

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: **LD4C25D010 EX4C259050 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: LD4C25D010 EX4C259050 4LBSQLWWLI
Description: 4 INCH 2500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 5000K, 90CRI LEDS
AND 4LBSQLWW TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

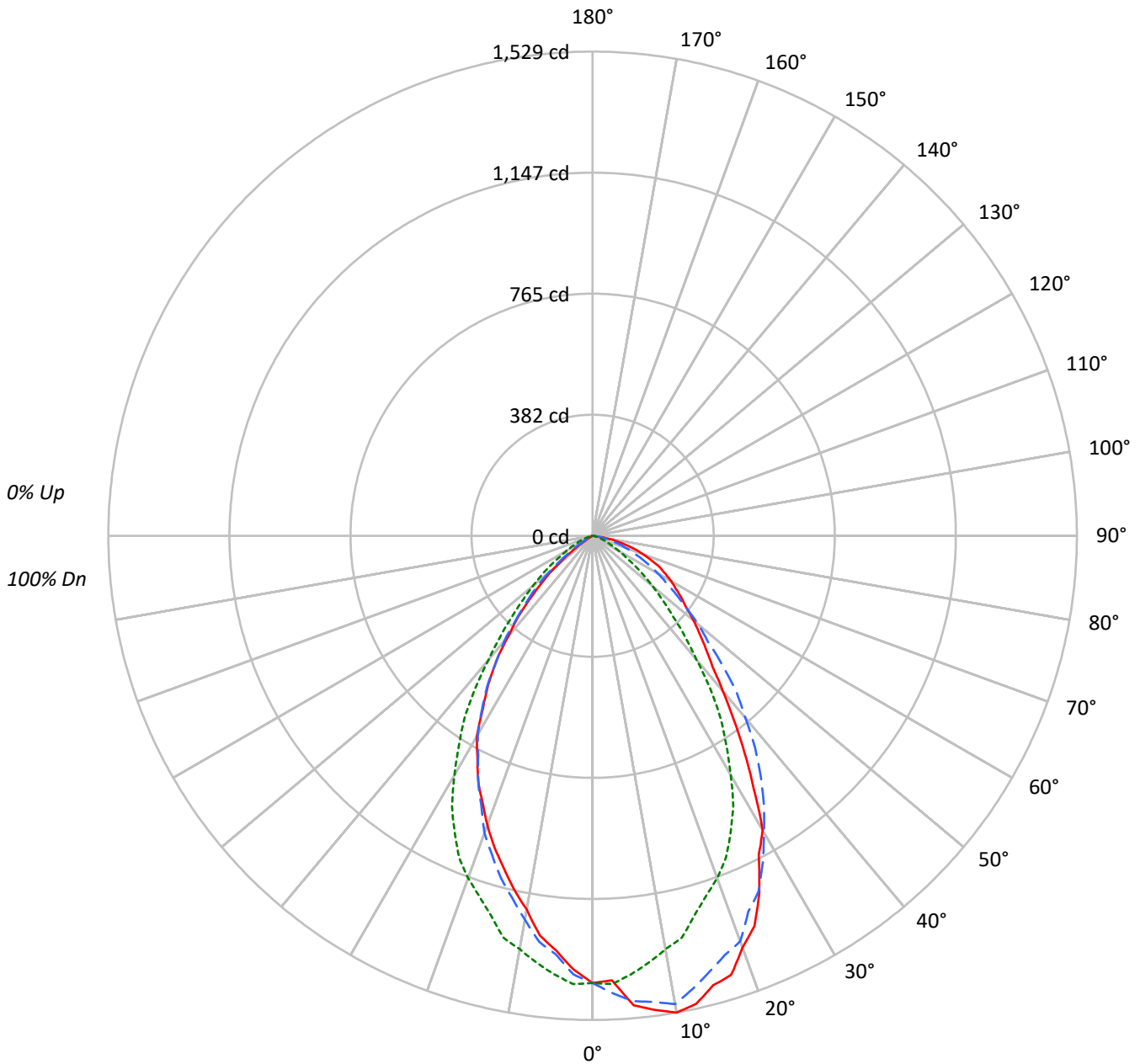
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2024.0 lumens
Efficiency: N/A
Efficacy: 64.3 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): 31.5
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

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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					0
RW	70	50	30	10	70	50	30	10	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					100			
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90					90			
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	84	82	80					80			
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	77	74	72					72			
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64					64			
5	85	75	67	62	83	74	67	62	72	66	61	70	65	60	68	64	60	58					58			
6	80	69	61	56	78	68	61	56	66	60	55	65	59	55	63	58	54	53					53			
7	75	63	56	51	73	63	56	51	61	55	50	60	54	50	59	54	50	48					48			
8	70	59	52	47	69	58	51	46	57	51	46	56	50	46	55	50	46	44					44			
9	66	55	48	43	65	54	47	43	53	47	43	52	46	42	51	46	42	41					41			
10	62	51	44	40	61	51	44	40	50	44	39	49	43	39	48	43	39	38					38			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	136242	136242	136242
5°	144143	134632	127416
10°	149798	129889	117445
15°	146802	123967	108404
20°	142039	118042	99786
25°	132483	109764	91026
30°	119594	97143	81489
35°	98521	83161	67612
40°	80399	64188	52033
45°	69074	48756	37430
50°	62521	37107	23642
55°	57532	26764	8546
60°	55230	18294	1312
65°	53334	12375	388
70°	47762	8576	480
75°	39144	4436	0
80°	24449	1889	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	132.3	6.5
10°-20°	356.4	17.6
20°-30°	475.9	23.5
30°-40°	451.8	22.3
40°-50°	312.3	15.4
50°-60°	172.6	8.5
60°-70°	85.7	4.2
70°-80°	33.8	1.7
80°-90°	3.2	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°	964.7	47.7
0°-40°	1416.5	70.0
0°-60°	1901.3	93.9
0°-90°	2024.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2024.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1412	1412	1412	1412	1412	
5°	1488	1475	1390	1327	1316	142
15°	1470	1426	1241	1119	1085	416
