

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: P858189

Luminaire Tested: **LX4C45D010 EX4C459050 4LBLWWH**

Issue Date: 2/14/2022



Test Information

Test Method: LM-79-08
Report Number: P858189
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2107-320-2)
Test Lab: INNOVATION CENTER
Issue Date: 2/14/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LX4C45D010 EX4C459050 4LBLWWH
Description: 4 INCH 4500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 5000K, 90CRI LEDS
AND 4LRLWW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Summary

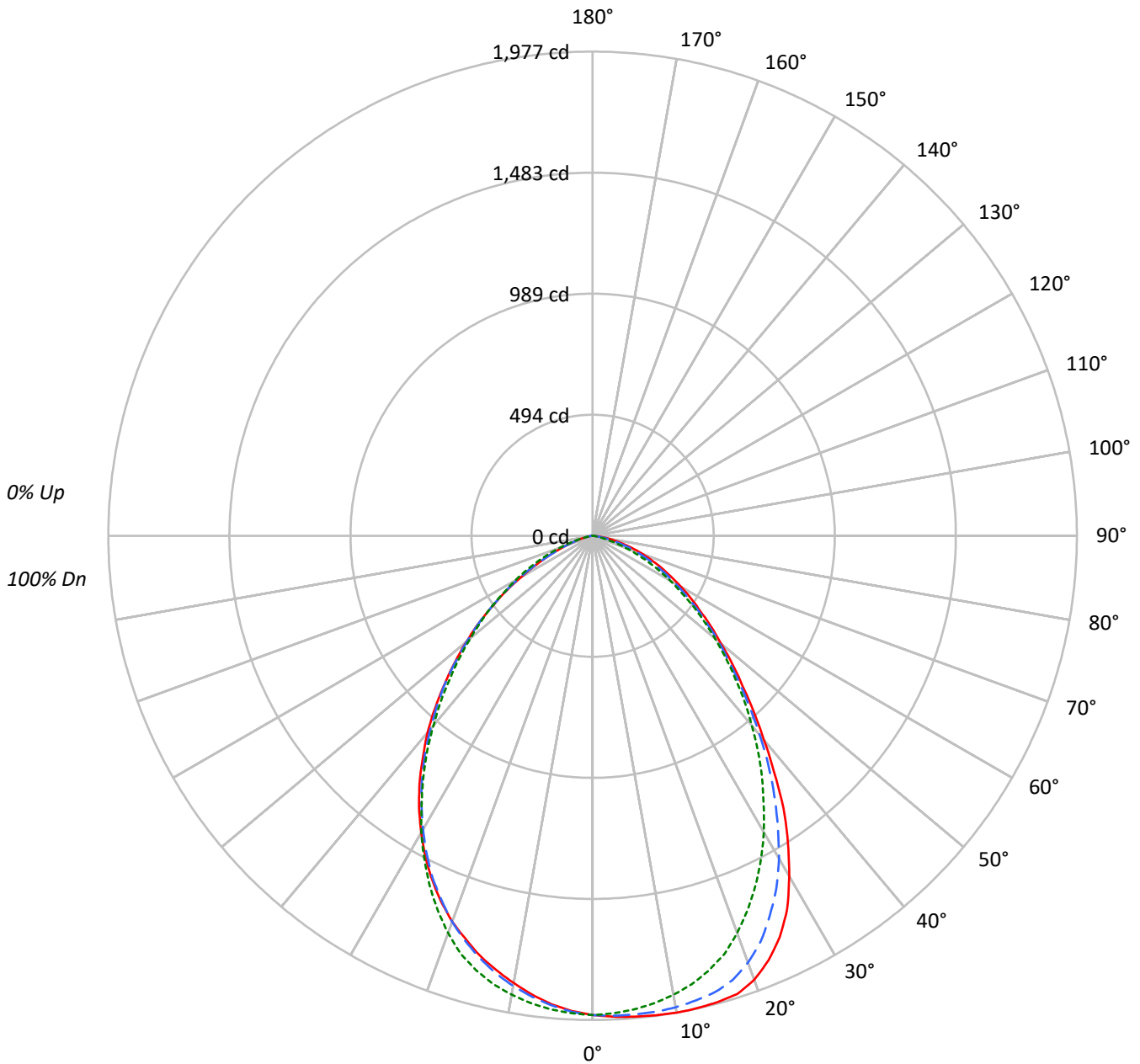
Lumens per Lamp: N/A
Luminaire Lumens: 3688.0 lumens
Efficiency: N/A
Efficacy: 74.4 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.09 / 1.17
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 49.6
Input Voltage (V):
Input Current (A_{in}): 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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	94	92	90	88			
2	103	96	90	86	100	94	89	85	91	86	83	88	84	81	85	82	79	77			
3	95	86	79	74	93	85	78	73	82	76	72	79	75	71	77	73	70	68			
4	88	78	70	64	86	77	69	64	74	68	63	72	67	62	70	65	62	60			
5	82	71	63	57	80	69	62	57	67	61	56	66	60	55	64	59	55	53			
6	76	64	56	51	74	63	56	50	62	55	50	60	54	50	59	53	49	47			
7	71	59	51	46	69	58	51	45	57	50	45	55	49	45	54	49	44	43			
8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	45	40	39			
9	62	50	43	38	61	50	42	37	48	42	37	47	41	37	47	41	37	35			
10	59	47	39	34	58	46	39	34	45	39	34	44	38	34	43	38	34	32			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	240412	240412	240412
5°	243094	239382	236792
10°	246666	237372	231359
15°	250712	233579	225821
20°	252298	225641	219143
25°	245068	213443	210176
30°	227740	198390	198489
35°	203863	180842	184681
40°	174551	162106	168024
45°	150251	142937	148288
50°	130616	124442	128169
55°	114955	107051	106088
60°	102263	89314	82287
65°	89709	71540	59505
70°	77048	50539	40266
75°	62514	29287	23591
80°	44713	12805	11744
85°	16915	5356	5356



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	184.4	5.0
10°-20°	522.1	14.2
20°-30°	745.5	20.2
30°-40°	779.9	21.1
40°-50°	653.4	17.7
50°-60°	457.3	12.4
60°-70°	249.0	6.8
