

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



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: -

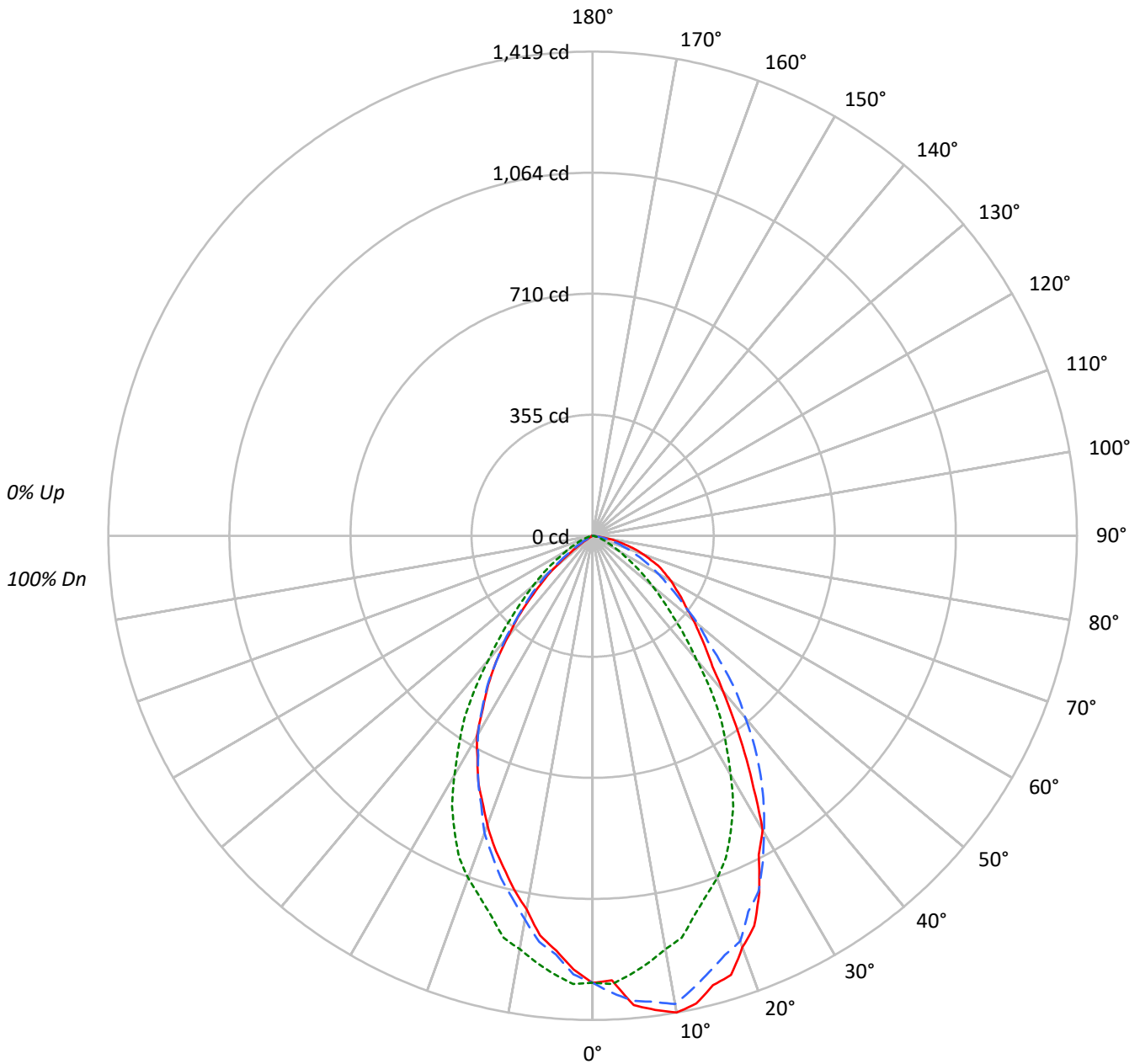
Summary

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 (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

TEST NUMBER: P#
CATALOG NUMBER: LD4C25D010 EX4C259027 4LBSQLWWLI

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



TEST NUMBER: P#

CATALOG NUMBER: LD4C25D010 EX4C259027 4LBSQLWWLI

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	



TEST NUMBER: P#

CATALOG NUMBER: LD4C25D010 EX4C259027 4LBSQLWWLI

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



TEST NUMBER: P#

CATALOG NUMBER: LD4C25D010 EX4C259027 4LBSQLWWLI

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



TEST NUMBER: P#

CATALOG NUMBER: LD4C25D010 EX4C259027 4LBSQLWWLI

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)