

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: **LD4C30D010 EX4C309040 4LBSQLWWLI**

Issue Date: 2/18/2022

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



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: LD4C30D010 EX4C309040 4LBSQLWWLI
Description: 4 INCH 3000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 4000K, 90CRI LEDS
AND 4LBSQLWW TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

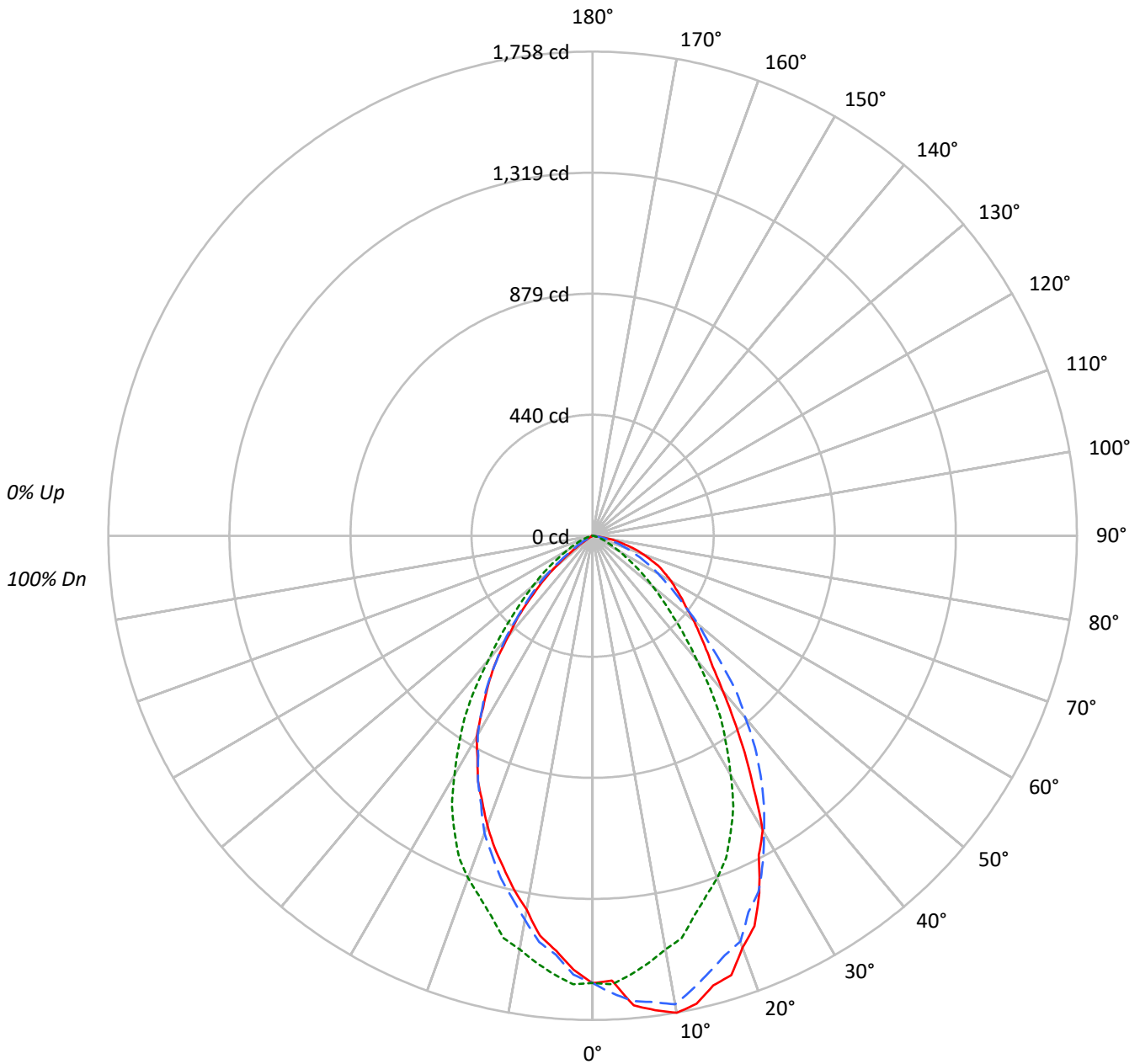
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2328.0 lumens
Efficiency: N/A
Efficacy: 73.7 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): 31.6
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			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	100	100	100
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90	90	90	90
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	84	82	80	80	80	80
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	77	74	72	72	72	72
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64	64	64	64
5	85	75	67	62	83	74	67	62	72	66	61	70	65	60	68	64	60	58	58	58	58
6	80	69	61	56	78	68	61	56	66	60	55	65	59	55	63	58	54	53	53	53	53
7	75	63	56	51	73	63	56	51	61	55	50	60	54	50	59	54	50	48	48	48	48
8	70	59	52	47	69	58	51	46	57	51	46	56	50	46	55	50	46	44	44	44	44
9	66	55	48	43	65	54	47	43	53	47	43	52	46	42	51	46	42	41	41	41	41
10	62	51	44	40	61	51	44	40	50	44	39	49	43	39	48	43	39	38	38	38	38

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	156708	156708	156708
5°	165791	154856	146555
10°	172293	149396	135081
15°	168849	142587	124686
20°	163366	135765	114777
25°	152382	126255	104696
30°	137565	111739	93734
35°	113315	95658	77766
40°	92478	73836	59855
45°	79458	56070	43052
50°	71903	42676	27185
55°	66179	30785	9824
60°	63509	21035	1505
65°	61347	14224	457
70°	54928	9874	564
75°	45035	5107	0
80°	28172	2167	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	152.2	6.5
10°-20°	410.0	17.6
20°-30°	547.4	23.5
30°-40°	519.7	22.3
40°-50°	359.2	15.4
50°-60°	198.5	8.5
60°-70°	98.6	4.2
70°-80°	38.8	1.7
80°-90°	3.7	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°	1109.6	47.7
0°-40°	1629.2	70.0
0°-60°	2186.9	93.9
0°-90°	2328.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2328.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1624	1624	1624	1624	1624	
5°	1712	1696	1599	1527	1513	164
15°	1690	1640	1427	1287	1248	478
25°	1431	1426	1186	983	983	653