70°-80°	86.4	2.3
80°-90°	10.0	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°	1452.0	39.4
0°-40°	2231.9	60.5
0°-60°	3342.6	90.6
0°-90°	3688.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3688.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1957	1957	1957	1957	1957	
5°	1971	1962	1941	1925	1920	188
15°	1971	1930	1836	1784	1776	557
25°	1808	1712	1575	1544	1550	826
35°	1359	1292	1206	1215	1231	843
45°	865	845	823	850	854	672
55°	537	519	500	500	495	485
65°	309	282	246	207	205	307
75°	132	107	62	50	50	142
85°	12	7	4	4	4	22
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°	1956.9	1956.9	1956.9	1956.9	1956.9	1956.9	1956.9	1956.9	1956.9	1956.9	1956.9
2.5°	1966.0	1963.7	1964.5	1964.5	1964.5	1963.7	1964.5	1963.7	1963.7	1963.0	1961.5
5°	1971.2	1969.7	1969.7	1969.7	1969.0	1968.2	1968.2	1967.5	1966.0	1965.2	1962.2
7.5°	1975.0	1973.5	1973.5	1972.7	1972.0	1971.2	1970.5	1968.2	1966.0	1964.5	1960.7
10°	1977.3	1975.0	1975.0	1973.5	1972.0	1971.2	1969.7	1966.7	1963.7	1960.0	1954.7
12.5°	1975.8	1973.5	1972.7	1971.2	1968.2	1966.7	1965.2	1961.5	1956.2	1950.9	1944.1
15°	1971.2	1969.7	1968.2	1966.0	1962.2	1960.0	1958.4	1952.4	1945.7	1938.1	1929.8
17.5°	1962.2	1960.0	1956.9	1953.9	1948.7	1946.4	1942.6	1935.1	1925.3	1914.8	1902.0
20°	1929.8	1928.3	1925.3	1920.1	1911.8	1908.8	1903.5	1893.7	1880.9	1868.1	1854.6
22.5°	1876.4	1874.1	1869.6	1865.1	1857.6	1852.3	1847.8	1834.3	1820.0	1806.4	1793.6
25°	1807.9	1805.7	1799.6	1793.6	1786.1	1777.1	1772.5	1762.0	1747.7	1730.4	1711.6
27.5°	1719.9	1712.3	1710.1	1703.3	1692.0	1689.0	1682.2	1668.7	1655.1	1640.1	1624.3
30°	1605.4	1605.4	1600.9	1597.9	1587.4	1584.4	1576.8	1562.5	1555.0	1533.9	1521.9
32.5°	1484.3	1482.8	1479.0	1476.7	1470.7	1465.4	1457.9	1450.4	1433.8	1423.3	1406.7
35°	1359.3	1350.3	1351.8	1347.3	1343.5	1337.5	1336.7	1328.5	1313.4	1307.4	1292.3
37.5°	1217.1	1213.3	1218.6	1211.8	1208.0	1208.8	1202.8	1197.5	1191.5	1180.9	1177.9
40°	1088.4	1091.4	1090.6	1084.6	1087.6	1083.8	1077.8	1072.6	1069.5	1062.8	1060.5
42.5°	973.2	968.7	967.2	967.2	967.9	967.9	964.9	961.2	961.2	954.4	947.6
45°	864.8	864.8	863.3	867.8	861.1	861.1	858.8	858.0	855.0	853.5	845.2
47.5°	771.5	770.7	770.0	769.2	768.5	768.5	764.0	760.2	759.4	754.9	750.4