25°	1244	1239	1031	855	855	567
35°	836	924	706	581	574	524
45°	506	581	357	293	274	395
55°	342	322	159	81	51	308
65°	234	169	54	2	2	227
75°	105	64	12	0	0	112
85°	0	2	0	0	0	10
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°	1412.0	1412.0	1412.0	1412.0	1412.0	1412.0	1412.0	1412.0	1412.0	1412.0	1412.0
2.5°	1405.2	1444.2	1447.5	1444.2	1449.3	1447.5	1456.0	1447.5	1457.8	1442.5	1445.9
5°	1488.2	1472.9	1505.1	1488.2	1488.2	1486.5	1481.4	1479.7	1486.5	1464.5	1474.7
7.5°	1510.2	1532.2	1561.0	1525.5	1527.1	1527.1	1517.0	1513.6	1513.6	1472.9	1484.8
10°	1528.9	1515.3	1530.5	1517.0	1528.9	1527.1	1533.9	1511.9	1527.1	1503.5	1501.7
12.5°	1513.6	1508.5	1528.9	1506.8	1500.1	1501.7	1493.3	1488.2	1493.3	1466.2	1464.5
15°	1469.6	1474.7	1505.1	1481.4	1478.1	1474.7	1464.5	1447.5	1461.1	1423.9	1425.6
17.5°	1454.4	1445.9	1451.0	1430.6	1435.7	1432.4	1430.6	1415.4	1412.0	1388.3	1388.3
20°	1383.3	1401.8	1401.8	1388.3	1388.3	1386.7	1364.6	1378.2	1362.9	1356.1	1362.9
22.5°	1334.1	1335.8	1335.8	1324.0	1325.7	1318.9	1307.1	1298.6	1307.1	1298.6	1285.0
25°	1244.4	1247.8	1268.1	1246.1	1242.7	1249.5	1239.3	1234.2	1232.6	1212.3	1239.3
27.5°	1136.1	1169.9	1168.2	1159.7	1169.9	1156.3	1151.3	1153.0	1158.1	1156.3	1163.1
30°	1073.4	1078.5	1083.6	1076.8	1078.5	1073.4	1073.4	1075.1	1088.6	1083.6	1081.9
32.5°	946.4	963.3	976.9	976.9	978.6	983.7	982.0	1017.5	1026.0	1009.1	1005.7
35°	836.4	848.2	860.0	861.8	883.8	885.5	887.2	897.3	921.0	926.1	924.4
37.5°	731.4	743.2	746.6	761.9	773.8	785.6	799.2	812.7	833.0	849.9	841.5
40°	638.3	643.3	651.8	658.6	682.3	682.3	689.0	716.2	738.2	751.7	750.0
42.5°	560.4	562.1	568.9	580.7	602.8	597.6	602.8	621.4	653.5	655.2	673.9
45°	506.2	504.5	509.6	511.3	524.9	531.6	535.0	548.6	575.6	579.0	580.7
47.5°	457.2	455.4	463.9	467.3	472.3	479.1	479.1	480.8	491.0	499.5	492.7
50°	416.5	416.5	416.5	419.9	428.4	426.6	428.4	435.1	440.2	436.8	435.1
52.5°	372.4	379.2	384.3	386.0	387.7	387.7	389.4	386.0	384.3	379.2	369.1
55°	342.0	348.8	348.8	348.8	348.8	355.5	347.1	348.8	348.8	335.2	321.7
57.5°	311.6	318.3	323.4	316.6	323.4	316.6	313.2	311.6	308.1	294.6	274.3
60°	286.2	289.5	287.8	286.2	289.5	284.4	281.0	274.3	270.9	252.3	238.7
62.5°	257.4	259.0	260.7	257.4	254.0	252.3	245.5	235.3	228.6	213.3	201.4
65°	233.6	228.6	226.9	225.2	221.8	216.7	211.7	199.8	194.7	181.2	169.3
67.5°	198.1	196.4	199.8	194.7	186.3	186.3	181.2	171.0	159.1	150.7	138.8
