

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: **LD4C35D010 EX4C359050 4LBSQLWWH**

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: LD4C35D010 EX4C359050 4LBSQLWWH
Description: 4 INCH 3500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 5000K, 90CRI LEDS
AND 4LBSQLWW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Summary

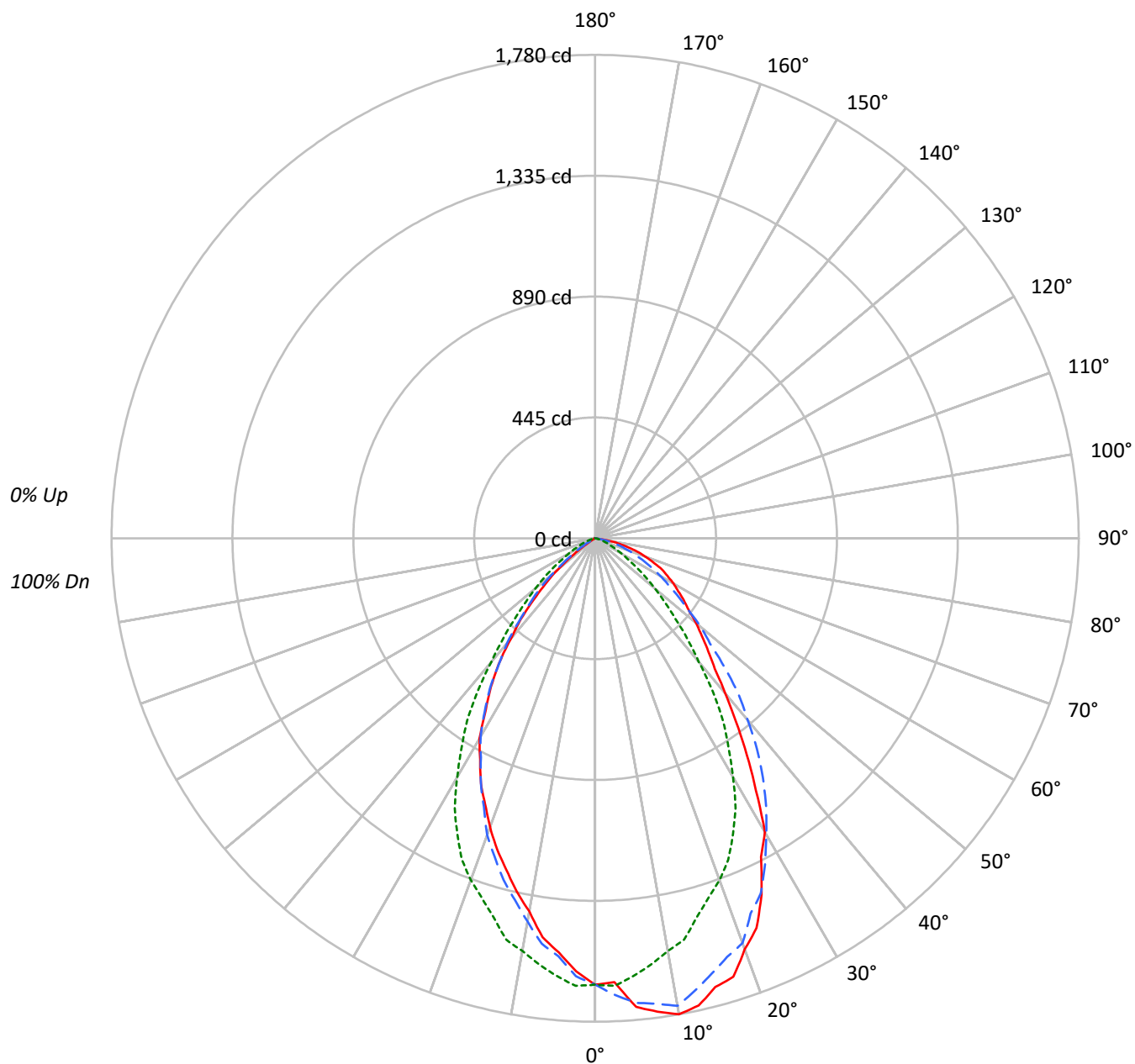
Lumens per Lamp: N/A
Luminaire Lumens: 2356.0 lumens
Efficiency: N/A
Efficacy: 58.3 lumens/watt
Spacing Criteria (0/90/45): 1.01 / 1 / 1.06
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 40.4
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
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	112	108	105	102	109	106	103	101	102	100	98		98	96	95		95
2	104	98	93	89	102	96	92	88	93	89	86		90	87	84		87
3	97	89	83	78	95	88	82	77	85	80	76		82	78	75		80
4	91	81	74	69	89	80	74	69	78	72	68		76	71	67		74
5	85	75	67	62	83	74	67	62	72	66	61		70	65	60		68
6	80	69	61	56	78	68	61	56	66	60	55		65	59	55		63
7	75	63	56	51	73	63	56	51	61	55	50		60	54	50		59
8	70	59	52	47	69	58	51	46	57	51	46		56	50	46		55
9	66	55	48	43	65	54	47	43	53	47	43		52	46	42		51
10	62	51	44	40	61	51	44	40	50	44	39		49	43	39		48

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	158589	158589	158589
5°	167786	156715	148318
10°	174361	151189	136708
15°	170876	144295	126194
20°	165337	137408	116153
25°	154223	127778	105963
30°	139214	113076	94859
35°	114682	96801	78696
40°	93586	74718	60573
45°	80413	56752	43570
50°	72773	43202	27515
55°	66970	31155	9942
60°	64281	21285	1525
65°	62078	14406	457
70°	55577	9987	564
75°	45557	5145	0
80°	28505	2167	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	154.0	6.5
10°-20°	414.9	17.6
20°-30°	554.0	23.5
30°-40°	525.9	22.3
40°-50°	363.5	15.4
50°-60°	200.9	8.5
60°-70°	99.7	4.2
70°-80°	39.3	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°	1122.9	47.7
0°-40°	1648.8	70.0
0°-60°	2213.2	93.9
0°-90°	2356.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2356.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1644	1644	1644	1644	1644	
5°	1732	1717	1618	1545	1531	166
15°	1711	1659	1444	1303	1263	484
25°	1449	1443	1200	995	995	660
35°	974	1076	822	676	668	610
45°	589	676	416	341	319	460
55°	398	374	185	95	59	358
