

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 EX4C309035 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 EX4C309035 4LBSQLWWLI
Description: 4 INCH 3000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3500K, 90CRI LEDS
AND 4LBSQLWW TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

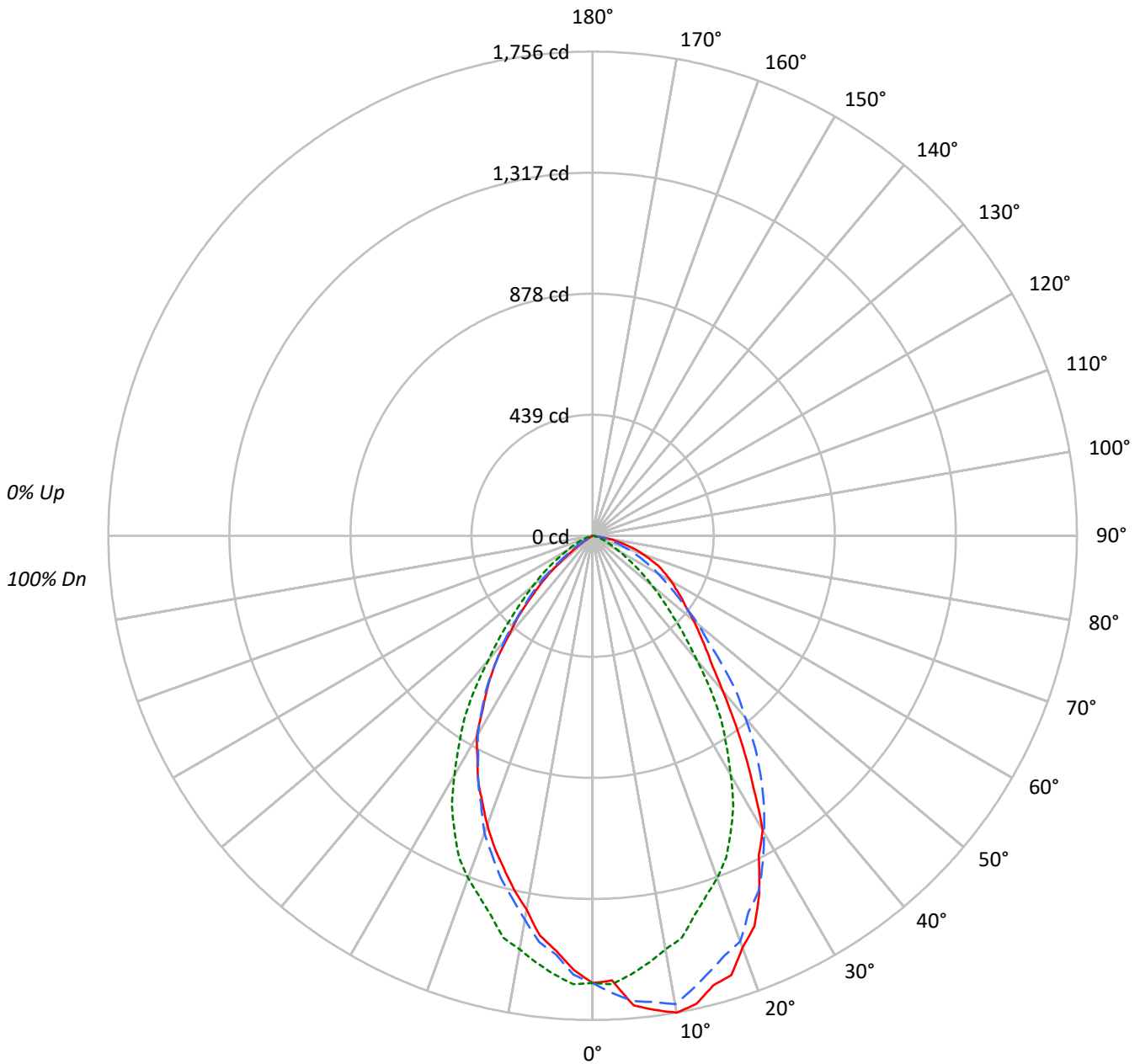
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2325.0 lumens
Efficiency: N/A
Efficacy: 73.6 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