70°	169.3	167.6	164.2	159.1	157.5	150.7	150.7	138.8	135.4	120.2	110.0
72.5°	138.8	138.8	133.7	128.7	123.6	120.2	118.5	110.0	105.0	96.5	88.0
75°	105.0	105.0	103.3	98.2	94.8	91.4	89.7	83.0	77.9	69.4	64.3
77.5°	74.5	74.5	67.7	64.3	66.0	62.6	59.2	57.6	55.9	50.8	44.0
80°	44.0	42.3	37.3	38.9	37.3	37.3	35.6	33.8	30.4	27.1	23.7
82.5°	11.9	13.5	13.5	13.5	15.3	11.9	11.9	11.9	13.5	13.5	8.5
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	1.7	1.7
87.5°	1.7	3.4	6.8	6.8	6.8	6.8	6.8	5.1	5.1	5.1	3.4
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°	1412.0	1412.0	1412.0	1412.0	1412.0	1412.0	1412.0	1412.0	1412.0	1412.0	1412.0
2.5°	1429.0	1427.2	1429.0	1417.1	1444.2	1423.9	1420.5	1417.1	1429.0	1417.1	1400.2
5°	1459.4	1442.5	1437.4	1432.4	1447.5	1423.9	1418.8	1420.5	1412.0	1390.0	1391.7
7.5°	1469.6	1454.4	1439.1	1406.9	1420.5	1415.4	1401.8	1391.7	1378.2	1359.5	1356.1
10°	1472.9	1456.0	1434.0	1423.9	1403.6	1396.8	1391.7	1374.8	1357.9	1325.7	1317.2
12.5°	1462.8	1442.5	1415.4	1406.9	1391.7	1369.7	1357.9	1340.9	1325.7	1300.3	1281.6
15°	1418.8	1401.8	1393.4	1364.6	1357.9	1344.3	1320.6	1296.9	1274.9	1241.0	1230.8
17.5°	1368.0	1361.2	1352.8	1330.7	1329.1	1315.5	1293.5	1273.2	1244.4	1191.9	1175.0
20°	1315.5	1315.5	1288.4	1280.0	1296.9	1269.8	1252.9	1234.2	1175.0	1149.6	1119.1
22.5°	1276.6	1258.0	1242.7	1229.2	1230.8	1213.9	1190.2	1153.0	1130.9	1100.5	1064.9
25°	1200.4	1207.2	1173.3	1168.2	1173.3	1134.3	1122.5	1092.0	1059.8	1031.0	1004.0
27.5°	1153.0	1134.3	1112.4	1093.7	1093.7	1078.5	1044.6	1037.9	988.7	961.7	927.8
30°	1081.9	1068.3	1049.7	1022.6	1019.2	1007.4	980.3	963.3	912.6	871.9	853.3
32.5°	992.1	987.1	971.8	941.4	931.2	917.6	883.8	855.0	831.3	785.6	763.6
35°	927.8	909.2	877.0	851.6	843.1	819.5	792.3	772.0	746.6	706.0	677.2
37.5°	831.3	812.7	782.2	751.7	751.7	728.0	690.8	670.5	634.9	611.2	587.5
40°	746.6	722.9	692.5	656.9	651.8	617.9	602.8	568.9	546.8	509.6	506.2
42.5°	651.8	629.8	602.8	575.6	555.3	538.4	499.5	474.1	450.4	431.7	426.6
45°	565.5	536.7	513.0	479.1	458.8	438.5	413.1	396.2	377.6	357.3	345.4
47.5°	491.0	467.3	433.4	403.0	382.7	372.4	343.7	325.1	309.8	296.3	287.8
50°	414.8	386.0	367.4	333.5	330.1	306.4	282.8	267.5	259.0	247.2	235.3
52.5°	357.3	330.1	304.7	279.4	265.8	257.4	235.3	220.1	208.3	199.8	193.0
55°	301.3	277.7	257.4	232.0	223.5	211.7	186.3	182.9	171.0	159.1	150.7
57.5°	259.0	237.0	213.3	196.4	181.2	172.7	152.4	138.8	132.1	121.9	113.4
60°	220.1	196.4	177.8	157.5	150.7	138.8	123.6	111.8	103.3	94.8	86.4
