

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 EX4C259027 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 EX4C259027 4LBSQLWWLI
Description: 4 INCH 2500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 2700K, 90CRI LEDS
AND 4LBSQLWW TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

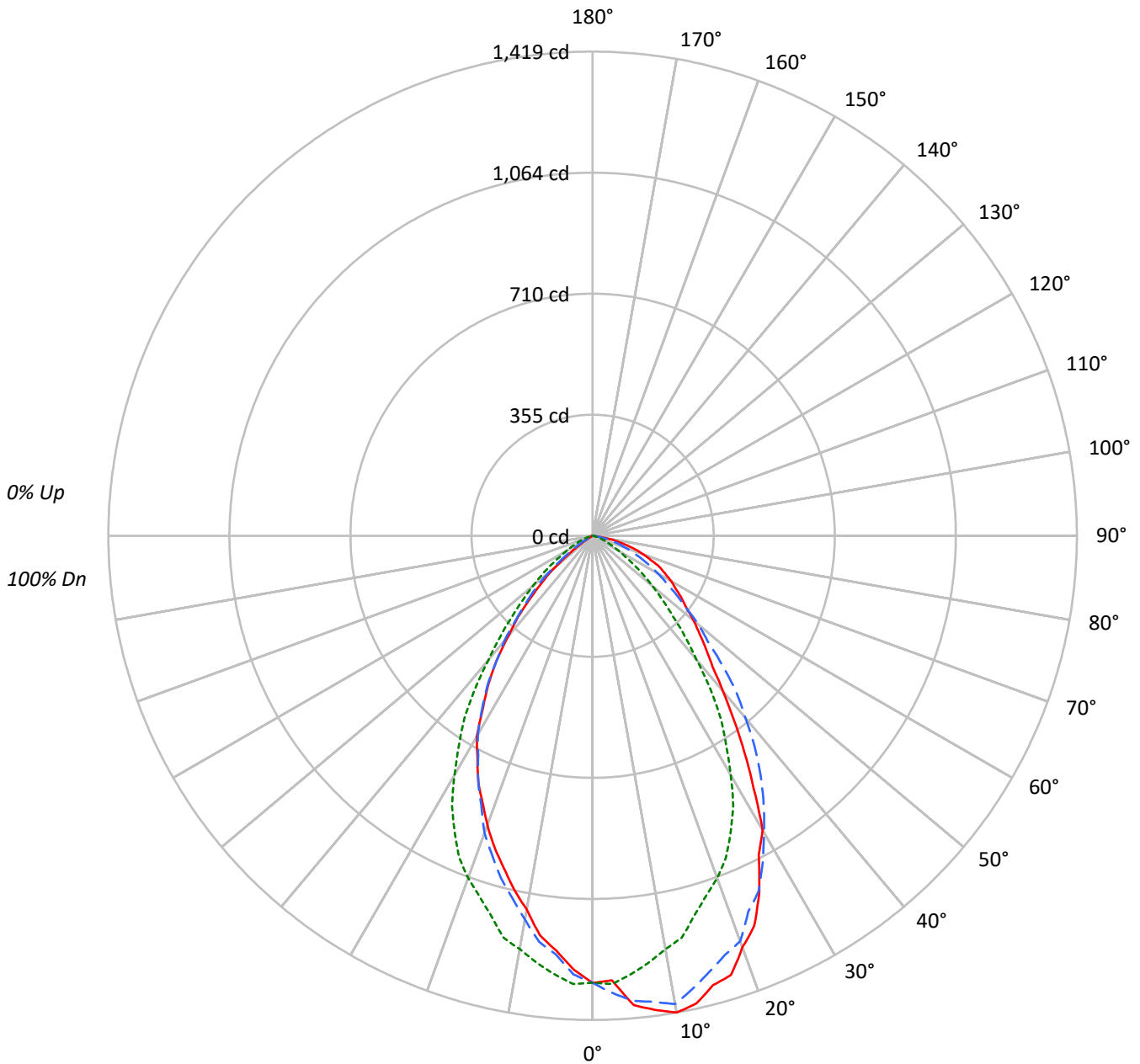
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1878.0 lumens
Efficiency: N/A
Efficacy: 59.6 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 (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	0
RW	70	50	30	10	70	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°	126410	126410	126410
5°	133750	124927	118224
10°	138991	120522	108970
15°	136214	115026	100592
20°	131791	109530	92588
25°	122934	101854	84458
30°	110970	90135	75618
35°	91406	77165	62736
40°	74605	59565	48279
45°	64093	45235	34728
50°	58003	34435	21931
55°	53377	24830	7923
60°	51236	16963	1216
65°	49498	11484	365
70°	44320	7956	451
75°	36311	4101	0
80°	22726	1723	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.8	6.5
10°-20°	330.7	17.6
20°-30°	441.6	23.5
30°-40°	419.2	22.3
40°-50°	289.8	15.4
50°-60°	160.1	8.5
60°-70°	79.5	4.2
70°-80°	31.3	1.7
80°-90°	3.0	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°	895.1	47.7
0°-40°	1314.3	70.0
0°-60°	1764.2	93.9
0°-90°	1878.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1878.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1310	1310	1310	1310	1310	
5°	1381	1368	1290	1232	1221	132
15°	1364	1323	1152	1038	1007	386
25°	1155	1150	957	793	793	526
35°	776	858	655	539	533	486
45°	470	539	332	272	254	366
55°	317	298	148	75	47	286
65°	217	157	50	2	2	210
75°	97	60	11	0	0	104
85°	0	2	0	0	0	9
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°	1310.1	1310.1	1310.1	1310.1	1310.1	1310.1	1310.1	1310.1	1310.1	1310.1	1310.1
2.5°	1303.9	1340.0	1343.1	1340.0	1344.7	1343.1	1351.0	1343.1	1352.6	1338.4	1341.6
5°	1380.9	1366.7	1396.5	1380.9	1380.9	1379.3	1374.6	1373.0	1379.3	1358.9	1368.3
7.5°	1401.3	1421.7	1448.4	1415.4	1417.0	1417.0	1407.6	1404.4	1404.4	1366.7	1377.7
10°	1418.6	1406.0	1420.1	1407.6	1418.6	1417.0	1423.3	1402.8	1417.0	1395.0	1393.4
12.5°	1404.4	1399.7	1418.6	1398.1	1391.9	1393.4	1385.6	1380.9	1385.6	1360.4	1358.9