50°	683.4	687.9	686.4	682.7	681.2	681.9	678.9	676.7	675.9	668.4	669.1
52.5°	609.7	608.9	610.4	608.2	604.4	605.1	602.1	599.1	596.1	592.4	589.3
55°	536.7	540.4	538.9	536.7	535.9	534.4	532.1	528.4	527.6	519.3	518.6
57.5°	475.7	474.9	473.4	469.7	468.9	466.7	466.7	463.6	459.1	454.6	450.8
60°	416.2	416.2	414.0	413.2	410.2	409.5	408.7	405.7	400.4	396.7	390.6
62.5°	359.0	360.5	359.0	356.8	354.5	351.5	350.0	347.7	343.2	339.5	334.2
65°	308.6	307.8	307.1	304.1	303.3	300.3	299.6	295.0	290.5	287.5	281.5
67.5°	260.4	258.2	258.2	256.7	255.2	252.9	251.4	246.9	241.6	238.6	232.6
70°	214.5	213.0	213.0	213.0	209.2	207.0	206.2	204.0	196.4	193.4	187.4
72.5°	172.4	171.6	170.9	168.6	166.3	166.3	163.3	158.8	155.1	151.3	146.8
75°	131.7	133.2	131.7	128.7	128.0	126.4	124.2	120.4	116.7	112.1	106.9
77.5°	96.3	94.8	93.3	93.3	91.8	88.8	88.1	85.1	80.5	77.5	72.3
80°	63.2	62.5	61.0	59.5	58.7	58.0	57.2	54.2	49.7	47.4	42.9
82.5°	34.6	33.9	33.9	33.1	30.9	30.9	30.1	27.1	24.8	23.3	21.1
85°	12.0	12.0	12.0	11.3	11.3	11.3	10.5	9.8	9.0	8.3	6.8
87.5°	1.5	0.8	1.5	0.8	1.5	0.8	0.8	0.8	0.8	0.8	0.8
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°	1956.9	1956.9	1956.9	1956.9	1956.9	1956.9	1956.9	1956.9	1956.9	1956.9	1956.9
2.5°	1960.0	1958.4	1957.7	1956.9	1956.2	1955.4	1954.7	1953.2	1952.4	1951.7	1950.2
5°	1960.0	1956.9	1955.4	1953.2	1951.7	1950.2	1947.9	1945.7	1943.4	1941.1	1938.9
7.5°	1956.9	1952.4	1949.4	1944.9	1943.4	1941.1	1936.6	1933.6	1929.8	1925.3	1920.1
10°	1949.4	1944.1	1938.1	1932.1	1929.8	1926.1	1920.1	1914.8	1908.8	1902.8	1897.5
12.5°	1937.4	1929.1	1921.6	1913.3	1908.8	1905.0	1896.7	1889.2	1881.7	1874.9	1865.9
15°	1919.3	1909.5	1899.7	1888.4	1883.2	1878.7	1866.6	1857.6	1845.5	1836.5	1827.5
17.5°	1890.0	1874.9	1862.9	1848.6	1841.0	1835.8	1825.2	1810.9	1799.6	1789.8	1779.3
20°	1839.5	1825.2	1808.7	1792.9	1784.6	1777.8	1762.8	1747.7	1736.4	1725.9	1714.6
22.5°	1773.3	1755.2	1743.2	1723.6	1716.8	1708.6	1690.5	1676.9	1664.2	1653.6	1643.1
25°	1692.8	1676.9	1660.4	1642.3	1634.0	1624.3	1609.2	1594.9	1586.6	1574.6	1561.8
27.5°	1600.2	1587.4	1567.1	1551.3	1543.0	1535.4	1521.1	1508.4	1496.3	1488.0	1476.0
30°	1502.3	1487.3	1469.2	1452.7	1448.1	1439.1	1426.3	1416.5	1403.7	1398.5	1393.2