62.5°	184.5	164.2	143.9	127.0	116.8	110.0	98.2	88.0	79.6	72.8	66.0
65°	152.4	133.7	116.8	99.9	94.8	86.4	77.9	69.4	62.6	54.2	47.4
67.5°	125.3	108.4	91.4	79.6	74.5	71.1	61.0	52.5	47.4	42.3	35.6
70°	98.2	86.4	72.8	62.6	57.6	52.5	45.7	40.7	33.8	30.4	25.4
72.5°	76.2	66.0	54.2	45.7	42.3	38.9	32.2	27.1	23.7	20.3	16.9
75°	54.2	45.7	38.9	30.4	28.8	27.1	22.0	18.6	15.3	11.9	10.1
77.5°	37.3	30.4	23.7	20.3	18.6	15.3	13.5	10.1	8.5	6.8	5.1
80°	20.3	15.3	11.9	10.1	8.5	6.8	6.8	5.1	3.4	3.4	1.7
82.5°	6.8	5.1	3.4	1.7	1.7	1.7	1.7	1.7	1.7	0.0	1.7
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°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	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°	1412.0	1412.0	1412.0	1412.0	1412.0	1412.0	1412.0	1412.0	1412.0	1412.0	1412.0
2.5°	1410.3	1391.7	1396.8	1396.8	1393.4	1393.4	1390.0	1384.9	1386.7	1376.4	1354.5
5°	1395.1	1371.4	1368.0	1371.4	1357.9	1354.5	1347.7	1357.9	1327.4	1339.2	1325.7
7.5°	1351.1	1329.1	1324.0	1335.8	1318.9	1308.7	1307.1	1320.6	1293.5	1280.0	1264.7
10°	1301.9	1293.5	1278.3	1269.8	1264.7	1266.4	1252.9	1235.9	1230.8	1227.5	1213.9
12.5°	1258.0	1239.3	1225.8	1215.6	1212.3	1212.3	1190.2	1186.9	1171.6	1168.2	1147.9
15°	1205.4	1183.5	1175.0	1161.5	1149.6	1156.3	1130.9	1124.2	1119.1	1097.1	1100.5
17.5°	1159.7	1136.1	1115.8	1107.3	1097.1	1087.0	1063.2	1068.3	1056.5	1056.5	1026.0
20°	1100.5	1075.1	1059.8	1042.9	1042.9	1029.4	1012.5	1014.1	998.9	983.7	956.6
22.5°	1037.9	1010.8	992.1	985.3	968.4	965.1	944.8	939.6	919.3	921.0	897.3
25°	971.8	944.8	919.3	921.0	905.8	899.1	887.2	863.5	855.0	844.9	838.1
27.5°	893.9	875.3	853.3	851.6	822.8	824.5	809.3	802.5	782.2	787.3	772.0
30°	822.8	795.8	775.4	770.4	758.5	755.1	731.4	721.2	724.7	711.1	702.6
32.5°	750.0	709.4	700.9	690.8	684.0	675.5	658.6	665.4	650.1	653.5	640.0
35°	653.5	636.6	614.6	614.6	607.8	601.0	589.2	596.0	580.7	574.0	560.4
37.5°	572.2	557.0	535.0	541.8	529.9	519.8	509.6	511.3	497.7	496.1	482.5
40°	484.2	475.7	460.5	460.5	452.0	452.0	446.9	441.9	433.4	423.3	408.0
42.5°	401.2	394.5	387.7	389.4	377.6	387.7	374.2	382.7	355.5	353.9	343.7
45°	340.3	325.1	326.7	320.0	313.2	316.6	304.7	308.1	292.9	289.5	279.4
47.5°	276.0	270.9	260.7	257.4	257.4	252.3	247.2	245.5	238.7	230.2	216.7
50°	226.9	208.3	204.8	199.8	196.4	196.4	189.6	179.5	181.2	172.7	159.1
52.5°	177.8	162.5	155.7	154.1	147.3	143.9	135.4	128.7	123.6	120.2	111.8
