

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 EX4C259035 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 EX4C259035 4LBSQLWWLI
Description: 4 INCH 2500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3500K, 90CRI LEDS
AND 4LBSQLWW TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

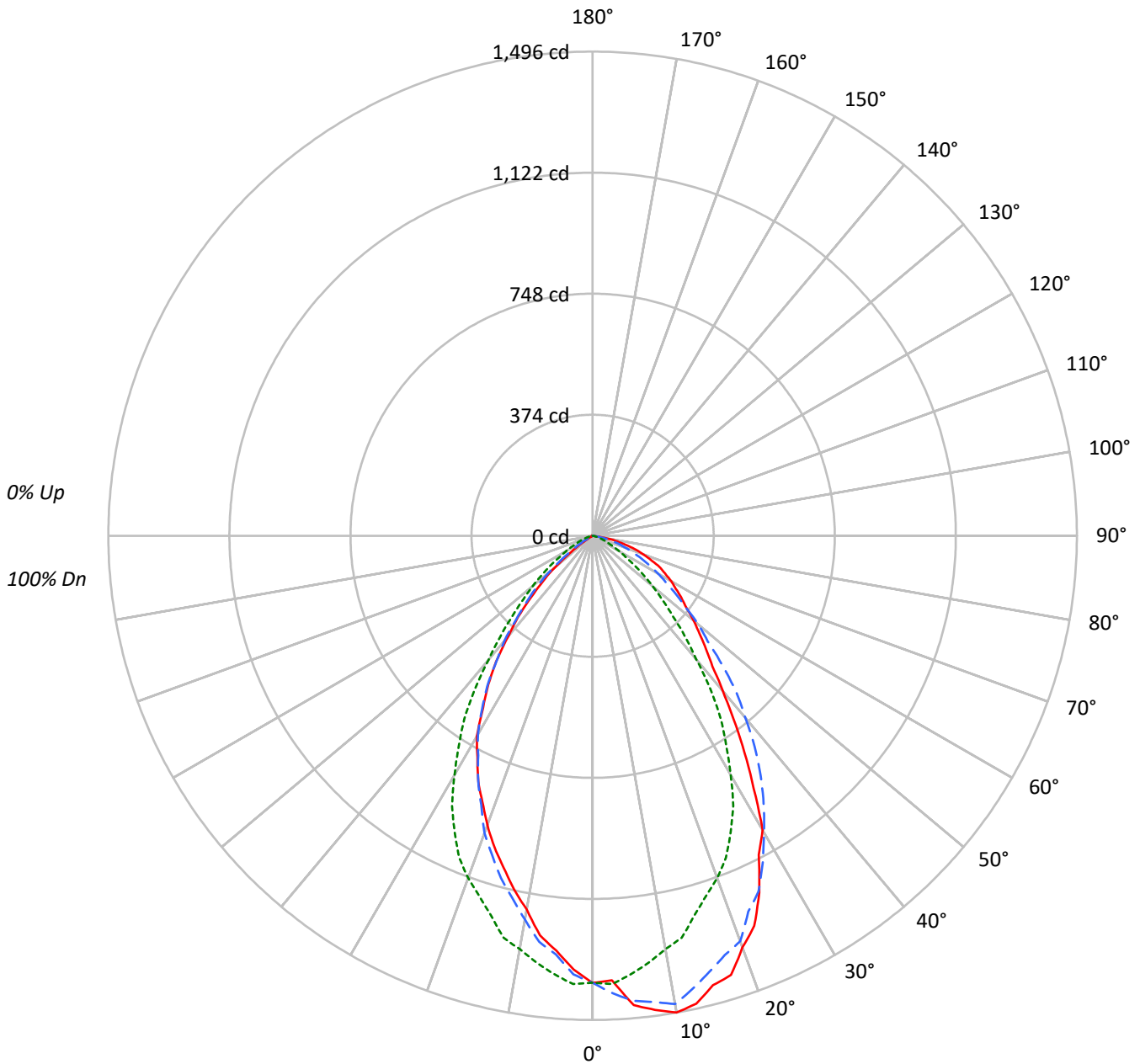
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1980.0 lumens
Efficiency: N/A
Efficacy: 62.9 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°	133280	133280	133280
5°	141015	131707	124646
10°	146535	127067	114888
15°	143606	121270	106046
20°	138948	115475	97619
25°	129609	107379	89046
30°	116998	95038	79718
35°	96377	81358	66140
40°	78648	62790	50899
45°	67573	47691	36611
50°	61155	36297	23117
55°	56288	26192	8361
60°	54014	17889	1274
65°	52169	12101	388
70°	46718	8407	480
75°	38287	4325	0
80°	23949	1834	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.4	6.5
10°-20°	348.7	17.6
20°-30°	465.6	23.5
30°-40°	442.0	22.3
40°-50°	305.5	15.4
50°-60°	168.8	8.5
60°-70°	83.8	4.2
70°-80°	33.0	1.7
80°-90°	3.1	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°	943.7	47.7
0°-40°	1385.7	70.0
0°-60°	1860.0	93.9
0°-90°	1980.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1980.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1381	1381	1381	1381	1381	
5°	1456	1443	1360	1298	1287	139
15°	1438	1395	1214	1095	1062	407
25°	1217	1212	1009	836	836	555
35°	818	904	691	568	562	513
45°	495	568	350	287	268	386
55°	335	315	156	80	50	301
65°	228	166	53	2	2	222
75°	103	63	12	0	0	109
85°	0	2	0	0	0	9
90°	0	0	0	0	0	



TEST NUMBER: P#

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3
2.5°	1374.7	1412.8	1416.1	1412.8	1417.8	1416.1	1424.4	1416.1	1426.1	1411.1	1414.5
5°	1455.9	1440.9	1472.4	1455.9	1455.9	1454.2	1449.2	1447.5	1454.2	1432.7	1442.6
7.5°	1477.4	1498.9	1527.1	1492.3	1493.9	1493.9	1484.0	1480.7	1480.7	1440.9	1452.5
10°	1495.6	1482.3	1497.3	1484.0	1495.6	1493.9	1500.6	1479.0	1493.9	1470.8	1469.1
12.5°	1480.7	1475.7	1495.6	1474.1	1467.5	1469.1	1460.8	1455.9	1460.8	1434.3	1432.7