65°	272	197	63	2	2	264
75°	122	75	14	0	0	130
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°	1643.6	1643.6	1643.6	1643.6	1643.6	1643.6	1643.6	1643.6	1643.6	1643.6	1643.6
2.5°	1635.7	1681.0	1685.0	1681.0	1687.0	1685.0	1694.9	1685.0	1696.9	1679.1	1683.1
5°	1732.3	1714.6	1752.0	1732.3	1732.3	1730.4	1724.4	1722.4	1730.4	1704.8	1716.6
7.5°	1757.9	1783.6	1817.1	1775.7	1777.6	1777.6	1765.8	1761.9	1761.9	1714.6	1728.4
10°	1779.6	1763.8	1781.6	1765.8	1779.6	1777.6	1785.5	1759.9	1777.6	1750.1	1748.1
12.5°	1761.9	1755.9	1779.6	1754.0	1746.1	1748.1	1738.3	1732.3	1738.3	1706.7	1704.8
15°	1710.6	1716.6	1752.0	1724.4	1720.5	1716.6	1704.8	1685.0	1700.8	1657.4	1659.4
17.5°	1692.9	1683.1	1689.0	1665.3	1671.2	1667.3	1665.3	1647.6	1643.6	1616.0	1616.0
20°	1610.2	1631.8	1631.8	1616.0	1616.0	1614.1	1588.5	1604.2	1586.5	1578.6	1586.5
22.5°	1553.0	1555.0	1555.0	1541.1	1543.1	1535.3	1521.5	1511.6	1521.5	1511.6	1495.8
25°	1448.6	1452.5	1476.1	1450.5	1446.6	1454.4	1442.6	1436.7	1434.7	1411.1	1442.6
27.5°	1322.4	1361.8	1359.8	1350.0	1361.8	1346.0	1340.2	1342.1	1348.0	1346.0	1353.9
30°	1249.5	1255.4	1261.3	1253.5	1255.4	1249.5	1249.5	1251.4	1267.2	1261.3	1259.3
32.5°	1101.7	1121.3	1137.2	1137.2	1139.1	1145.0	1143.0	1184.4	1194.3	1174.6	1170.7
35°	973.6	987.4	1001.1	1003.1	1028.8	1030.7	1032.7	1044.5	1072.1	1078.0	1076.0
37.5°	851.4	865.2	869.1	886.9	900.7	914.4	930.2	946.0	969.6	989.3	979.5
40°	743.0	748.9	758.8	766.6	794.2	794.2	802.1	833.7	859.3	875.0	873.0
42.5°	652.4	654.3	662.2	676.0	701.6	695.7	701.6	723.3	760.7	762.7	784.4
45°	589.3	587.3	593.2	595.1	611.0	618.8	622.8	638.5	670.0	674.0	676.0
47.5°	532.1	530.1	540.0	544.0	549.8	557.7	557.7	559.7	571.5	581.4	573.5
50°	484.8	484.8	484.8	488.7	498.6	496.6	498.6	506.5	512.4	508.4	506.5
52.5°	433.5	441.4	447.4	449.4	451.3	451.3	453.3	449.4	447.4	441.4	429.6
55°	398.1	406.0	406.0	406.0	406.0	413.9	404.0	406.0	406.0	390.2	374.5
57.5°	362.7	370.5	376.4	368.5	376.4	368.5	364.6	362.7	358.6	342.9	319.3
60°	333.1	337.0	335.0	333.1	337.0	331.1	327.1	319.3	315.3	293.6	277.9
62.5°	299.6	301.5	303.5	299.6	295.6	293.6	285.8	273.9	266.1	248.3	234.5
65°	271.9	266.1	264.1	262.1	258.2	252.2	246.4	232.6	226.6	210.9	197.0
67.5°	230.6	228.6	232.6	226.6	216.8	216.8	210.9	199.1	185.2	175.4	161.6
