

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 EX4C309027 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 EX4C309027 4LBSQLWWLI
Description: 4 INCH 3000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 2700K, 90CRI LEDS
AND 4LBSQLWW TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

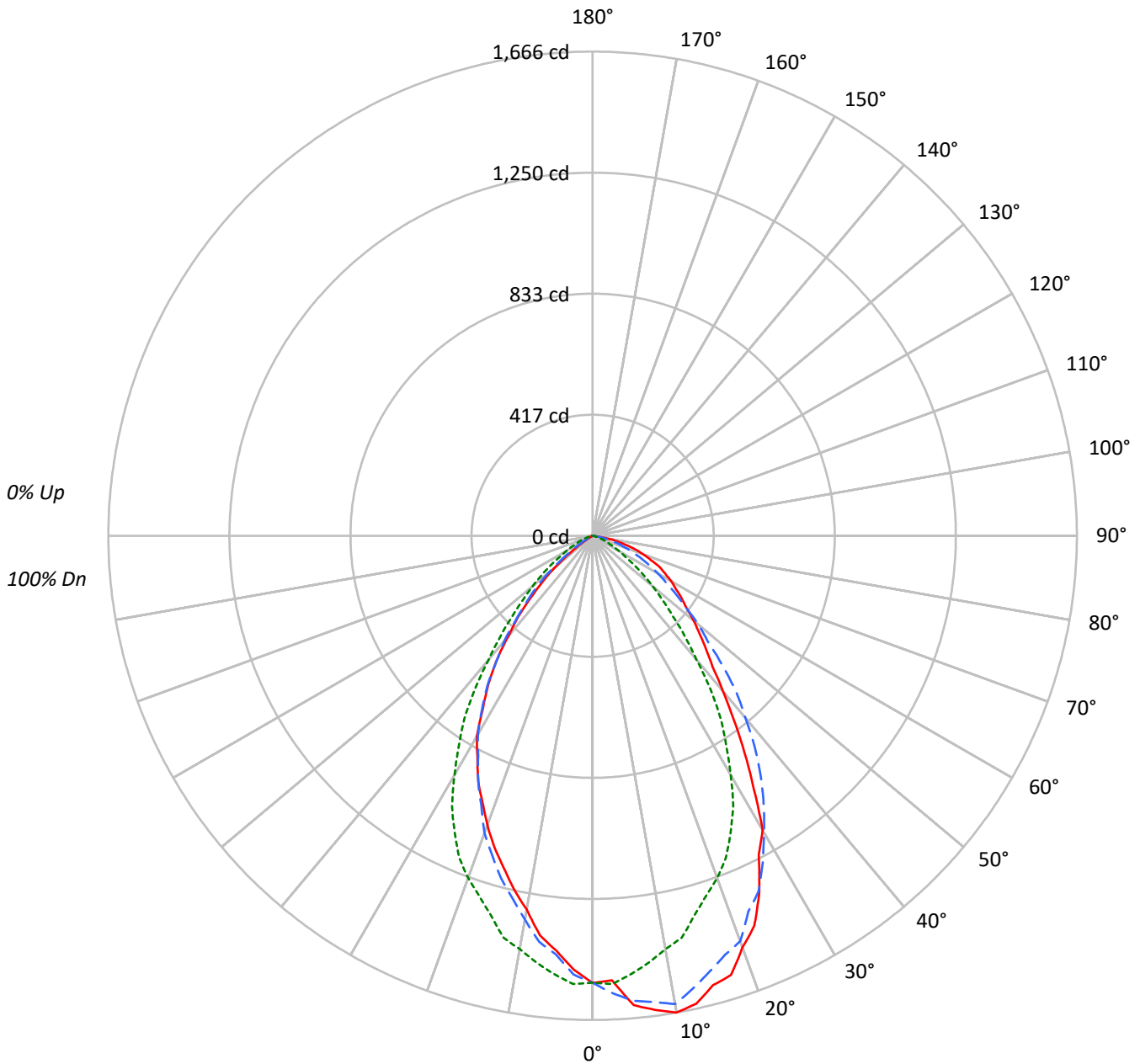
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2205.0 lumens
Efficiency: N/A
Efficacy: 69.8 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 (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									
RC	80									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°	148429	148429	148429
5°	157035	146671	138816
10°	163191	141499	127949
15°	159928	135055	118103
20°	154741	128598	108709
25°	144333	119591	99171
30°	130290	105834	88776
35°	107331	90605	73655
40°	87591	69931	56693
45°	75255	53109	40773
50°	68105	40425	25759
55°	62680	29170	9320
60°	60151	19935	1428
65°	58105	13470	434
70°	52022	9366	536
75°	42649	4809	0
80°	26672	2056	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.1	6.5
10°-20°	388.3	17.6
20°-30°	518.5	23.5
30°-40°	492.2	22.3
40°-50°	340.2	15.4
50°-60°	188.0	8.5
60°-70°	93.4	4.2
70°-80°	36.8	1.7
80°-90°	3.5	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°	1050.9	47.7
0°-40°	1543.1	70.0
0°-60°	2071.4	93.9
0°-90°	2205.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2205.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1538	1538	1538	1538	1538	
5°	1621	1606	1514	1446	1433	155
15°	1601	1553	1352	1219	1182	453
25°	1356	1350	1123	932	932	618
35°	911	1007	769	633	625	571
45°	552	633	389	319	299	430
55°	373	350	173	88	55	335
65°	254	184	59	2	2	247
75°	114	70	13	0	0	122
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°	1538.3	1538.3	1538.3	1538.3	1538.3	1538.3	1538.3	1538.3	1538.3	1538.3	1538.3
2.5°	1530.9	1573.3	1577.0	1573.3	1578.9	1577.0	1586.2	1577.0	1588.1	1571.5	1575.2
5°	1621.3	1604.7	1639.7	1621.3	1621.3	1619.5	1613.9	1612.0	1619.5	1595.5	1606.5
7.5°	1645.3	1669.3	1700.6	1661.9	1663.7	1663.7	1652.7	1649.0	1649.0	1604.7	1617.6
10°	1665.6	1650.8	1667.4	1652.7	1665.6	1663.7	1671.1	1647.1	1663.7	1637.9	1636.0
12.5°	1649.0	1643.4	1665.6	1641.6	1634.2	1636.0	1626.9	1621.3	1626.9	1597.3	1595.5