55°	137.1	123.6	115.2	115.2	105.0	105.0	93.1	88.0	81.3	74.5	69.4
57.5°	103.3	96.5	88.0	81.3	77.9	69.4	62.6	54.2	49.1	38.9	32.2
60°	77.9	71.1	62.6	57.6	54.2	45.7	37.3	30.4	18.6	15.3	13.5
62.5°	57.6	50.8	42.3	38.9	35.6	28.8	20.3	10.1	5.1	5.1	5.1
65°	42.3	33.8	27.1	23.7	20.3	15.3	6.8	3.4	1.7	1.7	1.7
67.5°	28.8	22.0	15.3	13.5	10.1	5.1	1.7	1.7	1.7	1.7	1.7
70°	18.6	13.5	6.8	5.1	3.4	1.7	1.7	1.7	1.7	1.7	1.7
72.5°	11.9	6.8	3.4	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	6.8	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	3.4	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	1.7	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	1.7	1.7	1.7
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: LD4C25D010 EX4C259050 4LBSQLWWLI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1412.0	1412.0	1412.0	1412.0	1412.0	1412.0	1412.0	1412.0
2.5°	1378.2	1366.3	1373.1	1357.9	1364.6	1376.4	1368.0	1371.4
5°	1330.7	1324.0	1315.5	1293.5	1310.4	1324.0	1317.2	1315.5
7.5°	1280.0	1256.2	1268.1	1261.4	1258.0	1271.5	1256.2	1273.2
10°	1227.5	1210.5	1208.9	1197.0	1197.0	1207.2	1208.9	1198.7
12.5°	1149.6	1141.2	1141.2	1139.4	1137.7	1147.9	1149.6	1144.5
15°	1093.7	1090.3	1081.9	1080.2	1070.1	1085.2	1087.0	1085.2
17.5°	1026.0	1027.7	1019.2	1019.2	1026.0	1031.0	1017.5	1031.0
20°	980.3	971.8	968.4	953.2	961.7	970.2	970.2	971.8
22.5°	914.2	900.7	905.8	897.3	892.2	904.1	904.1	909.2
25°	839.8	839.8	843.1	838.1	841.5	848.2	843.1	855.0
27.5°	768.6	775.4	775.4	768.6	772.0	792.3	800.8	787.3
30°	702.6	704.3	709.4	706.0	716.2	722.9	721.2	731.4
32.5°	628.2	636.6	640.0	634.9	638.3	653.5	645.1	643.3
35°	570.6	555.3	553.7	555.3	562.1	565.5	562.1	574.0
37.5°	487.6	482.5	475.7	477.5	482.5	489.3	492.7	501.1
40°	408.0	401.2	401.2	399.6	394.5	413.1	413.1	413.1
42.5°	338.6	336.9	328.5	328.5	335.2	340.3	336.9	348.8
45°	277.7	270.9	265.8	265.8	270.9	270.9	276.0	274.3
47.5°	218.4	211.7	213.3	208.3	213.3	220.1	211.7	213.3
50°	164.2	164.2	160.9	164.2	162.5	164.2	160.9	157.5
52.5°	111.8	127.0	128.7	121.9	106.7	93.1	84.6	91.4
55°	64.3	57.6	57.6	55.9	52.5	50.8	45.7	50.8
57.5°	32.2	28.8	28.8	28.8	27.1	25.4	22.0	22.0
60°	13.5	11.9	11.9	10.1	8.5	6.8	5.1	6.8
62.5°	5.1	3.4	3.4	3.4	3.4	3.4	3.4	3.4
65°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
67.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
70°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
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)