15°	1437.6	1442.6	1472.4	1449.2	1445.9	1442.6	1432.7	1416.1	1429.4	1392.9	1394.6
17.5°	1422.8	1414.5	1419.4	1399.5	1404.5	1401.2	1399.5	1384.7	1381.3	1358.1	1358.1
20°	1353.2	1371.4	1371.4	1358.1	1358.1	1356.5	1335.0	1348.2	1333.3	1326.7	1333.3
22.5°	1305.1	1306.8	1306.8	1295.2	1296.9	1290.3	1278.6	1270.3	1278.6	1270.3	1257.1
25°	1217.4	1220.7	1240.5	1219.0	1215.7	1222.3	1212.4	1207.4	1205.8	1185.9	1212.4
27.5°	1111.4	1144.4	1142.8	1134.5	1144.4	1131.2	1126.3	1127.9	1132.9	1131.2	1137.8
30°	1050.1	1055.0	1060.0	1053.4	1055.0	1050.1	1050.1	1051.7	1065.0	1060.0	1058.3
32.5°	925.8	942.4	955.7	955.7	957.3	962.3	960.6	995.4	1003.7	987.2	983.8
35°	818.2	829.8	841.4	843.0	864.6	866.2	867.9	877.8	901.0	906.0	904.3
37.5°	715.5	727.1	730.4	745.3	756.9	768.5	781.8	795.0	814.9	831.4	823.2
40°	624.4	629.4	637.7	644.3	667.4	667.4	674.1	700.6	722.2	735.4	733.7
42.5°	548.2	549.9	556.5	568.1	589.6	584.7	589.6	607.9	639.3	641.0	659.2
45°	495.2	493.5	498.5	500.2	513.5	520.1	523.4	536.6	563.1	566.4	568.1
47.5°	447.2	445.5	453.8	457.1	462.1	468.7	468.7	470.4	480.3	488.6	482.0
50°	407.4	407.4	407.4	410.7	419.1	417.4	419.1	425.7	430.6	427.3	425.7
52.5°	364.4	371.0	376.0	377.7	379.3	379.3	381.0	377.7	376.0	371.0	361.0
55°	334.6	341.2	341.2	341.2	341.2	347.8	339.6	341.2	341.2	327.9	314.7
57.5°	304.8	311.4	316.3	309.7	316.3	309.7	306.4	304.8	301.4	288.2	268.3
60°	279.9	283.2	281.6	279.9	283.2	278.2	274.9	268.3	265.0	246.8	233.5
62.5°	251.8	253.4	255.1	251.8	248.5	246.8	240.2	230.2	223.6	208.7	197.1
65°	228.5	223.6	221.9	220.3	217.0	212.0	207.1	195.4	190.4	177.2	165.6
67.5°	193.8	192.1	195.4	190.4	182.2	182.2	177.2	167.3	155.7	147.4	135.8
70°	165.6	164.0	160.7	155.7	154.0	147.4	147.4	135.8	132.5	117.6	107.7
72.5°	135.8	135.8	130.8	125.9	120.9	117.6	116.0	107.7	102.7	94.4	86.1
75°	102.7	102.7	101.0	96.0	92.7	89.4	87.8	81.2	76.2	67.9	62.9
77.5°	72.9	72.9	66.3	62.9	64.6	61.3	57.9	56.3	54.6	49.7	43.1
80°	43.1	41.4	36.5	38.1	36.5	36.5	34.8	33.1	29.8	26.5	23.2
82.5°	11.6	13.2	13.2	13.2	14.9	11.6	11.6	11.6	13.2	13.2	8.3
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	3.3	6.6	6.6	6.6	6.6	6.6	5.0	5.0	5.0	3.3