32.5°	1394.7	1377.4	1363.8	1353.3	1344.3	1336.7	1330.0	1314.2	1311.9	1298.4	1296.9
35°	1277.3	1269.8	1257.0	1247.9	1240.4	1235.1	1223.8	1216.3	1208.0	1205.8	1200.5
37.5°	1166.6	1157.6	1145.6	1137.3	1132.0	1131.3	1123.0	1118.5	1112.4	1109.4	1103.4
40°	1050.7	1047.0	1036.4	1034.9	1026.6	1025.9	1021.4	1016.1	1010.8	1010.8	1011.6
42.5°	943.8	939.3	934.8	929.5	925.0	925.0	922.8	921.3	919.8	917.5	921.3
45°	843.7	837.7	834.7	829.4	831.7	827.2	825.7	825.7	823.4	822.7	827.9
47.5°	750.4	743.6	740.6	739.1	739.1	739.9	733.1	735.4	734.6	736.1	738.4
50°	665.4	659.3	654.8	654.8	655.6	652.6	649.6	651.8	649.6	651.1	656.3
52.5°	586.3	580.3	578.1	578.1	573.5	572.8	574.3	571.3	572.0	572.8	575.8
55°	513.3	509.6	505.8	502.0	502.8	501.3	498.3	497.5	499.0	499.8	503.5
57.5°	447.8	442.6	437.3	435.8	434.3	434.3	430.5	429.8	431.3	427.5	427.5
60°	385.4	382.4	375.6	373.3	373.3	369.6	366.6	368.1	364.3	363.5	364.3
62.5°	327.4	325.2	320.6	316.1	314.6	313.1	309.3	307.8	306.3	303.3	298.8
65°	277.0	271.7	266.4	263.4	261.2	257.4	255.2	252.1	247.6	246.1	241.6
67.5°	226.6	221.3	216.0	213.8	211.5	209.2	205.5	201.7	196.4	190.4	185.2
70°	182.1	175.4	172.4	166.3	164.8	161.8	156.6	152.8	147.5	140.7	135.5
72.5°	139.2	134.7	130.2	124.9	121.2	118.9	114.4	108.4	102.4	98.6	93.3
75°	100.1	97.8	91.8	85.8	84.3	81.3	76.0	72.3	67.7	61.7	57.2
77.5°	67.7	63.2	59.5	54.2	52.7	49.7	46.7	42.9	39.9	36.1	33.1
80°	39.9	36.1	33.9	30.1	28.6	27.1	24.8	21.8	19.6	18.1	17.3
82.5°	19.6	16.6	15.8	13.5	12.8	12.0	10.5	9.8	8.3	8.3	8.3
85°	6.8	5.3	5.3	4.5	3.8	3.8	3.8	3.8	3.8	3.8	3.8
87.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.5	0.8
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°	1956.9	1956.9	1956.9	1956.9	1956.9	1956.9	1956.9	1956.9	1956.9	1956.9	1956.9
2.5°	1949.4	1948.7	1947.9	1947.2	1947.2	1946.4	1946.4	1945.7	1945.7	1944.9	1944.9
5°	1935.9	1933.6	1932.1	1930.6	1930.6	1928.3	1926.8	1925.3	1924.6	1924.6	1923.1
7.5°	1917.1	1914.0	1911.0	1908.8	1908.0	1904.3	1901.2	1901.2	1898.2	1896.7	1895.2
10°	1892.2	1886.9	1882.4	1880.2	1877.2	1874.9	1871.1	1868.9	1866.6	1862.9	1862.1
12.5°	1858.3	1854.6	1847.8	1844.8	1843.3	1838.8	1832.8	1829.7	1829.0	1826.0	1823.7
