

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: P857890

Luminaire Tested: **LX4C40D010 EX4C409027 4LBLWWH**

Issue Date: 2/14/2022



Test Information

Test Method: LM-79-08
Report Number: P857890
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: LX4C40D010 EX4C409027 4LBLWWH
Description: 4 INCH 4000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 2700K, 90CRI LEDS
AND 4LRLWW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Summary

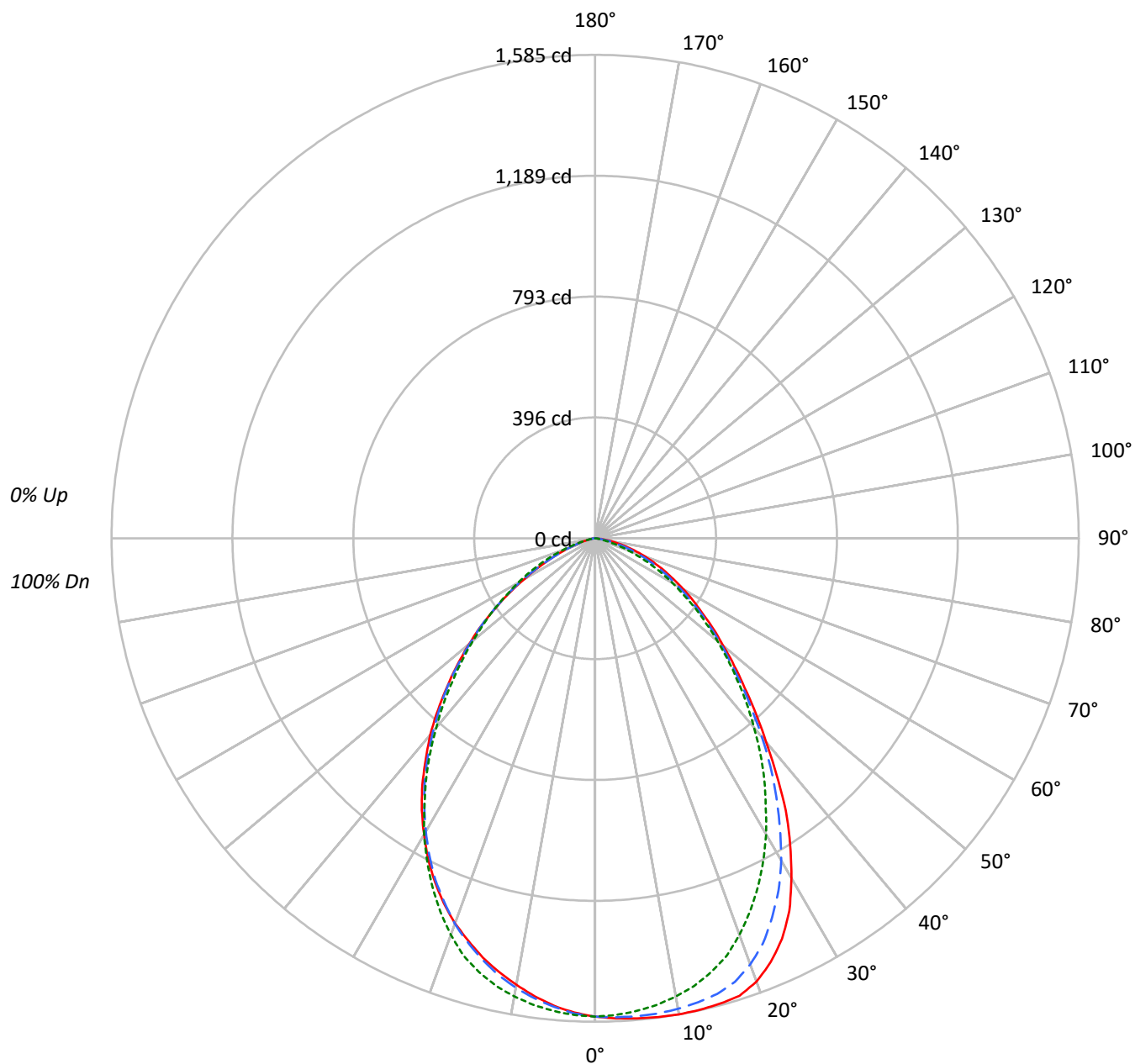
Lumens per Lamp: N/A
Luminaire Lumens: 2956.0 lumens
Efficiency: N/A
Efficacy: 62.9 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.09 / 1.17
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 47
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	30	10	50	30	10
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	49	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°	192696	192696	192696
5°	194850	191878	189794
10°	197702	190254	185439
15°	200956	187220	181000
20°	202225	180850	175646
25°	196431	171082	168466
30°	182544	159010	159095
35°	163399	144952	148027
40°	139894	129935	134682
45°	120437	114565	118856
50°	104699	99730	102730
55°	92122	85804	85033
60°	81968	71599	65972
65°	71889	57354	47703
70°	61746	40518	32292
75°	50125	23496	18892
80°	35869	10259	9410
85°	13673	4229	4229



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	147.8	5.0
10°-20°	418.4	14.2
20°-30°	597.5	20.2
30°-40°	625.1	21.1
40°-50°	523.7	17.7
50°-60°	366.6	12.4
60°-70°	199.6	6.8
70°-80°	69.3	2.3
80°-90°	8.0	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°	1163.8	39.4
0°-40°	1788.9	60.5
0°-60°	2679.2	90.6
0°-90°	2956.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2956.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1568	1568	1568	1568	1568	
5°	1580	1573	1556	1543	1539	151
15°	1580	1547	1472	1430	1423	446
25°	1449	1372	1262	1237	1243	662
35°	1090	1036	966	974	987	676
45°	693	678	659	681	684	539
55°	430	416	401	401	397	389
65°	247	226	197	166	164	246
75°	106	86	50	40	40	114
85°	10	5	3	3	3	17