TEST NUMBER: P#
CATALOG NUMBER: LD4C30D010 EX4C309035 4LBSQLWWLI

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	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°	156505	156505	156505
5°	165578	154662	146371
10°	172068	149200	134905
15°	168629	142397	124526
20°	163161	135591	114623
25°	152190	126096	104569
30°	137387	111594	93612
35°	113162	95529	77660
40°	92352	73735	59767
45°	79349	56002	42997
50°	71813	42631	27155
55°	66095	30751	9824
60°	63432	21015	1505
65°	61279	14224	457
70°	54871	9874	564
75°	44960	5070	0
80°	28116	2167	0
85°	0	0	0



TEST NUMBER: P#

CATALOG NUMBER: LD4C30D010 EX4C309035 4LBSQLWWLI

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	152.0	6.5
10°-20°	409.4	17.6
20°-30°	546.7	23.5
30°-40°	519.0	22.3
40°-50°	358.8	15.4
50°-60°	198.2	8.5
60°-70°	98.4	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°	1108.1	47.7
0°-40°	1627.1	70.0
0°-60°	2184.1	93.9
0°-90°	2325.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2325.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1622	1622	1622	1622	1622	
5°	1710	1694	1597	1525	1511	164
15°	1688	1638	1426	1286	1247	478
25°	1430	1424	1184	982	982	652
35°	961	1062	811	667	659	602
45°	582	667	410	336	315	454
55°	393	370	183	93	58	354
65°	268	194	62	2	2	260
75°	121	74	14	0	0	129
85°	0	2	0	0	0	11
90°	0	0	0	0	0	



TEST NUMBER: P#

CATALOG NUMBER: LD4C30D010 EX4C309035 4LBSQLWWLI

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1622.0	1622.0	1622.0	1622.0	1622.0	1622.0	1622.0	1622.0	1622.0	1622.0	1622.0
2.5°	1614.2	1658.9	1662.8	1658.9	1664.8	1662.8	1672.6	1662.8	1674.5	1657.0	1660.9
5°	1709.5	1692.0	1729.0	1709.5	1709.5	1707.6	1701.7	1699.8	1707.6	1682.3	1694.0
7.5°	1734.8	1760.1	1793.2	1752.3	1754.2	1754.2	1742.6	1738.7	1738.7	1692.0	1705.6
10°	1756.2	1740.6	1758.1	1742.6	1756.2	1754.2	1762.0	1736.7	1754.2	1727.0	1725.1
12.5°	1738.7	1732.8	1756.2	1730.9	1723.2	1725.1	1715.4	1709.5	1715.4	1684.2	1682.3
15°	1688.1	1694.0	1729.0	1701.7	1697.9	1694.0	1682.3	1662.8	1678.4	1635.6	1637.6
17.5°	1670.7	1660.9	1666.8	1643.4	1649.3	1645.4	1643.4	1625.9	1622.0	1594.8	1594.8
20°	1589.0	1610.3	1610.3	1594.8	1594.8	1592.9	1567.6	1583.1	1565.6	1557.8	1565.6
22.5°	1532.5	1534.5	1534.5	1520.9	1522.8	1515.1	1501.4	1491.7	1501.4	1491.7	1476.1
25°	1429.5	1433.4	1456.7	1431.4	1427.5	1435.3	1423.6	1417.8	1415.9	1392.5	1423.6
27.5°	1305.0	1343.9	1342.0	1332.2	1343.9	1328.3	1322.5	1324.4	1330.3	1328.3	1336.1
30°	1233.1	1238.9	1244.7	1237.0	1238.9	1233.1	1233.1	1235.0	1250.5	1244.7	1242.7
32.5°	1087.2	1106.6	1122.2	1122.2	1124.1	1130.0	1128.0	1168.8	1178.6	1159.2	1155.3
35°	960.7	974.4	988.0	989.9	1015.2	1017.1	1019.1	1030.8	1058.0	1063.8	1061.9
37.5°	840.2	853.8	857.7	875.2	888.8	902.4	918.0	933.5	956.9	976.3	966.6
40°	733.2	739.0	748.8	756.5	783.7	783.7	791.5	822.7	848.0	863.5	861.5
42.5°	643.8	645.7	653.5	667.1	692.4	686.5	692.4	713.8	750.7	752.7	774.1
45°	581.5	579.5	585.4	587.3	602.9	610.7	614.6	630.1	661.2	665.1	667.1
47.5°	525.1	523.2	532.9	536.8	542.6	550.4	550.4	552.3	564.0	573.8	566.0
50°	478.4	478.4	478.4	482.3	492.1	490.1	492.1	499.8	505.6	501.7	499.8
52.5°	427.8	435.6	441.5	443.5	445.4	445.4	447.3	443.5	441.5	435.6	424.0
55°	392.9	400.6	400.6	400.6	400.6	408.4	398.7	400.6	400.6	385.1	369.5
57.5°	357.9	365.7	371.5	363.7	371.5	363.7	359.8	357.9	353.9	338.4	315.1
60°	328.7	332.6	330.6	328.7	332.6	326.7	322.8	315.1	311.2	289.8	274.2
62.5°	295.6	297.5	299.5	295.6	291.8	289.8	282.0	270.3	262.6	245.0	231.4
65°	268.4	262.6	260.6	258.7	254.8	248.9	243.1	229.5	223.6	208.1	194.5
67.5°	227.5	225.6	229.5	223.6	214.0	214.0	208.1	196.4	182.8	173.1	159.5
70°	194.5	192.5	188.7	182.8	180.9	173.1	173.1	159.5	155.6	138.1	126.4
72.5°	159.5	159.5	153.6	147.8	142.0	138.1	136.2	126.4	120.6	110.9	101.1
75°	120.6	120.6	118.6	112.8	108.9	105.0	103.1	95.3	89.5	79.8	73.9
77.5°	85.6	85.6	77.8	73.9	75.8	71.9	68.0	66.1	64.2	58.4	50.6
80°	50.6	48.6	42.8	44.7	42.8	42.8	40.8	38.9	35.0	31.1	27.2
82.5°	13.6	15.5	15.5	15.5	17.5	13.6	13.6	13.6	15.5	15.5	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



