

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: P563819

Luminaire Tested: **LD4C30D010 EX4C309030 4LBSQLWWLI**

Issue Date: 2/18/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P563819  
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, DIM TO WARM  
Light Source: -  
Ballast/Driver: -

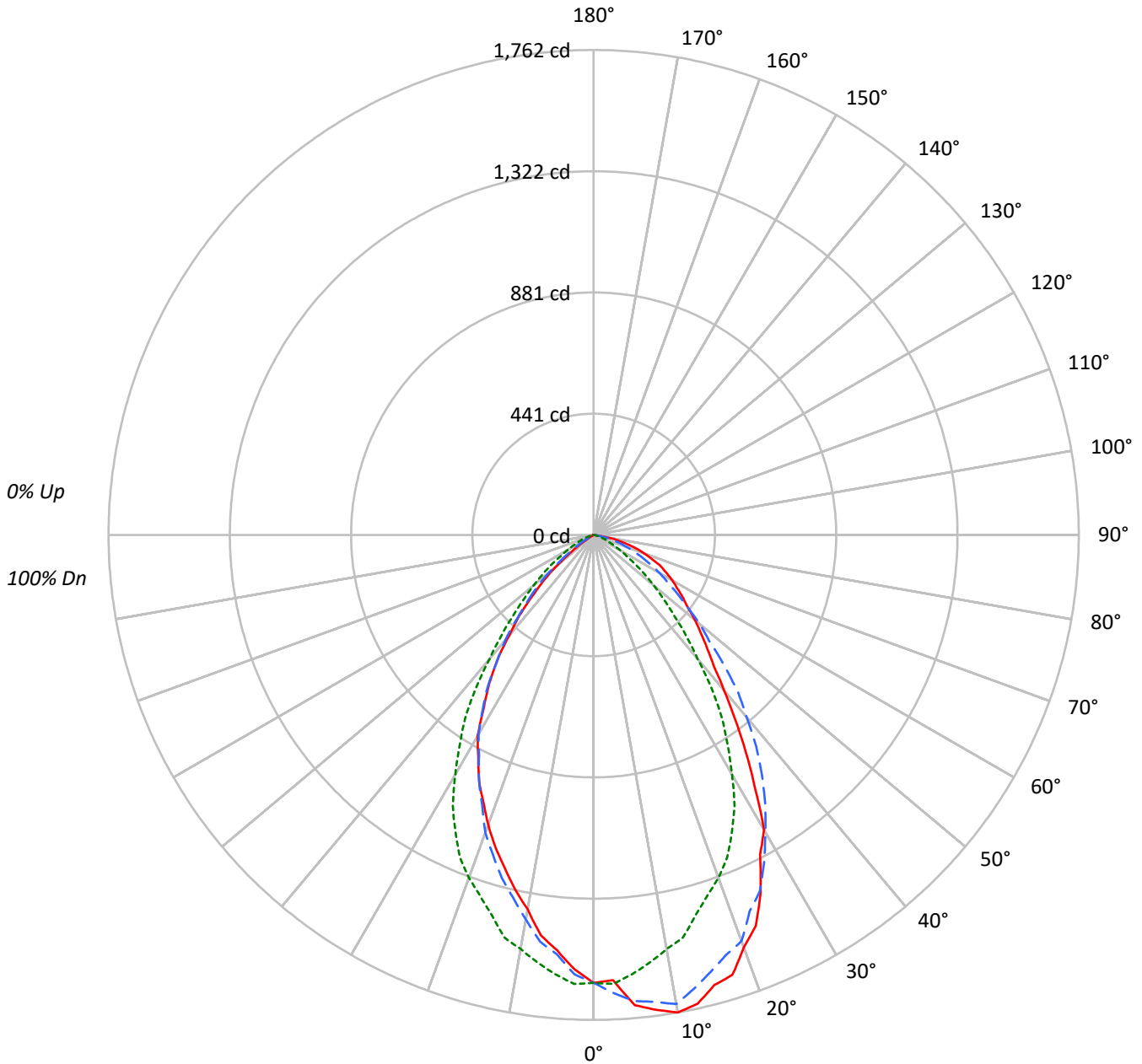
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2332.4 lumens  
Efficiency: N/A  
Efficacy: 73.8 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 (A<sub>in</sub>): 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°	156997	156997	156997
5°	166111	155156	146836
10°	172626	149680	135346
15°	169168	142856	124926
20°	163684	136032	114993
25°	152669	126500	104899
30°	137821	111951	93912
35°	113527	95847	77907
40°	92642	73975	59956
45°	79608	56179	43120
50°	72038	42766	27245
55°	66314	30852	9858
60°	63644	21073	1505
65°	61484	14270	457
70°	55041	9902	564
75°	45109	5107	0
80°	28227	2167	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	152.5	6.5
10°-20°	410.7	17.6
20°-30°	548.5	23.5
30°-40°	520.7	22.3
40°-50°	359.9	15.4
50°-60°	198.9	8.5
60°-70°	98.8	4.2
70°-80°	38.9	1.7
80°-90°	3.7	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°	1111.7	47.7
0°-40°	1632.3	70.0
0°-60°	2191.1	93.9
0°-90°	2332.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2332.4	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1627	1627	1627	1627	1627	
5°	1715	1699	1602	1530	1516	164
15°	1694	1643	1430	1290	1251	479
25°	1434	1428	1188	985	985	654
35°	964	1065	814	669	661	604
45°	583	669	412	338	316	455
55°	394	371	183	94	59	355
65°	269	195	62	2	2	261
75°	121	74	14	0	0	129
85°	0	2	0	0	0	11
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°	1627.1	1627.1	1627.1	1627.1	1627.1	1627.1	1627.1	1627.1	1627.1	1627.1	1627.1
2.5°	1619.4	1664.2	1668.1	1664.2	1670.1	1668.1	1677.9	1668.1	1679.9	1662.3	1666.2
5°	1715.0	1697.4	1734.5	1715.0	1715.0	1713.1	1707.2	1705.2	1713.1	1687.7	1699.4
7.5°	1740.3	1765.8	1798.9	1757.9	1759.9	1759.9	1748.2	1744.3	1744.3	1697.4	1711.1
10°	1761.9	1746.2	1763.7	1748.2	1761.9	1759.9	1767.7	1742.3	1759.9	1732.6	1730.6
