1	1917.1	1917.1	1917.1
2.5°	1871.1	1855.0	1864.2	1843.6	1852.8	1868.8	1857.4	1862.0
5°	1806.7	1797.6	1786.1	1756.2	1779.2	1797.6	1788.4	1786.1
7.5°	1737.9	1705.6	1721.7	1712.5	1708.0	1726.3	1705.6	1728.6
10°	1666.5	1643.6	1641.3	1625.2	1625.2	1639.0	1641.3	1627.4
12.5°	1560.8	1549.4	1549.4	1547.0	1544.7	1558.5	1560.8	1554.0
15°	1485.0	1480.4	1468.8	1466.6	1452.8	1473.4	1475.8	1473.4
17.5°	1393.0	1395.3	1383.8	1383.8	1393.0	1399.9	1381.5	1399.9
20°	1331.0	1319.4	1314.8	1294.1	1305.7	1317.2	1317.2	1319.4
22.5°	1241.3	1222.9	1229.8	1218.3	1211.4	1227.5	1227.5	1234.4
25°	1140.1	1140.1	1144.7	1137.9	1142.5	1151.7	1144.7	1160.8
27.5°	1043.6	1052.8	1052.8	1043.6	1048.2	1075.7	1087.3	1068.9
30°	954.0	956.2	963.2	958.6	972.4	981.5	979.2	993.1
32.5°	852.9	864.3	868.9	862.0	866.6	887.3	875.8	873.5
35°	774.7	754.0	751.7	754.0	763.2	767.7	763.2	779.3
37.5°	662.0	655.1	645.9	648.2	655.1	664.4	669.0	680.4
40°	553.9	544.8	544.8	542.5	535.6	560.9	560.9	560.9
42.5°	459.7	457.4	446.0	446.0	455.2	462.0	457.4	473.5
45°	377.0	367.8	360.9	360.9	367.8	367.8	374.7	372.4
47.5°	296.6	287.4	289.6	282.8	289.6	298.8	287.4	289.6
50°	223.0	223.0	218.4	223.0	220.6	223.0	218.4	213.8
52.5°	151.7	172.4	174.7	165.5	144.8	126.4	114.9	124.1
55°	87.4	78.2	78.2	75.8	71.2	69.0	62.1	69.0
57.5°	43.7	39.1	39.1	39.1	36.7	34.5	29.9	29.9
60°	18.4	16.1	16.1	13.8	11.5	9.2	6.9	9.2
62.5°	6.9	4.6	4.6	4.6	4.6	4.6	4.6	4.6
65°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
67.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
70°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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



Report Generated By 670246072 / DESKTOP-50001EG





— 0°-180° - - 45°-225° - - - 90°-270°













(END OF REPORT)