

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: P879421

Luminaire Tested: **LD4C40D010 EU4409030 4LBDWWLI**

Issue Date: 10/1/2024

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: P879421
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2107-320-5)
Test Lab: INNOVATION CENTER
Issue Date: 10/1/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD4C40D010 EU4409030 4LBDWWLI
Description: 4 INCH 4000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS
AND 4LBDWW TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

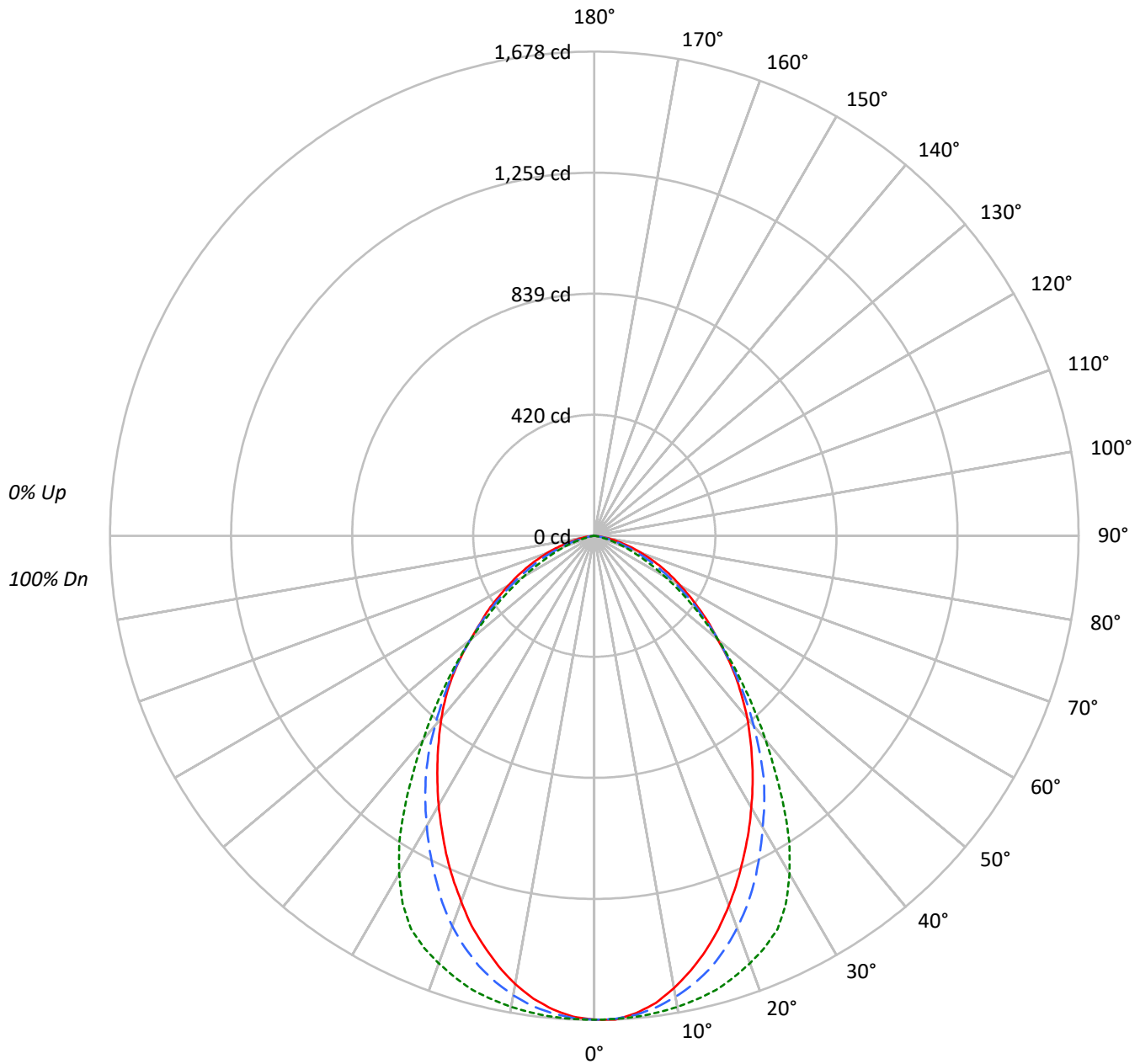
Lumens per Lamp: N/A
Luminaire Lumens: 3080.0 lumens
Efficiency: N/A
Efficacy: 65.5 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.19 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 47
Input Voltage (V): NR
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
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111			106	106	106			102
1	111	107	104	101	108	105	102	99		101	98	96			97	95	93			93
2	103	96	90	85	100	94	89	84		91	86	83			87	84	81			85
3	95	86	79	74	93	84	78	73		82	76	72			79	74	70			77
4	88	78	70	64	86	76	69	64		74	68	63			72	66	62			70
5	82	70	62	57	80	69	62	56		67	61	56			65	60	55			64
6	76	64	56	50	74	63	56	50		61	55	50			60	54	49			58
7	71	59	51	45	69	58	50	45		56	50	45			55	49	45			54
8	66	54	46	41	65	53	46	41		52	45	41			51	45	40			50
9	62	50	42	37	61	49	42	37		48	42	37			47	41	37			46
10	59	46	39	34	57	46	39	34		45	39	34			44	38	34			43