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°	1568.5	1568.5	1568.5	1568.5	1568.5	1568.5	1568.5	1568.5	1568.5	1568.5	1568.5
2.5°	1575.8	1574.0	1574.6	1574.6	1574.6	1574.0	1574.6	1574.0	1574.0	1573.4	1572.1
5°	1580.0	1578.8	1578.8	1578.8	1578.2	1577.6	1577.6	1577.0	1575.8	1575.2	1572.7
7.5°	1583.0	1581.8	1581.8	1581.2	1580.6	1580.0	1579.4	1577.6	1575.8	1574.6	1571.5
10°	1584.8	1583.0	1583.0	1581.8	1580.6	1580.0	1578.8	1576.4	1574.0	1570.9	1566.7
12.5°	1583.6	1581.8	1581.2	1580.0	1577.6	1576.4	1575.2	1572.1	1567.9	1563.7	1558.3
15°	1580.0	1578.8	1577.6	1575.8	1572.7	1570.9	1569.7	1564.9	1559.5	1553.4	1546.8
17.5°	1572.7	1570.9	1568.5	1566.1	1561.9	1560.1	1557.1	1551.0	1543.2	1534.7	1524.5
20°	1546.8	1545.6	1543.2	1539.0	1532.3	1529.9	1525.7	1517.9	1507.6	1497.3	1486.5
22.5°	1504.0	1502.2	1498.5	1494.9	1488.9	1484.7	1481.1	1470.2	1458.7	1447.9	1437.6
25°	1449.1	1447.3	1442.4	1437.6	1431.6	1424.3	1420.7	1412.3	1400.8	1386.9	1371.9
27.5°	1378.5	1372.5	1370.7	1365.2	1356.2	1353.8	1348.3	1337.5	1326.6	1314.5	1301.9
30°	1286.8	1286.8	1283.2	1280.8	1272.3	1269.9	1263.9	1252.4	1246.4	1229.5	1219.8
32.5°	1189.7	1188.5	1185.4	1183.6	1178.8	1174.6	1168.6	1162.5	1149.2	1140.8	1127.5
35°	1089.5	1082.3	1083.5	1079.9	1076.9	1072.0	1071.4	1064.8	1052.7	1047.9	1035.8
37.5°	975.5	972.5	976.7	971.3	968.3	968.9	964.0	959.8	955.0	946.5	944.1
40°	872.3	874.8	874.2	869.3	871.7	868.7	863.9	859.7	857.3	851.8	850.0
42.5°	780.0	776.4	775.2	775.2	775.8	775.8	773.4	770.4	770.4	765.0	759.5
45°	693.2	693.2	692.0	695.6	690.2	690.2	688.3	687.7	685.3	684.1	677.5
47.5°	618.4	617.8	617.2	616.6	615.9	615.9	612.3	609.3	608.7	605.1	601.5
50°	547.8	551.4	550.2	547.2	546.0	546.6	544.2	542.3	541.7	535.7	536.3
52.5°	488.7	488.1	489.3	487.4	484.4	485.0	482.6	480.2	477.8	474.8	472.4
55°	430.1	433.2	431.9	430.1	429.5	428.3	426.5	423.5	422.9	416.3	415.7
57.5°	381.3	380.7	379.5	376.4	375.8	374.0	374.0	371.6	368.0	364.4	361.4
60°	333.6	333.6	331.8	331.2	328.8	328.2	327.6	325.2	320.9	317.9	313.1
62.5°	287.8	289.0	287.8	286.0	284.1	281.7	280.5	278.7	275.1	272.1	267.9