12.5°	1744.3	1738.4	1761.9	1736.5	1728.6	1730.6	1720.9	1715.0	1720.9	1689.6	1687.7
15°	1693.5	1699.4	1734.5	1707.2	1703.3	1699.4	1687.7	1668.1	1683.8	1640.8	1642.9
17.5°	1676.0	1666.2	1672.1	1648.7	1654.6	1650.6	1648.7	1631.2	1627.1	1599.9	1599.9
20°	1594.1	1615.5	1615.5	1599.9	1599.9	1597.9	1572.6	1588.2	1570.6	1562.8	1570.6
22.5°	1537.4	1539.4	1539.4	1525.7	1527.7	1519.9	1506.3	1496.4	1506.3	1496.4	1480.8
25°	1434.0	1438.0	1461.4	1436.0	1432.1	1439.8	1428.1	1422.4	1420.4	1397.0	1428.1
27.5°	1309.1	1348.2	1346.3	1336.5	1348.2	1332.5	1326.7	1328.7	1334.6	1332.5	1340.4
30°	1237.0	1242.8	1248.7	1240.9	1242.8	1237.0	1237.0	1238.9	1254.5	1248.7	1246.7
32.5°	1090.6	1110.2	1125.8	1125.8	1127.7	1133.6	1131.6	1172.6	1182.4	1162.9	1159.0
35°	963.8	977.5	991.2	993.1	1018.5	1020.4	1022.4	1034.1	1061.3	1067.2	1065.2
37.5°	842.9	856.5	860.4	877.9	891.7	905.3	921.0	936.5	959.9	979.5	969.7
40°	735.5	741.3	751.2	758.9	786.3	786.3	794.0	825.4	850.7	866.2	864.3
42.5°	645.8	647.8	655.6	669.2	694.6	688.7	694.6	716.1	753.0	755.1	776.5
45°	583.4	581.4	587.3	589.2	604.8	612.7	616.5	632.2	663.3	667.3	669.2
47.5°	526.8	524.9	534.6	538.5	544.3	552.1	552.1	554.1	565.8	575.6	567.8
50°	479.9	479.9	479.9	483.9	493.6	491.6	493.6	501.5	507.3	503.3	501.5
52.5°	429.2	437.0	442.9	444.9	446.8	446.8	448.8	444.9	442.9	437.0	425.3
55°	394.2	401.9	401.9	401.9	401.9	409.7	400.0	401.9	401.9	386.3	370.8
57.5°	359.1	366.8	372.6	364.9	372.6	364.9	360.9	359.1	355.1	339.4	316.0
60°	329.8	333.6	331.7	329.8	333.6	327.7	323.9	316.0	312.2	290.7	275.2
62.5°	296.6	298.4	300.5	296.6	292.6	290.7	282.9	271.2	263.5	245.9	232.1
65°	269.3	263.5	261.4	259.5	255.6	249.7	243.9	230.2	224.4	208.7	195.1
67.5°	228.3	226.3	230.2	224.4	214.6	214.6	208.7	197.0	183.4	173.6	160.0
70°	195.1	193.2	189.3	183.4	181.5	173.6	173.6	160.0	156.0	138.5	126.8
72.5°	160.0	160.0	154.1	148.3	142.4	138.5	136.6	126.8	121.0	111.2	101.4
75°	121.0	121.0	119.0	113.1	109.2	105.4	103.4	95.6	89.7	80.1	74.2
77.5°	85.9	85.9	78.0	74.2	76.1	72.1	68.3	66.3	64.4	58.6	50.8
80°	50.8	48.7	42.9	44.9	42.9	42.9	41.0	39.0	35.1	31.2	27.3
82.5°	13.7	15.6	15.6	15.6	17.6	13.7	13.7	13.7	15.6	15.6	9.8
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	3.9	7.8	7.8	7.8	7.8	7.8	5.9	5.9	5.9	3.9