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°	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3
2.5°	1397.9	1396.2	1397.9	1386.3	1412.8	1392.9	1389.6	1386.3	1397.9	1386.3	1369.7
5°	1427.7	1411.1	1406.1	1401.2	1416.1	1392.9	1388.0	1389.6	1381.3	1359.8	1361.4
7.5°	1437.6	1422.8	1407.8	1376.4	1389.6	1384.7	1371.4	1361.4	1348.2	1330.0	1326.7
10°	1440.9	1424.4	1402.8	1392.9	1373.1	1366.4	1361.4	1344.9	1328.3	1296.9	1288.6
12.5°	1431.0	1411.1	1384.7	1376.4	1361.4	1339.9	1328.3	1311.7	1296.9	1272.0	1253.8
15°	1388.0	1371.4	1363.1	1335.0	1328.3	1315.0	1291.9	1268.7	1247.2	1214.0	1204.1
17.5°	1338.3	1331.7	1323.3	1301.8	1300.2	1286.9	1265.4	1245.5	1217.4	1166.0	1149.4
20°	1286.9	1286.9	1260.4	1252.2	1268.7	1242.2	1225.6	1207.4	1149.4	1124.6	1094.8
22.5°	1248.9	1230.6	1215.7	1202.5	1204.1	1187.5	1164.4	1127.9	1106.4	1076.6	1041.8
25°	1174.3	1180.9	1147.8	1142.8	1147.8	1109.7	1098.1	1068.3	1036.8	1008.6	982.2
27.5°	1127.9	1109.7	1088.2	1070.0	1070.0	1055.0	1021.9	1015.3	967.2	940.8	907.6
30°	1058.3	1045.1	1026.9	1000.4	997.1	985.5	959.0	942.4	892.7	853.0	834.7
32.5°	970.5	965.6	950.7	920.9	911.0	897.7	864.6	836.4	813.3	768.5	747.0
35°	907.6	889.4	858.0	833.1	824.8	801.6	775.1	755.2	730.4	690.7	662.5
37.5°	813.3	795.0	765.2	735.4	735.4	712.2	675.8	655.9	621.1	597.9	574.7
40°	730.4	707.2	677.4	642.7	637.7	604.5	589.6	556.5	534.9	498.5	495.2
42.5°	637.7	616.1	589.6	563.1	543.3	526.7	488.6	463.8	440.6	422.4	417.4
45°	553.2	525.0	501.9	468.7	448.8	429.0	404.1	387.6	369.3	349.5	337.9
47.5°	480.3	457.1	424.0	394.2	374.3	364.4	336.2	318.0	303.1	289.9	281.6
50°	405.8	377.7	359.4	326.3	323.0	299.8	276.6	261.7	253.4	241.8	230.2
52.5°	349.5	323.0	298.1	273.3	260.0	251.8	230.2	215.3	203.8	195.4	188.8
55°	294.8	271.6	251.8	226.9	218.6	207.1	182.2	178.9	167.3	155.7	147.4
57.5°	253.4	231.8	208.7	192.1	177.2	169.0	149.1	135.8	129.2	119.3	111.0
60°	215.3	192.1	173.9	154.0	147.4	135.8	120.9	109.3	101.0	92.7	84.5
62.5°	180.5	160.7	140.8	124.2	114.3	107.7	96.0	86.1	77.9	71.2	64.6