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	206025	206025	206025
5°	204802	206356	203261
10°	198562	206858	196841
15°	189445	207315	187372
20°	178261	206135	176287
25°	166040	203697	164671
30°	154272	191822	153023
35°	143062	171573	142028
40°	132260	147961	132164
45°	120507	126292	121497
50°	106438	106801	107050
55°	95378	87325	95785
60°	84302	69339	84449
65°	74215	52878	73459
70°	61495	37860	61495
75°	47942	21740	46138
80°	31059	5306	29714
85°	11559	1832	8880



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	157.4	5.1
10°-20°	435.6	14.1
20°-30°	608.9	19.8
30°-40°	642.3	20.9
40°-50°	546.4	17.7
50°-60°	385.5	12.5
60°-70°	218.5	7.1
70°-80°	78.0	2.5
80°-90°	7.5	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°	1201.8	39.0
0°-40°	1844.1	59.9
0°-60°	2776.0	90.1
0°-90°	3080.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3080.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1677	1677	1677	1677	1677	
5°	1661	1666	1673	1661	1648	156
15°	1490	1552	1630	1544	1473	418
25°	1225	1316	1503	1304	1215	564
35°	954	1023	1144	1017	947	596
45°	694	704	727	707	699	533
55°	445	430	408	432	447	400
65°	255	219	182	220	253	253
75°	101	69	46	68	97	109
85°	8	3	1	3	6	14
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°	1677.0	1677.0	1677.0	1677.0	1677.0	1677.0	1677.0	1677.0	1677.0	1677.0	1677.0
2.5°	1678.3	1675.2	1675.2	1675.2	1675.2	1675.2	1675.2	1675.2	1675.2	1675.8	1675.8
5°	1660.7	1659.5	1658.9	1658.9	1658.9	1658.9	1659.5	1662.0	1663.2	1665.1	1666.4
7.5°	1633.1	1630.6	1631.9	1631.9	1633.1	1634.4	1636.3	1638.8	1642.5	1645.1	1648.2
10°	1591.7	1589.2	1592.4	1593.6	1597.4	1599.3	1602.4	1606.2	1613.7	1617.5	1622.5
12.5°	1543.5	1542.2	1543.5	1548.5	1552.2	1554.7	1558.5	1566.7	1574.2	1582.3	1591.1
15°	1489.5	1486.4	1488.3	1494.5	1500.8	1505.2	1508.3	1519.0	1529.0	1541.6	1552.2
17.5°	1429.3	1424.9	1429.9	1435.0	1443.1	1446.9	1451.3	1463.2	1477.0	1490.8	1502.7
20°	1363.5	1362.2	1365.3	1372.2	1380.4	1385.4	1389.2	1402.3	1414.3	1433.1	1446.9
22.5°	1295.1	1296.4	1298.9	1306.4	1312.0	1318.9	1324.6	1336.5	1350.3	1367.8	1385.4
25°	1224.9	1226.7	1231.1	1236.1	1245.6	1249.3	1256.2	1268.8	1280.7	1297.0	1316.4
27.5°	1157.1	1157.7	1162.8	1165.3	1174.1	1182.2	1185.3	1198.5	1212.3	1224.9	1241.8
30°	1087.5	1089.4	1092.5	1099.4	1108.2	1111.3	1115.1	1127.0	1137.7	1153.4	1166.5