65°	247.3	246.7	246.1	243.7	243.1	240.7	240.1	236.5	232.9	230.5	225.6
67.5°	208.7	206.9	206.9	205.7	204.5	202.7	201.5	197.9	193.7	191.2	186.4
70°	171.9	170.7	170.7	170.7	167.7	165.9	165.3	163.5	157.5	155.0	150.2
72.5°	138.2	137.5	136.9	135.1	133.3	133.3	130.9	127.3	124.3	121.3	117.6
75°	105.6	106.8	105.6	103.2	102.6	101.4	99.5	96.5	93.5	89.9	85.7
77.5°	77.2	76.0	74.8	74.8	73.6	71.2	70.6	68.2	64.6	62.1	57.9
80°	50.7	50.1	48.9	47.7	47.1	46.5	45.8	43.4	39.8	38.0	34.4
82.5°	27.8	27.1	27.1	26.5	24.7	24.7	24.1	21.7	19.9	18.7	16.9
85°	9.7	9.7	9.7	9.0	9.0	9.0	8.4	7.8	7.2	6.6	5.4
87.5°	1.2	0.6	1.2	0.6	1.2	0.6	0.6	0.6	0.6	0.6	0.6
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°	1568.5	1568.5	1568.5	1568.5	1568.5	1568.5	1568.5	1568.5	1568.5	1568.5	1568.5
2.5°	1570.9	1569.7	1569.1	1568.5	1567.9	1567.3	1566.7	1565.5	1564.9	1564.3	1563.1
5°	1570.9	1568.5	1567.3	1565.5	1564.3	1563.1	1561.3	1559.5	1557.7	1555.9	1554.0
7.5°	1568.5	1564.9	1562.5	1558.9	1557.7	1555.9	1552.2	1549.8	1546.8	1543.2	1539.0
10°	1562.5	1558.3	1553.4	1548.6	1546.8	1543.8	1539.0	1534.7	1529.9	1525.1	1520.9
12.5°	1552.8	1546.2	1540.2	1533.5	1529.9	1526.9	1520.3	1514.2	1508.2	1502.8	1495.5
15°	1538.4	1530.5	1522.7	1513.6	1509.4	1505.8	1496.1	1488.9	1479.2	1472.0	1464.8
17.5°	1514.8	1502.8	1493.1	1481.7	1475.6	1471.4	1463.0	1451.5	1442.4	1434.6	1426.2
20°	1474.4	1463.0	1449.7	1437.0	1430.4	1424.9	1412.9	1400.8	1391.8	1383.3	1374.3
22.5°	1421.3	1406.8	1397.2	1381.5	1376.1	1369.4	1355.0	1344.1	1333.9	1325.4	1317.0
25°	1356.8	1344.1	1330.8	1316.4	1309.7	1301.9	1289.8	1278.3	1271.7	1262.1	1251.8
27.5°	1282.6	1272.3	1256.0	1243.4	1236.7	1230.7	1219.2	1209.0	1199.3	1192.7	1183.0
30°	1204.1	1192.1	1177.6	1164.3	1160.7	1153.5	1143.2	1135.4	1125.1	1120.9	1116.7
32.5°	1117.9	1104.0	1093.1	1084.7	1077.5	1071.4	1066.0	1053.3	1051.5	1040.7	1039.4
35°	1023.8	1017.7	1007.5	1000.2	994.2	990.0	980.9	974.9	968.3	966.5	962.2
37.5°	935.1	927.8	918.2	911.6	907.3	906.7	900.1	896.5	891.6	889.2	884.4
40°	842.2	839.2	830.7	829.5	822.9	822.3	818.6	814.4	810.2	810.2	810.8
42.5°	756.5	752.9	749.3	745.0	741.4	741.4	739.6	738.4	737.2	735.4	738.4