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°	1627.1	1627.1	1627.1	1627.1	1627.1	1627.1	1627.1	1627.1	1627.1	1627.1	1627.1
2.5°	1646.7	1644.7	1646.7	1633.0	1664.2	1640.8	1637.0	1633.0	1646.7	1633.0	1613.6
5°	1681.8	1662.3	1656.4	1650.6	1668.1	1640.8	1635.0	1637.0	1627.1	1601.9	1603.8
7.5°	1693.5	1676.0	1658.4	1621.3	1637.0	1631.2	1615.5	1603.8	1588.2	1566.7	1562.8
10°	1697.4	1677.9	1652.5	1640.8	1617.4	1609.6	1603.8	1584.3	1564.8	1527.7	1518.0
12.5°	1685.7	1662.3	1631.2	1621.3	1603.8	1578.4	1564.8	1545.2	1527.7	1498.4	1477.0
15°	1635.0	1615.5	1605.8	1572.6	1564.8	1549.1	1521.8	1494.6	1469.1	1430.1	1418.4
17.5°	1576.5	1568.7	1558.9	1533.5	1531.6	1516.0	1490.6	1467.2	1434.0	1373.5	1354.0
20°	1516.0	1516.0	1484.8	1475.0	1494.6	1463.2	1443.8	1422.4	1354.0	1324.8	1289.7
22.5°	1471.2	1449.7	1432.1	1416.5	1418.4	1399.0	1371.6	1328.7	1303.3	1268.2	1227.3
25°	1383.3	1391.1	1352.2	1346.3	1352.2	1307.2	1293.6	1258.4	1221.4	1188.2	1157.0
27.5°	1328.7	1307.2	1281.9	1260.4	1260.4	1242.8	1203.9	1196.0	1139.4	1108.2	1069.2
30°	1246.7	1231.1	1209.7	1178.4	1174.6	1160.9	1129.7	1110.2	1051.7	1004.8	983.3
32.5°	1143.3	1137.5	1119.9	1084.8	1073.1	1057.5	1018.5	985.3	958.0	905.3	880.0
35°	1069.2	1047.7	1010.7	981.4	971.6	944.4	913.0	889.6	860.4	813.7	780.4
37.5°	958.0	936.5	901.3	866.2	866.2	839.0	796.1	772.7	731.7	704.3	677.0
40°	860.4	833.1	798.0	757.1	751.2	712.1	694.6	655.6	630.2	587.3	583.4
42.5°	751.2	725.8	694.6	663.3	639.9	620.5	575.6	546.3	519.0	497.5	491.6
45°	651.6	618.5	591.2	552.1	528.7	505.3	476.0	456.6	435.1	411.7	398.0
47.5°	565.8	538.5	499.4	464.4	441.0	429.2	396.0	374.6	357.0	341.5	331.7
50°	478.1	444.9	423.4	384.3	380.4	353.2	325.9	308.3	298.4	284.9	271.2
52.5°	411.7	380.4	351.1	321.9	306.3	296.6	271.2	253.6	240.1	230.2	222.5
55°	347.3	320.0	296.6	267.3	257.6	243.9	214.6	210.8	197.0	183.4	173.6
57.5°	298.4	273.1	245.9	226.3	208.7	199.1	175.6	160.0	152.2	140.5	130.7
60°	253.6	226.3	204.9	181.5	173.6	160.0	142.4	128.8	119.0	109.2	99.5
62.5°	212.7	189.3	165.9	146.3	134.6	126.8	113.1	101.4	91.8	83.9	76.1
65°	175.6	154.1	134.6	115.1	109.2	99.5	89.7	80.1	72.1	62.5	54.6
