

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



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: -

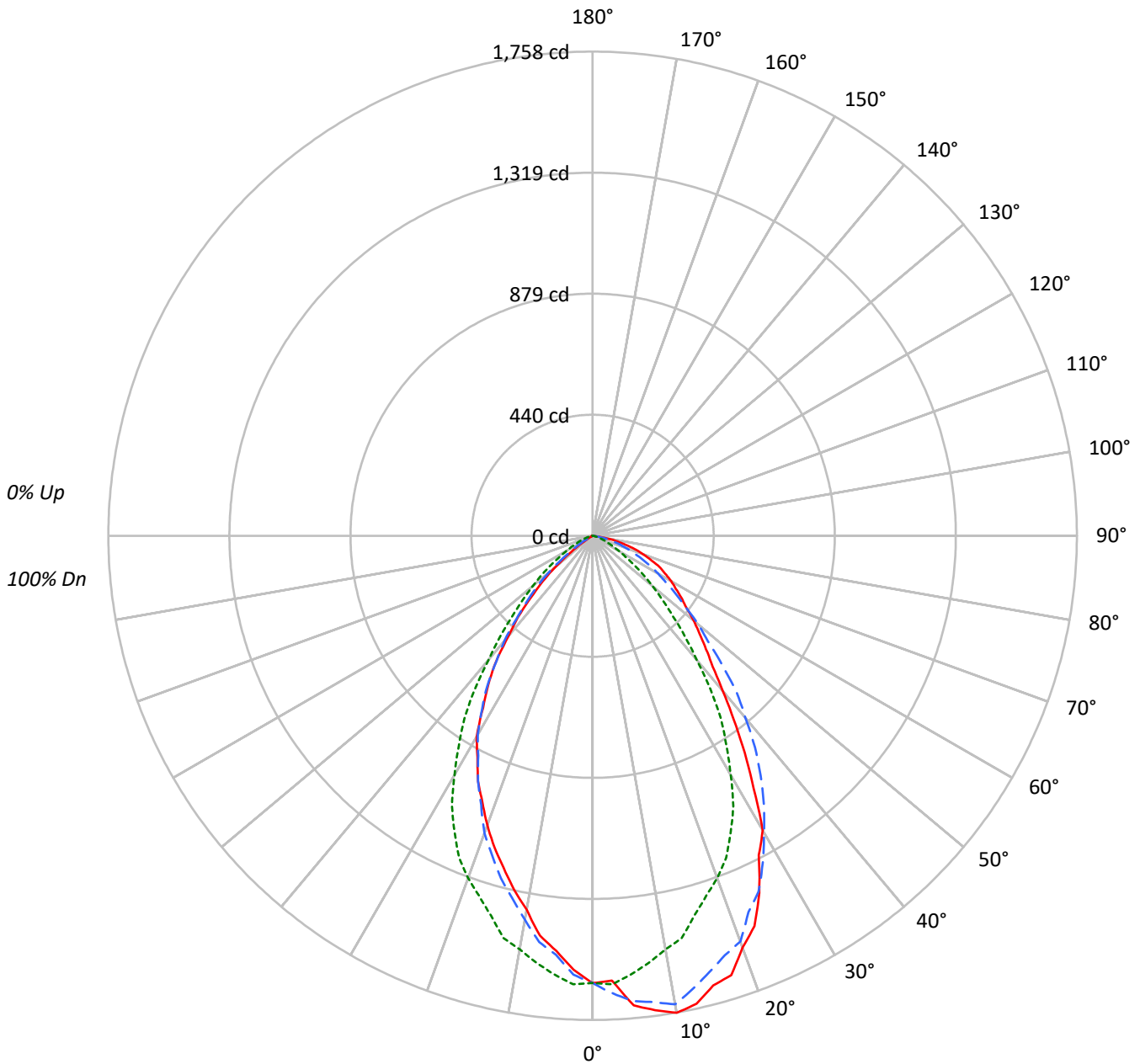
Summary

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 (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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	84	82	80
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	77	74	72
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64
5	85	75	67	62	83	74	67	62	72	66	61	70	65	60	68	64	60	58
6	80	69	61	56	78	68	61	56	66	60	55	65	59	55	63	58	54	53
7	75	63	56	51	73	63	56	51	61	55	50	60	54	50	59	54	50	48
8	70	59	52	47	69	58	51	46	57	51	46	56	50	46	55	50	46	44
9	66	55	48	43	65	54	47	43	53	47	43	52	46	42	51	46	42	41
10	62	51	44	40	61	51	44	40	50	44	39	49	43	39	48	43	39	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)