15°	1601.0	1606.5	1639.7	1613.9	1610.2	1606.5	1595.5	1577.0	1591.8	1551.2	1553.1
17.5°	1584.4	1575.2	1580.7	1558.6	1564.1	1560.4	1558.6	1542.0	1538.3	1512.5	1512.5
20°	1507.0	1527.2	1527.2	1512.5	1512.5	1510.7	1486.7	1501.4	1484.8	1477.4	1484.8
22.5°	1453.4	1455.3	1455.3	1442.4	1444.2	1436.9	1423.9	1414.7	1423.9	1414.7	1399.9
25°	1355.7	1359.4	1381.5	1357.5	1353.8	1361.2	1350.2	1344.6	1342.8	1320.7	1350.2
27.5°	1237.6	1274.5	1272.7	1263.4	1274.5	1259.8	1254.3	1256.1	1261.6	1259.8	1267.1
30°	1169.4	1174.9	1180.5	1173.1	1174.9	1169.4	1169.4	1171.2	1186.0	1180.5	1178.6
32.5°	1031.0	1049.5	1064.3	1064.3	1066.1	1071.7	1069.8	1108.5	1117.8	1099.3	1095.6
35°	911.2	924.1	937.0	938.8	962.8	964.6	966.5	977.6	1003.4	1008.9	1007.1
37.5°	796.8	809.7	813.4	830.0	842.9	855.8	870.6	885.4	907.5	925.9	916.7
40°	695.4	700.9	710.1	717.5	743.3	743.3	750.7	780.2	804.2	819.0	817.1
42.5°	610.5	612.4	619.7	632.7	656.7	651.1	656.7	677.0	711.9	713.8	734.1
45°	551.5	549.6	555.2	557.0	571.8	579.2	582.9	597.6	627.1	630.8	632.7
47.5°	498.0	496.2	505.4	509.1	514.6	522.0	522.0	523.8	534.9	544.1	536.8
50°	453.7	453.7	453.7	457.4	466.7	464.8	466.7	474.0	479.5	475.9	474.0
52.5°	405.8	413.1	418.7	420.6	422.4	422.4	424.3	420.6	418.7	413.1	402.1
55°	372.6	380.0	380.0	380.0	380.0	387.3	378.2	380.0	380.0	365.2	350.5
57.5°	339.4	346.8	352.3	344.9	352.3	344.9	341.2	339.4	335.7	320.9	298.8
60°	311.7	315.4	313.5	311.7	315.4	309.9	306.2	298.8	295.1	274.8	260.1
62.5°	280.4	282.2	284.1	280.4	276.7	274.8	267.4	256.4	249.0	232.4	219.5
65°	254.5	249.0	247.1	245.3	241.6	236.1	230.6	217.7	212.1	197.3	184.4
67.5°	215.8	214.0	217.7	212.1	202.9	202.9	197.3	186.3	173.4	164.2	151.2
70°	184.4	182.6	178.9	173.4	171.6	164.2	164.2	151.2	147.6	130.9	119.9
72.5°	151.2	151.2	145.7	140.2	134.6	130.9	129.1	119.9	114.4	105.1	95.9
75°	114.4	114.4	112.5	106.9	103.3	99.6	97.8	90.4	84.8	75.7	70.1
77.5°	81.2	81.2	73.8	70.1	71.9	68.2	64.5	62.7	60.8	55.4	48.0
80°	48.0	46.1	40.6	42.4	40.6	40.6	38.7	36.9	33.2	29.5	25.8
82.5°	12.9	14.7	14.7	14.7	16.6	12.9	12.9	12.9	14.7	14.7	9.2
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9	1.9
87.5°	1.9	3.7	7.4	7.4	7.4	7.4	7.4	5.6	5.6	5.6	3.7
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°	1538.3	1538.3	1538.3	1538.3	1538.3	1538.3	1538.3	1538.3	1538.3	1538.3	1538.3
