

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: **LD4C30D010 EX4C309030 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: LD4C30D010 EX4C309030 4LBSQLWWLI  
Description: 4 INCH 3000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS  
AND 4LBSQLWW TRIM WITH LI FINISH  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

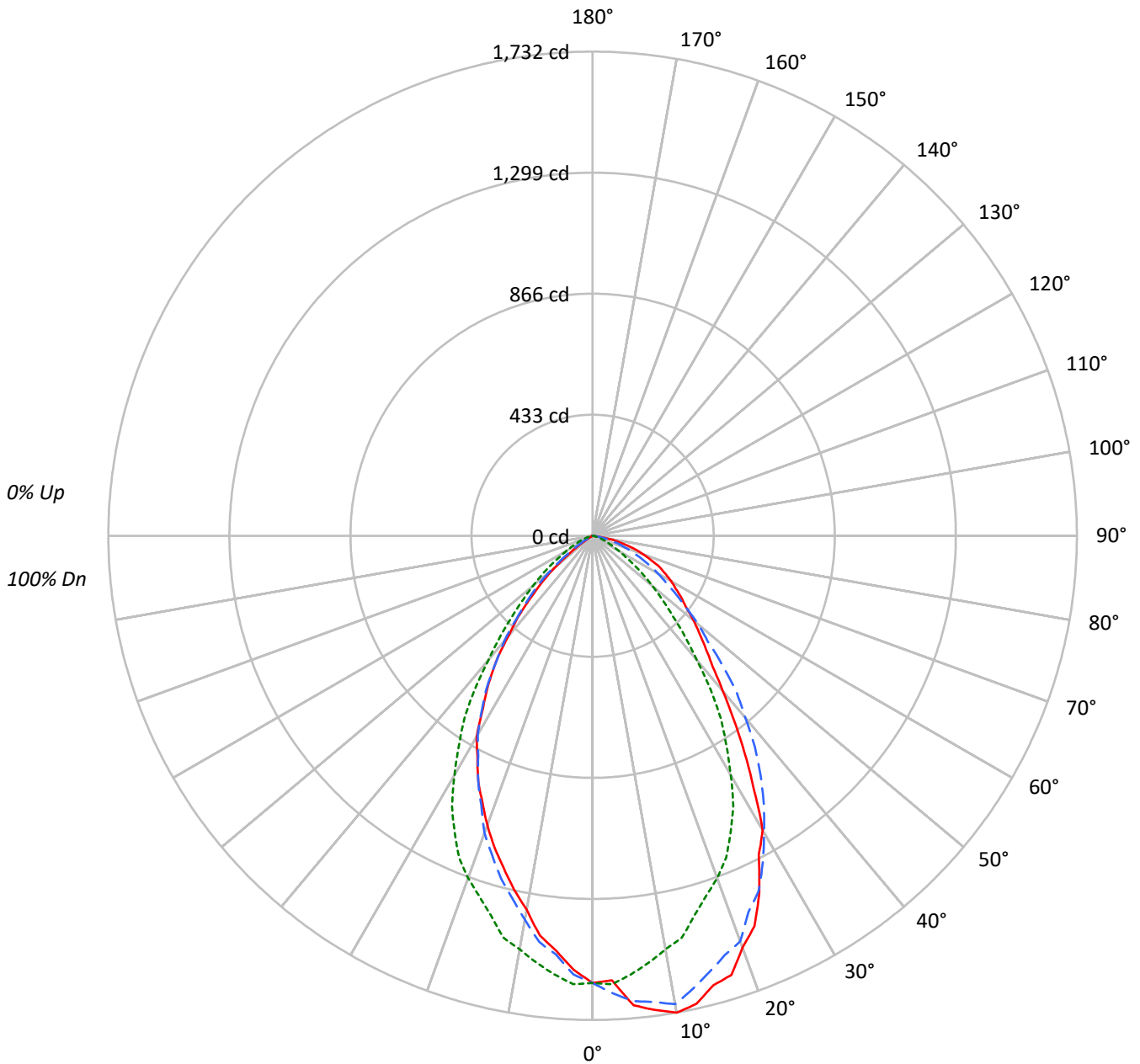
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2293.0 lumens  
Efficiency: N/A  
Efficacy: 72.6 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): 31.6  
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									
RC	80									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°	154344	154344	154344
5°	163302	152531	144356
10°	169707	147152	133053
15°	166311	140439	122818
20°	160912	133732	113052
25°	150093	124360	103121
30°	135493	110057	92319
35°	111607	94221	76588
40°	91080	72728	58948
45°	78257	55224	42397
50°	70822	42046	26780
55°	65187	30331	9690
60°	62563	20726	1486
65°	60434	14018	457
70°	54110	9733	564
75°	44364	5033	0
80°	27727	2111	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	149.9	6.5
10°-20°	403.8	17.6
20°-30°	539.2	23.5
30°-40°	511.9	22.3
40°-50°	353.8	15.4
50°-60°	195.5	8.5
60°-70°	97.1	4.2
70°-80°	38.2	1.7
80°-90°	3.6	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°	1092.9	47.7
0°-40°	1604.7	70.0
0°-60°	2154.0	93.9
0°-90°	2293.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2293.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1600	1600	1600	1600	1600	
5°	1686	1671	1575	1504	1490	161
15°	1665	1615	1406	1268	1230	471
25°	1410	1404	1168	969	969	643
35°	948	1047	800	658	650	594
45°	574	658	405	332	311	447
55°	388	364	180	92	58	349
65°	265	192	61	2	2	257
75°	119	73	14	0	0	127
85°	0	2	0	0	0	11
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°	1599.6	1599.6	1599.6	1599.6	1599.6	1599.6	1599.6	1599.6	1599.6	1599.6	1599.6
2.5°	1592.0	1636.1	1639.9	1636.1	1641.9	1639.9	1649.5	1639.9	1651.5	1634.2	1638.0
5°	1686.0	1668.7	1705.2	1686.0	1686.0	1684.1	1678.3	1676.4	1684.1	1659.2	1670.7
7.5°	1710.9	1735.9	1768.5	1728.2	1730.1	1730.1	1718.6	1714.8	1714.8	1668.7	1682.2
10°	1732.1	1716.7	1733.9	1718.6	1732.1	1730.1	1737.8	1712.8	1730.1	1703.3	1701.3
12.5°	1714.8	1709.0	1732.1	1707.1	1699.4	1701.3	1691.8	1686.0	1691.8	1661.0	1659.2