32.5°	1021.0	1019.8	1023.5	1027.3	1037.3	1043.0	1044.9	1058.7	1068.1	1083.7	1096.3
35°	953.9	950.8	956.4	960.2	969.0	974.0	976.5	987.2	995.9	1009.1	1022.9
37.5°	886.8	889.3	891.8	895.0	899.4	900.6	908.1	910.6	921.9	932.0	939.5
40°	824.7	823.5	822.2	825.4	831.0	833.5	834.1	841.0	843.5	853.6	859.2
42.5°	758.2	758.9	758.2	758.9	762.0	762.0	763.9	768.3	770.2	773.3	780.2
45°	693.6	693.6	691.8	692.4	693.0	692.4	693.0	694.9	698.7	698.7	703.7
47.5°	626.5	625.3	627.8	625.9	624.7	624.0	625.9	624.0	627.8	627.8	629.0
50°	556.9	556.9	560.1	559.4	560.7	558.2	558.8	558.8	559.4	558.8	561.3
52.5°	503.0	501.7	500.5	497.3	498.6	496.1	496.1	496.7	494.8	494.2	491.1
55°	445.3	446.5	444.7	443.4	443.4	440.9	440.3	436.5	434.0	432.1	430.2
57.5°	393.2	394.5	393.9	390.7	387.0	387.6	386.3	382.6	376.9	373.2	370.0
60°	343.1	344.3	343.1	339.9	338.7	336.2	335.5	330.5	326.1	321.1	317.3
62.5°	297.9	297.9	297.3	292.9	289.8	290.4	287.2	283.5	277.8	270.9	265.3
65°	255.3	254.6	251.5	249.6	247.1	244.0	242.1	236.4	232.1	226.4	218.9
67.5°	212.6	210.7	209.5	207.6	201.9	201.3	198.8	193.8	187.5	183.1	176.9
70°	171.2	170.6	168.1	168.1	163.7	161.8	158.0	153.7	148.0	141.7	136.7
72.5°	135.5	134.2	131.7	129.2	125.4	124.2	121.0	116.7	111.6	105.4	99.1
75°	101.0	99.7	99.1	96.0	92.8	89.7	88.4	84.0	79.0	74.6	69.0
77.5°	70.9	69.6	67.7	65.9	64.0	62.1	60.2	56.4	52.1	48.3	43.3
80°	43.9	42.6	41.4	40.8	38.9	38.3	35.7	33.9	30.1	27.6	24.5
82.5°	22.6	22.6	21.3	20.7	19.4	18.8	18.2	16.3	14.4	12.5	10.7
85°	8.2	8.2	7.5	6.9	6.9	6.3	6.3	5.6	4.4	4.4	3.1
87.5°	0.6	0.6	1.3	0.6	0.6	0.6	0.6	0.6	0.6	0.6	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):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1677.0	1677.0	1677.0	1677.0	1677.0	1677.0	1677.0	1677.0	1677.0	1677.0	1677.0
2.5°	1676.4	1675.8	1676.4	1676.4	1677.0	1677.0	1677.0	1676.4	1677.0	1676.4	1676.4
5°	1666.4	1668.3	1669.5	1670.8	1671.4	1672.0	1672.0	1672.7	1673.3	1673.3	1672.7
7.5°	1650.7	1654.5	1658.2	1660.7	1662.0	1663.2	1665.1	1666.4	1667.6	1667.0	1666.4
10°	1630.0	1636.3	1641.3	1646.3	1648.8	1650.7	1653.8	1656.3	1657.6	1658.2	1656.3
12.5°	1600.5	1609.3	1617.5	1625.6	1629.4	1631.9	1638.2	1642.5	1645.1	1645.1	1643.2
15°	1563.5	1576.1	1588.0	1598.6	1604.9	1608.7	1618.1	1624.4	1628.1	1630.0	1626.9
17.5°	1519.0	1533.4	1547.8	1561.6	1567.9	1573.6	1586.7	1595.5	1603.7	1604.9	1601.2
20°	1461.9	1480.1	1496.4	1513.4	1520.3	1529.0	1544.1	1558.5	1571.1	1576.7	1566.0