2.5°	1556.8	1554.9	1556.8	1543.8	1573.3	1551.2	1547.5	1543.8	1556.8	1543.8	1525.4
5°	1589.9	1571.5	1565.9	1560.4	1577.0	1551.2	1545.7	1547.5	1538.3	1514.3	1516.1
7.5°	1601.0	1584.4	1567.8	1532.8	1547.5	1542.0	1527.2	1516.1	1501.4	1481.1	1477.4
10°	1604.7	1586.2	1562.2	1551.2	1529.1	1521.7	1516.1	1497.7	1479.3	1444.2	1435.0
12.5°	1593.6	1571.5	1542.0	1532.8	1516.1	1492.2	1479.3	1460.8	1444.2	1416.6	1396.3
15°	1545.7	1527.2	1518.0	1486.7	1479.3	1464.5	1438.7	1412.9	1388.9	1352.0	1340.9
17.5°	1490.3	1483.0	1473.7	1449.7	1447.9	1433.2	1409.2	1387.0	1355.7	1298.5	1280.1
20°	1433.2	1433.2	1403.6	1394.5	1412.9	1383.3	1364.9	1344.6	1280.1	1252.4	1219.2
22.5°	1390.8	1370.5	1353.8	1339.1	1340.9	1322.5	1296.7	1256.1	1232.1	1198.9	1160.2
25°	1307.7	1315.1	1278.3	1272.7	1278.3	1235.8	1222.9	1189.7	1154.6	1123.3	1093.8
27.5°	1256.1	1235.8	1211.8	1191.5	1191.5	1174.9	1138.1	1130.7	1077.1	1047.7	1010.7
30°	1178.6	1163.9	1143.6	1114.1	1110.4	1097.5	1068.0	1049.5	994.2	949.9	929.6
32.5°	1080.8	1075.3	1058.7	1025.6	1014.5	999.7	962.8	931.5	905.7	855.8	831.9
35°	1010.7	990.5	955.5	927.8	918.5	892.7	863.2	841.1	813.4	769.2	737.8
37.5°	905.7	885.4	852.1	819.0	819.0	793.2	752.5	730.4	691.7	665.8	640.0
40°	813.4	787.6	754.4	715.7	710.1	673.2	656.7	619.7	595.7	555.2	551.5
42.5°	710.1	686.1	656.7	627.1	605.0	586.6	544.1	516.5	490.7	470.4	464.8
45°	616.0	584.7	558.9	522.0	499.8	477.7	450.1	431.6	411.3	389.2	376.3
47.5°	534.9	509.1	472.2	439.0	416.9	405.8	374.4	354.2	337.5	322.8	313.5
50°	451.9	420.6	400.3	363.3	359.7	333.9	308.1	291.4	282.2	269.3	256.4
52.5°	389.2	359.7	332.0	304.4	289.6	280.4	256.4	239.8	226.9	217.7	210.3
55°	328.3	302.5	280.4	252.7	243.5	230.6	202.9	199.2	186.3	173.4	164.2
57.5°	282.2	258.2	232.4	214.0	197.3	188.2	166.0	151.2	143.9	132.8	123.6
60°	239.8	214.0	193.7	171.6	164.2	151.2	134.6	121.8	112.5	103.3	94.1
62.5°	201.0	178.9	156.8	138.3	127.3	119.9	106.9	95.9	86.7	79.3	71.9
65°	166.0	145.7	127.3	108.8	103.3	94.1	84.8	75.7	68.2	59.0	51.7
67.5°	136.5	118.1	99.6	86.7	81.2	77.5	66.4	57.2	51.7	46.1	38.7
70°	106.9	94.1	79.3	68.2	62.7	57.2	49.8	44.3	36.9	33.2	27.7
72.5°	83.0	71.9	59.0	49.8	46.1	42.4	35.0	29.5	25.8	22.1	18.4