65°	149.1	130.8	114.3	97.7	92.7	84.5	76.2	67.9	61.3	53.0	46.4
67.5°	122.6	106.0	89.4	77.9	72.9	69.6	59.6	51.3	46.4	41.4	34.8
70°	96.0	84.5	71.2	61.3	56.3	51.3	44.7	39.8	33.1	29.8	24.9
72.5°	74.6	64.6	53.0	44.7	41.4	38.1	31.5	26.5	23.2	19.9	16.5
75°	53.0	44.7	38.1	29.8	28.2	26.5	21.5	18.2	14.9	11.6	9.9
77.5°	36.5	29.8	23.2	19.9	18.2	14.9	13.2	9.9	8.3	6.6	5.0
80°	19.9	14.9	11.6	9.9	8.3	6.6	6.6	5.0	3.3	3.3	1.7
82.5°	6.6	5.0	3.3	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°	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3
2.5°	1379.7	1361.4	1366.4	1366.4	1363.1	1363.1	1359.8	1354.8	1356.5	1346.5	1325.0
5°	1364.7	1341.6	1338.3	1341.6	1328.3	1325.0	1318.4	1328.3	1298.5	1310.1	1296.9
7.5°	1321.7	1300.2	1295.2	1306.8	1290.3	1280.3	1278.6	1291.9	1265.4	1252.2	1237.2
10°	1273.6	1265.4	1250.5	1242.2	1237.2	1238.9	1225.6	1209.1	1204.1	1200.8	1187.5
12.5°	1230.6	1212.4	1199.1	1189.2	1185.9	1185.9	1164.4	1161.1	1146.1	1142.8	1123.0
15°	1179.2	1157.8	1149.4	1136.2	1124.6	1131.2	1106.4	1099.7	1094.8	1073.3	1076.6
17.5°	1134.5	1111.4	1091.5	1083.2	1073.3	1063.3	1040.1	1045.1	1033.5	1033.5	1003.7
20°	1076.6	1051.7	1036.8	1020.3	1020.3	1007.0	990.5	992.1	977.2	962.3	935.8
22.5°	1015.3	988.8	970.5	963.9	947.4	944.1	924.2	919.2	899.4	901.0	877.8
25°	950.7	924.2	899.4	901.0	886.1	879.5	867.9	844.7	836.4	826.5	819.9
27.5°	874.5	856.3	834.7	833.1	804.9	806.6	791.7	785.1	765.2	770.2	755.2
30°	804.9	778.5	758.6	753.6	742.0	738.7	715.5	705.5	708.9	695.6	687.4
32.5°	733.7	694.0	685.7	675.8	669.1	660.8	644.3	650.9	636.0	639.3	626.0
35°	639.3	622.7	601.2	601.2	594.6	588.0	576.4	583.0	568.1	561.5	548.2
37.5°	559.8	544.9	523.4	530.0	518.4	508.5	498.5	500.2	486.9	485.3	472.0
40°	473.7	465.4	450.5	450.5	442.2	442.2	437.2	432.3	424.0	414.1	399.1
42.5°	392.5	385.9	379.3	381.0	369.3	379.3	366.0	374.3	347.8	346.2	336.2
45°	332.9	318.0	319.6	313.0	306.4	309.7	298.1	301.4	286.6	283.2	273.3
47.5°	270.0	265.0	255.1	251.8	251.8	246.8	241.8	240.2	233.5	225.2	212.0
50°	221.9	203.8	200.4	195.4	192.1	192.1	185.5	175.6	177.2	169.0	155.7
52.5°	173.9	159.0	152.4	150.7	144.1	140.8	132.5	125.9	120.9	117.6	109.3