70°	197.0	195.1	191.2	185.2	183.3	175.4	175.4	161.6	157.7	139.9	128.1
72.5°	161.6	161.6	155.7	149.8	143.8	139.9	138.0	128.1	122.2	112.3	102.5
75°	122.2	122.2	120.2	114.3	110.3	106.4	104.5	96.6	90.6	80.8	74.9
77.5°	86.7	86.7	78.8	74.9	76.8	72.9	68.9	67.0	65.0	59.1	51.3
80°	51.3	49.3	43.4	45.3	43.4	43.4	41.4	39.4	35.4	31.5	27.6
82.5°	13.8	15.8	15.8	15.8	17.8	13.8	13.8	13.8	15.8	15.8	9.9
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	7.9	7.9	7.9	7.9	7.9	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°	1643.6	1643.6	1643.6	1643.6	1643.6	1643.6	1643.6	1643.6	1643.6	1643.6	1643.6
2.5°	1663.4	1661.4	1663.4	1649.5	1681.0	1657.4	1653.5	1649.5	1663.4	1649.5	1629.9
5°	1698.8	1679.1	1673.2	1667.3	1685.0	1657.4	1651.6	1653.5	1643.6	1618.0	1620.0
7.5°	1710.6	1692.9	1675.2	1637.7	1653.5	1647.6	1631.8	1620.0	1604.2	1582.5	1578.6
10°	1714.6	1694.9	1669.2	1657.4	1633.8	1625.9	1620.0	1600.3	1580.6	1543.1	1533.3
12.5°	1702.7	1679.1	1647.6	1637.7	1620.0	1594.3	1580.6	1560.8	1543.1	1513.6	1491.9
15°	1651.6	1631.8	1622.0	1588.5	1580.6	1564.8	1537.2	1509.6	1484.0	1444.5	1432.7
17.5°	1592.4	1584.5	1574.6	1549.0	1547.1	1531.3	1505.7	1482.0	1448.6	1387.4	1367.7
20°	1531.3	1531.3	1499.8	1489.9	1509.6	1478.1	1458.4	1436.7	1367.7	1338.2	1302.7
22.5°	1486.0	1464.3	1446.6	1430.8	1432.7	1413.0	1385.5	1342.1	1316.5	1281.0	1239.6
25°	1397.3	1405.2	1365.8	1359.8	1365.8	1320.4	1306.6	1271.1	1233.7	1200.2	1168.7
27.5°	1342.1	1320.4	1294.8	1273.1	1273.1	1255.4	1216.0	1208.1	1150.9	1119.4	1080.0
30°	1259.3	1243.6	1221.9	1190.4	1186.4	1172.6	1141.1	1121.3	1062.3	1014.9	993.2
32.5°	1154.9	1149.0	1131.2	1095.8	1084.0	1068.1	1028.8	995.3	967.7	914.4	888.9
35°	1080.0	1058.3	1020.9	991.3	981.4	953.9	922.3	898.7	869.1	821.8	788.3
37.5°	967.7	946.0	910.5	875.0	875.0	847.5	804.1	780.5	739.1	711.4	683.9
40°	869.1	841.5	806.1	764.7	758.8	719.3	701.6	662.2	636.5	593.2	589.3
42.5°	758.8	733.1	701.6	670.0	646.4	626.7	581.4	551.8	524.3	502.6	496.6
45°	658.2	624.7	597.2	557.7	534.1	510.4	480.9	461.2	439.5	415.9	402.0
47.5°	571.5	544.0	504.5	469.1	445.4	433.5	400.0	378.4	360.7	344.9	335.0
50°	482.9	449.4	427.7	388.2	384.3	356.7	329.2	311.4	301.5	287.8	273.9
52.5°	415.9	384.3	354.7	325.2	309.4	299.6	273.9	256.2	242.4	232.6	224.7