22.5°	1398.0	1418.0	1433.1	1453.8	1463.2	1472.6	1492.0	1510.2	1532.2	1544.1	1525.3
25°	1331.5	1348.4	1366.6	1386.7	1399.8	1409.9	1432.4	1455.7	1485.1	1502.7	1476.3
27.5°	1260.0	1275.0	1297.0	1318.9	1329.0	1341.5	1368.5	1393.6	1421.8	1437.5	1418.0
30°	1186.0	1204.8	1225.5	1245.6	1260.0	1271.9	1293.8	1315.2	1339.0	1352.2	1337.7
32.5°	1112.6	1130.8	1148.3	1170.3	1178.4	1189.1	1208.5	1226.7	1244.9	1256.8	1239.9
35°	1035.5	1051.8	1068.1	1083.1	1086.9	1099.4	1115.1	1125.8	1134.5	1144.0	1132.7
37.5°	951.4	964.0	972.1	988.4	994.7	996.6	1009.1	1016.6	1026.0	1027.9	1027.3
40°	866.1	877.4	884.3	894.3	899.4	899.4	908.1	915.0	921.9	922.6	921.9
42.5°	786.5	792.1	797.8	804.0	802.8	810.3	814.1	817.2	822.2	822.2	823.5
45°	706.2	710.6	715.6	716.9	721.9	721.9	725.0	726.3	728.8	726.9	724.4
47.5°	631.6	633.4	634.1	639.7	641.0	636.6	640.3	641.0	640.3	640.3	639.1
50°	560.7	561.9	561.3	559.4	560.1	561.9	560.1	557.6	558.8	558.8	560.1
52.5°	491.7	489.2	487.9	487.9	485.4	485.4	482.3	481.0	480.4	477.9	481.0
55°	428.4	424.6	418.9	417.7	415.8	415.2	411.4	408.3	407.0	407.7	407.0
57.5°	367.5	361.9	358.1	356.9	355.0	351.2	346.8	343.7	343.1	341.8	341.8
60°	312.3	306.1	300.4	294.8	295.4	292.9	288.5	286.6	284.7	282.2	284.1
62.5°	262.2	255.3	249.0	243.3	239.6	237.7	234.6	231.4	229.5	227.7	230.2
65°	212.6	207.0	200.1	194.4	192.5	190.7	187.5	182.5	181.9	181.9	183.1
67.5°	168.1	161.8	155.5	151.8	149.3	146.8	145.5	143.0	141.1	139.9	140.5
70°	129.2	122.9	117.9	114.1	112.3	111.6	107.2	106.6	106.0	105.4	104.7
72.5°	94.1	89.1	84.7	82.2	79.7	77.8	76.5	74.6	74.0	74.0	74.0
75°	64.6	60.8	55.8	52.7	51.4	49.5	47.7	46.4	45.2	45.8	45.8
77.5°	38.9	35.1	32.0	29.5	28.8	27.0	25.1	23.8	22.0	22.0	22.6
80°	21.3	18.2	15.7	13.8	12.5	11.9	10.0	9.4	8.2	7.5	7.5
82.5°	9.4	7.5	6.3	5.6	5.0	4.4	3.8	3.1	3.1	2.5	3.1
85°	3.1	2.5	1.9	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
87.5°	0.6	0.0	0.0	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	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°	1677.0	1677.0	1677.0	1677.0	1677.0	1677.0	1677.0	1677.0	1677.0	1677.0	1677.0
2.5°	1675.8	1675.8	1675.2	1675.2	1675.2	1673.9	1673.9	1673.3	1672.7	1672.0	1670.8
5°	1671.4	1670.8	1669.5	1668.9	1668.3	1666.4	1664.5	1663.2	1661.4	1658.9	1657.6
7.5°	1665.1	1663.2	1660.7	1659.5	1657.6	1653.2	1650.1	1646.9	1643.8	1639.4	1634.4