15°	1664.9	1670.7	1705.2	1678.3	1674.5	1670.7	1659.2	1639.9	1655.3	1613.1	1615.1
17.5°	1647.7	1638.0	1643.8	1620.8	1626.6	1622.7	1620.8	1603.6	1599.6	1572.8	1572.8
20°	1567.1	1588.2	1588.2	1572.8	1572.8	1570.9	1546.0	1561.3	1544.0	1536.4	1544.0
22.5°	1511.4	1513.4	1513.4	1499.9	1501.9	1494.2	1480.8	1471.1	1480.8	1471.1	1455.8
25°	1409.8	1413.7	1436.7	1411.7	1407.9	1415.5	1404.0	1398.3	1396.4	1373.4	1404.0
27.5°	1287.0	1325.4	1323.5	1313.9	1325.4	1310.0	1304.3	1306.2	1312.0	1310.0	1317.7
30°	1216.1	1221.8	1227.6	1219.9	1221.8	1216.1	1216.1	1218.0	1233.3	1227.6	1225.6
32.5°	1072.2	1091.4	1106.8	1106.8	1108.6	1114.4	1112.5	1152.8	1162.4	1143.2	1139.4
35°	947.5	961.0	974.4	976.3	1001.3	1003.1	1005.1	1016.6	1043.4	1049.2	1047.2
37.5°	828.6	842.0	845.9	863.1	876.6	890.0	905.4	920.7	943.7	962.9	953.3
40°	723.1	728.8	738.5	746.1	773.0	773.0	780.6	811.4	836.3	851.6	849.7
42.5°	634.9	636.8	644.5	657.9	682.9	677.1	682.9	704.0	740.3	742.3	763.4
45°	573.5	571.6	577.4	579.2	594.6	602.3	606.1	621.5	652.1	656.0	657.9
47.5°	517.9	516.0	525.6	529.4	535.1	542.8	542.8	544.7	556.2	565.9	558.2
50°	471.8	471.8	471.8	475.7	485.3	483.3	485.3	493.0	498.7	494.8	493.0
52.5°	421.9	429.6	435.4	437.4	439.2	439.2	441.2	437.4	435.4	429.6	418.1
55°	387.5	395.1	395.1	395.1	395.1	402.8	393.2	395.1	395.1	379.8	364.5
57.5°	353.0	360.6	366.3	358.7	366.3	358.7	354.8	353.0	349.1	333.7	310.7
60°	324.2	328.0	326.1	324.2	328.0	322.2	318.4	310.7	306.9	285.8	270.5
62.5°	291.6	293.4	295.4	291.6	287.7	285.8	278.1	266.6	259.0	241.7	228.2
65°	264.7	259.0	257.0	255.1	251.3	245.5	239.8	226.3	220.6	205.2	191.8
67.5°	224.4	222.5	226.3	220.6	211.0	211.0	205.2	193.7	180.3	170.7	157.3
70°	191.8	189.9	186.1	180.3	178.4	170.7	170.7	157.3	153.4	136.2	124.7
72.5°	157.3	157.3	151.5	145.8	140.0	136.2	134.3	124.7	119.0	109.3	99.7
75°	119.0	119.0	117.0	111.2	107.4	103.6	101.7	94.0	88.2	78.7	72.9
77.5°	84.4	84.4	76.7	72.9	74.8	70.9	67.1	65.2	63.3	57.6	49.9
80°	49.9	47.9	42.2	44.1	42.2	42.2	40.3	38.3	34.5	30.7	26.8
82.5°	13.5	15.3	15.3	15.3	17.3	13.5	13.5	13.5	15.3	15.3	9.6
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0
87.5°	2.0	3.8	7.7	7.7	7.7	7.7	7.7	5.8	5.8	5.8	3.8
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°	1599.6	1599.6	1599.6	1599.6	1599.6	1599.6	1599.6	1599.6	1599.6	1599.6	1599.6