55°	350.8	323.2	299.6	270.0	260.1	246.4	216.8	212.9	199.1	185.2	175.4
57.5°	301.5	275.9	248.3	228.6	210.9	201.1	177.4	161.6	153.7	141.9	132.0
60°	256.2	228.6	206.9	183.3	175.4	161.6	143.8	130.1	120.2	110.3	100.5
62.5°	214.8	191.2	167.5	147.8	136.0	128.1	114.3	102.5	92.7	84.8	76.8
65°	177.4	155.7	136.0	116.3	110.3	100.5	90.6	80.8	72.9	63.1	55.2
67.5°	145.9	126.2	106.4	92.7	86.7	82.8	71.0	61.1	55.2	49.3	41.4
70°	114.3	100.5	84.8	72.9	67.0	61.1	53.2	47.3	39.4	35.4	29.6
72.5°	88.7	76.8	63.1	53.2	49.3	45.3	37.4	31.5	27.6	23.6	19.7
75°	63.1	53.2	45.3	35.4	33.5	31.5	25.6	21.7	17.8	13.8	11.8
77.5°	43.4	35.4	27.6	23.6	21.7	17.8	15.8	11.8	9.9	7.9	5.9
80°	23.6	17.8	13.8	11.8	9.9	7.9	7.9	5.9	3.9	3.9	2.0
82.5°	7.9	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°	1643.6	1643.6	1643.6	1643.6	1643.6	1643.6	1643.6	1643.6	1643.6	1643.6	1643.6
2.5°	1641.7	1620.0	1625.9	1625.9	1622.0	1622.0	1618.0	1612.1	1614.1	1602.2	1576.7
5°	1623.9	1596.3	1592.4	1596.3	1580.6	1576.7	1568.8	1580.6	1545.1	1558.9	1543.1
7.5°	1572.7	1547.1	1541.1	1555.0	1535.3	1523.4	1521.5	1537.2	1505.7	1489.9	1472.2
10°	1515.5	1505.7	1487.9	1478.1	1472.2	1474.1	1458.4	1438.7	1432.7	1428.8	1413.0
12.5°	1464.3	1442.6	1426.9	1415.1	1411.1	1411.1	1385.5	1381.5	1363.8	1359.8	1336.2
15°	1403.2	1377.6	1367.7	1352.0	1338.2	1346.0	1316.5	1308.6	1302.7	1277.1	1281.0
17.5°	1350.0	1322.4	1298.8	1288.9	1277.1	1265.3	1237.6	1243.6	1229.7	1229.7	1194.3
20°	1281.0	1251.4	1233.7	1214.0	1214.0	1198.2	1178.6	1180.5	1162.7	1145.0	1113.5
22.5°	1208.1	1176.5	1154.9	1147.0	1127.3	1123.3	1099.7	1093.8	1070.2	1072.1	1044.5
25°	1131.2	1099.7	1070.2	1072.1	1054.4	1046.5	1032.7	1005.1	995.3	983.4	975.6
27.5°	1040.6	1018.9	993.2	991.3	957.8	959.7	942.1	934.2	910.5	916.4	898.7
30°	957.8	926.3	902.6	896.7	882.9	879.0	851.4	839.5	843.5	827.7	817.9
32.5°	873.0	825.8	815.9	804.1	796.2	786.3	766.6	774.5	756.7	760.7	744.9
35°	760.7	741.0	715.4	715.4	707.5	699.6	685.9	693.7	676.0	668.1	652.4
37.5°	666.1	648.4	622.8	630.7	616.8	605.0	593.2	595.1	579.4	577.5	561.6
40°	563.6	553.8	536.1	536.1	526.2	526.2	520.3	514.4	504.5	492.7	474.9
42.5°	467.1	459.2	451.3	453.3	439.5	451.3	435.5	445.4	413.9	411.9	400.0
45°	396.1	378.4	380.3	372.5	364.6	368.5	354.7	358.6	341.0	337.0	325.2