75°	59.0	49.8	42.4	33.2	31.4	29.5	24.0	20.3	16.6	12.9	11.1
77.5°	40.6	33.2	25.8	22.1	20.3	16.6	14.7	11.1	9.2	7.4	5.6
80°	22.1	16.6	12.9	11.1	9.2	7.4	7.4	5.6	3.7	3.7	1.9
82.5°	7.4	5.6	3.7	1.9	1.9	1.9	1.9	1.9	1.9	0.0	1.9
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°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	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°	1538.3	1538.3	1538.3	1538.3	1538.3	1538.3	1538.3	1538.3	1538.3	1538.3	1538.3
2.5°	1536.5	1516.1	1521.7	1521.7	1518.0	1518.0	1514.3	1508.8	1510.7	1499.5	1475.6
5°	1519.8	1494.0	1490.3	1494.0	1479.3	1475.6	1468.2	1479.3	1446.1	1459.0	1444.2
7.5°	1471.9	1447.9	1442.4	1455.3	1436.9	1425.7	1423.9	1438.7	1409.2	1394.5	1377.8
10°	1418.4	1409.2	1392.6	1383.3	1377.8	1379.6	1364.9	1346.5	1340.9	1337.2	1322.5
12.5°	1370.5	1350.2	1335.4	1324.4	1320.7	1320.7	1296.7	1293.0	1276.4	1272.7	1250.6
15°	1313.2	1289.3	1280.1	1265.3	1252.4	1259.8	1232.1	1224.7	1219.2	1195.2	1198.9
17.5°	1263.4	1237.6	1215.5	1206.3	1195.2	1184.2	1158.3	1163.9	1150.9	1150.9	1117.8
20°	1198.9	1171.2	1154.6	1136.2	1136.2	1121.4	1103.0	1104.8	1088.2	1071.7	1042.1
22.5°	1130.7	1101.1	1080.8	1073.5	1055.0	1051.4	1029.2	1023.7	1001.6	1003.4	977.6
25°	1058.7	1029.2	1001.6	1003.4	986.8	979.5	966.5	940.7	931.5	920.4	913.0
27.5°	973.9	953.6	929.6	927.8	896.4	898.2	881.7	874.3	852.1	857.7	841.1
30°	896.4	866.9	844.8	839.3	826.3	822.6	796.8	785.7	789.5	774.7	765.5
32.5°	817.1	772.9	763.6	752.5	745.2	735.9	717.5	724.9	708.2	711.9	697.2
35°	711.9	693.5	669.5	669.5	662.1	654.8	641.9	649.3	632.7	625.3	610.5
37.5°	623.4	606.9	582.9	590.2	577.3	566.3	555.2	557.0	542.3	540.5	525.6
40°	527.5	518.3	501.7	501.7	492.5	492.5	486.9	481.4	472.2	461.1	444.5
42.5°	437.1	429.7	422.4	424.3	411.3	422.4	407.6	416.9	387.3	385.5	374.4
45°	370.7	354.2	356.0	348.6	341.2	344.9	332.0	335.7	319.1	315.4	304.4
47.5°	300.7	295.1	284.1	280.4	280.4	274.8	269.3	267.4	260.1	250.8	236.1
50°	247.1	226.9	223.1	217.7	214.0	214.0	206.6	195.5	197.3	188.2	173.4
52.5°	193.7	177.0	169.7	167.9	160.5	156.8	147.6	140.2	134.6	130.9	121.8
55°	149.4	134.6	125.4	125.4	114.4	114.4	101.5	95.9	88.5	81.2	75.7
57.5°	112.5	105.1	95.9	88.5	84.8	75.7	68.2	59.0	53.5	42.4	35.0
60°	84.8	77.5	68.2	62.7	59.0	49.8	40.6	33.2	20.3	16.6	14.7