67.5°	144.4	124.9	105.4	91.8	85.9	82.0	70.3	60.4	54.6	48.7	41.0
70°	113.1	99.5	83.9	72.1	66.3	60.4	52.7	46.9	39.0	35.1	29.3
72.5°	87.8	76.1	62.5	52.7	48.7	44.9	37.0	31.2	27.3	23.4	19.5
75°	62.5	52.7	44.9	35.1	33.2	31.2	25.3	21.5	17.6	13.7	11.7
77.5°	42.9	35.1	27.3	23.4	21.5	17.6	15.6	11.7	9.8	7.8	5.9
80°	23.4	17.6	13.7	11.7	9.8	7.8	7.8	5.9	3.9	3.9	2.0
82.5°	7.8	5.9	3.9	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°	1627.1	1627.1	1627.1	1627.1	1627.1	1627.1	1627.1	1627.1	1627.1	1627.1	1627.1
2.5°	1625.3	1603.8	1609.6	1609.6	1605.8	1605.8	1601.9	1596.0	1597.9	1586.2	1560.9
5°	1607.7	1580.4	1576.5	1580.4	1564.8	1560.9	1553.1	1564.8	1529.7	1543.3	1527.7
7.5°	1557.0	1531.6	1525.7	1539.4	1519.9	1508.1	1506.3	1521.8	1490.6	1475.0	1457.4
10°	1500.4	1490.6	1473.1	1463.2	1457.4	1459.4	1443.8	1424.3	1418.4	1414.5	1399.0
12.5°	1449.7	1428.1	1412.6	1400.9	1397.0	1397.0	1371.6	1367.7	1350.1	1346.3	1322.9
15°	1389.1	1363.9	1354.0	1338.4	1324.8	1332.5	1303.3	1295.5	1289.7	1264.3	1268.2
17.5°	1336.5	1309.1	1285.7	1276.0	1264.3	1252.6	1225.2	1231.1	1217.5	1217.5	1182.4
20°	1268.2	1238.9	1221.4	1201.8	1201.8	1186.3	1166.7	1168.7	1151.1	1133.6	1102.3
22.5°	1196.0	1164.8	1143.3	1135.5	1116.0	1112.1	1088.7	1082.8	1059.4	1061.3	1034.1
25°	1119.9	1088.7	1059.4	1061.3	1043.9	1036.0	1022.4	995.1	985.3	973.6	965.8
27.5°	1030.2	1008.7	983.3	981.4	948.2	950.2	932.7	924.8	901.3	907.2	889.6
30°	948.2	917.0	893.6	887.8	874.1	870.2	842.9	831.2	835.1	819.5	809.7
32.5°	864.3	817.5	807.8	796.1	788.2	778.5	758.9	766.8	749.2	753.0	737.5
35°	753.0	733.6	708.2	708.2	700.4	692.6	679.0	686.8	669.2	661.4	645.8
37.5°	659.5	642.0	616.5	624.4	610.6	599.0	587.3	589.2	573.6	571.7	556.0
40°	558.0	548.3	530.7	530.7	520.9	520.9	515.0	509.2	499.4	487.7	470.1
42.5°	462.4	454.6	446.8	448.8	435.1	446.8	431.2	441.0	409.7	407.8	396.0
45°	392.1	374.6	376.6	368.7	360.9	364.9	351.1	355.1	337.5	333.6	321.9
47.5°	318.1	312.2	300.5	296.6	296.6	290.7	284.9	282.9	275.2	265.3	249.7
50°	261.4	240.1	236.1	230.2	226.3	226.3	218.5	206.8	208.7	199.1	183.4
52.5°	204.9	187.3	179.4	177.6	169.8	165.9	156.0	148.3	142.4	138.5	128.8
55°	158.0	142.4	132.7	132.7	121.0	121.0	107.3	101.4	93.7	85.9	80.1