2.5°	1618.9	1616.9	1618.9	1605.4	1636.1	1613.1	1609.3	1605.4	1618.9	1605.4	1586.3
5°	1653.4	1634.2	1628.4	1622.7	1639.9	1613.1	1607.4	1609.3	1599.6	1574.8	1576.7
7.5°	1664.9	1647.7	1630.4	1593.9	1609.3	1603.6	1588.2	1576.7	1561.3	1540.2	1536.4
10°	1668.7	1649.5	1624.6	1613.1	1590.1	1582.4	1576.7	1557.5	1538.3	1501.9	1492.3
12.5°	1657.2	1634.2	1603.6	1593.9	1576.7	1551.7	1538.3	1519.1	1501.9	1473.1	1452.0
15°	1607.4	1588.2	1578.6	1546.0	1538.3	1522.9	1496.1	1469.3	1444.3	1405.9	1394.4
17.5°	1549.8	1542.2	1532.5	1507.6	1505.7	1490.4	1465.4	1442.4	1409.8	1350.3	1331.1
20°	1490.4	1490.4	1459.7	1450.1	1469.3	1438.5	1419.4	1398.3	1331.1	1302.4	1267.9
22.5°	1446.3	1425.2	1407.9	1392.5	1394.4	1375.3	1348.4	1306.2	1281.3	1246.8	1206.5
25°	1359.9	1367.6	1329.3	1323.5	1329.3	1285.1	1271.7	1237.1	1200.7	1168.1	1137.4
27.5°	1306.2	1285.1	1260.2	1239.1	1239.1	1221.8	1183.5	1175.8	1120.1	1089.5	1051.1
30°	1225.6	1210.3	1189.2	1158.5	1154.7	1141.3	1110.6	1091.4	1033.9	987.8	966.7
32.5°	1124.0	1118.3	1101.0	1066.5	1055.0	1039.6	1001.3	968.6	941.8	890.0	865.1
35°	1051.1	1030.0	993.6	964.8	955.2	928.4	897.6	874.6	845.9	799.9	767.2
37.5°	941.8	920.7	886.1	851.6	851.6	824.8	782.6	759.6	719.3	692.4	665.6
40°	845.9	819.0	784.5	744.3	738.5	700.1	682.9	644.5	619.5	577.4	573.5
42.5°	738.5	713.5	682.9	652.1	629.1	610.0	565.9	537.1	510.2	489.1	483.3
45°	640.6	608.0	581.2	542.8	519.8	496.8	468.0	448.9	427.7	404.7	391.3
47.5°	556.2	529.4	491.0	456.5	433.5	421.9	389.3	368.3	351.0	335.7	326.1
50°	470.0	437.4	416.2	377.8	374.0	347.2	320.4	303.1	293.4	280.1	266.6
52.5°	404.7	374.0	345.2	316.5	301.1	291.6	266.6	249.3	236.0	226.3	218.7
55°	341.4	314.6	291.6	262.8	253.2	239.8	211.0	207.2	193.7	180.3	170.7
57.5°	293.4	268.5	241.7	222.5	205.2	195.7	172.6	157.3	149.6	138.1	128.5
60°	249.3	222.5	201.4	178.4	170.7	157.3	140.0	126.6	117.0	107.4	97.8
62.5°	209.1	186.1	163.1	143.8	132.3	124.7	111.2	99.7	90.2	82.5	74.8
65°	172.6	151.5	132.3	113.2	107.4	97.8	88.2	78.7	70.9	61.4	53.7
67.5°	142.0	122.8	103.6	90.2	84.4	80.6	69.1	59.4	53.7	47.9	40.3
70°	111.2	97.8	82.5	70.9	65.2	59.4	51.8	46.1	38.3	34.5	28.8
72.5°	86.3	74.8	61.4	51.8	47.9	44.1	36.4	30.7	26.8	23.0	19.2
75°	61.4	51.8	44.1	34.5	32.6	30.7	24.9	21.1	17.3	13.5	11.5