10°	1654.5	1650.7	1646.9	1644.4	1641.3	1635.6	1629.4	1624.4	1617.5	1611.2	1604.3
12.5°	1639.4	1635.0	1627.5	1623.7	1620.0	1611.8	1603.7	1593.0	1583.6	1574.8	1566.7
15°	1620.6	1612.4	1603.7	1598.6	1593.0	1579.8	1567.3	1556.0	1543.5	1532.8	1519.6
17.5°	1593.0	1581.1	1568.5	1562.9	1555.4	1540.3	1525.3	1509.6	1495.2	1482.0	1465.7
20°	1551.6	1538.4	1522.1	1513.4	1507.1	1487.0	1472.6	1455.0	1440.0	1423.7	1405.5
22.5°	1503.3	1485.1	1466.9	1454.4	1447.5	1427.4	1408.0	1392.3	1376.0	1357.2	1344.0
25°	1448.8	1426.2	1404.2	1391.7	1381.0	1359.7	1340.9	1324.6	1304.5	1288.2	1275.0
27.5°	1387.3	1361.6	1335.9	1323.3	1313.3	1290.1	1270.0	1253.1	1233.6	1219.2	1205.4
30°	1313.9	1290.7	1266.2	1256.2	1244.3	1220.5	1197.3	1182.2	1160.9	1145.8	1130.8
32.5°	1222.3	1207.3	1187.9	1174.1	1167.8	1145.8	1126.4	1108.2	1090.0	1078.1	1063.0
35°	1122.0	1108.8	1092.5	1085.0	1076.8	1063.0	1047.4	1031.7	1017.3	1006.0	992.2
37.5°	1020.4	1007.2	997.2	989.0	984.0	971.5	962.1	950.2	940.1	929.5	921.9
40°	915.0	911.3	900.6	896.8	895.6	881.8	873.6	864.2	858.0	851.7	847.3
42.5°	821.6	815.3	807.2	807.8	804.0	796.5	790.9	784.6	780.2	777.1	772.7
45°	729.4	724.4	720.6	723.7	717.5	715.0	710.6	710.0	706.8	701.2	699.3
47.5°	641.6	641.0	641.6	639.7	638.5	637.2	637.8	634.7	631.6	629.7	627.2
50°	561.3	561.9	563.2	565.1	560.7	562.6	561.9	561.3	561.3	559.4	560.7
52.5°	483.5	484.2	485.4	487.3	487.9	487.9	489.8	491.1	493.6	496.7	496.7
55°	410.2	414.6	417.1	420.2	418.3	422.1	424.0	429.6	431.5	431.5	434.0
57.5°	344.9	349.3	351.2	355.0	356.2	359.4	364.4	367.5	371.9	375.7	379.4
60°	285.4	287.2	292.3	297.9	296.6	304.2	307.9	313.0	318.6	321.1	326.1
62.5°	232.1	234.6	238.3	240.2	244.6	248.4	257.1	262.2	267.2	273.4	278.5
65°	184.4	186.9	190.7	194.4	196.3	201.9	206.3	215.1	219.5	226.4	232.1
67.5°	141.1	144.9	148.0	150.5	151.8	157.4	164.3	168.1	176.2	183.1	187.5
70°	105.4	108.5	112.3	111.6	114.1	118.5	123.6	129.2	135.5	141.7	146.8
72.5°	73.4	76.5	79.0	79.7	82.2	85.3	89.1	93.4	98.5	104.7	111.6
75°	46.4	47.0	49.5	50.8	52.1	55.8	59.0	63.3	67.7	72.8	77.1
77.5°	23.2	25.1	26.3	27.6	28.2	31.4	34.5	38.3	42.0	47.0	51.4
80°	8.8	9.4	11.3	11.9	13.2	15.1	17.6	19.4	22.6	26.3	28.8
82.5°	3.1	3.8	4.4	4.4	5.0	6.3	6.9	8.8	10.7	11.9	13.2
85°	1.3	1.3	1.3	1.3	1.3	1.9	1.9	2.5	3.1	3.8	3.8
87.5°	0.0	0.0	0.0	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	0.0	0.0	0.0