45°	676.3	671.4	669.0	664.8	666.6	663.0	661.8	661.8	660.0	659.4	663.6
47.5°	601.5	596.0	593.6	592.4	592.4	593.0	587.6	589.4	588.8	590.0	591.8
50°	533.3	528.5	524.9	524.9	525.5	523.0	520.6	522.4	520.6	521.8	526.1
52.5°	470.0	465.1	463.3	463.3	459.7	459.1	460.3	457.9	458.5	459.1	461.5
55°	411.4	408.4	405.4	402.4	403.0	401.8	399.4	398.8	400.0	400.6	403.6
57.5°	359.0	354.7	350.5	349.3	348.1	348.1	345.1	344.5	345.7	342.7	342.7
60°	308.9	306.5	301.0	299.2	299.2	296.2	293.8	295.0	292.0	291.4	292.0
62.5°	262.4	260.6	257.0	253.4	252.2	251.0	247.9	246.7	245.5	243.1	239.5
65°	222.0	217.8	213.6	211.1	209.3	206.3	204.5	202.1	198.5	197.3	193.7
67.5°	181.6	177.4	173.1	171.3	169.5	167.7	164.7	161.7	157.5	152.6	148.4
70°	146.0	140.6	138.2	133.3	132.1	129.7	125.5	122.5	118.2	112.8	108.6
72.5°	111.6	108.0	104.4	100.1	97.1	95.3	91.7	86.9	82.0	79.0	74.8
75°	80.2	78.4	73.6	68.8	67.6	65.2	60.9	57.9	54.3	49.5	45.8
77.5°	54.3	50.7	47.7	43.4	42.2	39.8	37.4	34.4	32.0	29.0	26.5
80°	32.0	29.0	27.1	24.1	22.9	21.7	19.9	17.5	15.7	14.5	13.9
82.5°	15.7	13.3	12.7	10.9	10.3	9.7	8.4	7.8	6.6	6.6	6.6
85°	5.4	4.2	4.2	3.6	3.0	3.0	3.0	3.0	3.0	3.0	3.0
87.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	1.2	0.6
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):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1568.5	1568.5	1568.5	1568.5	1568.5	1568.5	1568.5	1568.5	1568.5	1568.5	1568.5
2.5°	1562.5	1561.9	1561.3	1560.7	1560.7	1560.1	1560.1	1559.5	1559.5	1558.9	1558.9
5°	1551.6	1549.8	1548.6	1547.4	1547.4	1545.6	1544.4	1543.2	1542.6	1542.6	1541.4
7.5°	1536.6	1534.1	1531.7	1529.9	1529.3	1526.3	1523.9	1523.9	1521.5	1520.3	1519.1
10°	1516.6	1512.4	1508.8	1507.0	1504.6	1502.8	1499.8	1497.9	1496.1	1493.1	1492.5
12.5°	1489.5	1486.5	1481.1	1478.6	1477.4	1473.8	1469.0	1466.6	1466.0	1463.6	1461.7
15°	1458.7	1452.1	1447.3	1444.3	1444.3	1438.2	1435.8	1432.2	1429.8	1428.0	1427.4
17.5°	1418.9	1412.3	1407.5	1403.2	1402.0	1397.2	1393.6	1392.4	1389.4	1390.6	1387.5
20°	1367.6	1362.2	1358.6	1353.2	1353.2	1350.1	1348.9	1345.9	1344.7	1343.5	1344.7