15°	1820.0	1811.7	1805.7	1801.9	1801.9	1794.4	1791.4	1786.8	1783.8	1781.6	1780.8
17.5°	1770.3	1762.0	1756.0	1750.7	1749.2	1743.2	1738.7	1737.2	1733.4	1734.9	1731.1
20°	1706.3	1699.5	1695.0	1688.2	1688.2	1684.5	1683.0	1679.2	1677.7	1676.2	1677.7
22.5°	1637.8	1629.5	1622.0	1621.3	1621.3	1616.0	1615.2	1614.5	1611.5	1613.7	1613.0
25°	1557.3	1551.3	1546.7	1546.0	1546.0	1543.0	1540.0	1541.5	1543.7	1543.0	1545.2
27.5°	1473.7	1467.7	1466.2	1465.4	1463.9	1463.2	1464.7	1464.7	1467.0	1470.0	1473.0
30°	1383.4	1381.9	1379.6	1378.9	1377.4	1381.1	1382.7	1384.9	1384.2	1388.7	1391.7
32.5°	1293.1	1290.1	1289.3	1290.8	1293.1	1292.3	1296.9	1298.4	1299.9	1305.1	1307.4
35°	1202.0	1201.3	1199.8	1199.8	1200.5	1206.5	1206.5	1211.8	1214.8	1216.3	1222.3
37.5°	1104.2	1107.2	1108.7	1110.9	1111.7	1114.0	1115.5	1120.7	1123.7	1126.7	1129.8
40°	1014.6	1013.1	1019.9	1015.4	1016.9	1023.6	1026.6	1025.9	1030.4	1034.9	1037.9
42.5°	919.0	921.3	922.8	924.3	928.0	928.8	932.6	937.8	939.3	944.6	946.1
45°	826.4	827.2	830.2	833.2	835.5	841.5	843.0	845.2	849.8	849.8	852.0
47.5°	739.1	742.1	742.1	746.6	750.4	749.7	754.9	756.4	755.7	759.4	760.9
50°	655.6	660.1	659.3	662.3	663.9	664.6	669.1	670.6	667.6	671.4	672.1
52.5°	575.8	578.1	581.1	581.8	580.3	584.1	582.6	585.6	584.8	587.8	584.8
55°	502.8	502.0	502.0	503.5	502.0	503.5	505.0	502.0	499.8	502.8	502.0
57.5°	429.8	429.8	428.3	430.5	428.3	426.0	425.3	423.0	420.7	420.7	420.0
60°	361.3	359.8	356.8	356.0	356.0	352.2	350.7	347.7	347.7	344.7	341.7
62.5°	297.3	293.5	291.3	291.3	289.8	286.0	279.2	274.7	273.2	268.7	268.0
65°	237.1	233.3	231.1	226.6	222.8	221.3	214.5	209.2	207.0	202.5	203.2
67.5°	182.1	176.1	169.4	166.3	164.1	158.8	156.6	152.8	150.5	150.5	150.5
70°	131.0	125.7	118.9	116.7	115.2	110.6	108.4	107.6	109.9	109.1	109.9
72.5°	88.1	82.8	79.8	78.3	76.8	74.5	76.0	76.8	75.3	76.0	76.8
75°	53.4	51.9	49.7	48.9	48.9	49.7	48.9	48.9	49.7	49.7	50.4
77.5°	30.9	29.4	29.4	28.6	30.1	29.4	29.4	29.4	30.1	30.1	30.1
80°	16.6	16.6	16.6	16.6	17.3	16.6	17.3	17.3	17.3	17.3	17.3
82.5°	8.3	8.3	8.3	9.0	9.0	9.0	9.0	9.0	9.0	9.0	8.3
85°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
87.5°	0.8	1.5	1.5	1.5	1.5	1.5	0.8	0.8	0.8	0.8	0.8
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: P858189

