

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



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: -

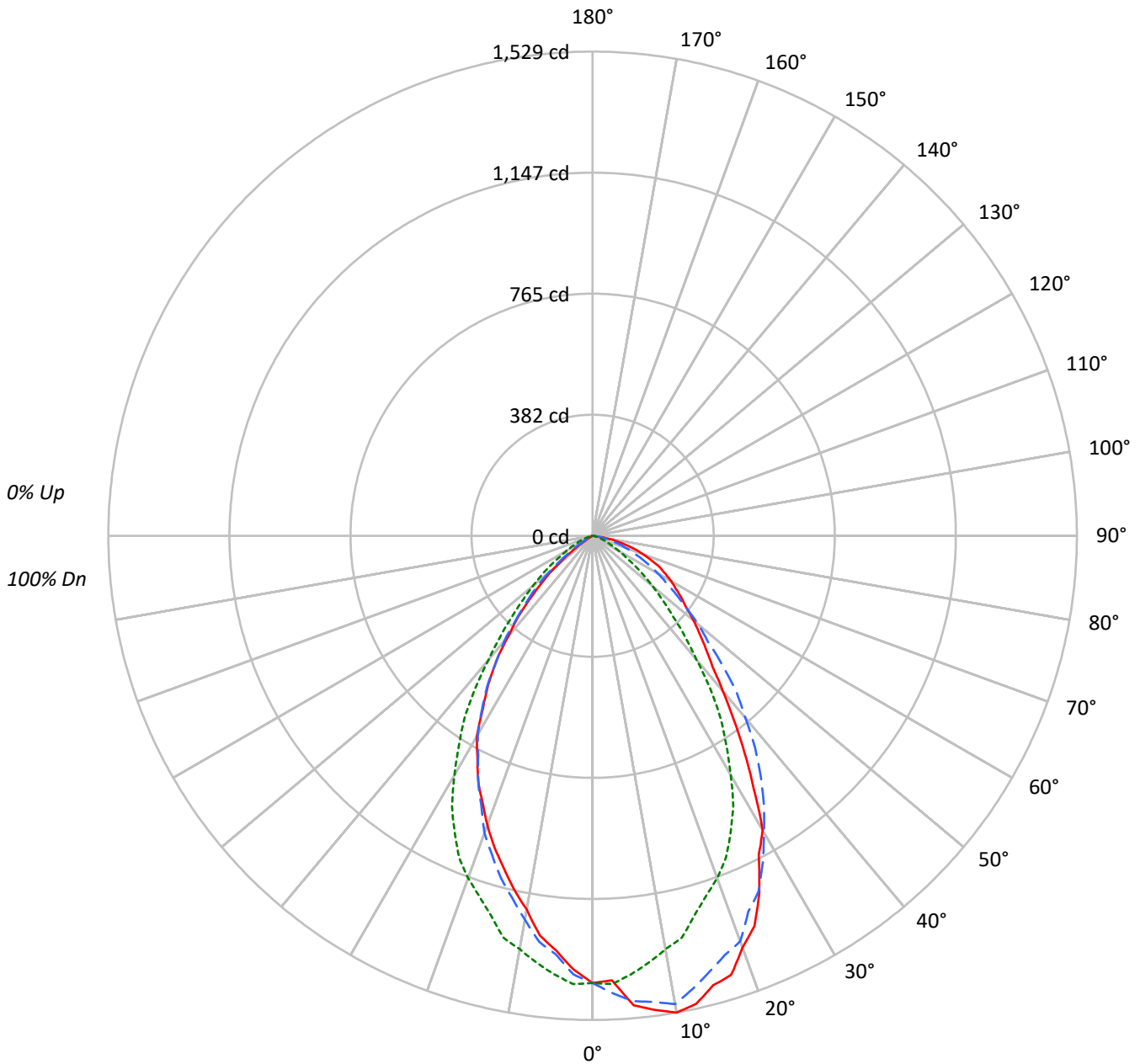
Summary

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	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°	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)