77.5°	42.2	34.5	26.8	23.0	21.1	17.3	15.3	11.5	9.6	7.7	5.8
80°	23.0	17.3	13.5	11.5	9.6	7.7	7.7	5.8	3.8	3.8	2.0
82.5°	7.7	5.8	3.8	2.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0
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°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	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°	1599.6	1599.6	1599.6	1599.6	1599.6	1599.6	1599.6	1599.6	1599.6	1599.6	1599.6
2.5°	1597.8	1576.7	1582.4	1582.4	1578.6	1578.6	1574.8	1569.0	1570.9	1559.4	1534.5
5°	1580.5	1553.7	1549.8	1553.7	1538.3	1534.5	1526.8	1538.3	1503.8	1517.2	1501.9
7.5°	1530.7	1505.7	1499.9	1513.4	1494.2	1482.6	1480.8	1496.1	1465.4	1450.1	1432.8
10°	1475.0	1465.4	1448.2	1438.5	1432.8	1434.7	1419.4	1400.2	1394.4	1390.6	1375.3
12.5°	1425.2	1404.0	1388.7	1377.2	1373.4	1373.4	1348.4	1344.6	1327.3	1323.5	1300.5
15°	1365.6	1340.8	1331.1	1315.8	1302.4	1310.0	1281.3	1273.6	1267.9	1242.9	1246.8
17.5°	1313.9	1287.0	1264.0	1254.4	1242.9	1231.4	1204.5	1210.3	1196.9	1196.9	1162.4
20°	1246.8	1218.0	1200.7	1181.5	1181.5	1166.2	1147.0	1148.9	1131.6	1114.4	1083.7
22.5°	1175.8	1145.1	1124.0	1116.3	1097.1	1093.3	1070.3	1064.5	1041.5	1043.4	1016.6
25°	1101.0	1070.3	1041.5	1043.4	1026.2	1018.5	1005.1	978.3	968.6	957.1	949.5
27.5°	1012.8	991.6	966.7	964.8	932.2	934.1	916.9	909.2	886.1	891.9	874.6
30°	932.2	901.5	878.5	872.8	859.3	855.5	828.6	817.1	821.0	805.6	796.0
32.5°	849.7	803.7	794.1	782.6	774.9	765.3	746.1	753.8	736.5	740.3	725.0
35°	740.3	721.2	696.2	696.2	688.6	680.9	667.5	675.2	657.9	650.2	634.9
37.5°	648.3	631.1	606.1	613.8	600.3	588.9	577.4	579.2	563.9	562.0	546.6
40°	548.6	539.0	521.7	521.7	512.1	512.1	506.3	500.6	491.0	479.5	462.2
42.5°	454.6	446.9	439.2	441.2	427.7	439.2	423.9	433.5	402.8	400.9	389.3
45°	385.5	368.3	370.2	362.5	354.8	358.7	345.2	349.1	331.8	328.0	316.5
47.5°	312.7	306.9	295.4	291.6	291.6	285.8	280.1	278.1	270.5	260.8	245.5
50°	257.0	236.0	232.1	226.3	222.5	222.5	214.8	203.3	205.2	195.7	180.3
52.5°	201.4	184.1	176.4	174.6	166.9	163.1	153.4	145.8	140.0	136.2	126.6
55°	155.3	140.0	130.5	130.5	119.0	119.0	105.5	99.7	92.1	84.4	78.7
57.5°	117.0	109.3	99.7	92.1	88.2	78.7	70.9	61.4	55.6	44.1	36.4
60°	88.2	80.6	70.9	65.2	61.4	51.8	42.2	34.5	21.1	17.3	15.3