15°	1363.6	1368.3	1396.5	1374.6	1371.4	1368.3	1358.9	1343.1	1355.7	1321.2	1322.8
17.5°	1349.5	1341.6	1346.3	1327.4	1332.2	1329.0	1327.4	1313.3	1310.1	1288.2	1288.2
20°	1283.5	1300.7	1300.7	1288.2	1288.2	1286.6	1266.2	1278.7	1264.6	1258.3	1264.6
22.5°	1237.9	1239.5	1239.5	1228.5	1230.1	1223.8	1212.8	1204.9	1212.8	1204.9	1192.3
25°	1154.7	1157.8	1176.6	1156.2	1153.1	1159.3	1149.9	1145.2	1143.7	1124.8	1149.9
27.5°	1054.1	1085.5	1084.0	1076.1	1085.5	1072.9	1068.3	1069.8	1074.5	1072.9	1079.2
30°	996.0	1000.7	1005.4	999.1	1000.7	996.0	996.0	997.5	1010.1	1005.4	1003.8
32.5°	878.1	893.8	906.5	906.5	908.0	912.7	911.1	944.1	952.0	936.3	933.2
35°	776.0	787.1	798.0	799.6	820.0	821.6	823.2	832.6	854.6	859.3	857.7
37.5°	678.7	689.6	692.8	706.9	717.9	728.9	741.5	754.1	772.9	788.6	780.8
40°	592.3	596.9	604.8	611.1	633.1	633.1	639.3	664.5	684.9	697.5	695.9
42.5°	520.0	521.5	527.8	538.8	559.3	554.5	559.3	576.6	606.4	608.0	625.2
45°	469.7	468.1	472.9	474.4	487.0	493.3	496.4	509.0	534.1	537.2	538.8
47.5°	424.2	422.6	430.5	433.6	438.3	444.5	444.5	446.1	455.6	463.4	457.2
50°	386.4	386.4	386.4	389.6	397.5	395.9	397.5	403.7	408.4	405.3	403.7
52.5°	345.6	351.9	356.6	358.2	359.7	359.7	361.3	358.2	356.6	351.9	342.4
55°	317.3	323.6	323.6	323.6	323.6	329.9	322.1	323.6	323.6	311.1	298.5
57.5°	289.1	295.4	300.0	293.8	300.0	293.8	290.6	289.1	285.9	273.3	254.5
60°	265.5	268.6	267.0	265.5	268.6	263.9	260.8	254.5	251.4	234.1	221.5
62.5°	238.8	240.3	241.9	238.8	235.7	234.1	227.8	218.4	212.1	197.9	186.9
65°	216.8	212.1	210.5	208.9	205.8	201.1	196.4	185.4	180.6	168.1	157.1
67.5°	183.8	182.2	185.4	180.6	172.8	172.8	168.1	158.7	147.6	139.8	128.8
70°	157.1	155.5	152.4	147.6	146.1	139.8	139.8	128.8	125.7	111.5	102.1
72.5°	128.8	128.8	124.1	119.4	114.7	111.5	110.0	102.1	97.4	89.5	81.7
75°	97.4	97.4	95.8	91.1	87.9	84.8	83.3	77.0	72.3	64.4	59.7
77.5°	69.1	69.1	62.8	59.7	61.2	58.1	55.0	53.4	51.8	47.1	40.9
80°	40.9	39.3	34.6	36.1	34.6	34.6	33.0	31.4	28.2	25.1	22.0
82.5°	11.0	12.6	12.6	12.6	14.2	11.0	11.0	11.0	12.6	12.6	7.9
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.6	1.6
87.5°	1.6	3.1	6.3	6.3	6.3	6.3	6.3	4.7	4.7	4.7	3.1