TEST NUMBER: P#

CATALOG NUMBER: LD4C30D010 EX4C309035 4LBSQLWWLI

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1622.0	1622.0	1622.0	1622.0	1622.0	1622.0	1622.0	1622.0	1622.0	1622.0	1622.0
2.5°	1641.5	1639.5	1641.5	1627.8	1658.9	1635.6	1631.7	1627.8	1641.5	1627.8	1608.4
5°	1676.5	1657.0	1651.2	1645.4	1662.8	1635.6	1629.8	1631.7	1622.0	1596.8	1598.7
7.5°	1688.1	1670.7	1653.1	1616.2	1631.7	1625.9	1610.3	1598.7	1583.1	1561.7	1557.8
10°	1692.0	1672.6	1647.3	1635.6	1612.3	1604.5	1598.7	1579.2	1559.8	1522.8	1513.1
12.5°	1680.3	1657.0	1625.9	1616.2	1598.7	1573.4	1559.8	1540.3	1522.8	1493.7	1472.2
15°	1629.8	1610.3	1600.6	1567.6	1559.8	1544.2	1517.0	1489.8	1464.5	1425.5	1413.9
17.5°	1571.5	1563.7	1553.9	1528.6	1526.7	1511.2	1485.9	1462.5	1429.5	1369.2	1349.7
20°	1511.2	1511.2	1480.0	1470.3	1489.8	1458.6	1439.2	1417.8	1349.7	1320.5	1285.6
22.5°	1466.5	1445.0	1427.5	1412.0	1413.9	1394.5	1367.3	1324.4	1299.1	1264.2	1223.3
25°	1378.9	1386.7	1347.8	1342.0	1347.8	1303.0	1289.5	1254.4	1217.5	1184.4	1153.3
27.5°	1324.4	1303.0	1277.8	1256.4	1256.4	1238.9	1200.0	1192.2	1135.8	1104.7	1065.7
30°	1242.7	1227.2	1205.8	1174.7	1170.8	1157.2	1126.1	1106.6	1048.3	1001.6	980.2
32.5°	1139.7	1133.9	1116.3	1081.4	1069.7	1054.1	1015.2	982.2	955.0	902.4	877.2
35°	1065.7	1044.4	1007.5	978.3	968.5	941.3	910.2	886.8	857.7	811.0	778.0
37.5°	955.0	933.5	898.5	863.5	863.5	836.3	793.5	770.2	729.3	702.1	674.9
40°	857.7	830.5	795.5	754.6	748.8	709.8	692.4	653.5	628.2	585.4	581.5
42.5°	748.8	723.5	692.4	661.2	637.9	618.5	573.8	544.6	517.4	496.0	490.1
45°	649.6	616.5	589.3	550.4	527.0	503.7	474.5	455.1	433.7	410.4	396.7
47.5°	564.0	536.8	497.9	462.9	439.6	427.8	394.8	373.4	355.9	340.4	330.6
50°	476.5	443.5	422.0	383.1	379.2	352.0	324.8	307.3	297.5	284.0	270.3
52.5°	410.4	379.2	350.0	320.9	305.3	295.6	270.3	252.8	239.3	229.5	221.7
55°	346.2	319.0	295.6	266.5	256.7	243.1	214.0	210.1	196.4	182.8	173.1
57.5°	297.5	272.2	245.0	225.6	208.1	198.4	175.0	159.5	151.7	140.0	130.3
60°	252.8	225.6	204.2	180.9	173.1	159.5	142.0	128.4	118.6	108.9	99.2
62.5°	212.0	188.7	165.3	145.8	134.2	126.4	112.8	101.1	91.4	83.7	75.8
65°	175.0	153.6	134.2	114.8	108.9	99.2	89.5	79.8	71.9	62.3	54.5
67.5°	143.9	124.5	105.0	91.4	85.6	81.7	70.0	60.3	54.5	48.6	40.8
70°	112.8	99.2	83.7	71.9	66.1	60.3	52.5	46.7	38.9	35.0	29.2
72.5°	87.5	75.8	62.3	52.5	48.6	44.7	37.0	31.1	27.2	23.3	19.4
75°	62.3	52.5	44.7	35.0	33.1	31.1	25.3	21.4	17.5	13.6	11.7
77.5°	42.8	35.0	27.2	23.3	21.4	17.5	15.5	11.7	9.8	7.8	5.9
80°	23.3	17.5	13.6	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