62.5°	62.7	55.4	46.1	42.4	38.7	31.4	22.1	11.1	5.6	5.6	5.6
65°	46.1	36.9	29.5	25.8	22.1	16.6	7.4	3.7	1.9	1.9	1.9
67.5°	31.4	24.0	16.6	14.7	11.1	5.6	1.9	1.9	1.9	1.9	1.9
70°	20.3	14.7	7.4	5.6	3.7	1.9	1.9	1.9	1.9	1.9	1.9
72.5°	12.9	7.4	3.7	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	7.4	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	3.7	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	1.9	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	1.9	1.9	1.9
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 EX4C309027 4LBSQLWWLI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1538.3	1538.3	1538.3	1538.3	1538.3	1538.3	1538.3	1538.3
2.5°	1501.4	1488.5	1495.8	1479.3	1486.7	1499.5	1490.3	1494.0
5°	1449.7	1442.4	1433.2	1409.2	1427.6	1442.4	1435.0	1433.2
7.5°	1394.5	1368.6	1381.5	1374.1	1370.5	1385.2	1368.6	1387.0
10°	1337.2	1318.8	1317.0	1304.1	1304.1	1315.1	1317.0	1305.9
12.5°	1252.4	1243.2	1243.2	1241.3	1239.5	1250.6	1252.4	1246.9
15°	1191.5	1187.9	1178.6	1176.8	1165.7	1182.3	1184.2	1182.3
17.5°	1117.8	1119.6	1110.4	1110.4	1117.8	1123.3	1108.5	1123.3
20°	1068.0	1058.7	1055.0	1038.4	1047.7	1056.9	1056.9	1058.7
22.5°	996.0	981.3	986.8	977.6	972.0	984.9	984.9	990.5
25°	914.8	914.8	918.5	913.0	916.7	924.1	918.5	931.5
27.5°	837.4	844.8	844.8	837.4	841.1	863.2	872.4	857.7
30°	765.5	767.3	772.9	769.2	780.2	787.6	785.7	796.8
32.5°	684.3	693.5	697.2	691.7	695.4	711.9	702.8	700.9
35°	621.6	605.0	603.2	605.0	612.4	616.0	612.4	625.3
37.5°	531.2	525.6	518.3	520.1	525.6	533.1	536.8	545.9
40°	444.5	437.1	437.1	435.3	429.7	450.1	450.1	450.1
42.5°	368.9	367.0	357.8	357.8	365.2	370.7	367.0	380.0
45°	302.5	295.1	289.6	289.6	295.1	295.1	300.7	298.8
47.5°	238.0	230.6	232.4	226.9	232.4	239.8	230.6	232.4
50°	178.9	178.9	175.2	178.9	177.0	178.9	175.2	171.6
52.5°	121.8	138.3	140.2	132.8	116.2	101.5	92.2	99.6
55°	70.1	62.7	62.7	60.8	57.2	55.4	49.8	55.4
57.5°	35.0	31.4	31.4	31.4	29.5	27.7	24.0	24.0
60°	14.7	12.9	12.9	11.1	9.2	7.4	5.6	7.4
62.5°	5.6	3.7	3.7	3.7	3.7	3.7	3.7	3.7
65°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
67.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
70°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
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)