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°	1310.1	1310.1	1310.1	1310.1	1310.1	1310.1	1310.1	1310.1	1310.1	1310.1	1310.1
2.5°	1325.9	1324.3	1325.9	1314.9	1340.0	1321.2	1318.0	1314.9	1325.9	1314.9	1299.2
5°	1354.1	1338.4	1333.7	1329.0	1343.1	1321.2	1316.5	1318.0	1310.1	1289.8	1291.3
7.5°	1363.6	1349.5	1335.3	1305.5	1318.0	1313.3	1300.7	1291.3	1278.7	1261.5	1258.3
10°	1366.7	1351.0	1330.6	1321.2	1302.3	1296.0	1291.3	1275.6	1259.9	1230.1	1222.2
12.5°	1357.3	1338.4	1313.3	1305.5	1291.3	1270.9	1259.9	1244.2	1230.1	1206.5	1189.2
15°	1316.5	1300.7	1292.9	1266.2	1259.9	1247.3	1225.3	1203.4	1182.9	1151.5	1142.1
17.5°	1269.3	1263.1	1255.2	1234.7	1233.2	1220.6	1200.2	1181.3	1154.7	1105.9	1090.2
20°	1220.6	1220.6	1195.5	1187.7	1203.4	1178.2	1162.5	1145.2	1090.2	1066.7	1038.4
22.5°	1184.5	1167.2	1153.1	1140.5	1142.1	1126.4	1104.4	1069.8	1049.4	1021.1	988.1
25°	1113.8	1120.1	1088.7	1084.0	1088.7	1052.5	1041.5	1013.2	983.4	956.7	931.6
27.5°	1069.8	1052.5	1032.1	1014.8	1014.8	1000.7	969.3	963.0	917.4	892.3	860.8
30°	1003.8	991.3	974.0	948.9	945.7	934.7	909.6	893.8	846.8	809.0	791.7
32.5°	920.5	915.9	901.7	873.5	864.0	851.4	820.0	793.3	771.4	728.9	708.5
35°	860.8	843.6	813.8	790.2	782.3	760.3	735.2	716.3	692.8	655.1	628.4
37.5°	771.4	754.1	725.8	697.5	697.5	675.5	640.9	622.1	589.1	567.1	545.1
40°	692.8	670.8	642.5	609.6	604.8	573.4	559.3	527.8	507.4	472.9	469.7
42.5°	604.8	584.4	559.3	534.1	515.3	499.6	463.4	439.9	417.9	400.6	395.9
45°	524.7	498.0	476.0	444.5	425.7	406.9	383.3	367.6	350.3	331.5	320.5
47.5°	455.6	433.6	402.1	373.9	355.1	345.6	318.9	301.6	287.5	274.9	267.0
50°	384.9	358.2	340.9	309.5	306.3	284.3	262.4	248.2	240.3	229.4	218.4
52.5°	331.5	306.3	282.7	259.2	246.6	238.8	218.4	204.2	193.3	185.4	179.1
55°	279.6	257.6	238.8	215.2	207.3	196.4	172.8	169.7	158.7	147.6	139.8
57.5°	240.3	219.9	197.9	182.2	168.1	160.3	141.4	128.8	122.5	113.1	105.2
60°	204.2	182.2	164.9	146.1	139.8	128.8	114.7	103.7	95.8	87.9	80.1
62.5°	171.2	152.4	133.6	117.8	108.4	102.1	91.1	81.7	73.9	67.6	61.2
65°	141.4	124.1	108.4	92.7	87.9	80.1	72.3	64.4	58.1	50.3	44.0
67.5°	116.3	100.6	84.8	73.9	69.1	66.0	56.6	48.7	44.0	39.3	33.0
70°	91.1	80.1	67.6	58.1	53.4	48.7	42.4	37.7	31.4	28.2	23.6
72.5°	70.7	61.2	50.3	42.4	39.3	36.1	29.8	25.1	22.0	18.8	15.7