35°	962	1063	812	668	660	603
45°	582	668	411	337	316	454
55°	393	370	183	94	58	354
65°	269	195	62	2	2	261
75°	121	74	14	0	0	129
85°	0	2	0	0	0	11
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°	1624.1	1624.1	1624.1	1624.1	1624.1	1624.1	1624.1	1624.1	1624.1	1624.1	1624.1
2.5°	1616.3	1661.1	1665.0	1661.1	1666.9	1665.0	1674.7	1665.0	1676.7	1659.2	1663.1
5°	1711.7	1694.2	1731.2	1711.7	1711.7	1709.8	1703.9	1702.0	1709.8	1684.5	1696.2
7.5°	1737.1	1762.4	1795.5	1754.6	1756.5	1756.5	1744.8	1740.9	1740.9	1694.2	1707.8
10°	1758.5	1742.9	1760.4	1744.8	1758.5	1756.5	1764.3	1739.0	1756.5	1729.3	1727.3
12.5°	1740.9	1735.1	1758.5	1733.2	1725.4	1727.3	1717.6	1711.7	1717.6	1686.4	1684.5
15°	1690.3	1696.2	1731.2	1703.9	1700.1	1696.2	1684.5	1665.0	1680.6	1637.7	1639.7
17.5°	1672.8	1663.1	1668.9	1645.5	1651.4	1647.5	1645.5	1628.0	1624.1	1596.8	1596.8
20°	1591.0	1612.4	1612.4	1596.8	1596.8	1594.9	1569.6	1585.2	1567.6	1559.8	1567.6
22.5°	1534.5	1536.5	1536.5	1522.8	1524.8	1517.0	1503.4	1493.6	1503.4	1493.6	1478.0
25°	1431.3	1435.2	1458.6	1433.3	1429.4	1437.1	1425.5	1419.6	1417.7	1394.3	1425.5
27.5°	1306.7	1345.6	1343.7	1333.9	1345.6	1330.0	1324.2	1326.1	1332.0	1330.0	1337.8
30°	1234.7	1240.5	1246.3	1238.6	1240.5	1234.7	1234.7	1236.6	1252.1	1246.3	1244.4
32.5°	1088.6	1108.0	1123.7	1123.7	1125.6	1131.4	1129.5	1170.3	1180.1	1160.7	1156.8
35°	962.0	975.6	989.2	991.2	1016.5	1018.4	1020.4	1032.1	1059.3	1065.2	1063.2
37.5°	841.3	854.9	858.8	876.3	890.0	903.5	919.2	934.8	958.1	977.6	967.9
40°	734.2	740.0	749.7	757.5	784.8	784.8	792.5	823.7	849.1	864.6	862.7
42.5°	644.6	646.5	654.3	668.0	693.3	687.4	693.3	714.7	751.6	753.6	775.1
45°	582.3	580.3	586.2	588.1	603.7	611.5	615.4	630.9	662.1	666.0	668.0
47.5°	525.8	523.8	533.6	537.5	543.3	551.1	551.1	553.1	564.7	574.5	566.7
50°	479.0	479.0	479.0	482.9	492.7	490.7	492.7	500.5	506.3	502.4	500.5
52.5°	428.4	436.2	442.0	444.0	445.9	445.9	447.9	444.0	442.0	436.2	424.5
55°	393.4	401.2	401.2	401.2	401.2	408.9	399.2	401.2	401.2	385.6	370.0
57.5°	358.4	366.1	371.9	364.2	371.9	364.2	360.3	358.4	354.4	338.8	315.5
60°	329.1	333.0	331.0	329.1	333.0	327.1	323.3	315.5	311.6	290.1	274.6
62.5°	296.0	297.9	299.9	296.0	292.1	290.1	282.4	270.7	262.9	245.4	231.7
65°	268.7	262.9	260.9	259.0	255.1	249.3	243.5	229.8	223.9	208.4	194.7
67.5°	227.8	225.9	229.8	223.9	214.2	214.2	208.4	196.7	183.0	173.3	159.7
70°	194.7	192.8	188.9	183.0	181.1	173.3	173.3	159.7	155.8	138.2	126.6