CATALOG NUMBER: LX4C45D010 EX4C459050 4LBLWWH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1956.9	1956.9	1956.9	1956.9	1956.9	1956.9	1956.9	1956.9
2.5°	1943.4	1943.4	1943.4	1941.9	1942.6	1942.6	1941.9	1941.9
5°	1922.3	1921.6	1920.1	1920.1	1918.6	1920.1	1919.3	1920.1
7.5°	1893.7	1893.7	1891.5	1891.5	1890.7	1890.0	1889.2	1890.0
10°	1859.8	1859.8	1858.3	1857.6	1858.3	1855.3	1855.3	1854.6
12.5°	1822.2	1820.7	1819.2	1820.0	1819.2	1816.9	1816.2	1816.9
15°	1778.6	1776.3	1777.1	1774.8	1774.8	1774.0	1775.5	1775.5
17.5°	1730.4	1728.9	1727.4	1728.1	1726.6	1727.4	1726.6	1725.9
20°	1676.9	1676.2	1676.2	1673.2	1673.9	1673.2	1673.9	1676.2
22.5°	1615.2	1614.5	1615.2	1613.0	1614.5	1614.5	1616.7	1616.7
25°	1547.5	1546.7	1548.2	1549.0	1549.7	1552.0	1549.7	1550.5
27.5°	1472.2	1474.5	1476.7	1477.5	1480.5	1478.2	1476.7	1479.0
30°	1396.2	1396.2	1395.5	1398.5	1400.7	1403.0	1399.2	1399.2
32.5°	1308.9	1312.7	1312.7	1313.4	1315.7	1315.7	1315.7	1318.7
35°	1225.3	1227.6	1228.4	1225.3	1226.9	1226.1	1231.4	1231.4
37.5°	1132.0	1132.0	1132.8	1138.0	1138.0	1135.8	1137.3	1137.3
40°	1043.2	1044.0	1040.9	1042.4	1046.2	1044.7	1046.2	1047.7
42.5°	946.1	951.4	948.4	949.9	949.1	949.9	950.6	950.6
45°	853.5	855.0	855.0	855.8	857.3	858.8	854.3	853.5
47.5°	763.2	764.0	766.2	762.5	767.0	762.5	767.0	761.7
50°	672.1	675.1	672.9	674.4	672.1	672.1	671.4	670.6
52.5°	585.6	584.8	584.8	584.1	584.1	585.6	584.1	586.3
55°	499.0	499.8	498.3	497.5	496.8	499.0	496.8	495.3
57.5°	417.0	418.5	415.5	417.0	411.7	414.0	414.7	415.5
60°	341.0	338.7	338.7	335.7	335.7	337.9	334.9	334.9
62.5°	264.2	265.7	263.4	266.4	266.4	269.5	268.0	269.5
65°	202.5	203.2	204.0	204.0	204.0	208.5	207.0	204.7
67.5°	152.8	153.5	154.3	153.5	155.8	154.3	154.3	155.1
70°	110.6	111.4	112.1	112.1	111.4	112.1	112.1	112.1
72.5°	76.8	77.5	76.8	77.5	78.3	77.5	77.5	78.3
75°	50.4	50.4	49.7	49.7	49.7	49.7	50.4	49.7
77.5°	29.4	30.1	29.4	30.1	30.1	30.1	30.1	30.1
80°	17.3	17.3	17.3	16.6	17.3	17.3	17.3	16.6
82.5°	9.0	9.0	8.3	8.3	9.0	9.0	9.0	9.0
85°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
87.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
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)