22.5°	1312.7	1306.1	1300.1	1299.5	1299.5	1295.2	1294.6	1294.0	1291.6	1293.4	1292.8
25°	1248.2	1243.4	1239.7	1239.1	1239.1	1236.7	1234.3	1235.5	1237.3	1236.7	1238.5
27.5°	1181.2	1176.4	1175.2	1174.6	1173.4	1172.8	1174.0	1174.0	1175.8	1178.2	1180.6
30°	1108.8	1107.6	1105.8	1105.2	1104.0	1107.0	1108.2	1110.0	1109.4	1113.0	1115.5
32.5°	1036.4	1034.0	1033.4	1034.6	1036.4	1035.8	1039.4	1040.7	1041.9	1046.1	1047.9
35°	963.4	962.8	961.6	961.6	962.2	967.1	967.1	971.3	973.7	974.9	979.7
37.5°	885.0	887.4	888.6	890.4	891.0	892.9	894.1	898.3	900.7	903.1	905.5
40°	813.2	812.0	817.4	813.8	815.0	820.5	822.9	822.3	825.9	829.5	831.9
42.5°	736.6	738.4	739.6	740.8	743.8	744.4	747.5	751.7	752.9	757.1	758.3
45°	662.4	663.0	665.4	667.8	669.6	674.5	675.7	677.5	681.1	681.1	682.9
47.5°	592.4	594.8	594.8	598.5	601.5	600.9	605.1	606.3	605.7	608.7	609.9
50°	525.5	529.1	528.5	530.9	532.1	532.7	536.3	537.5	535.1	538.1	538.7
52.5°	461.5	463.3	465.7	466.3	465.1	468.1	466.9	469.4	468.7	471.2	468.7
55°	403.0	402.4	402.4	403.6	402.4	403.6	404.8	402.4	400.6	403.0	402.4
57.5°	344.5	344.5	343.3	345.1	343.3	341.5	340.9	339.0	337.2	337.2	336.6
60°	289.6	288.4	286.0	285.4	285.4	282.3	281.1	278.7	278.7	276.3	273.9
62.5°	238.3	235.3	233.5	233.5	232.3	229.2	223.8	220.2	219.0	215.4	214.8
65°	190.0	187.0	185.2	181.6	178.6	177.4	171.9	167.7	165.9	162.3	162.9
67.5°	146.0	141.2	135.7	133.3	131.5	127.3	125.5	122.5	120.7	120.7	120.7
70°	105.0	100.7	95.3	93.5	92.3	88.7	86.9	86.3	88.1	87.5	88.1
72.5°	70.6	66.4	63.9	62.7	61.5	59.7	60.9	61.5	60.3	60.9	61.5
75°	42.8	41.6	39.8	39.2	39.2	39.8	39.2	39.2	39.8	39.8	40.4
77.5°	24.7	23.5	23.5	22.9	24.1	23.5	23.5	23.5	24.1	24.1	24.1
80°	13.3	13.3	13.3	13.3	13.9	13.3	13.9	13.9	13.9	13.9	13.9
82.5°	6.6	6.6	6.6	7.2	7.2	7.2	7.2	7.2	7.2	7.2	6.6
85°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
87.5°	0.6	1.2	1.2	1.2	1.2	1.2	0.6	0.6	0.6	0.6	0.6
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: P857890

CATALOG NUMBER: LX4C40D010 EX4C409027 4LBLWWH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1568.5	1568.5	1568.5	1568.5	1568.5	1568.5	1568.5	1568.5