55°	134.1	120.9	112.6	112.6	102.7	102.7	91.1	86.1	79.5	72.9	67.9
57.5°	101.0	94.4	86.1	79.5	76.2	67.9	61.3	53.0	48.0	38.1	31.5
60°	76.2	69.6	61.3	56.3	53.0	44.7	36.5	29.8	18.2	14.9	13.2
62.5°	56.3	49.7	41.4	38.1	34.8	28.2	19.9	9.9	5.0	5.0	5.0
65°	41.4	33.1	26.5	23.2	19.9	14.9	6.6	3.3	1.7	1.7	1.7
67.5°	28.2	21.5	14.9	13.2	9.9	5.0	1.7	1.7	1.7	1.7	1.7
70°	18.2	13.2	6.6	5.0	3.3	1.7	1.7	1.7	1.7	1.7	1.7
72.5°	11.6	6.6	3.3	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	6.6	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	3.3	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 EX4C259035 4LBSQLWWLI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3
2.5°	1348.2	1336.6	1343.2	1328.3	1335.0	1346.5	1338.3	1341.6
5°	1301.8	1295.2	1286.9	1265.4	1281.9	1295.2	1288.6	1286.9
7.5°	1252.2	1228.9	1240.5	1233.9	1230.6	1243.9	1228.9	1245.5
10°	1200.8	1184.2	1182.6	1171.0	1171.0	1180.9	1182.6	1172.6
12.5°	1124.6	1116.4	1116.4	1114.7	1113.0	1123.0	1124.6	1119.7
15°	1070.0	1066.6	1058.3	1056.7	1046.8	1061.6	1063.3	1061.6
17.5°	1003.7	1005.3	997.1	997.1	1003.7	1008.6	995.4	1008.6
20°	959.0	950.7	947.4	932.5	940.8	949.1	949.1	950.7
22.5°	894.4	881.1	886.1	877.8	872.8	884.4	884.4	889.4
25°	821.5	821.5	824.8	819.9	823.2	829.8	824.8	836.4
27.5°	751.9	758.6	758.6	751.9	755.2	775.1	783.4	770.2
30°	687.4	689.0	694.0	690.7	700.6	707.2	705.5	715.5
32.5°	614.5	622.7	626.0	621.1	624.4	639.3	631.0	629.4
35°	558.2	543.3	541.6	543.3	549.9	553.2	549.9	561.5
37.5°	477.0	472.0	465.4	467.1	472.0	478.7	482.0	490.2
40°	399.1	392.5	392.5	390.9	385.9	404.1	404.1	404.1
42.5°	331.3	329.6	321.3	321.3	327.9	332.9	329.6	341.2
45°	271.6	265.0	260.0	260.0	265.0	265.0	270.0	268.3
47.5°	213.7	207.1	208.7	203.8	208.7	215.3	207.1	208.7
50°	160.7	160.7	157.4	160.7	159.0	160.7	157.4	154.0
52.5°	109.3	124.2	125.9	119.3	104.3	91.1	82.8	89.4
55°	62.9	56.3	56.3	54.6	51.3	49.7	44.7	49.7
57.5°	31.5	28.2	28.2	28.2	26.5	24.9	21.5	21.5
60°	13.2	11.6	11.6	9.9	8.3	6.6	5.0	6.6
62.5°	5.0	3.3	3.3	3.3	3.3	3.3	3.3	3.3
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)