TEST NUMBER: P879421

CATALOG NUMBER: LD4C40D010 EU4409030 4LBLDWWLI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1677.0	1677.0	1677.0	1677.0	1677.0	1677.0	1677.0	1677.0
2.5°	1670.1	1670.1	1669.5	1668.9	1668.9	1668.9	1668.3	1668.3
5°	1655.1	1653.2	1652.6	1651.3	1650.7	1650.1	1648.2	1648.2
7.5°	1630.6	1628.1	1626.2	1624.4	1621.9	1620.0	1620.0	1617.5
10°	1598.0	1593.0	1590.5	1588.0	1584.8	1581.1	1579.8	1577.9
12.5°	1558.5	1548.5	1546.0	1541.6	1536.6	1534.0	1529.7	1529.7
15°	1509.6	1498.9	1493.3	1490.8	1484.5	1480.1	1478.2	1473.2
17.5°	1452.5	1444.4	1435.6	1431.8	1424.9	1419.3	1416.8	1416.1
20°	1394.8	1381.6	1376.0	1370.4	1362.2	1357.2	1353.4	1348.4
22.5°	1328.3	1316.4	1308.3	1304.5	1297.6	1288.8	1282.6	1282.6
25°	1258.1	1247.4	1243.0	1234.9	1226.7	1223.6	1216.1	1214.8
27.5°	1191.0	1180.3	1171.5	1167.2	1157.7	1153.4	1147.1	1144.6
30°	1121.4	1108.8	1102.6	1101.9	1090.6	1086.3	1081.2	1078.7
32.5°	1051.8	1041.1	1034.8	1031.1	1026.0	1018.5	1014.1	1011.6
35°	982.8	975.9	970.2	965.8	957.7	953.9	950.2	947.0
37.5°	910.6	904.4	901.9	898.1	894.3	887.4	886.2	883.7
40°	841.0	832.9	832.9	830.4	826.6	826.0	824.1	824.1
42.5°	768.3	764.5	763.9	764.5	762.0	760.8	758.9	763.3
45°	696.2	698.0	694.9	695.5	694.3	696.8	696.8	699.3
47.5°	629.7	627.2	628.4	629.7	631.6	631.6	630.9	630.3
50°	558.8	561.3	563.8	560.7	561.9	562.6	559.4	560.1
52.5°	498.0	498.6	500.5	498.6	500.5	499.9	501.1	498.6
55°	439.0	439.0	441.5	442.2	442.8	444.7	445.3	447.2
57.5°	381.9	385.1	388.2	387.6	390.1	392.6	390.7	392.6
60°	332.4	334.9	338.0	339.3	341.2	342.4	342.4	343.7
62.5°	282.2	287.2	289.8	292.3	292.3	294.8	297.3	297.9
65°	237.1	242.7	244.6	246.5	247.7	250.2	253.4	252.7
67.5°	194.4	198.2	200.7	201.9	205.7	207.0	209.5	212.0
70°	152.4	157.4	159.3	161.8	164.9	167.5	170.0	171.2
72.5°	116.7	120.4	121.7	124.2	127.3	129.8	131.1	133.0
75°	81.5	87.8	88.4	90.3	92.8	96.0	97.8	97.2
77.5°	53.9	58.3	59.0	61.5	64.0	66.5	67.1	67.7
80°	32.0	34.5	35.1	36.4	38.3	39.5	40.8	42.0
82.5°	15.1	16.3	17.6	17.6	18.8	20.1	20.1	20.7
85°	5.0	5.0	5.6	5.6	6.3	6.3	6.9	6.3
87.5°	0.6	0.6	0.0	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



Report Generated By 670246072 / DESKTOP-50001EG





— 0°-180° - - 45°-225° - - - 90°-270°













(END OF REPORT)