62.5°	65.2	57.6	47.9	44.1	40.3	32.6	23.0	11.5	5.8	5.8	5.8
65°	47.9	38.3	30.7	26.8	23.0	17.3	7.7	3.8	2.0	2.0	2.0
67.5°	32.6	24.9	17.3	15.3	11.5	5.8	2.0	2.0	2.0	2.0	2.0
70°	21.1	15.3	7.7	5.8	3.8	2.0	2.0	2.0	2.0	2.0	2.0
72.5°	13.5	7.7	3.8	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	7.7	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	3.8	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	2.0	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	2.0	2.0	2.0
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: LD4C30D010 EX4C309030 4LBSQLWWLI

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1599.6	1599.6	1599.6	1599.6	1599.6	1599.6	1599.6	1599.6
2.5°	1561.3	1547.9	1555.5	1538.3	1546.0	1559.4	1549.8	1553.7
5°	1507.6	1499.9	1490.4	1465.4	1484.6	1499.9	1492.3	1490.4
7.5°	1450.1	1423.2	1436.7	1429.0	1425.2	1440.5	1423.2	1442.4
10°	1390.6	1371.4	1369.5	1356.1	1356.1	1367.6	1369.5	1358.0
12.5°	1302.4	1292.8	1292.8	1290.9	1288.9	1300.5	1302.4	1296.7
15°	1239.1	1235.3	1225.6	1223.8	1212.3	1229.5	1231.4	1229.5
17.5°	1162.4	1164.2	1154.7	1154.7	1162.4	1168.1	1152.8	1168.1
20°	1110.6	1101.0	1097.1	1079.9	1089.5	1099.1	1099.1	1101.0
22.5°	1035.7	1020.4	1026.2	1016.6	1010.8	1024.3	1024.3	1030.0
25°	951.4	951.4	955.2	949.5	953.3	961.0	955.2	968.6
27.5°	870.8	878.5	878.5	870.8	874.6	897.6	907.2	891.9
30°	796.0	797.9	803.7	799.9	811.4	819.0	817.1	828.6
32.5°	711.6	721.2	725.0	719.3	723.1	740.3	730.8	728.8
35°	646.4	629.1	627.3	629.1	636.8	640.6	636.8	650.2
37.5°	552.4	546.6	539.0	540.9	546.6	554.4	558.2	567.7
40°	462.2	454.6	454.6	452.7	446.9	468.0	468.0	468.0
42.5°	383.6	381.7	372.1	372.1	379.8	385.5	381.7	395.1
45°	314.6	306.9	301.1	301.1	306.9	306.9	312.7	310.7
47.5°	247.5	239.8	241.7	236.0	241.7	249.3	239.8	241.7
50°	186.1	186.1	182.2	186.1	184.1	186.1	182.2	178.4
52.5°	126.6	143.8	145.8	138.1	120.8	105.5	95.9	103.6
55°	72.9	65.2	65.2	63.3	59.4	57.6	51.8	57.6
57.5°	36.4	32.6	32.6	32.6	30.7	28.8	24.9	24.9
60°	15.3	13.5	13.5	11.5	9.6	7.7	5.8	7.7
62.5°	5.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
65°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
67.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
70°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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)