72.5°	159.7	159.7	153.8	148.0	142.1	138.2	136.3	126.6	120.8	111.0	101.2
75°	120.8	120.8	118.8	112.9	109.0	105.1	103.2	95.4	89.6	79.9	74.0
77.5°	85.7	85.7	77.9	74.0	75.9	72.0	68.1	66.2	64.2	58.4	50.7
80°	50.7	48.7	42.9	44.8	42.9	42.9	40.9	38.9	35.0	31.1	27.2
82.5°	13.7	15.6	15.6	15.6	17.5	13.7	13.7	13.7	15.6	15.6	9.8
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0
87.5°	2.0	3.9	7.8	7.8	7.8	7.8	7.8	5.9	5.9	5.9	3.9
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°	1624.1	1624.1	1624.1	1624.1	1624.1	1624.1	1624.1	1624.1	1624.1	1624.1	1624.1
2.5°	1643.6	1641.6	1643.6	1629.9	1661.1	1637.7	1633.8	1629.9	1643.6	1629.9	1610.5
5°	1678.6	1659.2	1653.3	1647.5	1665.0	1637.7	1631.9	1633.8	1624.1	1598.8	1600.7
7.5°	1690.3	1672.8	1655.3	1618.3	1633.8	1628.0	1612.4	1600.7	1585.2	1563.7	1559.8
10°	1694.2	1674.7	1649.4	1637.7	1614.4	1606.6	1600.7	1581.3	1561.8	1524.8	1515.0
12.5°	1682.5	1659.2	1628.0	1618.3	1600.7	1575.4	1561.8	1542.3	1524.8	1495.6	1474.1
15°	1631.9	1612.4	1602.7	1569.6	1561.8	1546.2	1518.9	1491.7	1466.4	1427.4	1415.7
17.5°	1573.5	1565.7	1555.9	1530.6	1528.7	1513.1	1487.8	1464.4	1431.3	1370.9	1351.5
20°	1513.1	1513.1	1481.9	1472.2	1491.7	1460.5	1441.0	1419.6	1351.5	1322.2	1287.2
22.5°	1468.4	1446.9	1429.4	1413.8	1415.7	1396.3	1369.0	1326.1	1300.8	1265.8	1224.9
25°	1380.7	1388.5	1349.6	1343.7	1349.6	1304.7	1291.1	1256.0	1219.0	1185.9	1154.8
27.5°	1326.1	1304.7	1279.4	1258.0	1258.0	1240.5	1201.6	1193.8	1137.2	1106.1	1067.1
30°	1244.4	1228.8	1207.3	1176.2	1172.3	1158.7	1127.5	1108.0	1049.7	1002.9	981.4
32.5°	1141.1	1135.3	1117.8	1082.8	1071.1	1055.4	1016.5	983.4	956.2	903.5	878.3
35°	1067.1	1045.8	1008.8	979.5	969.8	942.5	911.3	888.0	858.8	812.1	779.0
37.5°	956.2	934.8	899.7	864.6	864.6	837.4	794.5	771.2	730.3	703.0	675.7
40°	858.8	831.5	796.5	755.6	749.7	710.8	693.3	654.3	629.0	586.2	582.3
42.5°	749.7	724.4	693.3	662.1	638.7	619.3	574.5	545.3	518.0	496.6	490.7
45°	650.4	617.3	590.1	551.1	527.7	504.4	475.2	455.7	434.3	410.9	397.3
47.5°	564.7	537.5	498.5	463.5	440.1	428.4	395.3	373.9	356.4	340.8	331.0
50°	477.1	444.0	422.6	383.6	379.7	352.5	325.2	307.7	297.9	284.3	270.7
52.5°	410.9	379.7	350.5	321.3	305.7	296.0	270.7	253.1	239.6	229.8	222.0
55°	346.6	319.4	296.0	266.8	257.0	243.5	214.2	210.3	196.7	183.0	173.3
57.5°	297.9	272.6	245.4	225.9	208.4	198.7	175.2	159.7	151.9	140.2	130.5
60°	253.1	225.9	204.5	181.1	173.3	159.7	142.1	128.6	118.8	109.0	99.3