2.5°	1557.7	1557.7	1557.7	1556.5	1557.1	1557.1	1556.5	1556.5
5°	1540.8	1540.2	1539.0	1539.0	1537.8	1539.0	1538.4	1539.0
7.5°	1517.9	1517.9	1516.0	1516.0	1515.4	1514.8	1514.2	1514.8
10°	1490.7	1490.7	1489.5	1488.9	1489.5	1487.1	1487.1	1486.5
12.5°	1460.5	1459.3	1458.1	1458.7	1458.1	1456.3	1455.7	1456.3
15°	1425.5	1423.7	1424.3	1422.5	1422.5	1421.9	1423.1	1423.1
17.5°	1386.9	1385.7	1384.5	1385.1	1383.9	1384.5	1383.9	1383.3
20°	1344.1	1343.5	1343.5	1341.1	1341.7	1341.1	1341.7	1343.5
22.5°	1294.6	1294.0	1294.6	1292.8	1294.0	1294.0	1295.8	1295.8
25°	1240.3	1239.7	1240.9	1241.5	1242.2	1244.0	1242.2	1242.8
27.5°	1180.0	1181.8	1183.6	1184.2	1186.6	1184.8	1183.6	1185.4
30°	1119.1	1119.1	1118.5	1120.9	1122.7	1124.5	1121.5	1121.5
32.5°	1049.1	1052.1	1052.1	1052.7	1054.5	1054.5	1054.5	1056.9
35°	982.1	983.9	984.6	982.1	983.3	982.7	987.0	987.0
37.5°	907.3	907.3	907.9	912.2	912.2	910.3	911.6	911.6
40°	836.1	836.7	834.3	835.5	838.6	837.4	838.6	839.8
42.5°	758.3	762.5	760.1	761.3	760.7	761.3	761.9	761.9
45°	684.1	685.3	685.3	685.9	687.1	688.3	684.7	684.1
47.5°	611.7	612.3	614.1	611.1	614.7	611.1	614.7	610.5
50°	538.7	541.1	539.3	540.5	538.7	538.7	538.1	537.5
52.5°	469.4	468.7	468.7	468.1	468.1	469.4	468.1	470.0
55°	400.0	400.6	399.4	398.8	398.2	400.0	398.2	397.0
57.5°	334.2	335.4	333.0	334.2	330.0	331.8	332.4	333.0
60°	273.3	271.5	271.5	269.1	269.1	270.9	268.5	268.5
62.5°	211.8	213.0	211.1	213.6	213.6	216.0	214.8	216.0
65°	162.3	162.9	163.5	163.5	163.5	167.1	165.9	164.1
67.5°	122.5	123.1	123.7	123.1	124.9	123.7	123.7	124.3
70°	88.7	89.3	89.9	89.9	89.3	89.9	89.9	89.9
72.5°	61.5	62.1	61.5	62.1	62.7	62.1	62.1	62.7
75°	40.4	40.4	39.8	39.8	39.8	39.8	40.4	39.8
77.5°	23.5	24.1	23.5	24.1	24.1	24.1	24.1	24.1
80°	13.9	13.9	13.9	13.3	13.9	13.9	13.9	13.3
82.5°	7.2	7.2	6.6	6.6	7.2	7.2	7.2	7.2
85°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
87.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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— 0°-180° - - 45°-225° - - - 90°-270°













(END OF REPORT)