57.5°	119.0	111.2	101.4	93.7	89.7	80.1	72.1	62.5	56.6	44.9	37.0
60°	89.7	82.0	72.1	66.3	62.5	52.7	42.9	35.1	21.5	17.6	15.6
62.5°	66.3	58.6	48.7	44.9	41.0	33.2	23.4	11.7	5.9	5.9	5.9
65°	48.7	39.0	31.2	27.3	23.4	17.6	7.8	3.9	2.0	2.0	2.0
67.5°	33.2	25.3	17.6	15.6	11.7	5.9	2.0	2.0	2.0	2.0	2.0
70°	21.5	15.6	7.8	5.9	3.9	2.0	2.0	2.0	2.0	2.0	2.0
72.5°	13.7	7.8	3.9	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	7.8	3.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	3.9	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: P563819

CATALOG NUMBER: LD4C30D010 EX4C309030 4LBSQLWWLI

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1627.1	1627.1	1627.1	1627.1	1627.1	1627.1	1627.1	1627.1
2.5°	1588.2	1574.5	1582.3	1564.8	1572.6	1586.2	1576.5	1580.4
5°	1533.5	1525.7	1516.0	1490.6	1510.1	1525.7	1518.0	1516.0
7.5°	1475.0	1447.7	1461.4	1453.6	1449.7	1465.3	1447.7	1467.2
10°	1414.5	1395.0	1393.1	1379.4	1379.4	1391.1	1393.1	1381.4
12.5°	1324.8	1315.0	1315.0	1313.1	1311.1	1322.9	1324.8	1319.0
15°	1260.4	1256.5	1246.7	1244.8	1233.2	1250.6	1252.6	1250.6
17.5°	1182.4	1184.2	1174.6	1174.6	1182.4	1188.2	1172.6	1188.2
20°	1129.7	1119.9	1116.0	1098.5	1108.2	1118.0	1118.0	1119.9
22.5°	1053.5	1038.0	1043.9	1034.1	1028.2	1041.9	1041.9	1047.7
25°	967.8	967.8	971.6	965.8	969.7	977.5	971.6	985.3
27.5°	885.8	893.6	893.6	885.8	889.6	913.0	922.8	907.2
30°	809.7	811.6	817.5	813.7	825.4	833.1	831.2	842.9
32.5°	723.8	733.6	737.5	731.7	735.5	753.0	743.4	741.3
35°	657.5	639.9	638.1	639.9	647.8	651.6	647.8	661.4
37.5°	561.9	556.0	548.3	550.2	556.0	563.9	567.8	577.5
40°	470.1	462.4	462.4	460.5	454.6	476.0	476.0	476.0
42.5°	390.2	388.3	378.5	378.5	386.3	392.1	388.3	401.9
45°	320.0	312.2	306.3	306.3	312.2	312.2	318.1	316.0
47.5°	251.8	243.9	245.9	240.1	245.9	253.6	243.9	245.9
50°	189.3	189.3	185.3	189.3	187.3	189.3	185.3	181.5
52.5°	128.8	146.3	148.3	140.5	122.9	107.3	97.5	105.4
55°	74.2	66.3	66.3	64.4	60.4	58.6	52.7	58.6
57.5°	37.0	33.2	33.2	33.2	31.2	29.3	25.3	25.3
60°	15.6	13.7	13.7	11.7	9.8	7.8	5.9	7.8
62.5°	5.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
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)