62.5°	212.2	188.9	165.6	146.0	134.4	126.6	112.9	101.2	91.6	83.8	75.9
65°	175.2	153.8	134.4	114.9	109.0	99.3	89.6	79.9	72.0	62.3	54.6
67.5°	144.1	124.7	105.1	91.6	85.7	81.8	70.1	60.3	54.6	48.7	40.9
70°	112.9	99.3	83.8	72.0	66.2	60.3	52.6	46.8	38.9	35.0	29.2
72.5°	87.7	75.9	62.3	52.6	48.7	44.8	37.0	31.1	27.2	23.3	19.5
75°	62.3	52.6	44.8	35.0	33.1	31.1	25.3	21.4	17.5	13.7	11.7
77.5°	42.9	35.0	27.2	23.3	21.4	17.5	15.6	11.7	9.8	7.8	5.9
80°	23.3	17.5	13.7	11.7	9.8	7.8	7.8	5.9	3.9	3.9	2.0
82.5°	7.8	5.9	3.9	2.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0
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°	2.0	2.0	2.0	2.0	2.0	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°	1624.1	1624.1	1624.1	1624.1	1624.1	1624.1	1624.1	1624.1	1624.1	1624.1	1624.1
2.5°	1622.2	1600.7	1606.6	1606.6	1602.7	1602.7	1598.8	1592.9	1594.9	1583.2	1557.9
5°	1604.6	1577.4	1573.5	1577.4	1561.8	1557.9	1550.1	1561.8	1526.7	1540.4	1524.8
7.5°	1554.0	1528.7	1522.8	1536.5	1517.0	1505.3	1503.4	1518.9	1487.8	1472.2	1454.7
10°	1497.5	1487.8	1470.3	1460.5	1454.7	1456.6	1441.0	1421.6	1415.7	1411.8	1396.3
12.5°	1446.9	1425.5	1409.9	1398.2	1394.3	1394.3	1369.0	1365.1	1347.6	1343.7	1320.3
15°	1386.5	1361.2	1351.5	1335.9	1322.2	1330.0	1300.8	1293.0	1287.2	1261.9	1265.8
17.5°	1333.9	1306.7	1283.3	1273.6	1261.9	1250.2	1222.9	1228.8	1215.1	1215.1	1180.1
20°	1265.8	1236.6	1219.0	1199.6	1199.6	1184.0	1164.5	1166.5	1148.9	1131.4	1100.2
22.5°	1193.8	1162.6	1141.1	1133.3	1113.9	1110.0	1086.7	1080.8	1057.4	1059.3	1032.1
25°	1117.8	1086.7	1057.4	1059.3	1041.9	1034.1	1020.4	993.2	983.4	971.8	964.0
27.5°	1028.2	1006.8	981.4	979.5	946.4	948.3	930.9	923.1	899.7	905.5	888.0
30°	946.4	915.3	891.9	886.1	872.4	868.5	841.3	829.5	833.5	817.9	808.2
32.5°	862.7	816.0	806.2	794.5	786.7	777.0	757.5	765.3	747.8	751.6	736.1
35°	751.6	732.2	706.9	706.9	699.1	691.3	677.7	685.5	668.0	660.2	644.6
37.5°	658.2	640.7	615.4	623.2	609.5	597.8	586.2	588.1	572.5	570.6	555.0
40°	556.9	547.2	529.7	529.7	519.9	519.9	514.1	508.3	498.5	486.8	469.3
42.5°	461.5	453.7	445.9	447.9	434.3	445.9	430.4	440.1	408.9	407.0	395.3
45°	391.4	373.9	375.8	368.0	360.3	364.2	350.5	354.4	336.9	333.0	321.3
47.5°	317.5	311.6	299.9	296.0	296.0	290.1	284.3	282.4	274.6	264.8	249.3
50°	260.9	239.6	235.6	229.8	225.9	225.9	218.1	206.5	208.4	198.7	183.0
52.5°	204.5	186.9	179.1	177.2	169.4	165.6	155.8	148.0	142.1	138.2	128.6
55°	157.7	142.1	132.4	132.4	120.8	120.8	107.1	101.2	93.5	85.7	79.9