75°	50.3	42.4	36.1	28.2	26.7	25.1	20.4	17.3	14.2	11.0	9.4
77.5°	34.6	28.2	22.0	18.8	17.3	14.2	12.6	9.4	7.9	6.3	4.7
80°	18.8	14.2	11.0	9.4	7.9	6.3	6.3	4.7	3.1	3.1	1.6
82.5°	6.3	4.7	3.1	1.6	1.6	1.6	1.6	1.6	1.6	0.0	1.6
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°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	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°	1310.1	1310.1	1310.1	1310.1	1310.1	1310.1	1310.1	1310.1	1310.1	1310.1	1310.1
2.5°	1308.6	1291.3	1296.0	1296.0	1292.9	1292.9	1289.8	1285.0	1286.6	1277.1	1256.8
5°	1294.4	1272.5	1269.3	1272.5	1259.9	1256.8	1250.5	1259.9	1231.6	1242.6	1230.1
7.5°	1253.6	1233.2	1228.5	1239.5	1223.8	1214.3	1212.8	1225.3	1200.2	1187.7	1173.5
10°	1208.0	1200.2	1186.1	1178.2	1173.5	1175.0	1162.5	1146.8	1142.1	1138.9	1126.4
12.5°	1167.2	1149.9	1137.4	1128.0	1124.8	1124.8	1104.4	1101.2	1087.1	1084.0	1065.1
15°	1118.5	1098.1	1090.2	1077.7	1066.7	1072.9	1049.4	1043.1	1038.4	1018.0	1021.1
17.5°	1076.1	1054.1	1035.3	1027.4	1018.0	1008.6	986.5	991.3	980.2	980.2	952.0
20°	1021.1	997.5	983.4	967.7	967.7	955.1	939.4	941.0	926.8	912.7	887.6
22.5°	963.0	937.8	920.5	914.3	898.6	895.4	876.6	871.9	853.0	854.6	832.6
25°	901.7	876.6	853.0	854.6	840.5	834.2	823.2	801.2	793.3	783.9	777.6
27.5°	829.5	812.2	791.7	790.2	763.5	765.0	750.9	744.6	725.8	730.5	716.3
30°	763.5	738.4	719.5	714.8	703.8	700.6	678.7	669.2	672.4	659.8	652.0
32.5°	695.9	658.2	650.4	640.9	634.7	626.8	611.1	617.4	603.2	606.4	593.8
35°	606.4	590.7	570.2	570.2	563.9	557.7	546.7	553.0	538.8	532.6	520.0
37.5°	531.0	516.9	496.4	502.7	491.7	482.3	472.9	474.4	461.8	460.3	447.7
40°	449.3	441.4	427.3	427.3	419.4	419.4	414.7	410.0	402.1	392.7	378.6
42.5°	372.3	366.0	359.7	361.3	350.3	359.7	347.2	355.1	329.9	328.3	318.9
45°	315.7	301.6	303.2	296.9	290.6	293.8	282.7	285.9	271.8	268.6	259.2
47.5°	256.1	251.4	241.9	238.8	238.8	234.1	229.4	227.8	221.5	213.6	201.1
50°	210.5	193.3	190.1	185.4	182.2	182.2	176.0	166.5	168.1	160.3	147.6
52.5°	164.9	150.8	144.5	143.0	136.7	133.6	125.7	119.4	114.7	111.5	103.7
55°	127.2	114.7	106.8	106.8	97.4	97.4	86.4	81.7	75.4	69.1	64.4
57.5°	95.8	89.5	81.7	75.4	72.3	64.4	58.1	50.3	45.5	36.1	29.8
60°	72.3	66.0	58.1	53.4	50.3	42.4	34.6	28.2	17.3	14.2	12.6