TEST NUMBER: P#

CATALOG NUMBER: LD4C30D010 EX4C309035 4LBSQLWWLI

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1622.0	1622.0	1622.0	1622.0	1622.0	1622.0	1622.0	1622.0	1622.0	1622.0	1622.0
2.5°	1620.1	1598.7	1604.5	1604.5	1600.6	1600.6	1596.8	1590.9	1592.9	1581.1	1555.9
5°	1602.5	1575.3	1571.5	1575.3	1559.8	1555.9	1548.1	1559.8	1524.7	1538.4	1522.8
7.5°	1552.0	1526.7	1520.9	1534.5	1515.1	1503.3	1501.4	1517.0	1485.9	1470.3	1452.8
10°	1495.6	1485.9	1468.4	1458.6	1452.8	1454.7	1439.2	1419.8	1413.9	1410.0	1394.5
12.5°	1445.0	1423.6	1408.1	1396.4	1392.5	1392.5	1367.3	1363.4	1345.8	1342.0	1318.6
15°	1384.7	1359.5	1349.7	1334.2	1320.5	1328.3	1299.1	1291.4	1285.6	1260.3	1264.2
17.5°	1332.2	1305.0	1281.7	1271.9	1260.3	1248.6	1221.3	1227.2	1213.6	1213.6	1178.6
20°	1264.2	1235.0	1217.5	1198.0	1198.0	1182.5	1163.0	1165.0	1147.4	1130.0	1098.8
22.5°	1192.2	1161.1	1139.7	1131.9	1112.5	1108.6	1085.3	1079.4	1056.1	1058.0	1030.8
25°	1116.3	1085.3	1056.1	1058.0	1040.5	1032.8	1019.1	991.9	982.2	970.5	962.7
27.5°	1026.9	1005.5	980.2	978.3	945.2	947.1	929.7	921.9	898.5	904.4	886.8
30°	945.2	914.1	890.7	884.9	871.3	867.4	840.2	828.5	832.4	816.8	807.1
32.5°	861.5	814.9	805.2	793.5	785.7	776.0	756.5	764.3	746.8	750.7	735.1
35°	750.7	731.2	706.0	706.0	698.2	690.4	676.8	684.6	667.1	659.3	643.8
37.5°	657.3	639.9	614.6	622.4	608.7	597.1	585.4	587.3	571.8	569.9	554.2
40°	556.2	546.5	529.0	529.0	519.3	519.3	513.4	507.6	497.9	486.2	468.7
42.5°	460.9	453.1	445.4	447.3	433.7	445.4	429.8	439.6	408.4	406.5	394.8
45°	390.9	373.4	375.3	367.6	359.8	363.7	350.0	353.9	336.5	332.6	320.9
47.5°	317.0	311.2	299.5	295.6	295.6	289.8	284.0	282.0	274.2	264.5	248.9
50°	260.6	239.3	235.3	229.5	225.6	225.6	217.8	206.2	208.1	198.4	182.8
52.5°	204.2	186.7	178.9	177.0	169.2	165.3	155.6	147.8	142.0	138.1	128.4
55°	157.5	142.0	132.3	132.3	120.6	120.6	107.0	101.1	93.3	85.6	79.8