47.5°	321.3	315.3	303.5	299.6	299.6	293.6	287.8	285.8	277.9	268.0	252.2
50°	264.1	242.4	238.4	232.6	228.6	228.6	220.7	208.9	210.9	201.1	185.2
52.5°	206.9	189.2	181.3	179.4	171.5	167.5	157.7	149.8	143.8	139.9	130.1
55°	159.6	143.8	134.0	134.0	122.2	122.2	108.4	102.5	94.6	86.7	80.8
57.5°	120.2	112.3	102.5	94.6	90.6	80.8	72.9	63.1	57.1	45.3	37.4
60°	90.6	82.8	72.9	67.0	63.1	53.2	43.4	35.4	21.7	17.8	15.8
62.5°	67.0	59.1	49.3	45.3	41.4	33.5	23.6	11.8	5.9	5.9	5.9
65°	49.3	39.4	31.5	27.6	23.6	17.8	7.9	3.9	2.0	2.0	2.0
67.5°	33.5	25.6	17.8	15.8	11.8	5.9	2.0	2.0	2.0	2.0	2.0
70°	21.7	15.8	7.9	5.9	3.9	2.0	2.0	2.0	2.0	2.0	2.0
72.5°	13.8	7.9	3.9	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	7.9	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: LD4C35D010 EX4C359050 4LBSQLWWH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1643.6	1643.6	1643.6	1643.6	1643.6	1643.6	1643.6	1643.6
2.5°	1604.2	1590.4	1598.3	1580.6	1588.5	1602.2	1592.4	1596.3
5°	1549.0	1541.1	1531.3	1505.7	1525.4	1541.1	1533.3	1531.3
7.5°	1489.9	1462.3	1476.1	1468.3	1464.3	1480.1	1462.3	1482.0
10°	1428.8	1409.1	1407.2	1393.4	1393.4	1405.2	1407.2	1395.3
12.5°	1338.2	1328.3	1328.3	1326.3	1324.3	1336.2	1338.2	1332.3
15°	1273.1	1269.2	1259.3	1257.4	1245.6	1263.3	1265.3	1263.3
17.5°	1194.3	1196.2	1186.4	1186.4	1194.3	1200.2	1184.4	1200.2
20°	1141.1	1131.2	1127.3	1109.5	1119.4	1129.3	1129.3	1131.2
22.5°	1064.2	1048.5	1054.4	1044.5	1038.6	1052.4	1052.4	1058.3
25°	977.5	977.5	981.4	975.6	979.5	987.4	981.4	995.3
27.5°	894.7	902.6	902.6	894.7	898.7	922.3	932.2	916.4
30°	817.9	819.8	825.8	821.8	833.7	841.5	839.5	851.4
32.5°	731.2	741.0	744.9	739.1	743.0	760.7	750.9	748.9
35°	664.2	646.4	644.5	646.4	654.3	658.2	654.3	668.1
37.5°	567.6	561.6	553.8	555.8	561.6	569.6	573.5	583.3
40°	474.9	467.1	467.1	465.1	459.2	480.9	480.9	480.9
42.5°	394.2	392.2	382.4	382.4	390.2	396.1	392.2	406.0
45°	323.2	315.3	309.4	309.4	315.3	315.3	321.3	319.3
47.5°	254.3	246.4	248.3	242.4	248.3	256.2	246.4	248.3
50°	191.2	191.2	187.2	191.2	189.2	191.2	187.2	183.3
52.5°	130.1	147.8	149.8	141.9	124.2	108.4	98.5	106.4
55°	74.9	67.0	67.0	65.0	61.1	59.1	53.2	59.1
57.5°	37.4	33.5	33.5	33.5	31.5	29.6	25.6	25.6
60°	15.8	13.8	13.8	11.8	9.9	7.9	5.9	7.9
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)