62.5°	53.4	47.1	39.3	36.1	33.0	26.7	18.8	9.4	4.7	4.7	4.7
65°	39.3	31.4	25.1	22.0	18.8	14.2	6.3	3.1	1.6	1.6	1.6
67.5°	26.7	20.4	14.2	12.6	9.4	4.7	1.6	1.6	1.6	1.6	1.6
70°	17.3	12.6	6.3	4.7	3.1	1.6	1.6	1.6	1.6	1.6	1.6
72.5°	11.0	6.3	3.1	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	6.3	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	3.1	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	1.6	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	1.6	1.6	1.6
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 EX4C259027 4LBSQLWWLI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1310.1	1310.1	1310.1	1310.1	1310.1	1310.1	1310.1	1310.1
2.5°	1278.7	1267.7	1274.0	1259.9	1266.2	1277.1	1269.3	1272.5
5°	1234.7	1228.5	1220.6	1200.2	1215.9	1228.5	1222.2	1220.6
7.5°	1187.7	1165.6	1176.6	1170.4	1167.2	1179.8	1165.6	1181.3
10°	1138.9	1123.2	1121.7	1110.7	1110.7	1120.1	1121.7	1112.2
12.5°	1066.7	1058.8	1058.8	1057.2	1055.6	1065.1	1066.7	1062.0
15°	1014.8	1011.7	1003.8	1002.3	992.9	1007.0	1008.6	1007.0
17.5°	952.0	953.5	945.7	945.7	952.0	956.7	944.1	956.7
20°	909.6	901.7	898.6	884.4	892.3	900.2	900.2	901.7
22.5°	848.3	835.7	840.5	832.6	827.9	838.9	838.9	843.6
25°	779.2	779.2	782.3	777.6	780.8	787.1	782.3	793.3
27.5°	713.2	719.5	719.5	713.2	716.3	735.2	743.0	730.5
30°	652.0	653.5	658.2	655.1	664.5	670.8	669.2	678.7
32.5°	582.8	590.7	593.8	589.1	592.3	606.4	598.5	596.9
35°	529.4	515.3	513.7	515.3	521.5	524.7	521.5	532.6
37.5°	452.4	447.7	441.4	443.0	447.7	454.0	457.2	465.0
40°	378.6	372.3	372.3	370.8	366.0	383.3	383.3	383.3
42.5°	314.2	312.6	304.8	304.8	311.1	315.7	312.6	323.6
45°	257.6	251.4	246.6	246.6	251.4	251.4	256.1	254.5
47.5°	202.7	196.4	197.9	193.3	197.9	204.2	196.4	197.9
50°	152.4	152.4	149.2	152.4	150.8	152.4	149.2	146.1
52.5°	103.7	117.8	119.4	113.1	99.0	86.4	78.5	84.8
55°	59.7	53.4	53.4	51.8	48.7	47.1	42.4	47.1
57.5°	29.8	26.7	26.7	26.7	25.1	23.6	20.4	20.4
60°	12.6	11.0	11.0	9.4	7.9	6.3	4.7	6.3
62.5°	4.7	3.1	3.1	3.1	3.1	3.1	3.1	3.1
65°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
67.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
70°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
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)