57.5°	118.6	110.9	101.1	93.3	89.5	79.8	71.9	62.3	56.4	44.7	37.0
60°	89.5	81.7	71.9	66.1	62.3	52.5	42.8	35.0	21.4	17.5	15.5
62.5°	66.1	58.4	48.6	44.7	40.8	33.1	23.3	11.7	5.9	5.9	5.9
65°	48.6	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	15.5	11.7	5.9	2.0	2.0	2.0	2.0	2.0
70°	21.4	15.5	7.8	5.9	3.9	2.0	2.0	2.0	2.0	2.0	2.0
72.5°	13.6	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 EX4C309035 4LBSQLWWLI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1622.0	1622.0	1622.0	1622.0	1622.0	1622.0	1622.0	1622.0
2.5°	1583.1	1569.5	1577.2	1559.8	1567.6	1581.1	1571.5	1575.3
5°	1528.6	1520.9	1511.2	1485.9	1505.3	1520.9	1513.1	1511.2
7.5°	1470.3	1443.1	1456.7	1448.9	1445.0	1460.6	1443.1	1462.5
10°	1410.0	1390.6	1388.7	1375.0	1375.0	1386.7	1388.7	1376.9
12.5°	1320.5	1310.9	1310.9	1308.9	1306.9	1318.6	1320.5	1314.8
15°	1256.4	1252.5	1242.7	1240.8	1229.2	1246.6	1248.6	1246.6
17.5°	1178.6	1180.5	1170.8	1170.8	1178.6	1184.4	1168.8	1184.4
20°	1126.1	1116.3	1112.5	1094.9	1104.7	1114.4	1114.4	1116.3
22.5°	1050.2	1034.7	1040.5	1030.8	1024.9	1038.5	1038.5	1044.4
25°	964.6	964.6	968.5	962.7	966.6	974.4	968.5	982.2
27.5°	883.0	890.7	890.7	883.0	886.8	910.2	919.9	904.4
30°	807.1	809.0	814.9	811.0	822.7	830.5	828.5	840.2
32.5°	721.6	731.2	735.1	729.3	733.2	750.7	741.0	739.0
35°	655.4	637.9	636.0	637.9	645.7	649.6	645.7	659.3
37.5°	560.1	554.2	546.5	548.5	554.2	562.1	566.0	575.7
40°	468.7	460.9	460.9	459.0	453.1	474.5	474.5	474.5
42.5°	389.0	387.0	377.3	377.3	385.1	390.9	387.0	400.6
45°	319.0	311.2	305.3	305.3	311.2	311.2	317.0	315.1
47.5°	250.9	243.1	245.0	239.3	245.0	252.8	243.1	245.0
50°	188.7	188.7	184.8	188.7	186.7	188.7	184.8	180.9
52.5°	128.4	145.8	147.8	140.0	122.5	107.0	97.2	105.0
55°	73.9	66.1	66.1	64.2	60.3	58.4	52.5	58.4
57.5°	37.0	33.1	33.1	33.1	31.1	29.2	25.3	25.3
60°	15.5	13.6	13.6	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)