57.5°	118.8	111.0	101.2	93.5	89.6	79.9	72.0	62.3	56.5	44.8	37.0
60°	89.6	81.8	72.0	66.2	62.3	52.6	42.9	35.0	21.4	17.5	15.6
62.5°	66.2	58.4	48.7	44.8	40.9	33.1	23.3	11.7	5.9	5.9	5.9
65°	48.7	38.9	31.1	27.2	23.3	17.5	7.8	3.9	2.0	2.0	2.0
67.5°	33.1	25.3	17.5	15.6	11.7	5.9	2.0	2.0	2.0	2.0	2.0
70°	21.4	15.6	7.8	5.9	3.9	2.0	2.0	2.0	2.0	2.0	2.0
72.5°	13.7	7.8	3.9	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	7.8	3.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	3.9	2.0	0.0	0.0	0.0	0.0	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	2.0	2.0	2.0
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: P#

CATALOG NUMBER: LD4C30D010 EX4C309040 4LBSQLWWLI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1624.1	1624.1	1624.1	1624.1	1624.1	1624.1	1624.1	1624.1
2.5°	1585.2	1571.5	1579.3	1561.8	1569.6	1583.2	1573.5	1577.4
5°	1530.6	1522.8	1513.1	1487.8	1507.3	1522.8	1515.0	1513.1
7.5°	1472.2	1444.9	1458.6	1450.8	1446.9	1462.5	1444.9	1464.4
10°	1411.8	1392.4	1390.5	1376.8	1376.8	1388.5	1390.5	1378.7
12.5°	1322.2	1312.6	1312.6	1310.6	1308.6	1320.3	1322.2	1316.4
15°	1258.0	1254.1	1244.4	1242.4	1230.8	1248.2	1250.2	1248.2
17.5°	1180.1	1182.0	1172.3	1172.3	1180.1	1185.9	1170.3	1185.9
20°	1127.5	1117.8	1113.9	1096.3	1106.1	1115.9	1115.9	1117.8
22.5°	1051.6	1036.0	1041.9	1032.1	1026.2	1039.9	1039.9	1045.8
25°	965.9	965.9	969.8	964.0	967.9	975.6	969.8	983.4
27.5°	884.1	891.9	891.9	884.1	888.0	911.3	921.1	905.5
30°	808.2	810.1	816.0	812.1	823.7	831.5	829.5	841.3
32.5°	722.5	732.2	736.1	730.3	734.2	751.6	742.0	740.0
35°	656.3	638.7	636.8	638.7	646.5	650.4	646.5	660.2
37.5°	560.8	555.0	547.2	549.2	555.0	562.8	566.7	576.4
40°	469.3	461.5	461.5	459.6	453.7	475.2	475.2	475.2
42.5°	389.5	387.5	377.8	377.8	385.6	391.4	387.5	401.2
45°	319.4	311.6	305.7	305.7	311.6	311.6	317.5	315.5
47.5°	251.2	243.5	245.4	239.6	245.4	253.1	243.5	245.4
50°	188.9	188.9	185.0	188.9	186.9	188.9	185.0	181.1
52.5°	128.6	146.0	148.0	140.2	122.7	107.1	97.4	105.1
55°	74.0	66.2	66.2	64.2	60.3	58.4	52.6	58.4
57.5°	37.0	33.1	33.1	33.1	31.1	29.2	25.3	25.3
60°	15.6	13.7	13.7	11.7	9.8	7.8	5.9	7.8
62.5°	5.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
65°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
67.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
70°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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)